

**TRAVANCORE TITANIUM PRODUCTS LTD.
KOCHUVELI P.O, THIRUVANANTHAPURAM-695 021
(A Government of Kerala Undertaking)**

e-Government Procurement (e-GP) E- TENDER NOTICE

Online tenders are invited by Travancore Titanium Products Ltd., Kochuveli P.O, Thiruvananthapuram - 695 021 from competent contractors for executing the following work.

e-TENDER No. PROJ/VES Lighting/VESP/RK-01/23-24

Date: 19.03.2024

1.	Name of Work	Supply, installation, testing and commissioning of electrical lighting system for the Vacuum Evaporation Plant at TTPL, Trivandrum
2.	Estimate Amount (PAC)	Rs.9,80,104/- (excluding GST)
3.	Earnest Money Deposit (EMD)	Rs.24,503/-
4.	Tender Submission Fee	Rs.2,313/- (inclusive of GST)
5.	Period of completion	Two Months
6.	Tender documents	Can be downloaded from the website www.etenders.kerala.gov.in
7.	Pre-bid meeting	27/03/2024 at 11.00 hrs.
8.	Last Date and Time of Receipt of Tender/Bids	12/04/2024 up to 16.00 hrs.
9.	Date and Time of Opening of Tender	16/04/2024 at 14.00 hrs.
10.	Form of Contract	Item rate

GENERAL TERMS AND CONDITIONS OF E-PROCUREMENT

This is an e-Tender and is being published online for the above work. This tender is invited in 2 cover system from the registered and eligible firms through e-procurement portal of Government of Kerala (<https://www.etenders.kerala.gov.in>). Prospective bidders willing to participate in this tender shall necessarily register themselves with above mentioned e-procurement portal.

The tender timeline is available in the critical date section of this tender published in www.etenders.kerala.gov.in

A) Online Bidder registration process:

Bidders should have a Class II or above Digital Signature Certificate (DSC) to be procured from any Registration Authorities (RA) under the Certifying Agency of India. Details of RAs will be available on www.cca.gov.in. Once, the DSC is obtained, bidders have to register on www.etenders.kerala.gov.in website for participating in this tender. Website registration is a one-time process without any registration fees. However, bidders have to procure DSC at their own cost.

Bidders may contact e-Procurement support desk of Kerala State IT Mission over telephone at 0471-2577088/188/388 or 0484-2336006, 2332262 or 0497-2764788, 2764188 or 0483-273294 or through email: etendershelp@kerala.gov.in or helpetender@gmail.com for assistance in this regard.

There is an e-tender cell functioning at Kerala State IT Mission e-Government Procurement PMU and Help Desk, Saankethika, Near EPF Office, Vrindavan Gardens, Pattom, Thiruvananthapuram- 695004

B) Online Tender Process:

The tender process shall consist of the following stages:

- i. **Downloading of tender document:** Tender document will be available for free download on www.etenders.kerala.gov.in. However, tender document fees shall be payable at the time of bid submission as stipulated in this tender document.
- ii. **Pre-bid meeting:** A Pre Bid meeting shall be conducted at Travancore Titanium Products Ltd. Office, Thiruvananthapuram at **11.00 hrs. on 27.03.2024.**
- iii. **Publishing of Corrigendum:** All corrigenda shall be published on www.etenders.kerala.gov.in and shall not be available elsewhere.
- iv. **Bid submission:** Bidders have to submit their bids along with supporting documents to support their eligibility, as required in this tender document on www.etenders.kerala.gov.in. No manual submission of bid is allowed and manual bids shall not be accepted under any circumstances.
- v. **Opening of Technical Bid and Bidder short-listing:** The technical bids will be opened, evaluated and shortlisted as per the eligibility and technical qualifications. All documents in support of technical qualifications shall be submitted (online). Failure to submit the documents online will attract disqualification. Bids shortlisted by this process will be taken up for opening the financial bid.
- vi. **Opening of Financial Bids:** Bids of the qualified bidder's shall only be considered for opening and evaluation of the financial bid on the date and time mentioned in critical date's section.

C) DOCUMENTS COMPRISING BID:

(i). The First Stage (Cover 1- Prequalification cum Technical Bid Document):

Pre-Qualification cum Technical bid proposal shall contain the scanned copies of the following documents which every bidder has to upload:

- i. Technical bid document digitally signed and upload.
- ii. Eligibility criteria documents as per NIT
- iii. The formats for information about the tenderer, Letter of Transmittal (Annexure A), Self declaration (Annexure-B) shall be duly filled by the tenderer and should upload the same as PDF format with technical bid.

The department doesn't take any responsibility for any technical snag or failure that has taken place during document upload.

(ii). The Second Stage (Cover 2- Financial Bid):

The Bidder shall complete the Price bid as per format given for download along with this tender.

Note: The blank price bid should be downloaded and saved on bidder's computer without changing file-name otherwise price bid will not get uploaded. The bidder should fill in the details in the same file and upload the same back to the website.

Fixed price: Prices quoted by the Bidder shall be fixed during the bidder's performance of the contract and not subject to variation on any account. A bid submitted with an adjustable/ variable price quotation will be treated as non - responsive and rejected.

D) Tender Document Fees and Earnest Money Deposit (EMD)

The Bidder shall pay, a tender document fees of Rs. 2,313/- (inclusive of GST) and Earnest Money Deposit of Rs. 24,503/-. For those who have submitted NSIC/MSME certificate, the category of works from which the bidder could be exempted from paying EMD and tender fee shall be mentioned in the certificate issued by the authority (NSIC /MSME). Otherwise the bidder shall remit the Tender fees and EMD without fail.

Online Payment modes The tender document fees and EMD can be paid through e-Payment facility provided by the e-Procurement system

E) SUBMISSION PROCESS:

For submission of bids, all interested bidders have to register online as explained above in this document. After registration, bidders shall submit their Technical bid and Financial bid online on www.etenders.kerala.gov.in along with online payment of tender document fees and EMD.

For page by page instructions on bid submission process, please visit www.etenders.kerala.gov.in and click "Bidders Manual Kit" link on the home page.

It is necessary to click on "Freeze bid" link/ icon to complete the process of bid submission otherwise the bid will not get submitted online and the same shall not be available for viewing/ opening during bid opening process.

For any technical clarification on the bid, please contact Mr. Muraly.P.K (9048505634)/Mr. Firoz.N (9048505626).

You are also requested to get acquainted with the nature and quantum of the work before quoting. Details regarding this can be had from our Project Department from 9 am to 4 pm on all working days Monday to Friday and on all working Saturdays from 9 am to 12.30 pm before the last date.

Thanking you,

Yours faithfully,
FOR TRAVANCORE TITANIUM PRODUCTS LIMITED

Dy. General Manager (Project)

1.0 NOTICE INVITING TENDER

- 1.01 Online tenders are invited by Travancore Titanium Products Ltd., Kochuveli.P.O, Thiruvananthapuram - 695 021 from eligible contractors for the Supply, Installation, Testing and Commissioning of Electrical Lighting System for the Vacuum Evaporation Plant (VES) proposed to be constructed at Travancore Titanium Products Ltd.

The schedule of quantities, tender drawings, specifications and commercial conditions of the contract are appended.

2. SCOPE OF WORK

The Scope of work covers supply, installation, testing and commissioning of electrical lighting system for the vacuum evaporation plant (VES) proposed to be constructed at Travancore Titanium Products Limited. Work contemplated under this contract comprises of

- a. Supply, installation, laying testing and commissioning of LT cables along with necessary earthing
- b. Fabricate and fixing of cable tray supports and laying of FRP cable trays.
- c. Supply ,installation testing and commissioning of Vertical distribution board (VTPN),Horizontal distribution board (ETPN), MCCB,ELCB, Industrial plug socket, 4way FLP Junction boxes, led tube lights, led industrial lights, high bay luminaires
- d. Point wiring for control room light fittings, ceiling fan, AC points, exhaust fan points with 6/16Amp. Switch and socket,20amp metal clad switch with SP MCB etc
- e. Supply, Installation, Testing and commissioning of lightning arrestor works

The broad details of work are indicated above and are included in the specification and bill of quantities. The work also includes all minor details which are obviously and fairly intended and which may not have been referred to in this document but which are essential for the entire completion of work.

3. Description and Technical details of work: Please refer Annexure C

4. Eligibility Criteria

1. The Bidder should have valid A or B Grade Electrical Contractor License issued by Electrical Inspectorate or KSEB.
2. Experience of having successfully completed similar works during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following:
 - a. Three similar completed works costing not less than the amount equal to 40% of the estimated cost. OR
 - b. Two similar completed works costing not less than the amount equal to 50% of the estimated cost. OR
 - c. One similar completed work costing not less than the amount equal to 80% of the estimated cost.
3. The annual turnover of the bidder should not be less than 100% of PAC value during the last three preceding years. (Audited balance sheet, profit and loss account of the last 3 financial years shall be submitted in the designated cover).
4. The bidder should have the following registrations
 - a) PAN
 - b) GST
 - c) ESI
 - d) PF

5. The firm shall be registered with the Registrar of Companies in India (Company incorporation certificate & Memorandum of Association, Articles of Association)
6. Valid registration number issued by Income Tax Authorities.
7. Bid submitted by partnership firm shall furnish full names of all partners in the tender. It may, however, be signed in the partnership name by one of the partners or by a duly authorized representative, followed by the name and designation of the persons signing. A copy of partnership deed should be submitted.

(The proof of the above shall be submitted as PDF format in designated covers)

The schedule of quantities, tender drawings, specifications and commercial conditions of the contract are appended. The applicant may be a firm registered in India with experience in the field of similar work for a minimum period of 7 years ending **29.02.2024**.

- 1.02 The general information of the project is given in NIT. The information is only indicative. The tenderers are required to visit the site and familiarize themselves with the site conditions, nature of strata, availability of construction materials, etc., before quoting. The drawings, general & special conditions of contract, schedule of quantities and the technical specifications may be carefully studied before offering the prices. No claims for extra compensation over and above the quoted rates will be entertained by Travancore Titanium Products Ltd. on the ground that the tenderer have misjudged site conditions, nature of strata, tender conditions or any item of tender. Tender documents and tender schedule may be downloaded free of cost from the website www.etenders.kerala.gov.in. A bid submission fee of Rs.2,313/- (inclusive of GST) shall be remitted through online payment mechanism for e-procurement system of Govt. of Kerala through Online banking through SBI.

The bid should be submitted online in two cover system at website '<http://etenders.kerala.gov.in>' in the relevant covers only, by the due date and time, as specified in the 'Critical Dates' view of the 'Work Item details' of the tender. The Server Date & Time as appearing on the website '<http://etenders.kerala.gov.in>' shall only be considered for the critical date and time of tenders. Offers sent through post, fax, telex, e-mail, courier will not be considered.

The bidders are requested to go through the instruction to the bidders in the website 'www.etenders.kerala.gov.in'. The bidders who submit their bids for this tender after digitally signing using their Digital Signature Certificate (DSC), accept that they have clearly understood and agreed the terms and conditions in the website including the terms and conditions of this tender.

BOQ other than downloaded against the Tender will not be considered. Travancore Titanium Products Ltd. shall not be responsible for any delays reasons whatsoever in receiving as well as submitting offers, including connectivity issues.

- 1.03 All bid/tender documents are to be submitted online only and in the designated Cover/envelope(s) on the above website. All the required documents shall be submitted in their respective designated online covers with digital signature. The prequalification document in the prescribed format shall be downloaded, filled in with relevant details and uploaded to the website in digitally signed PDF format.
- 1.04 The bidders are requested to submit all the required documents for pre qualification and the price bid in the appropriate covers provided.
- 1.05 The offer shall be valid for **90 days** from the tender opening date. The firm period of a tender is the period from, the date of opening of the tender to the date up to which the offer given in the tender is binding on the bidder.
- 1.06 After the public opening of the tenders, the information relating to the examination, Clarification, evaluation and comparison of tenders and recommendations concerning the award of Contract all shall be online.
- 1.07 If the tender is made by an individual it shall be signed with his full name and his complete address shall be given. If it is made by partnership firm it shall be signed with the co-partnership

name by a member of the firm who shall sign his own name and give the name and address of each partner of the firm and attach a copy of 'Power of Attorney' with the tender authorizing him to sign on behalf of the other partners. A certified copy of the 'Registered Partnership Deed' shall also be submitted along with the tender. A certified copy of the registered deed shall also be submitted along with the tender. The tender should be in a sealed cover.

1.08 EMD

- 1.08.1 The EMD of Rs.24,503/- shall be remitted through online payment mechanism for e-procurement system of Govt. of Kerala www.etenders.kerala.gov.in. Bidders, who have secured exemption from individual EMD payments, need not do this except when special Earnest Money is asked to be deposited. Such EMD exemption certificate/document needs to be scanned and submitted online along with the bid, failing which, the bid shall be rejected summarily. The original EMD exemption document may have to be produced if required, failing which, the bid shall be rejected summarily.
- 1.08.2 Bidders shall remit the tender fees and EMD by using the online payment options of e-Procurement system only. Bidders are advised to visit the "Downloads" of e-Procurement website (www.etenders.kerala.gov.in) for detailed instructions on making online payment using internet banking facility of SBI KSITM/ NIC/ SBI shall not be responsible for any kind of delay in payment status confirmation
- 1.08.3 EMD deposited with Travancore Titanium Products Ltd. will be forfeited,
- i) if a bidder withdraws his bid during the period of validity specified.
 - ii) if the successful bidder fails within the time limit to sign the contract document or fails to furnish the required Security Deposit.
- 1.08.4 EMD will be refunded to the Contractor after remittance of the Security Deposit and execution of the agreement.

1.09 Security Deposit

- 1.09.1 Within 15 days of award of contract, the successful tenderer shall deposit a sum equivalent to 5% of total contract value towards Security Deposit. This shall be paid in the form of Demand Draft in favour of Travancore Titanium Products Limited payable at Thiruvananthapuram from a Nationalized/ Scheduled bank. Security Deposit is also acceptable in the form of a Bank Guarantee as per TTPL proforma. Bank Guarantee from Nationalized bank registered in India alone will be accepted. The Security Deposit shall be returned after satisfactory completion and acceptance of all works included in this tender unless the same is forfeited by the company for any breach or towards any amount due to the company.
- 1.09.2 On completion of Defects Liability Period, the Engineer-in-Charge shall recommend on demand from the Contractor to refund to him the security deposit and the same will be refunded by the Travancore Titanium Products Ltd. provided that the Engineer-in-Charge is satisfied that there is no demand outstanding against the contractor.
- 1.09.3 All the deposits of EMD and SECURITY DEPOSIT will not bear any interest whatsoever.
- 1.10 Income tax at the rate prevailing at the time of payment will be deducted from each running bill and final bill.
- 1.11 All statutory deductions at the rates applicable shall be made from the amount eligible to the Contractor in each part bill at current rates. Any tax omitted to be deducted in any part bill shall be deducted in the subsequent bills/final bill or from any amount due to the Contractor.
- 1.12 The contractor shall produce all necessary documents from the Goods and Service tax department.

1.13 Period of Validity

The tender shall remain valid for acceptance for a period of **90 days** from the date of submission of the tenders. If any tenderer withdraws his tender before the said period or makes any

modifications in terms and conditions of the tender, then the Client has the liberty to forfeit the said Earnest Money Deposit.

1.14 Quantum of Work

- 1.14.1 A schedule of approximate quantities for various items accompanies this tender. It shall be definitely understood that the Client do not accept any responsibility for the correctness or completeness of this schedule in respect of items and quantities and this schedule is liable for alteration by deletions, deductions or additions at the discretion of the Client without affecting the terms of the contract (Say maximum variations).
- 1.14.2 The Client reserves the right to increase or decrease the quantum of work at site without assigning any reason. The Contractor shall carryout the works at the rates accepted.
- 1.14.3 Variations in the quantities put to tender will not be the basis for any claim or disputes. The rates agreed by the Contractor shall hold good for any amount of variation in the quantities and no claims whatsoever will be entertained on this amount. The Contractor shall carry out all works as directed by the Client at the same agreed rates.

1.15 All Inclusive Rates

The quoted rate of Contractor must be firm and shall be inclusive of cost of transportation of material to the site and all applicable taxes (Except GST) of State Government as well as Central Government.

The rates quoted by the Contractor shall be firm throughout the Contract period and there shall be no upward revision of the rates quoted by the Contractor for any reasons whatsoever. It should be clearly understood that any claims for extra Tax or any Additional tax, etc., shall not be entertained in any case whatsoever once the tenders are opened.

1.16 Interpreting Specifications

- 1.16.1 In interpreting the specifications, the following shall be followed:
- a. Specification mentioned in Schedule of Quantities, Technical specifications (Annexure-C)
 - b. General conditions of Contract Special Conditions of Contract in NIT
 - d. Drawings.
- 1.16.2 Matters not covered by the specifications given in the contract as a whole shall be covered by the relevant Indian Standard Codes. If such codes on a particular subject have not been framed, the decision of the Consultants shall be final.
- 1.17 No alterations shall be made by the tenderer in the Notice Inviting Tender, Instructions to the Contractors, Contract form, Conditions of the contract, Drawings and Specifications, and if any such alterations are made or any conditions attached, the tender is liable to be rejected. Such alterations shall not be taken as a right of the contractor, if such alterations are gone unnoticed during the evaluation or scrutiny.
- 1.18
1. The acceptance of a tender rests with the Authorized Representative of the Client who does not bind himself to accept the lowest tender and reserves to himself the authority to reject any or all the tenders received without assigning any reason(s) whatsoever.
 2. The authorized representative of the Client reserves the right of accepting the whole or part of the tender received and the tenderer shall be bound to perform the same at the rates quoted.
- 1.19 The work shall be carried out under the direction and supervision of the Client or their representative at site. On acceptance of the tender, the Contractor shall intimate the name of his accredited representative who would be supervising the construction and would be responsible for taking instructions for carrying out the work.
- 1.20 The Client's decision with regard to the quality of the material and workmanship will be final and binding, any material or work, rejected on account of quality/ workmanship shall be

immediately removed by the Contractor and replaced by materials as per specifications and standards.

1.21 Pre-despatch Inspection

The Contractor shall arrange a Pre-despatch Inspection of the Panel before delivery. The inspection call should be given at least ten days in advance so as to depute the officials of Purchaser for the inspection.

The Contractor shall submit the details of QAP and test procedures with acceptable reference values.

1.22 Period of Completion

The work should be completed in all respects within TWO MONTHS from the date of issue of work order.

1.23 Defects Liability Period

Any defect developed within 'Defect Liability Period' of 12 months from the date of virtual completion as certified by the Client. Any defect noticed have to be rectified by the Contractor at his own cost within the time allowed by the Client and in case the defects are not rectified by the Contractor, the Client shall get the work done at the risk and cost of the Contractor. The Client shall recover all expenses incurred in this regard from any amount due to the Contractor.

1.24 Guarantees

The materials supplied, its accessories and the whole system shall be guaranteed for satisfactory operation at least for a period of one year from the date of commissioning or 1.5 years from the date of supply. Defects if any noticed during the period which are due to faulty designs, substandard materials, bad workmanship, etc. shall be made good by the supplier by way of replacement or repair at free of cost within 10 days.

1.25 Delays in Commencement

The Contractor shall not be entitled to any compensation and/or damages for any loss suffered by him on account of delays in commencing, whatever the cause for such delays may be. Similarly the Contractor shall not be entitled to claim any amount from Client for delays in completion of work (operating maximum limit).

1.26 Occupation in Part

If the Client wants to occupy areas in part, the Contractor shall complete the work of these areas in consultation with the Client and hand over the same to the Client without affecting any of the clause of contract agreement.

The Contractor should inspect the source of materials, their quality, quantity and availability. All materials must strictly comply with the relevant B.I.S. specifications.

The Contractor must co-operate and co-ordinate with other Contractors involved in other works at the site. The Contractor should also note that they shall have to clear the site before the commencement of the work and that no extra payment is permissible on this account.

1.27 Agreement

1.27.1 Before commencing the work and within 15 days from the date of issue of Work Order, the successful Contractor shall execute an agreement with TTPL on non-judicial stamp paper worth Rs.200/- as per TTPL Proforma, which shall be supplied along with Work Order. The EMD is liable to be forfeited in case the bidder fails to execute the Agreement within 15 days from the date of receipt of Work Order.

1.27.2 If the tenderer fails to execute the agreement as stated above within the specified period, the Earnest Money Deposit shall be forfeited to Travancore Titanium Products Ltd., and fresh tenders called for or the matter otherwise disposed off. If as a result of such measures due to

the default of the tenderer to pay the required deposit, execute the agreement or take possession of the work site, any loss to Travancore Titanium Products Ltd., results, the same will be recovered from the tenderer by deducting from any amount due to him from other works or revenue recovery or by suitable course of action including legal proceedings.

1.28 Payment Terms:

- i. Advance Payment: 10% of the work order value as advance shall be paid on submission of bank guarantee for an amount equal to 100% of the advance amount from a nationalized bank. The bank guarantee shall be valid till the commissioning of the work.
- ii. On completion of supply: Up to 60 % of the work order value as of the supplied items as assessed by the Engineer-in-Charge, for the materials supplied shall be paid as on account payment on the strength of certificate issued by the Engineer-in-Charge.
- iii. On Installation, Testing & Commissioning: Up to 20% of the work order amount, shall be paid on completion of testing trial run, and successful commissioning, and on issue of Preliminary Acceptance Certificate.
- iv. On Final Acceptance/ taking over: 10% of the contract amount shall be paid after completion of defect liability period

All the payments are made, after deducting there from the amounts already paid, income tax and other amounts as may be deductible or recoverable in terms of the contract.

1.29 Jurisdiction

All disputes and questions, claim rights, matters or things whatsoever in any way arising out of or relating to the calling of bids, evaluation of offers, award of contract, change in structure of bids or any other matter relating to the finalization of contract are to be referred to the sole Arbitrator who shall be Managing Director of TTPL or a person nominated by him as per provisions of Arbitration and Conciliation Act 1996 (Act 26 of 96) and court at Thiruvananthapuram alone will have Jurisdiction to deal with all or any matters arising out of from or in relation to the contract.

1.30 Any variations in the tender shall be indicated in separate sheet.

Dy. General Manager (Projects)
Travancore Titanium Products Ltd.
Kochuveli.P.O, Thiruvananthapuram – 695 021.

DECLARATION

I / We hereby declare that I/we have read and understood the above instructions and the terms and conditions mentioned above are binding on me/us.

SIGNATURE OF THE TENDERER

Date :

INFORMATION ABOUT THE TENDERER
(To be filled by the tenderer)

1	Name of Bidder		
2	Registered office with address for communication	Full postal address	
		Telephone No.	
		Mobile No.	
		Email Id	
3	Status of the bidder (individual/ Partnership/ Private Company/ Public Limited Company)		
4.	Details of local office	Address	
		Contact Person	
		Tel. No.	
		Mobile No.	
		Email Id	
5	Particulars of experience as Prime Contractor as per eligibility criteria mentioned in NIT		
6	Annual turnover for the last three years	2020-21	
		2021-22	
		2022-23	
7	Permanent Account Number (PAN)		
8	GST Reg No.		
9	PF Reg.No		
10	ESI Reg No.		

Signature & Seal of tenderer:
Date:

Name of Tenderer:
Address:

2.0 GENERAL CONDITIONS OF CONTRACT

- 2.1.0 In the contract (as hereinafter defined) the following words and expressions shall have the meaning hereby assigned to them except where the contract otherwise requires.
- 2.1.1 The “Client” shall mean Travancore Titanium Products Ltd., Kochuveli P.O, Thiruvananthapuram- 695 021
- 2.1.2 The “Contractor” shall mean person or persons, firm or company whose tender has been accepted by the Client and includes the Contractor’s legal representatives, successors and permitted assigns.
- 2.1.4 “Tender” shall mean the tender submitted by the Contractor for acceptance by the Client.
- 2.1.5 The “Work” shall mean and include all works to be executed in accordance with the contract or part thereof as the case may be and shall include all extras, additional, altered or substituted works required for the purpose of the contract.
- 2.1.6 The “Contract” shall mean the agreement between the Client and the Contractor for the execution of the work including therein all documents such as the Notice Inviting tender, Tender Form, Conditions of contract, Specifications, Schedule of quantities, Letter of acceptance, bid clarifications if any, Drawings, Work orders, and / or any other / correspondence or negotiations, etc.
- 2.1.7 “Specifications” shall mean all directions, various technical specifications, provisions and requirements attached to the contract which pertain to the method and manner of performing the work. It shall also include the latest revised version of the relevant B.I.S. specification and other relevant codes.
- 2.1.8 “Site” shall mean the place for the work mentioned in the tender.
- 2.1.9 “Letter of Acceptance” shall mean an intimation by letter, email or fax by the tenderer that the Tender has been accepted in accordance with the provisions contained therein.
- 2.1.10 “Engineer/Engineer-in-charge” shall mean the person representing the Client or Consultant and entrusted with the work of supervision of work at the site.
- 2.1.11 “Contract Price” shall mean the total amount quoted in the Price Bid and accepted by the Client.

2.2.0 Site

- 2.2.1 The site for the project is located at Travancore Titanium Products Ltd., Kochuveli P.O, Thiruvananthapuram- 695 021. The intending tenderer should inspect the site and familiarize himself with the site conditions and available communication facilities, sources and all other facts that may affect the work / quoted rates
- 2.2.2 Entry into the project area will be restricted. Passes and permits will have to be obtained from the Client for entry of all persons and vehicles into the project area.

2.3.0 Scope of Work

- 2.3.1 Scope of work shall be as per the specification and Schedule of quantities. The work broadly consists of Electrical works for VES Plant.
- 2.3.2 The Contractor shall provide all necessary labour, materials, equipment and management and supervisory personnel to complete the works provided under this contract in time.
- 2.3.3 The Contractor should clarify any doubts in the items of BOQ on or before pre-bid meeting. After submission of tender no further clarification/deviations are entertained.

2.4.0 Assignment and Sub-Contracting

2.4.1 Assignment

The Contractor shall not assign the contract or any part thereof or any benefit or interest therein or there under without the written permission of the Client.

2.4.2 Sub-Contracting

The Contractor shall not sublet any portion of the contract.

The Contractor shall not sub-contract any part of the works without the written consent of the Consultants/Client and such consent, if given, shall not relieve the Contractor from any liability or obligation under the contract and the Contractor shall be responsible for the acts, defaults and neglects of the sub-Contractor, his agents, employees or workmen fully as if they were the acts, defaults or neglects of the Contractor or his agents, servants, or workmen.

2.5.0 Drawing

2.5.1 Issue of Drawings

Drawings provided along with the tender document are indicative. Contractor shall provide all necessary drawings as required by the Client or Consultant. The Contractor shall take approval of drawings from Client or Consultant before execution.

2.5.2 Copies of Drawings to be kept at Site

One copy of the drawings shall be kept at the site and the same shall at all reasonable times be available for inspection and use by the Consultants and by any other person authorized by the Client in writing.

2.5.3 Issue of Further Drawings and Instructions

The Consultants shall have full power and authority to issue drawings/instructions to the Contractor from time to time, during the progress of the works such further drawings and instructions as shall be necessary for the purpose of proper and adequate execution and maintenance of the works and the Contractor shall carry out and be bound by the same.

2.5.4 Ownership of Drawings

All drawings supplied to the Contractor are deemed to be the property of the Client. The Contractor should not divulge or use, except for the purpose of this contract, any information contained in the drawings.

2.5.5 Execution as per Drawings

The Contractor must not vary or deviate from the drawings in any respect while executing the work or executing any extra work of any kind whatsoever unless authorized by the Client or Consultant.

2.6.0 General Obligations

2.6.1 Inspection of Site, etc. before Submission of Tender

The Contractor shall inspect and examine the site and its surroundings, and shall satisfy himself before submitting his tender, as to the nature of the site, the quantities and nature of work and materials and its availability for the completion of the works, the means of access to the site, availability of power supply, local labour conditions, accommodation he may require and in general shall obtain all necessary information as to the risks, contingencies and other circumstances which may influence or affect his tender.

2.6.2 Sufficiency of Tender

The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works stated in the bill of quantities and

that the rates and prices being quoted shall cover all his obligations under the contract and all matters and things necessary for the proper completion and maintenance of the work have been taken care off.

2.6.3 Clarification before Submitting Tenders

Should the Contractor notice any discrepancy or error in the statement made, or quantities or units shown against items, he shall immediately bring it to the notice of the Consultant or Client and obtain clarifications before submitting the tender. The tender shall be based on such clarifications received and shall be recorded as such in the covering letter to the tender, failing which the Client shall have the right to ask the Contractor to execute the work according to the statement made or quantities or units shown in the tender, without any compensation.

2.6.4 Rates Quoted for Finished Work

The rates quoted in the tender by the Contractor shall be for the finished work as per the drawings and or specifications.

2.6.5 Location of Work

Unless specifically mentioned in the item, the work described therein may be at any location or elevation, inside the project area.

2.6.7 Contractor's Employees

The Contractor shall provide and employ at site all required personnel such as skilled, semi-skilled and un-skilled labour as is necessary for the proper and timely execution and maintenance of works. Only such technical assistants who are skilled and experienced in their respective fields and foreman and leading hands who are competent to give proper supervision to the work shall be posted at the site.

2.6.8 Communications to be in Writing

All references, communications, correspondence made by the Client, the Consultants, the Consultants' representative or the Contractor concerning the works shall be in writing and no reference, communication, or complaint which is not in writing, shall be recognized.

2.6.9 Occupation and Use of Land

No land or building belonging to or in the possession of the Client shall be occupied by the Contractor. The Contractor shall not use, or allow to be used, the site for any purpose other than that for executing the works.

2.6.10 Construction of Site-Shed

Any site-shed, proposed to be temporarily constructed by the Contractor for his office work, storage of materials, etc. shall conform to the standard sketch, or to the plan approved by the Client /Consultants and shall be constructed at his own expense. Permission for the construction of such sheds shall be obtained in writing. The contractor shall dismantle the site shed at his own expense after completion of work and dispose off all the debris. The Contractor shall be solely responsible for the security and safety of his property along with requisite insurance.

2.6.11 Materials & Tools

All materials required for the execution of the works shall be supplied by the Contractor. Materials so supplied shall have the approval of the Consultants before using on the works. All the rejected materials shall be removed at once from the site of work at the Contractor's own cost.

2.6.12 Damage to Persons and Property

The Contractor shall indemnify and keep indemnified the Client against all losses and claims for injuries or damages to any person or property whatsoever which may arise out of or in consequence of the construction and maintenance of works and against all claims, demands, proceedings, damages, costs, charges, expenses, whatsoever in respect thereof in relation thereto.

2.6.13 Co-Operation with Other Agencies

The Contractor shall co-operate with the work of other agencies or Contractors that may be employed or engaged by the Client/Consultants and as far as it relates to the Contractor's work. The sequence of work shall be so arranged that the work of other agencies are also in progress simultaneously.

2.6.14 Barricading around Dangerous Work Spots, etc.

The Contractor shall at his own cost provide around excavation or other dangerous work places, temporary barricading with bellies and bamboo with warning signals during day and night and shall maintain it so long as such work places are dangerous. Similar barricades shall also be provided at all dismantling work, erection of structural, sheeting work, etc. No extra claim shall be entertained for providing, maintaining and removing such barricades.

2.6.15 Shop Drawings

Contractor shall prepare at his own cost all shop drawings of electrical works and submit them to the Consultants for their approval at least before 15 days of commencing the work. All the details like sizes, capacities, dimensions, arrangement of fabrication, etc. should be clearly indicated on these drawings.

2.6.16 Protection of Underground Services

The Contractor must take precautionary measures to protect the underground and other services lines viz. Cables, water and sewer lines, etc. and observe any specific instructions which may be given in this regard by the Consultants.

2.6.27 Work in or around Operating Plant or Offices, etc.

Where the work is being carried out in or around an operating plant where the plant must run uninterrupted, the Contractor shall work only at specified place and times as mutually arranged between the Contractor and the Consultants/Client. Similar arrangement must be made while executing works inside the offices, buildings, etc. without causing disturbance to the office work. For this, the work may be required to be done during off-hours and Sundays. No extra will be allowed beyond the rates quoted for doing work in the manner described above.

2.6.18 Work in Shifts and on Off-Days

The Contractor shall work in one or more shifts as also on Sundays and off days to complete the work on time, if so required by the Consultants for which Client shall not be liable to pay any extra. If instructed by the Consultants, the Contractor should carry out the work in the night also.

2.6.19 Site Order Book

A site order book must be maintained and always be available at site to record the instructions by the Client/Consultants or their representative. The Contractor must see that the instructions noted therein are properly carried out.

2.6.20 Site to be kept Clean

The surplus spoil and dismantled debris shall be removed to a place as directed by the Consultants and stacked, levelled and dressed as directed. Rehandling charges will not be allowed.

2.6.21 Conflict in Meaning between Schedule of Quantities and Specifications

The Schedule of quantities shall be read in conjunction with the Specifications, and in the event of conflict in meaning between the two, the corresponding item in the Schedule of quantities shall always have precedence over the Specifications.

2.7.0 Labour

2.7.1 Labour Rules

In respect of all labour directly or indirectly employed on the works by the Contractor, the Contractor shall comply with the provisions of the contract labour (Regulation and Abolition) Act 1970, Minimum Wages Act 1948, Payment of Wages Act 1936, Employees Provident Funds and Miscellaneous Provision Act 1952, The Employees State Insurance Act, 1948 and any amendments thereof and all legislation and rules of the State and/or Central Government or other local authorities, framed from time to time, governing the protection of health, sanitary arrangements, wages, welfare and safety for labour employed on building and construction works and for bonus, retirement benefits, retrenchment/lay off, compensation and all other matter liabilities of ACCEPTING AUTHORITY to employees. The rules and the other statutory obligations with regard to fair wages, welfare and safety measures, maintenance of register, etc. will be deemed to be part of the contract. The Contractor shall produce documentary evidence for compliance of above Acts.

2.7.2 Reporting Accident of Labour

The Contractor shall be responsible for the safety of all employees and/or workers employed or engaged by him on and in connection with the works and shall forthwith report all cases or accidents to any of them, however caused and whenever occurring, to the Client /Consultants or his representative and shall make every arrangement to render all possible assistance and aid to the victims of the accident.

2.7.3 Provision of Workmen's Compensation Act

The Contractor shall at all times indemnify and keep indemnified the Client or Consultants against all claims for compensation under the provisions of the workmen's Compensation Act 1923 or any other law for the time being in force by or in respect of any workmen employed by the Contractor in carrying out the contract and against all cost and expenses or penalties incurred by the Client in connection therewith. In any case in which, by virtue of the provision of the said act, the Client is obliged to pay compensation to a workman employed by the Contractor in executing the works, the Client shall recover from the Contractor the amount of the compensation so paid and without prejudice to the rights of Client under the said Act. The Client shall be at liberty to recover such amount or any part thereof by deducting it from the Security deposit or from any amount due by the Client to the Contractor, whether under this contract or otherwise without prejudice to any other remedy that may be available to the Client, in law. The Client shall not be bound to contest any claim made against it under the said Act, except on the written request of the Contractor and upon his giving to the Client full security for all cost for which the Client might become liable in consequence of contesting such claim.

2.7.4 Accident or Injury to Workmen

The Client or Consultant shall not be liable for, in respect, or any damages or compensation payable as per regulations or in consequence of any accident or injury to any workmen or other person in the employment of the Contractor and the Contractor shall indemnify and keep indemnified the Client or Consultants against all such damages and compensation and against all claims, demands, proceedings costs, charges and expenses whatsoever in respect thereof or in relation thereto.

2.7.5 Preservation of Peace

The Contractor shall take requisite precautions to prevent any riotous or unlawful behavior by or amongst his workmen and/or others employed on the works by him, for the preservation of peace and protection of the inhabitants and security of property in the neighborhood of the works.

2.7.6 Age Limit of Labour

The age limit for employment of labour shall be in strict accordance with the existing labour legislation.

2.7.7 Return of Labour Employed

The Contractor, if required by the Client or Consultants, shall submit return in detail in such form and at such interval as the Consultants may prescribe showing number of different classes of labour employed on the work from time to time by the Contractor.

2.7.8 Observance by Sub-Contractor

The Contractor shall be responsible for the observance of the provisions of aforesaid clauses by the sub-Contractors employed by him in the execution of the contract.

2.8.0 Material Tests and Workmanship

2.8.1 Quality of Materials, Workmanship and Tests

All materials and workmanship shall be of the respective kinds described in the contract and in accordance with the Consultants' or Client's or their representative's instructions and shall be subject, from time to time, to such tests as the Consultants or his representative may direct at the place or any of such places. The Contractor shall provide such assistance, instruments, machines, labour and materials, as are normally required for examining, measuring and testing any work and the quality, weight or quantity of any material used and shall supply samples of materials before incorporation in the works for approval as may be required by the Consultants or Client.

2.8.2 Construction of Prototypes or Samples of Work

The Contractor shall construct prototypes or samples of work as laid down in the contract or as instructed by the Consultants. Such prototypes or samples or work, after approval by the Consultants, shall serve as the standards to be achieved in the final construction.

2.8.3 Cost of Samples

All samples shall be supplied by the Contractor at his own cost.

2.8.4 Cost of Tests

The cost of making any test as per specifications shall be borne by the Contractor, and the Contractor should arrange for all facilities like meters, instruments etc complete as required for carrying out such tests. This includes the Non-destructive tests.

2.8.5 Inspection of Operation

The Consultants/Client or their representative shall at all times have access to the works and to the site and to all workshops and places where materials, manufactured articles or machinery are being obtained for the works and the Contractor shall afford every facility or every assistance in obtaining the right to such access.

2.8.6 Examination of Work before Covering Up (as applicable)

No work shall be covered up or put out of view without the approval of the Consultants or the Consultants' representative and the Contractor shall afford full opportunity to the Consultants or the Consultants' representative to examine and measure any work which is about to be covered up or put out of view and to examine foundations before permanent work is placed thereon. The Contractor shall give due notice to the Consultants' representative wherever any such work or foundation is ready or about to be ready for examination and the Client /Consultants' representative shall without unreasonable delay, unless he considers it unnecessary and advises the Contractor accordingly, attend for the purpose of examining and measuring such work or of examining such foundations.

2.8.7 Uncovering and Making Openings (as applicable)

The Contractor shall uncover any part or parts of the works or make opening in or through the same as the Client/ Consultants may, from time to time, direct and shall reinstate and make good such part or parts to the satisfaction of the Client / Consultants. If any such part or parts have been covered up or put out of view after compliance with the requirements of clause hereof and found to be executed in accordance with the contract, the expenses of uncovering, making openings in or through, reinstating and making good the same shall be borne by the Client but in any other case all such expenses shall be borne by the Contractor and shall be recoverable from him by the Client and deducted by the Client from any money due, which may become due to the Contractor, without prejudice to any other remedy that may be available to the Client, by law.

2.8.8 Removal of Improper Work and Materials

The Client/ Consultants or his representative shall during the progress of the works have power to order the following in writing from time to time of which no extra payment will be made to the Contractor.

- a) The removal from the site within such time or times as may be specified in the order of any materials which in the opinion of the Consultants or his representative are not in accordance with the contract.
- b) The substitution of proper and suitable materials.
- c) The removal and proper re-execution notwithstanding a previous test thereof or interim payment thereof of a work which in respect of materials or workmanship is not, in the opinion of the Client / Consultants or his representative, in accordance with the contract.

2.8.9 Suspension of Work

The Contractor shall, on the written order by the Client / Consultants suspend the progress of the works or any part thereof for such time or times and in such manner as the

Consultants may consider necessary and shall during such suspension, properly protect and secure the work, so far as is necessary in the opinion of the Consultants.

2.9.0 Time of Completion and Taking Over

2.9.1 Possession of Site

Save in so far the contract may prescribe the extent of portions of the site of which the Contractor is to be given possession from time to time and the order in which such portions will be available and subject to any requirement in the contract as to the order in which the work shall be executed, the Consultants/Client shall give to the Contractor possession of so much of the site as may be required to enable the Contractor to commence with such activities as he will make in writing to the Consultants and shall, from time to time as the work proceeds give the Contractor possession of such further portions of the site as may be required to enable the Contractor to proceed with the construction of the works in accordance with the said programme or proposal.

2.9.2 Time of Completion

Time is deemed to be the essence of this contract and the whole of the works shall be completed within the time stipulated or within such extended time as has been allowed under Clause 2.9.3 and 2.9.4.

2.9.3 Extension of Time of Completion due to Extra/ Additional Works

Should the amount of extra or additional work of any kind or changes in scope of work or other special circumstances of any kind whatsoever which may occur, be such as fairly to justify the Contractor's request for extension of time for the completion of the works, the Consultants shall determine the amount of such extension and with the approval of the Client shall intimate the Contractor in writing provided that the Consultants is not bound to take into account any extra or additional work or other special circumstances unless the Contractor has within 28 days, after such work has been commenced or such circumstances have arisen, submit to the Consultants full and detailed particulars of any request for the extension of time to which he may consider to be justified. The Contractor is bound to complete the work at the same rates, terms and conditions.

2.9.4 Extension of Time of Completion due to Force Majeure Conditions

If in the opinion of the Consultants the progress of the work has at any time been delayed due to force majeure conditions like strikes, fire, inclement weather, un-avoidable causalities, acts of god or any cause whatsoever beyond the control of the Contractor, continuously for more than one month, then the time of completion of the work may be extended for such reasonable time as the Consultants may decide and this will be indicated in writing. The Contractor shall complete the work at the accepted rates, terms and conditions.

2.9.5 Liquidated Damages

If the Contractor fails to complete the work within the period of completion mentioned under clause 2.9.2 or within any extended time allowed in Clause 2.9.3 and 2.9.4, the Contractor shall pay or allow the Client to deduct the sum equivalent to 0.1% of the contract value per week or part thereof of delay subject to a maximum of 10% of contract value as liquidated and ascertained damages for the period from the date of stipulated completion or such extended time as the case may be during which the work shall remain

unfinished. Such damages may be deducted by the Client from any money due or that may become due to the Contractor.

2.9.6 Work Treated as Complete

The works shall not be treated as complete until:

- i) The site is clear from all materials, and the Client/Consultants is satisfied with the job done by the Contractor.
- ii) The Contractor has submitted the reconciliation statement regarding the stores received from the Client, and all the surplus and salvaged materials are returned to the stores. (if applicable)
- iii) All power and water supply connections taken for the execution of the works have been disconnected by the Contractor.
- iv) Rectification of any damage done by the Contractor to other works have been satisfactorily completed.
- v) The works shall not be considered as completed until the Client/Consultants have certified in writing that they have been virtually completed and the Defects Liability Period shall commence from the date of such certificate.

2.9.7 Taking Over

After defect liability period, Contractor shall notify the Client/ Consultants in writing, who within 15 days of receipt of the said notice shall give completion certificate. Subsequently the work will be taken over by the Client.

2.10.0 Termination of Contract

If the Contractor has abandoned the contract or has failed to proceed with the work due to negligence or the progress on any particular item is slow or has failed to execute the work in accordance with the terms and conditions of the Contractor is persistently or frequently neglecting to carry out his obligation under the contract or the Contractor has died / has gone bankrupt/the firm has been dissolved or is in the process of winding up, then it shall be lawful for the Client to terminate the contract forthwith under written notice and to proceed with the balance of the work through any other agencies. During the course of execution of the job, in case the Contractor has done any substandard work, he shall be asked in writing to dismantle and redo the same at his own expense. If the Contractor fails to comply with the above instructions immediately, then the Client shall proceed with the above rectification work, through another agency or agencies. Similarly, if the Contractor goes slow on any particular item or items of work, the Client shall have the right to execute this item or items through another agency or agencies, including its own department.

Extra cost and expenses incurred for completing the work of balance work or carrying out the rectification of any work as mentioned above through another agency or agencies including its own department, shall be debited to Contractor's account and shall be recovered from any money due or that may become due to the Contractor without prejudice to any other remedy that may be available to the Client in law. If there is any savings in cost due to re-arrangement or supplementing through other agencies, the original Contractor will not have any claim on this.

2.11.0 Alterations, Additions and Omissions

2.11.1 Variation

The Client shall make any variation of the quality or quantity of the works or any part thereof that may in their opinion is necessary and for that purpose, or if for any other

reason it shall, in their opinion be desirable, they shall have power to order the Contractor to do and the Contractor shall do any of the following:

- a) Increase or decrease the quantity of any work included in the contract.
- b) Omit any portion of work.
- c) Change the character or quality or kind of any such work.
- d) Change the levels, lines, position and dimensions of any part of the works and
- e) Execute additional work of any kind necessary for the completion of the works, and no such variation shall in any way vitiate or invalidate the contract by the value, if any, of all such variations shall be taken into account in ascertaining the amount of the contract price.

2.11.2 Order for Variations to be in Writing

No such variation shall be made by the Contractor without an order in writing of the Client /Consultants, provided that no order in writing shall be required for increase or decrease in the quantity of any item or work where such increase or decrease is the result of the actual quantities exceeding or being less than those stated in the bill of quantities, which are estimates. In such cases, the Contractor shall be paid only for the actual quantity of work done as certified by the Client/ Consultants at the accepted unit item rate and no compensation shall be allowed. Provided also that if for any reason the Consultants shall consider it desirable to give any such order verbally, the Contractor shall comply with such order but it must be followed by confirmation in writing of such verbal order given by the Consultants, which shall be deemed to be an order writing within the meaning of this clause.

2.11.3 Extra Items

- a) Any item of work that do not find a place in the schedule of quantities, in the original tender or in the accepted tender or contract as has been directed by the Consultants/Client to execute is deemed as an extra item of work. All such works that are necessary to be carried out under the direction of the Consultants/Client shall be carried out by Contractor. No such variation will violate the contract.
- b) Extra items of work thus carried out by the Contractor will be paid at the rates worked out by the Consultants/Client in the following manner.
- c) In the case of extra items whether altered or substituted, for which similar items exists in the contract, the rates shall be derived from the original item by appropriate adjustment of cost of affected components, on the basis of provisions of standard data and schedule of rates . An allowance of 15% of rate worked out will be added towards Contractor's profit. Overheads and establishment charges taken together. The percentage excess or deduction of the contract rate for the original item with reference to the estimated rate shall be applied in deriving the rates of such items.
- d) In the case of extra items, whether additional, altered or substituted, for which rate can be only partly derived from similar items in the contract, data and schedule of rates and partly from market rates, the rates will be worked out as follows:

The Contractor immediately after the execution of the work as mentioned in 2.11.3 (a) shall communicate to the Engineer of the Client /Consultants, the rate claimed for the item with supporting documents as regards the prevailing market rates. The Consultants shall examine these records and work out the rate in the following manner:

As regards the first part involving items in the data and schedule of rates, the rate will be worked out as given in 2.11.3 (b). As regards the second part involving market rates, the rate will be worked out as given in 2.11.3. (e)

- e) In the case of extra items, whether additional, altered or substituted, for which the rates cannot be derived from similar items of work in the contract or from the departmental data and schedule of rates, the rates shall be worked out fully on the basis of prevailing market rates (giving due consideration to the analysis of the rate furnished by the Contractor with supporting documents) and forward the same to the Client. If requirement of labour for such item is available in the Data Book, this shall be taken as the basis for working out rate. If this is not available, observed data during actual execution of work will be taken as the basis. An allowance of 15% will be added towards Contractor's overhead, profit and establishment charges taken together.
- f) In the case of extra item whether additional, altered or substituted, for which the rates cannot be derived either from similar items of work in the contract or from the departmental schedule or rates, the Contractor, as mentioned in 2.11.3 (a) above, shall within 14 days of the receipt of order to carry out the said extra item of work, communicate to the Engineer the rate which he proposes to claim for the item, supported by analysis of the rate claimed and the Consultants shall within one month thereafter, determine the rate on the basis of the market rate giving due consideration to the rate claimed by the Contractor. An allowance of 15% for profit and overheads will be allowed on the market rate and no tender excess or deduction will be applicable.

2.11.4 Claims

No claims are permitted. The rates considered in the contract are fixed.

2.12.0 Measurements

2.12.1 Quantities

The quantities set out in the Bill of quantities are the estimated quantities of the work. They are not to be taken as the actual and correct quantities of the works to be executed by the Contractor in fulfillment of his obligations under the contract.

2.12.2 Works to be Measured

The contractor shall submit his running account bill/ final bill on item works. The Client or Consultants on receipt of the claim from the contractor shall, except as otherwise stated, ascertain and determine by measurement the value in terms of the contract. He shall when he requires any part or parts of the works to be measured, give notice to the Contractor's authorised agent or representative, who shall forthwith attend or send a qualified agent to assist the Consultants or his representative in making such measurement, and shall furnish all particulars required by either of them. Should the Contractor not attend or neglect or omit to send such agents, then the measurement made by the Consultants or approved by him, shall be taken to be the correct measurement of the work. For the purpose of measuring such permanent work as is to be measured by record and drawings, the Consultants' representative shall prepare records and drawings month by month and the Contractor, as and when called upon to do so in writing, shall within fourteen days, attend to examine and agree such records and drawings with Consultants' representative and shall sign the same when so agreed. If the Contractor does not so attend to examine and agree to such records and drawings they shall be taken to be correct. If, after examination of such records and drawings, the Contractor does not agree to the same or does not sign the same as agreed, they shall nevertheless be taken to be correct, unless the Contractor shall, within fourteen days of such examination, lodge with the Consultants' representative a notice in writing for decision by the Consultants, giving his reasons why such records and drawings are claimed by him to be incorrect.

2.12.3 Method of Measurement

The works shall be measured in accordance with relevant IS codes notwithstanding any general or local custom, except where otherwise specifically described or prescribed in the contract.

2.13.0 Jurisdiction

Any legal dispute arising out of or in any way connected with this contract shall be deemed to have arisen at site and shall be settled in a court of competent jurisdiction located in Thiruvananthapuram, Kerala

2.14.0 Notices

2.14.1 Any notice to be given to the Contractor under the terms of the contract shall be served by sending the same by post, fax or telegram or by courier to or leaving the same at the Contractor's principal place of business (or in the event of the Contractor being a company to or at its registered office) or at the site.

2.14.2 Any notice to be given to the Client under the terms of the contract shall be served by sending the same by post to or leaving the same at the Client's last known address.

2.15.0 Deviation Limits

2.15.1 Variation in Quantity

The quoted rates with deviation of more than (+/-) 25% over Technical Sanction Estimate rates may be treated as Abnormally High Quoted Rates (AHQR) item/Abnormally Low Quoted Rates (ALQR) item, as the case may be. In respect of AHQR item, under normal circumstances, the contract rate is applicable for the scheduled quantities in the Agreement only.

In case of quantities exceeding the agreement schedule quantities and upto 25% limit that are necessitated for proper completion of work, the contract rates of corresponding item shall apply.

For excess, quantities, i.e., quantities in excess of 25% over agreement schedule quantities, the admissible rates shall be limited to Technical Sanctioned estimate rate modified by overall tender excess/tender deficit, as the case may be, subject to a maximum of PWD local market rates prevailing at the time of ordering.

3.0 SPECIAL CONDITIONS OF CONTRACT

3.01 WATER

Water required will be provided by TTPL free of cost.

3.02 ELECTRICITY

Electricity will be provided by TTPL free of cost.

3.03 GST AND ANY OTHER TAXES & DUTIES

Unit rate shall be inclusive of all applicable taxes (Excluding GST) and duties and any other additional taxes.

Royalty charges & taxes if any on account of supply of materials for all works shall be paid by the Contractor at his own cost. No extra claim in this regard shall be admissible.

3.04 TURNOVER TAXES/WORKS CONTRACT TAXES:

Deductions will be made from the bills for all statutory taxes except GST as per the existing provisions.

- a) Cess for the construction of works under building and other Construction Workers Welfare Cess Act-1996. The Contractor shall remit the building and other Construction Workers Welfare Cess at 1% on the total cost of construction including the cost of materials and shall produce the certificate of remittance of Cess to ACCEPTING AUTHORITY. In case the Contractor fails to remit the Cess the applicable Cess will be recovered from the final bill of the contractor.

3.05 **PROCUREMENT OF MATERIALS**

Contractor shall make his own arrangements for the procurement of all materials required for the work including cement.

3.06 **SUPERVISORY STAFF**

The Contractor shall appoint required number of experienced and qualified technical and supervisory staff at the site for supervising the work and shall see that all of them are always at the work spot during the working hours, personally checking all items of work. He shall take such orders as may be given to him by the Engineer-in-charge from time to time and shall be responsible to carry them out properly. In case Contractor fails to provide sufficient person as per terms given below, Owner/Client reserves the right to deduct a reasonable amount from the Contractor's bill, subject to a maximum of Rs.25,000/- for every month of absence.

3.07 **PROGRAMME OF WORKS**

- a) The entire work is scheduled to be completed as stipulated in NIT. The Contractor shall programme the different items of work in accordance with the detailed time schedule approved by the Engineer-in-charge.
- b) **CONTRACTOR TO SUBMIT PROGRAMME**
After the acceptance of his Tender, the Contractor shall, within fifteen days, submit to the Engineer-in-Charge for his approval, a detailed programme taking into account the total time period stipulated in the contract showing the order, the procedure and method in which he proposes to carry out the works.

He shall furnish the particulars in writing of his arrangements of manpower, plant and machinery, shuttering and all other resources owned and dedicated to this work. Cash flow during the execution of project for procurement of materials and for carrying out of the works including temporary works which the Contractor intends to construct shall also be furnished.

In support of this programme, the Contractor shall submit a work schedule in the form of a CPM/PERT Chart. The Engineer-in-Charge shall if necessary modify the programme submitted by the Contractor and approval shall be given by the Engineer-in-Charge indicating the major milestones. The programme approved by the Engineer-in-Charge shall be final and binding on the Contractor. The approval by the Engineer-in-Charge of such programme, or furnishing of such particulars shall not relieve the Contractor of any of his duties or responsibilities under the contract.

During the progress of work, the Contractor shall be required to furnish the resource mobilisation plan as required by Engineer-in-Charge to keep up the target date of completion.

This CPM/PERT programme will be required to be updated every three months or more frequently as directed by the Engineer-in-Charge, based on the actual progress, resource mobilisation and other field conditions actually prevailing.

3.08 Safety

Only properly tested and marked material handling equipment shall be used.

All important connections/assembly of sound design related to pulley/guide etc., including the supporting arrangement and fixing details shall be checked periodically and necessary rectifying actions are to be taken in order to ensure safe handling of loads during different operations.

All plant and machinery of the contractor shall observe the safety regulations needed for working in a project where other contractors/sub-contractors/ agencies might also be working on the project, so as not to interfere with the work of the other contractors or foul with their constructions shall be taken by the contractor and nothing extra is payable on this account.

The Contractor shall take all precautions to avoid all accidents by exhibiting necessary caution boards day and night, speed limit boards, red flags, red lights and providing barriers. He shall be responsible for all damages and accidents caused due to negligence on his part. No hindrances shall be caused to traffic during execution of work.

The rates quoted by the Contractor for all items except those where specific provisions indicated in the schedule of Requirements shall include all leads, lifts, and nothing extra shall be paid on this account.

The Contractor shall adjust his labour, staff, plant, machinery. etc., according to the requirement of work from time to time with particular regard to approved phases of work and no claim shall be entertained on account of idle labour, plant, machinery, etc., due to any reason whatsoever.

The Contractor shall clear the site thoroughly of all shuttering materials and rubbish etc., left out of his work and dress the site around the area to the satisfaction of Engineer-in-charge upon completion of the work and before release of payment of the last running bill. He will remove the labour huts on completion of the work. The payment of final bill will be subject to the compliance of this condition by the contractor.

3.09 Insurance

The Contractor shall arrange, secure and maintain insurance as may be necessary and for all such amounts to protect his risks as detailed herein. The form and the limit of such insurance as defined herein together with the underwritten thereof in such case shall be as acceptable to the Purchaser.

However, irrespective of such acceptance, the responsibility to maintain adequate insurance coverage on comprehensive all risks basis at all times during the period of contract shall be of the Contractor. The Contractor's failure in this regard shall not relieve him of any of his contractual responsibilities and obligations. Any loss or damage to the construction equipment or materials during handling, transporting, storage and erection, till such time as the work is certified by the Engineer-in-charge as having been completed in all respects & is taken over by the Purchaser: shall be to the account of the Contractor and his responsibility preferring all claims and make good for the damage or loss by way of repairs and/or replacement of the portion of the work damaged or lost. The completion of work shall not, in any, way relieve the Contractor

of the above responsibilities during the period of the contract. The Contractor shall provide the Purchaser with a copy of all insurance policies and documents taken out by him in pursuance of this contract.

Such copies of documents shall be submitted to the Purchaser immediately after such insurance coverage. The Contractor shall also inform the Purchaser in writing at least twenty (20) days in advance regarding the expiry/cancellation and/or change in any of such documents and insurance revalidation/renewal, etc., well in time as may be necessary. The risks that are to be covered under the insurance shall include but not be limited to the loss or damage in transit, theft, pilferage, riot, civil commotion, weather conditions, accidents of all kinds, fire, etc. The scope of such insurance shall cover the entire value of the work from time to time. All costs on account of insurance liabilities covered under the contract will be on the Contractor's account and will be included in contract price. However, the Purchaser, may from time to time during the pendency of the contract, ask the Contractor in writing to limit the insurance coverage risks and in such a case the parties to the contract will agree for a mutual settlement for reduction in contract price to the extent of reduced premium account.

3.10 Insurance for Staff

The Contractor shall insure all his staff working at site against injury, loss of life etc., and the Purchaser will entertain no claims of compensation in this regard. The Contractor shall indemnify the Purchaser against all such claims as above, by his staff.

3.11 Compensation for Delay

If the Contractor fails to complete the work and clear the site for any particular phase on or before the stipulated completion time of that respective stage or extended period of completion, he shall, without prejudice to any other right or remedy of the Purchaser on account of such breach, pay as agreed a compensation of the amount calculated on the basis of General Conditions of Contract.

The Contractor shall maintain in perfect condition all works executed till the completion of the entire works allotted to him. When, phased handing-over is contemplated, the provisions mentioned above will apply to each phase.

3.12 CLEARING SITE

Contractor should supplying manpower & machinery for cleaning and clearing the debris at all levels and disposing complete as directed by Engineer-in-Charge.

3.13 DOCUMENTATION

The Contractor shall prepare and submit the detailed documentation of all the structures by means of Photography (hard copy and soft copy), Video by a professional photographer covering various views of the project up to the satisfaction of the Consultant/Client and all as built drawings along with the final bill.

3.14 Prior written approvals shall be obtained from the Client or Consultant for executing the work using the equivalent make brand, which was not specified in the tender. The equivalent make shall be approved only if the specified brands are not available in the market and upon submission of documentary evidence for the non-availability of the same.

3.15 WORKS TO BE DONE BY CONTRACTOR

Unless and otherwise mentioned in the tender document, the following works shall be done by the contractor, and therefore their cost shall be deemed to be included in their tendered cost:

- a) Foundation and brackets and components wherever required, including foundation bolts, etc. wherever specified.
- b) Excavation and refilling of trenches in soil wherever the pipes/cables are to be laid directly in ground, including necessary base treatment and supports for pipes, bricks, etc, as specified.
- c) Sealing of all opening provided for pipes and cables, from fire safety point of view, after laying of the same.
- d) Painting of all exposed metal surfaces of equipment and components.
- e) Fixing of danger notice boards wherever required.
- f) Making good all damages caused to the structure, walls, floors, slabs, etc., during installation and restoring the same to their original finish.
- g) Consumables, fuels, cement, etc. required for the work, testing, trial runs and commissioning.
- h) Testing and commissioning of the completed installation.
- i) For any item of work, not covered in particular specification, the same shall be done as per latest relevant BIS codes of practice.
- j) For any item of work not covered in particular specification, the same shall be done as per sound engineering practice as directed/approved by Engineer-in-Charge.

3.16 General Requirements and Arrangement of Materials

All sundry fittings, assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections as required, and all other sundry items which are useful and necessary for proper assembly and efficient working of the various components of the work shall be deemed to have been included in the tender, whether such items are specifically mentioned in the tender document or not.

Busway/Cable Layout

Prior to the laying of the busbar trunking and cables, the contractor shall submit to the Engineer-in-charge detailed layout plan and get it approved. The layout plan shall contain particulars regarding size & routes of the busbar system/cables, number of supports, pipes carried and the tap-off points, inspection chambers provided along the route.

Centre of gravity

The centre of gravity of the assembled equipment shall be low and as near the vertical centre line as possible. If the centre of gravity is ex-centric relative to track, its location shall be shown on the outline drawing.

Quality of materials

All the materials and equipment supplied by the contractor for this work shall be new and should conform to relevant BIS Specifications. They shall be of such design, size and material as to function satisfactorily under the rated conditions of operation and to withstand the environmental conditions at site. The copies of purchase vouchers & gate passes should be produced along with the materials. The type test certificates, routine test certificates and acceptance test certificates are also to be submitted.

Inspection of material and Equipment

The materials should be inspected/ tested prior to the despatch from the manufacturer by Purchaser/Consultant. The inspection call should be given at least fifteen days in advance so as to depute the officials of Purchaser/Consultant for the inspection.

Such inspection will be of the following categories:

1. Inspection of materials/equipment to be witnessed at the manufacturers' premises in accordance with relevant BIS/Agreement Inspection Procedure.
2. To receive materials at site with manufacturers' Test Certificate(s).
3. To receive materials after physical inspection at site.

Similarly, for fabricated equipment, the contractor will first submit dimensional detailed drawings for approval before fabrication is taken up in the factory. Suitable stage inspection at factory also will be made to ensure proper use of materials, workmanship and quality control.

Rating of components

All current carrying components in an installation shall be of appropriate rating of voltage, current and frequency as required at the respective sections of the electrical installation in which they are used, without their respective ratings being exceeded.

Storage of materials

The storage of materials brought to site is the full responsibility of the contract. The contractor should construct necessary storerooms. The land required for stores will be provided by the Purchaser free of cost. The storeroom should be with double lock arrangement and key of one lock will be with Engineer-in-charge or his authorised representative and other one will be with the contractor.

3.17 Bye-laws

The Contractor shall comply with all bye-laws and regulations of local and statutory authorities having jurisdiction over the works and shall be responsible for obtaining prior approval, if any, and payment of all fees and other charges, giving and receiving of all necessary notices and keeping the Engineer-in-charge informed of the said compliance with the bye-laws payments made, notices issued and received.

The Contractor shall indemnify Purchaser against all claims in respect of royalties, patent rights, design trade marks of name or other protected rights in respect of any plant, machine, work or materials used for or in connection with work or temporary work and from and against all claims, demands proceeding, cost, charges and expenses whatsoever in respect of or in relation thereto. The Contractor shall defend all actions arising from such claims and shall himself and any every sort that may be legally incurred in respect thereof.

The Electrical work shall be carried out as per local Electrical Inspectorate / Central Electrical Authority, which even is concerned. standards/ specifications/ guidelines and

the Contractor shall get the approval and safety certificate from the Inspectorate after the completion of work and before energisation.

3.18 Guarantee

At the close of work and before issue of final certificate of total completion by Engineer-in-charge, the contractor shall furnish a written guarantee indemnify the Purchaser against defective materials and workmanship for a period of one year after completion. The Contractor shall hold himself fully responsible for reinstallation or replace free of cost to the Purchaser during the defect liability period as stipulated hereunder:

- a) Any defective material supplied by the Contractor or defective workmanship of the Contractor.
- b) Any material supplied by the Purchaser/owner, which is proved to be damaged or destroyed as a result of defective workmanship by the Contractor.

3.19 Inspectorate Approval

All the equipment to be supplied and works to be executed shall conform to the State Electrical Inspectorate/Central Electrical Authority Standards including all protection and metering accessories. Nothing extra will be paid in this regard.

Contractor has to obtain necessary scheme approval, if any, from the statutory authorities concerned immediately after the award of work.

All testing/calibration etc., are to be carried out as per the requirements of statutory authorities concerned.

On completion of work, the contractor has to obtain necessary safety/energization certificate from the statutory authorities concerned by submitting necessary completion certificate, drawings, equipment details, load details, test results etc., before energization.

All costs incurred in obtaining such approval/certificates are to be borne by the contractor. Statutory fees paid shall be reimbursed on presentation of documents.

If the current rating of any of the switchgears including circuit breakers mentioned in the Schedule of requirements is not available or is not in conformation to the Inspectorate standards then it shall be rated to the nearest higher rating available with the current rating/fuse rating as specified.

3.20 Structural Alterations to Building

No structural member in the building shall be damaged/ altered, without prior approval from the Engineer-in-charge.

Structural provisions like openings, if any, provided by Purchaser for the work, shall be used. Where these require modifications, such contingent works shall be carried out by the contractor, at his cost.

All cut out openings in floors provided by Purchaser shall be closed, after installation, in accordance with the schedule of work.

All cuttings made by the contractor in connection with the works shall be filled by him at his cost to the original finish.

3.21 Phasing of Works

The total period for completion of works under this contract is as given in the bid document. The work has to be carried out in phases as directed by the Engineer-in-charge from time to time so that the total project work can progress smoothly with least obstruction to the work of other Contractors/ agencies.

3.22 Completion Drawings and Certificate

For all work completion report as given in the pro-forma for test results shall be submitted to the Engineer-in-charge, after completion of work.

On completion of work, the Contractor shall submit "As fitted drawings" drawn to a suitable scale in tracing sheet indicating the following along with three copies and one set of computer floppy diskettes/CD ROMS of the same to the Engineer-in-charge before the submission of the final bill.

1. The Schematic diagram of LT & control wiring showing all protective schemes, if applicable.
2. General layout of the site showing therein routes of cables and equipment position.
3. Schedule of lengths, types and sizes of cables.
4. Position of all cable joints type wise, supports, stays, struts, lightning arrestors, structures, earthing and pipes or closed ducts.
5. Position of cable route markers and joint markers with respect to permanent land marks available at site.
6. Name of work, job number, accepted tender reference, actual date of completion, names of Division/Sub-Division, and name of the firm who executed the work with their signature(s).
7. Routine and type test certificates (3 sets)
8. Detailed Operation and Maintenance Manuals (3 sets)
9. Detailed erection, testing and commissioning manuals (3 sets).

3.23 Deviations from Purchaser's Specification

Deviations from the purchaser's specification, if any, proposed by the bidder will be considered, provided they meet with the purchaser's requirements and are necessary to improve utility, performance and efficiency. The deviations proposed by the bidder shall include the technical merits and the financial implications.

3.24 Conformity to IE Act, IE Rules and Standards

The work shall be carried out in the best workmanlike manner in conformity with this specification, the relevant specification/codes of practice of the Bureau of Indian Standards or IEC recommendations (Except where specified otherwise) and other relevant standards with latest amendments, approved drawings and the instructions issued by the Engineer-in-charge or his authorised representative, from time to time. Equipment meeting any other authoritative standard, which

ensures an equal or better quality than the above standards, will also be acceptable.

In addition to the standards, all works shall also conform to the requirements of the followings:

- a) All Electrical works shall be carried out in accordance with the provisions of Indian Electricity Act-1910, Indian Electricity Rules 1956 amended upto date (Date of call of tender unless specified otherwise)
- b) The works shall also conform to relevant Bureau of Indian Standards' Codes of practice (COP) for the type of work involved.
- c) Materials to be used in work shall be ISI marked wherever applicable.
- d) In all electrical installation works, relevant Safety codes of practices shall be followed.
- e) Fire Insurance Regulations/Tariff Advisory Committee.
- f) Regulations laid down by the Chief Electrical Inspector of the State Electrical Inspectorate/State Electricity Board/ Central Electrical Authority or any other agencies concerned.
- g) Regulations laid down by the Factory Inspector of the State.
- h) Any other regulations laid down by the local authorities.
- i) Installation & operating manuals of original manufacturers of equipment.

3.25 Data/Drawings/Documents

The bidder shall submit the following data/information/drawings/documents as indicated below:

- i) List of deviations clause by clause and reasons
- ii) Descriptive literature of the various equipment offered with catalogues, if any.
- iii) Guaranteed technical particulars of the equipment and performance particulars
- iv) Approximate dimensions and weights and preliminary G.A drawings.
- v) List of optional features with extra price.
- vi) Make of various equipment and associated components/ accessories.
- vii) Where applicable, preliminary schematic of the equipment/ system offered in the tender.

Within 4 weeks of order, Contractor shall submit 4 sets of following documents for purchaser/Consultant's approval.

- i) G.A Drawings with dimensions and weight, plan and sections and fixing/foundation details.
- ii) Where applicable, control scheme drawings with write-up and all terminal numbers for external hook up.

Subsequently, 4 sets of the revised documents shall be submitted incorporating Consultants comments as Final Drawings for Purchaser's reference and records before the equipment is offered for inspection.

Liaison with all statutory authorities including KSEB for getting sanction/approval/safety certificate/ power connection including submission of necessary forms to KSEB/ Electrical inspectorate as required is included in the scope of this work. Necessary fee for the above will be reimbursed from TTPL on production of actual bills.