Tender Document

Tender Specification No: BAP:CF: OT: 06/2019-20 Dt: 04/05/2019

Name of Work:

CIVIL, STRUCTURAL, ARCHITECTURAL AND ASSOCIATED ELECTRIFICATION – CONSTRUCTION WORK FOR ESP, R&M TANGEDCO METTUR TPS UNIT-4 (210 MW), SALEM, TAMILNADU, SECTION A & B

Period of Contract: **SIX MONTHS**

Part – I – Qualification Bid

(Pages 1 – 115 including this cover page – Qualification bid only)

PREPARED BY

CHECKED BY

APPROVED BY

CIVIL PROJECTS & SERVICES
BHARAT HEAVY ELECTRICALS LIMITED
(A Government of India Undertaking)
BOILER AUXILIARIES PLANT
INDIRA GANDHI INDUSTRIAL COMPLEX
RANIPET – 632 406

Bharat Heavy Electricals Limited
Boiler Auxilaries Plant,
Ranipet –632 406

Authority to Tender - Civil Projects & Services

BAP:CP&S:CONTRACTS: Dt: 04/05/2019

To
The Tenderer

Dear Sirs,

Sub: Civil, Structural, Architectural and Associated Electrification – Construction work for ESP, R&M TANGEDCO Mettur TPS Unit-4 (210 MW), Salem, TamilNadu, Section- A&B.

Ref: Tender Notice No: **BAP:CF:OT:06/2019-20 Dt: 04/05/2019**

Please find enclosed / attached non-transferable tender document containing (I)Qualification bid consisting of Preamble, Specifications, General Conditions & Special Conditions of Contract, Norms for Qualification to Tender etc (II) Price bid consisting of Bill of Quantities to offer your most competitive rates (for all the items of Bill of Quantities) cumulatively as Contractor Tender Percentage at ABOVE / BELOW / AT PAR of total estimated value.

Tender for the subject work should be submitted in a sealed cover consisting of three inner sealed covers viz. (I)Qualification bid cover, (II)Price bid cover & (III)EMD cover all super scribing the name of work, tender schedule number etc.

01. Qualification bid cover shall contain duly filled in qualification bid document signed by the tenderer in all the pages with documentary evidences for Qualification Criteria such as experience, value of work executed in the similar nature of work, etc. **any bid without proper documentary evidence for Qualification Criteria shall not be considered for further evaluation.**

02. The Price Bid cover shall contain only price bid document duly filled in and signed by the tenderer in all the pages. **The tenderer has to quote most competitive rates for Bill of Quantities from Part - II : Price Bid only.**

03. **EMD cover shall contain requisite EMD in the form of Demand Draft or any other mode mentioned in clause 11 of Instructions to tenderer**. Tender without EMD will be summarily rejected and the qualification bid & price bid shall not be considered. **Tender documents can be downloaded from web sites**. Demand Draft towards **EMD shall be drawn in favour of BHEL, Ranipet payable at Ranipet.**

The completed qualification bid and price bid along with requisite EMD of Rs. **6,41,670.00/-** for the work in the form of Demand Draft in favour of BHEL, Ranipet shall reach the office of the undersigned on or before **06/06/2019 at 15.00 hrs.** EMD in any other form other than mentioned in this tender will not be accepted.

The qualification bid will be opened on the **same day at 15.00 hrs.** In case of opening day falls on holiday or happened to be declared as a holiday, the receipt and opening of the tender shall automatically fall on the same timing of the next working day. Date and time of opening of the Price Bid shall be intimated only to the bidders those who have qualified after evaluation of the qualification bid.

You / your authorized representative may participate in the tender opening. Clarification if any can be obtained by contacting the under signed official through following phone No. (or) E-mail.

Authorized person: Shri.T.Ezhilinban:04172-284632/+91 9443344592, E-mail:ezhil@bhel.in

Contact person: Smt. S.M. Kaviya: 04172- 284792/+91 9488052739, E-mail:smkaviya@bhel.in

Thanking you.

Yours faithfully
For and on behalf of
Bharat Heavy Electricals Limited,

Senior Manager / Civil Projects & Services
BHEL-BAP-Ranipet
Vellore – 632406
Tamilnadu.

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Mandatory List of Documents to be submitted by the Tenderer along with the Tender:

1) EMD paid details as per tender.
2) Work experience (for completed works) certificates of last 7 years as per qualification requirement (QR) of the tender along with copy of the work order / purchase order / work agreement with the client for the work completion certificate issued by them.
3) Audited balance sheet and profit & loss account of your company for last 3 years.
4) IT returns filing proof of last 3 years.
5) PAN card.
6) Goods and Services Tax (GST) registration.
7) PF registration.
8) ESI registration / Comprehensive insurance for the workers.
9) No deviation certificate fully filled. (available with the tender)
10) Acceptance form for EFT payments, duly filled and signed by the bank manager with his authorization number. (form available with the tender)

Bidders are requested to fill and submit the following contact details:

Contact Details of the Bidder / Bidder's Representatives	
Name and Full address of the Bidder	
Name of the authorised person(s) to contact	
Mobile No 1	
Mobile No 2	
Office Tele No	
Email address 1	
Email address 2	

CHAPTER – I

NOTICE INVITING TENDER	
1. Tender Notice No	**BAP:CF:OT: 06/2019-20 Dt: 04/05/2019**
2. Name of work	**Civil, Structural, Architectural and associated Electrification - Construction work for ESP, R&M TANGEDCO Mettur TPS, Unit-4 (210 MW), Salem, TamilNadu, Section A & B.**
3. Period of contract	**SIX MONTHS** (3 months period for Erection front construction and balance 3 months period for finishing works and handing over to customer)
4. Estimated Cost of the work	**Rs.3,20,83,428.29**
5. Tender Document Cost	NIL –(can be downloaded freely from BHEL web site – http://www.bhel.com/tender/list_tender.php)
6. **Earnest Money Deposit** (EMD) Amount	**Rs. 6,41,670.00/-** (Rs. Six lakhs Forty one Thousand Six Hundred and Seventy Only)
7. Last date & Time for receipt of the completed Tender	**06/06/2019 at 15.00 Hrs.**
8. Date of Price Bid Opening	**06/06/2019 at 15.00 Hrs.**
9. Place of submission of Tender	**Tender Box placed in** **Office of the Senior Manager,** **Civil Projects & Services,** **BHEL - BAP, Ranipet – 632 406**
10. Address on the Sealed Tender Cover to be:	Senior Manager Civil Projects & Services, Bharat Heavy Electricals Limited, Ranipet – 632 406 Vellore District. Tamilnadu
11. Venue of the Tender Opening	Office of the SM / Civil Projects & Services
12. Tender Document Contains:	Totally **156 pages** (Qualification bid & Price bid)

CHAPTER – II

PREAMBLE:

Name of work: Civil, Structural, Architectural and Associated Electrification – Construction work for ESP, R&M TANGEDCO Mettur TPS Unit-4(210 MW) Salem, TamilNadu, Section - A & B.

Time is the essence of the contract. Being a time bound work on urgent nature; the contractor should make all efforts to complete the work in the stipulated time.

01. The tenderers are advised to visit M/s TANGEDCO METTUR TPS Unit -4 (210 MW) Salem, Tamilnadu and get themselves acquainted with the site conditions before submitting the offer.

02. ***Qualifying / Eligibility Criteria:***

The essential qualification requirements of contractors for submission of this tender shall be as under:
Average annual financial turnover of the Contractor during last 3 years ending on 31st March 2019, **should not be less than 30% of the estimated value of this work** and the tenderer should submit audited balance sheet and Profit & Loss Account for the last three financial years [**for Financial Year 2015 – 16, 2016 – 17 & 2017 – 18**], duly certified by charted accountant / auditor.

a. Contractors having experience of successfully completed similar works (Similar work means Construction of Civil Works involving excavation, PCC, RCC in any Power Plant / Process Industries / Factories / Public Buildings in Govt. / PSU / reputed private sector companies / organizations during the last 7 years as on 31.03.2019 should be either of the following:

(i) Three similar completed works each costing not less than 30% of the estimated value of this work.

OR

(ii) Two similar completed works each costing not less than 40% of the estimated value of this work.

OR

(iii) One similar completed work costing not less than 70% of the estimated value of this work.

a) The tenderer should have executed similar type of work in their own name shall be considered.

b) Internal orders/Transactions between your sister concern/s are not accepted

b. The tenderers to note that possession of Provident Fund (PF) code is not a pre-condition for participation in the tender. However, the successful tenderer should ensure to get the PF code No. and the PF amount deducted from their employees are to be deposited in this PF code along with their contribution.

c. Also Contractor should have separate Registration Code No. for ESI, Sales Tax, PAN and Goods and Services Tax (GST). Contractor shall submit copy of the above registration codes or proof of having applied for the registration codes along with the tender bid.

Tender bids not meeting any of the above pre-qualification criteria shall be rejected.

03. Dissimilar / irrelevant works will not be considered for eligibility criteria.

04. The details on turnover, works experience **(Works Completion Certificates issued by customers / clients must be enclosed),** P.F, ESI registration etc., all as furnished by the tenderer shall have to be supported with documentary evidences (Xerox copies - attested). If BHEL demands at any stage, original certificates also have to be shown to BHEL authorities.

05. Tender Value is only approximate and liable for variation without entitling the tenderer to any compensation, provided the total value of contract does not vary by more than 20% (twenty percentages).

06. **The rates quoted shall be valid for three months' period from the date of Tender opening (Price bid) / Reverse Auction.**

07. The offered rate is for finished item of work as per Bill of Quantities and shall provide for the complete cost towards supply of all materials, labour, tools & plants, testing materials, levies, taxes, transport, lay-out, repairs, rectifications, maintenance, supervision, establishment, services, overheads, profits & all other incidentals etc., complete. **The rate quoted shall not include Goods and services tax. The applicable Goods and Services Tax – GST (as quoted extra by the bidder in the Price Bid / limited to applicable tax, whichever is lesser) can be claimed from BHEL along with their monthly bills for further payment to be made for the authorities concerned.** In case of reverse charge applicability, BHEL will not reimburse to the bidder the reverse charge of GST paid by BHEL.

08. For any item of work not covered in the Bill of Quantities of the Price Bid, the rate will be arrived at based on the conditions given in BHEL General Conditions of Contract.

09. **After award of work the contractor has to furnish the security deposit, as per Clause 11, CHAPTER – IV, TENDER NOTICE, before the commencement of work.**

10. If additional manpower is required, the contractor has to supply manpower like Unskilled, Semi-skilled, Skilled, Trade certificate holders etc. for which payment (monthly) will be made to the contractor as per the prevailing rates of Government of Tamilnadu for the category including employer's contribution of P.F, ESI & minimum bonus for the wages and a profit margin of 10 %.

11. The contractor has to carry out the work without affecting the working environment.

12. The decision of Engineer-in-charge shall be final and binding on the contractor regarding clarification of items in this tender schedule.

13. The contractor shall strictly adhere to various labour laws in force.

14. The contractor shall follow norms of BHEL security system for movement of men & materials within the complex including biometric system. **The bidder of this tender shall assess all local site conditions prevailing at METTUR TPS w.r.t labour engagement, Quality systems of METTUR Thermal power Plant work execution procedures etc., complete before Quoting for this tender. The rate quoted shall include for all these factors.**

15. Daily labour report for the labour engaged on previous day area wise shall have to be submitted next day.

16. Since the responsibility for the quality, workmanship and accuracy of any work being carried out under this contract lies with the contractor, the contractor should ensure that no work is done without the presence of contractor's representative at the work spot.

17. The contractor has to submit the organization chart of their set up for the works and any change thereafter in the organization set up shall have the prior approval of BHEL.

18. Statement of completed works with detailed measurements along with material reconciliation statements shall be submitted by the contractor every week and the payment for the work done will be paid once in a month.

19. The works contract to be entered into with the successful tenderer will be governed by the BHEL General Conditions of Contract in force.

20. All materials brought by the Contractor for incorporation in the work shall be got inspected, tested as per relevant codes and approved by the Engineer-in-charge before they are incorporated in the work.

21. The contractor should extend fullest co-operation with the third party agencies engaged, if any by BHEL to adhere the Quality Control Procedures ensuring quality.

22. The contractor should extend full co-operation to the other contractors who may be doing other works in the same areas to enable them to execute their portions of work without any delay or difficulty.

23. **Electricity**

The Contractor shall submit to the Employer after the date of acceptance of the Notification of Award, his electrical power requirements, if any, to allow the planning of the same by the Employer. The Contractor shall be provided with free supply of electricity for the purposes of the Contract, at a location in the Employer's Site and at 415V voltage level. The Contractor shall make his own further distribution arrangement. All temporary wiring must comply with local regulations and will be subject to Employer's inspection and approval before connection to supply. The free supply of power will not be provided for the use in the labour and staff colony. Power supply for labour and staff colony shall be provided at one point and the Contractor shall be charged at rates prevalent at the site.

Water

Contractor shall make all arrangements himself for the supply of construction water as well as potable water for labour and other personnel at the worksite / colony within the quoted rates.

24. BHEL reserves its right to reject a tender due to unsatisfactory past performance in the execution of a contract at another Project/Unit of BHEL awarded against a different enquiry.

25. BHEL reserves its right to accept / reject any or all the tenders.

26. No advance / mobilization advance will be given.

27. LD / Penalty clause is applicable as per General Conditions of Contract. All the terms & conditions in the tender documents are binding on the tenderers.

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CHAPTER- III

Annexure - I **Instructions to Tenderers**

1. The tender is open to all Contractors. The Contractors not borne on the approved list of contractors of this Organization must submit the following testimonials simultaneously with their tenders.
   i. A Certificate to establish that the tenderer is an independent contractor working on his own.
   ii. At least two certificates from responsible Officers of Government / Firms of repute, regarding the tenderer's capacity to undertake and carryout the work tendered for or similar work satisfactorily

NOTE:

a) Copies of testimonials unless attested by a Gazetted Officer will not be accepted

b) Non – Submission of the above testimonials simultaneously with the tenders may result in the tender being rejected.

2. The tenders should be accompanied by a list of contracts already held by the contractor at the time of submitting the tender and giving the following particulars
   a) Value of each contract
   b) The balance value of work to be done on the same

   The tenderer is advised to download the tender document from BHEL / CPP / Tenders India web sites.

3. **Total amount for the tender schedule should be quoted in FIGURES as well as in WORDS in Indian currency only – i.e., Rupees and Paise with reference to the all the items shown in the attached schedule.**

   Bidders shall only quote 'Total Amount' in the format given in PART – II of both Section A & B of the price bid. Any other entry elsewhere in the price bid shall be treated as Null and Void.

4. Amount quoted shall include all royalties, terminal taxes, Octroi duties, Central or Provincial Excise Tax, Sales Tax and any other taxes leviable under the State or Central Government rules. The Bharat Heavy Electricals Ltd., will not entertain any claim whatever in this respect. The applicable Goods and services tax (as quoted by the bidder / limited to applicable tax, whichever is lesser) can be claimed from BHEL along with their monthly bills for further payment to be made for the authorities concerned. In case of reverse charge applicability, BHEL will not reimburse to the bidder the reverse charge of GST paid by BHEL.

5. Tender Value is only approximate and liable for variation without entitling the tenderer to any compensation, till the total **value of contract vary by more than 20% (Twenty Percentage)**

6. The works contract to be entered in to with the contractor will be governed by the BHEL General Conditions of contract in force.

7. **Should a tender find discrepancies or omissions in the drawings or any of the tender documents or should be in doubt as to their meaning, he should at once address the authority inviting the tender for clarification. Every Endeavour is made to avoid any error which can materially affect the basis of the tender but the successful tenderer shall take upon himself to provide for the risk of any error which may be subsequently by discovered and shall make no subsequent claim on account thereof.**

8. Tenders submitted by post should be sent "Registered Post with Acknowledgement due". These should be posted with due allowance for any delay in postal delivery. Tenders received after the due date and time of opening are liable to be rejected.

9. The contractor's responsibility under this shall commence form the date of receipt of contract or the order of acceptance of his tender. The scheduled period of completion for this work will be **Six Months**, (3 months period for Erection front construction and balance 3 months period for finishing work and handing over to customer) and the Contractor will have to plan his work accordingly.

10. The maintenance period for this work will be **Six Months.**

11. **Earnest Money Deposit**:
Earnest Money is to be paid by each tenderer to ensure that the tenderer does not refuse to execute the work after it is awarded to him.

EMD shall be furnished only in the form of

(i) Cash deposit as permissible under the extant Income Tax Act.
(ii) Electronic Fund Transfer credited in BHEL account.
(iii) Banker's Cheque / Pay Order / Demand Draft in favour of BHEL, payable at Ranipet.
(iv) Fixed Deposit Receipt (FDR) issued by scheduled Banks /Public Financial Institutions as defined in the companies Act (FDR should be in the name of the Contractor, a/c BHEL)
(v) In addition to above, the EMD amount in excess of Rs Two lakh may also accepted in the form of Bank Guarantee from scheduled bank. The Bank Guarantee in such cases shall be vaild for atleast six months.

EMD in any other form will not be accepted.

(One Time EMD is not applicable for this tender. If you have already deposited One Time EMD with BHEL-Ranipet / with any other unit of BHEL, the same shall not be considered for this tender. The bidder has to pay separate EMD for this tender without fail)

EMD by the Tenderer will be forfeited as per tender Documents if:

a) After opening the tender, the tenderer revokes his tender within the validity period or increases his earlier quoted rates,

b) The tenderer does not commence the work within the period as per LOI / Contract. In case the LOI / contract is silent in this regard then within 15 days after award of contract.

EMD given by all unsuccessful tenderers shall be refunded normally within fifteen days of acceptance of award of work by the successful tenderer. **EMD shall not carry any interest.**

BHEL has now made arrangements for payment of EMD thru' Online

The steps to make online payment are detailed as below:

a) Visit ***https://www.onlinesbi.com/prelogin/icollecthome.htm***
b) Click 'Proceed' button.
*c) Select '**Tamilnadu'** in the drop down menu under 'State of Corporate / Institution *"*
*d) Select '**PSU-PUBLIC SECTOR UNDERTAKING**' in the next drop down menu under "Type of Corporate / Institution"*
e) Click 'Go' button
*f) Select '**BHEL BAP RANIPET**' in the drop down menu under "PSU – PUBLIC SECTOR UNDERTAKING'*
g) Click 'Submit' Button
*h) Select '**EMD'** in the drop down menu under ´ Select Payment Category'*
i) Now Fill in the required details and ensure correctness of data filled. Ensure that you are entering correct enquiry/tender number and other details correctly.
j) Make payment for EMD as required in tender after entering the details and enclose copy of receipt along with tender documents. Scan and upload the receipt document in case of tender under e- procurement mode.

The above facility is in addition to the existing method of remitting by Demand Draft.

13. Should a tenderer or a contractor on the list of approved Contractors have a relative, or in the case of a firm or Company of contractors any of its share holders or share holder's relative, employed in a gazetted capacity in the Engineering Department of the Bharat Heavy Electricals Limited, the authority inviting tenders shall be informed of this fact at the time of submission of the tender, failing which tender, may be disqualified or if such fact subsequently comes to light, the contract may be rescinded in accordance with the relevant provisions in the General Conditions of Contract.

14. If tenderer expires after the submission of his tender or after the acceptance of his tender the BHEL may, at their discretion, cancel such tender. If a partner of a firm expires after submission of tender or after the acceptance of the Tender, BHEL may cancel such Tender at their discretion unless the firm retains its character.

15. The Bharat Heavy Electricals Limited will not be bound by any power of attorney granted by the tenderer or by changes in the composition of firm made subsequent to the execution of the contract. They may however recognize such power of attorney and changes after obtaining proper legal advice the cost of which will be chargeable to the contract concerned.

16. If the tenderer deliberately gives wrong information in his tender or creates conditions favorable for the acceptance of his tender, the Bharat heavy Electricals Limited, reserves the right to reject such tender at any stage.

17. Words importing the singular number shall also be deemed to include the plural number and vice versa where the context so requires.

18. The expenses for competing and stamping the agreement shall be paid by the contractor.

19. The General and special conditions are complementary to each other and where they are conflict the Special Conditions shall prevail. In regard to matters not covered by the General and Special Conditions of Contract, those contained in the Tamil Nadu Building Practice Standard Specifications or other specifications approved by the Bharat Heavy Limited, shall apply.

20. Tenderers shall not increase their quoted rates in case the Bharat Heavy Electricals Limited negotiates for reduction of rates. Such negotiation shall not amount to cancellation or withdrawal of the original offer and the rates originally quoted shall be binding on the tenderers for a period of three months from the date of opening of tenders.

21. Canvassing in any form in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection

22. All contractors will have to produce Income Tax Clearance Certificate from the Income Tax– Officer concerned along with their tenders. Those Contractors whose income is not taxable will be required to give an affidavit of their income on the prescribed form. If the successful tenderer fails to produce the Income – tax clearance certificate within the stated period, the Earnest Money Deposit and Security Deposit of the tenderer may be forfeited and the contract terminated.

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CHAPTER – IV

TENDER NOTICE

Name of Work: Civil, Structural, Architectural and Associated Electrification-Construction work for ESP, R&M TANGEDCO Mettur TPS Unit-4 (210 MW), Salem, TamilNadu, Section - A& B.

1. SEALED TENDERS for the above noted work are hereby invited from contractor experienced in works of similar kind and magnitude. Tenders will be received by SENIOR MANAGER / CIVIL PROJECTS & SERVICES**, Bharat** Heavy Electricals Limited, Ranipet – 632 406 up to **15.00** Hrs. on **06/06/2019** and (Qualification Bid only) will be opened on the same day at **15.00** Hrs. at the **Office of the Senior Manager / Civil Projects & Services** in the presence of such of those tenderers or their agents who may choose to attend.

2. TENDERS must be submitted in sealed covers and should be addressed to with full name and address of the tenderer and the name of work being noted on the cover.

3. All entries in the tender documents should be in the one ink. Erasers and over writings are not permitted. All cancellations and insertions should be duly signed by the tenderer concerned.

4. TENDERERS should fill in all the required particulars in the blank spaces provided for this purpose in the tender documents and also sign each and every page of Tender Documents including the drawings attach there to before submitting their tender.

5. Clause regarding rates quoted in the tender:-

   a. If, in the price structure quoted for the required goods / services / works, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless in the opinion of the purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price corrected accordingly.
   b. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
   c. If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject of (a) and (b) above.

   d. If there is such discrepancy in an offer, the same shall be conveyed to the bidder with target date up to which the bidder has to send his acceptance on the above lines and if the bidder does not agree to the decision of the purchaser, the bid is liable to be ignored.

6. In quoting their rates, the tenderers are advised to take account all factors including any fluctuations in the market rates etc. No claim will be entertained on this account after acceptance of the tender or during the currency of the contract.

7. Before tendering, the tenderers are advised to inspect the site of work and its environments and be well acquainted with the actual working and other prevalent conditions, position of materials and labour, General and Special Conditions of Contract. Instructions to tenders, drawings and Specifications and all other documents which form part of the Agreements to be entered into.

8. **The rates quoted in the tender shall remain valid for a period THREE MONTHS** from the due date of opening of the tender (Price bid).

9. In the event of tender being submitted by firm the tender must be signed separately and legibly by each partner or member of the firm or in their absence, by the person holding the power of attorney on behalf of the firm concerned in the latter case a copy for the power of attorney duly attested by a Gazetted Officer must accompany the tender.

10. Every tender must be accompanied with EMD for the amount as specified in any of the form mentioned in Para **11** of the "Instruction to Tenderers". This Earnest Money will be refunded to the unsuccessful tenderers within fifteen days of finalization of the award of work. In case of the successful tenderer, the Earnest Money will be retained as part of the Security Deposit for satisfactory completion of the work in accordance with Clause 16 of the General Conditions of Contract

NOTE: Cheques, Currency Notes and Money Orders will not be accepted in lieu of the deposit receipt referred to above.

11. **Security deposit:**
    a) The rate of Security Deposit (SD) will be 5% of the contract value.

    b) 50% of the required Security Deposit, including the EMD, should be collected before start of the work from the Contractor. Balance of the Security Deposit can be collected by deducting 10% of the gross amount progressively from each of the running bills of the Contractor till the total amount of the required Security Deposit is collected.

    c) The security deposit may be furnished in any one of the following forms:

    Cash (as permissible under the Income Tax Act)
    1) Local cheques of scheduled banks, subject to realization.
    2) Pay order / Demand draft / Electronic fund transfer in favour of BHEL,
    3) Bank guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL.

4) Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The FDR should be in the name of the contractor, A/c BHEL, duly discharged on the back.

5) Securities available from Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (Certificates should be held in the name of Contractor furnishing the security and duly endorsed / hypothecated / pledged in favour of BHEL and discharged on the back).

EMD of the successful tenderer can be converted and adjusted against the security deposit. The security deposit shall not carry any interest.

(Note: Acceptance of security deposit against Serial No.5 & 6 above will be subject to hypothecation or endorsement on the documents in favour of BHEL. However BHEL will not be liable or responsible in any manner for the collection of Interest or renewal of the documents or in any other matter connected therewith.)

Security Deposit shall be released to the Contractor upon fulfillment of Contractual obligations as per terms of the Contract.

Security Deposit shall not carry any interest.

12. Unless the contractor whose tender is accepted signs the Contract Agreements and makes the necessary security deposit specified in Para **11 above within Seven days of the date of the order** directing him to do so the amount of Earnest Money Deposit already deposited by him will be forfeited and acceptance of his tender withdrawn.

13. If after opening of tenderer revokes his tender or increases his earlier quoted rates or after acceptance of his tender does not commence the work in accordance with the instruction of the Engineer-in-charge, the Earnest Money deposited by him will be forfeited and acceptance of his tender withdrawn. If only a part of the work included in the tender had been awarded to the tenderer, the amount of Earnest Money to be forfeited will be based on the value of the contract so awarded.

14. The Bharat Heavy Electricals Limited reserve the right to reject any or all the received or accept any tender or part thereof without assigning any reason thereof. In the case acceptance of part of tender, time for completion may also be reduced to the extent considered appropriate by the Accepting Authority.

15. Conditional and un witnessed tenders, tender containing absurd rates and amounts, tenders which are incomplete or otherwise considered defective and tenders not in accordance with the tender conditions laid down by the Accepting Officer are liable to be rejected.

16. Tenders not submitted on the prescribed form are liable to be rejected

17. The work must be completed within a contract period of **SIX MONTHS.** (3 months period for Erection front construction and balance 3 months period for finishing work and handing over to customer)

18. The General Manger / Additional General Manager / Senior Manager / Senior Engineer or the Officer mentioned by BHEL shall be Accepting Officer, herein after referred to as such for the purpose of this contract.

19. This tender notice shall be deemed to form an integral part of the contract to be entered into for this work.

20. The tenderers are advised to go through the condition stipulated in the Tender document & code of conduct for Health & Safety of Contract Labourer in details. Any violation thereof will invite punitive action being taken against them. While quoting the rate all the above factors are to be taken into account.

21. Quoted rates shall be firm throughout the contract period and extended contract period also and no cost escalation is allowed on any account.

22. The similar works executed in the own name of the tenderer only will be considered for eligibility / qualification criteria.

23. BHEL reserves the right to increase or decrease the tendered quantity.

24. Lowest prices received against BHEL tenders need not be the technically acceptable one, and in that case, BHEL reserves the right not to consider the same.

25. BHEL reserves the right to negotiate or refloat the tender opened, if L1 Price is not lowest acceptable price to them inter-alia other reasons.

26. The contract will be finalized based on the overall LOWEST value and to be awarded to single party only since split in schedules is not possible.

27. ***"No interest shall be payable by BHEL on Earnest Money or Security Deposit, if applicable, or any money due to the Contractor by BHEL."***

28. ***"BHEL shall have the right to recover any money which in the sole opinion of BHEL is due from the Contractor from any money due to the Contractor under this Contract or any other contract or from the security Deposit furnished by the Contractor under this contract or any other contract."***

29. ***"Notwithstanding anything to the contrary, including, but not limited to, provisions relating to extension of time and compensation for delay, time shall be the essence of the Contract."***

30. ***"BHEL's Guidelines for Suspension of Business Dealings with Suppliers / Contractors shall apply to this Tender / Enquiry. The said Guidelines are available at***

http://www.bhel.com/vender_registration/pdf/Suspension_guidelines_adbridged.pdf

The Bidders shall peruse the same prior to submission of the bid.

Any action taken or proposed to be taken by BHEL under the above said policy shall be without prejudice, and in addition, to other rights and remedies as may be available to BHEL under contract or law."

31. ***In respect of work within the premises of BHEL customer, the Bidder shall, while quoting, take into the account the likely expenditure in complying with statutory obligations including PF & ESI related laws and the expenditure that would be incurred in making contributions towards PF & ESI as per the NIT. The Bidder shall refer to the general conditions of contract which forms a part of NIT in this regard.***

32. ***In respect of work within the premises of BHEL customer premise the contractor shall strictly comply with labour laws including PF & ESI related laws and shall make contributions towards PF & ESI notwithstanding the numerical strength of the employees of the contractor.***

33.WAGES & OTHER PAYMENTS / CONTRIBUTIONS TO BE MADE TO THE WORKERS DEPLOYED IN THE CONTRACT:

The contractor shall pay wages to the workmen employed by him/her at the rate, which shall not be less than the minimum wages applicable under Law from time to time.

Also the labourers shall be paid a minimum bonus which shall be 8.33% as per the payment of Bonus Act 1965 for the total wages paid (i.e.) Payment of minimum wages.

The Contractor shall have to remit EPF & ESI contributions at the rates applicable under law to the authorities concerned for the total wages paid.

Normally the revision of Tamil Nadu govt. minimum wage will be with effect from 1st April of every year. There is no price variation clause for this contract. Tenderers are requested to quote their offer taking in to account of the above factor also.

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CHAPTER – V

GENERAL INSTRUCTIONS:

1. The contractor shall not resort to sub-contracting under any circumstances. If found at a later date, BHEL reserves the right to take action whatever action it deems fit, including cancellation of the contract.

2. All the bills of contractors will be cleared by Finance department subject to production of "Clearance certificate' by the contractors in respect of compliance of all statutory requirements, issued by IR section of Human Resource Department

3. Disputes, grievances between the contractor and his labour, will have to be settled by the contractor.

4. If the management of BHEL engages workers to complete any part or whole of the work as per this contract for any period due to failure of the contractor or to engage adequate number of workers. He has to reimburse to BHEL, the extra cost involved on this account. The extra cost of engaging such workmen by BHEL will be reckoned at the rate as per minimum wages and other payments (as mentioned in the tender reg. wages payable to the workers) of BHEL for purpose of recovery from the contractor along with BHEL's administrative charges @ 12.5%.

5. The management of BHEL shall be at liberty to terminate the contract by issuing a month's notice to the contractor without assigning any reason what so ever. As regards unsatisfactory performance or non-compliance with any of the terms and conditions of the contract by the contractor, BHEL shall have the right to terminate the contract forthwith without notice & rearrange the balance work through other agencies at the risk and cost of the contractor & under such circumstances, the security deposit paid by the contractor shall stand forfeited.

6. The contractor shall follow such Act, rules & regulations of the state / central Govt. that are in force & that may be framed from time to time. BHEL shall not be responsible for any infringement of the various statues in force by the contractor.

7. In case, the contractor fails to make payment of wages to his employees or remittance of contribution to the concerned authorities & a claim is made against BHEL for whatsoever reason, the security deposit / other dues / running bills under the contract can be utilized by BHEL to discharge the liability of the contractor.

8. Contractor shall indemnify BHEL against all claims and losses it suffers under various labour laws, statues or any civil or criminal law in connection with employees deployed by him.
9. Contractor shall obtain necessary insurance cover at his own cost to mitigate any risk of accidents, losses, damages etc. BHEL shall not be responsible for any losses, damages to the contractor or to his employees.

Terms & Conditions

01. The contract period is "SIX MONTHS". (3 months period for Erection front construction and balance 3 months period for finishing work and handing over to customer)

02. Tender for the subject work should be submitted in a sealed cover consisting of three inner sealed covers viz. (I) Qualification bid cover, (II) Price bid cover & (III) EMD cover all super scribing the name of work, tender schedule number etc.

Cover - 1 : Qualification bid (Technical bid) shall cover the details like

(i) The Experience of the contractor i.e., the eligibility criteria of the tenderer shall be as specified in the tender notice.
(ii) The list of technical personnel in their organization with their qualification & experience in the field.
(iii) The infrastructure available with them
(iv) The certificates received from the Government/ reputed organizations for having taken up similar work of equivalent value.
(v) The list of clients with their addresses, contact persons.
(vi) The list of works being done at present with the details of Contact persons and addresses.

Cover - 2 : Price Bid - Prices shall be quoted in the price schedule as per the **BOQ.**

Cover - 3 : EMD cover shall cover the details like

(i) The EMD in the form of DD or any other form mentioned in para 11 of "Instruction to Tenderers" shall be drawn in favour of "Bharat Heavy Electricals Limited, Ranipet 632 406 payable at Ranipet, Vellore Dist. T.N.

(ii) EMD shall be enclosed along with the DD in a separate cover mentioning EMD cover.

The details of the tenderer's office with full address, Phone No. FAX No., Mobile No. shall be specified on the Tender document cover. If the tenderer gives wrong information, then the EMD submitted by the tenderer will be forfeited.

03. The contractor shall comply with all statutory regulations relating to labour laws like ESI, PF Contract Labour License (if applicable), Minimum Wages Act etc.,

04. The rate quoted shall include the wages payable to the employees, Statutory charges like ESI, PF, Bonus, Holiday & EL wages, safety appliances etc., While quoting the rate, the contractor shall take into account, the implication of probable revision in the minimum wages also.

05. The contractor shall issue necessary safety appliances like Safety Shoes, Gum Boots, Acid & Alkali Proof Hand Gloves, Masks etc., to their workers for safe operation.

06. The contractor shall maintain all the records w.r.t. ESI, PF, Wages & Attendance.

07. The tenderer shall fill up the questionnaire and enclose along with the bid.

08. The minimum wages shall be as per Tamil Nadu: Please note that the minimum wages are normally revised by the authorities from every year April month.

If any employee / labourer working in the contract is found involved in corruption activities, the contract will be terminated and the contractor will be banned for applying for any future contract for 3 years.

09. No advance payment shall be paid to the contractor.

10. All Payments will be made only through e-Mode, necessary authorization as to be submitted along with the tender as per the format enclosed.

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Scope of work:

The work to be done under this contract consist of Civil, Structural, Architectural and Associated Electrification – Construction work for Electro-static Precipitator, Retrofitting and Maintenace at Tangedco Mettur Thermal Power Station Unit-4 (210 MW), Salem, TamilNadu.

The contractor in the event of this work awarded to him, shall establish an office at site and keep posted an authorized responsible officer with a valid power of attorney for the purpose of the contract along with other staff like Engineers, Supervisors, Safety Officer etc., Any order or instructions of the Engineer – in – charge or his duly authorized representative, at site office will be deemed to have been communicated to the contractor at his legal address.

Completion schedule:

The contractor is required to commence the work within 15 days from the date of issue of LOA, failing which the contract is liable to be cancelled and EMD / SD shall be forfeited.
The work shall be executed in a workman like manner and as per relevant Indian Standard Specification.
The Engineer – in – charge will communicate or confirm his instructions to the contractor in respect of the execution of the work in a "work site order book" maintained at his office and confirm receipt of such instructions by signing the relevant entries in this book. Such entries will rank as order or notices in writing within the intent and meaning of these conditions.

Quality of Works

All materials supplied by the contractor and incorporated on the work shall conform to the latest IS specifications including the applicable amendments and revisions from time to time. It is not the intent to specify here in all details, however the work in all respects shall confirm to CPWD / IS codes and standard engineering practices and workmanship. If there is any ambiguity between the specifications, the decision of the Engineer – in – charge shall be final and binding on the contract.
Any work found defective / unsatisfactory the contractor has to rectify the same at his own cost. In case the contractor fails to rectify the defects within a specified time as per the Engineer – in – charge's instructions the same will be got done by BHEL at the risk and cost of the contractor and the cost deducted from the contractor's bill.
The contractor shall prepare and submit quality assurance program and schedule for work completion / comply with any other quality plan requirement and schedule for work completion proposed by BHEL with all details once the work is awarded and indicate the field equipment that he is going to use for quality assurance.

Site Clearance

Written permission for erection of temporary work sheds at site will have to be obtained from BHEL/ M/s. BHEL Customer, i.e. Mettur TANGEDCO ESP, R&M, TPS Unit-4 (210 MW), Salem, TamilNadu Project. Once the work is completed, the contractor should remove his temporary shed and the unwanted materials and also dispose the debris as instructed by the Engineer – in – charge, around the constructed area, the contractor should remove all debris and clear unwanted materials.

Project Information

Project site is located at M/s. Mettur TANGEDCO ESP, R&M, TPS Unit-4 (210 MW), Salem, TamilNadu State.

Note:

Bidders are requested to visit site and verify themselves about the actual lead and assess the site condition before quoting for the job. No compensation for not acquainting themselves with the actual site conditions will be entertained at the later stage.

Technical specifications

1. All civil and road works shall have to be carried out strictly as per the specifications including all applicable official amendments and revisions laid down in Tamil Nadu Building Practice volume I & II for reference. The above volumes are kept in the office of Senior Manager / Civil Projects & Services. However, in cases of conflicts of specifications, M/s. BHEL Customer, i.e. Mettur TANGEDCO ESP, R&M, TPS Unit-4 (210 MW), Salem, TamilNadu Project specifications will prevail.

2. All structural and fabrication works shall have to be carried out as per BHEL General Specifications and special conditions incorporated under "Structural Steel Construction" (for reference the specifications are kept in the office of the Senior Manager/Civil Projects & Services).

3. ***Bidders may please note that the ready mix RCC grades of M-25 & M-30 given in this tender can be supplied using OPC, blue granite coarse aggregates and fine aggregate of "Manufactured / Crushed sand (M-sand) or river sand". The quoted rate shall be firm and single rate irrespective of the use of M-sand / river sand.***

4. ***The concrete test cubes of the concrete laid shall be tested for compressive strength not lower than the grade of the concrete and as per relevant standards.***

5. ***BHEL shall not supply any material, tools & plants for this work or for any other purpose on free / chargeable basis. Contractor shall supply all the materials (i.e. cement, reinforcement steel, structural steel, sand, bricks & aggregates etc.,), labour, scaffoldings, tools & plants required for this work within their quoted rates.***

Undertaking by the tenderer / contractor:

I/We have gone through the BHEL General Specifications and Special Conditions incorporated under "Structural Steel Construction" and agreed to follow the specification for construction.

I / we have gone through the customer (M/s METTUR) specifications and agreed to follow the specification for construction.

CHAPTER – VI

Reverse Auction (RA)

It is planned to conduct English Reverse Auction for this tender the rules, terms and conditions for the same are included in the tender.

It is the discretion of BHEL to conduct the Reverse Auction or directly open your envelope price bid and award the work.

As such, you are requested to submit your most competitive rates in your sealed envelope price bid itself for this tender.

The bidder shall agree for both the above options; otherwise the tenders will be rejected.

Business Rules, Terms & Conditions of Reverse Auction:

Business Rules, Terms & Conditions of Reverse Auction for **Civil, Structural, Architectural and associated Electrification – Construction work for ESP, R&M TANGEDCO Mettur TPS Unit-4(210 MW), Salem, TamilNadu, Section A&B.**
against the Tender No. BAP:CF:OT:06/2019-20 Dt: 04/05/2019

BUYER NAME	**Bharat Heavy Electricals Limited** **Boiler Auxiliaries Plant** **Civil Projects & Services** **Ranipet-632 406** E-mail: ezhil@bhel.in, smkaviya@bhel.in
AUCTION TO BE CONDUCTED BY	Name and Address of Service Provider
DATE OF AUCTION	**Auction Date : xx/05/2019** **Sealed Bid Time : 14.00 PM – 14.30 PM** **Reverse Auction Time : 15.00 PM – 16.00 PM** Auction Website: xxxxxx
DOCUMENTS ATTACHED	1) Business rule for reverse auction (Annexure I) 2) Terms & conditions of reverse auction (Annexure II) 3) Process Compliance Statement (Annexure III) 4) Price Confirmation (Annexure IV) 5) Contact Information 6) RA Excel Sheet (Document for RA only)
SPECIAL INSTRUCTIONS	**Bidding in the last minutes and seconds should be avoided in the bidders own interest. Neither the Service Provider nor BHEL will be responsible for any lapses / failure on the part of the vendor, in such cases.**

Annexure – I to RA

Terms & Conditions of Reverse Auction:

Against this enquiry for the subject item / system with detailed scope of supply as per enquiry specifications, BHEL may resort to "REVERSE AUCTION PROCEDURE" i.e., ON LINE BIDDING (THROUGH **Service Provider**.). The philosophy followed for Reverse auction shall be English Reverse (No ties).

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.

2. Those bidders who have given their acceptance for Reverse Auction (quoted against this tender enquiry) will have to necessarily submit "online sealed bid" in the Reverse Auction. Non-submission of "online sealed bid" by the bidder for any of the eligible items for which techno-commercially qualified will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.

3. BHEL will engage **Service Provider**, who will provide all necessary training and assistance before commencement of on line bidding on internet.

4. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.

5. Business rules like event date, time, bid decrement, extension etc., also will be communicated through **Service Provider.** for compliance.

6. Bidders have to fax the Compliance form (annexure III) before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.

7. In line with the NIT terms, BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Cost to BHEL" like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Goods and Services Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the bidder to enable them to fill-in the price and keep it ready for keying in during the Auction.

8. Reverse auction will be conducted on scheduled date & time.

9. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.

10. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, if required, (Annexure IV) as provided on case-to-case basis to **Service Provider**. within two working days of Auction without fail.

11. In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL's standard practice.

12. Bidders shall be required to read the "Terms and Conditions" section of the auctions site of **Service Provider**. using the Login IDs and passwords given to them by **Service Provider**. before reverse auction event. Bidders should acquaint themselves of the "Business Rules of Reverse Auction", which will be communicated before the Reverse Auction.

13. If the Bidder or any of his representatives are found to be involved in Price manipulation / cartel formation of any kind, directly or indirectly by communicating with other bidders, action *as per extant BHEL guidelines*, shall be initiated by BHEL and the results of the RA scrapped / aborted.

14. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.

15. In case BHEL decides to go for reverse auction, the H1 bidder(s) (whose quote is highest in online sealed bid) may not be allowed to participate in further RA process.

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Annexure – II to RA

Business Rules for Reverse Auction:

This has reference to tender no **BAP:CF:OT:06/2019-20 Dt: 04/05/2019**. BHEL shall finalize the Rates for **"Civil, Structural, Architectural and Associated Electrification-Construction work for ESP, R&M TANGEDCO Mettur TPS Unit-4 (210 MW), Salem, TamilNadu, Section - A& B"** through Reverse Auction mode. BHEL has made arrangement with **Service Provider**, who shall be BHEL's authorized service provider for the same. Bidders should please go through the guidelines given below and submit acceptance of the same.

The technical & commercial terms are as per (a) BHEL Tender Enq. No **BAP:CF:OT: 06/2019-20 Dt: 04/05/2019** (b) Bidder's technical & commercial bid (in case of two part bid) and (c) subsequent correspondences between BHEL and the bidders, if any.

1. Procedure of Reverse Auctioning:

I. **Online Sealed Bid:** This duration of online sealed bid will be *30* minutes. All bidders have to submit their online sealed bids during this period.

II. **Online Reverse Auction**: The "opening price" i.e. start price for RA and "bid decrement" will be decided by BHEL.

III. If BHEL decides the lowest online sealed bid as the starting price, then the lowest bidder in online sealed bid shall be shown as current L1 automatically by the system and no acceptance of that price is required. System shall have the provision to indicate this bid as current L1.

IV. Bidders by offering a minimum bid decrement or the multiples thereof can displace a standing lowest bid and become "L1" and this continues as an iterative process.

V. After the completion of the online reverse auction, the Closing Price (CP) shall be available for further processing.

2. Schedule for reverse auction:

The Reverse Auction is tentatively scheduled on ***xx/05/2019*** and the duration of online sealed bid will be 30 minutes. All bidders to submit their online sealed bids during this period.

Online Sealed Bid: -

Start Time: **14:00 Hrs.**
Close Time: **14:30 Hrs.**

Online Reverse Auction: -

Start Time: ***15:00 Hrs.***
Close Time: ***16:00 Hrs.***

3. **Auction extension time:** If a bidder places a bid in the last 10 minutes of closing of the Reverse Auction and if that bid gets accepted, then the auction's duration shall get extended automatically for another 10 minutes, for the entire auction (i.e. for all the items in the auction), from the time that bid comes in. Please note that the auto-extension will take place only if a bid comes in those last 10 minutes and if that bid gets accepted as the lowest bid. If the bid does not get accepted as the lowest bid, the auto-extension will not take place even if that bid might have come in the last 10 minutes. In case, there is no bid in the last 10 minutes of closing of Reverse Auction, the auction shall get closed automatically without any extension. However, bidders are advised not to wait till the last minute or last few seconds to enter their bid during the auto-extension period to avoid complications related with internet connectivity, network problems, system crash down, power failure, etc.

The above process will continue till completion of Reverse Auction.

Complaints / Grievances, if any, regarding denial of service or any related issue should be given in writing thru e-mail / fax to **Service Provider**, with a copy to BHEL within 15 minutes from the initial closing time of Online Reverse Auction.

4. **Bid price:** The Bidder has to quote the F.O.R. destination Price inclusive of Packing & Forwarding charges, all the routine & type tests as per tender scope, ED + cess, CST against C-form, Freight (bidder to provide original Freight paid receipt), insurance charges, etc. including loading (if indicated by BHEL due to deviations in commercial terms) for the Items specified. Details are as shown in Excel Sheet for calculation of Landed cost.

Note: For the consideration of L1 bidder, the bid value shall be reduced by loading amount, if applicable.

5. **Bidding currency and unit of measurement:** Bidding will be conducted in {*Indian Rupees* per *Unit*} of the material as per the specifications.

In case of foreign currency bids, exchange rate (TT selling rate of State Bank of India) as on scheduled date of tender opening (Part-I bid in case of two part bid) shall be considered for conversion in Indian Rupees. If the relevant day happens to be a bank holiday, then the forex rate as per the previous bank (SBI) working day shall be taken.

6. **Validity of bids:** Price shall be valid for **90 *days*** from the date of reverse auction. These shall not be subjected to any change whatsoever.

7. **Lowest bid of a bidder**: In case the bidder submits more than one bid, the lowest bid at the end of Online Reverse Auction will be considered as the bidder(s) final offer to execute the work.

8. Bidders shall be assigned a **Unique User Name** & **Password** by BHEL or **Service Provider**. *Bidders* are advised to change the Password and edit the information in the Registration Page after the receipt of initial Password from BHEL / **Service Provider**. to ensure confidentiality. All bids made from the Login ID given to the bidders will be deemed to have been made by the bidders / bidder's company.

9. **Post auction procedure**: BHEL will proceed with the Lowest Bid in the Reverse Auction for further processing.

10. Any commercial / technical loading shall be intimated to bidders prior to RA. The excel sheet provided in this regard shall cover all these aspects. Commercial / technical loading if any, shall be added by the respective bidder in its price during online sealed bid & Online Reverse Auction. Modalities of loading & de-loading shall be separately intimated to the bidders. The responsibility for correctness of total cost to BHEL shall lie with the bidders.

11. Computerized reverse auction shall be conducted by BHEL (through **Service Provider**.), on pre-specified date, while the bidders shall be quoting from their own offices / place of their choice. Internet connectivity shall have to be ensured by bidders themselves.

During the RA if a bidder is not able to bid and requests for extension of time by fax / e-mail / phone then time extension of additional 15 minutes will be given by the service provider provided such requests come before 5 minutes of auction closing time. However, only one such request per bidder can be entertained.

Despite this extension if bidder fails to upload his prices due to extreme case of failure of Internet connectivity, (due to any reason whatsoever may be) it is the bidders' responsibility / decision to send fax communication immediately to **Service Provider**, furnishing the price the bidder wants to bid online with a request to the **Service Provider**. to upload the faxed price on line so that **Service Provider**. will up load that price on line on behalf of the Bidder. It shall be noted clearly that the concerned bidder communicating this price to service provider has to solely ensure that the fax message is received by the service provider in a readable / legible form and also the Bidder should simultaneously check up with **Service Provider**. about the clear receipt of the price faxed. It shall also be clearly understood that the bidder shall be at liberty to send such fax communications of prices to be up loaded by **Service Provider**. only within the closure of Bid time and under no circumstance it shall be allowed beyond the closure of Bid time / reverse auction. It shall also be noted that **Service Provider**. should be given a reasonable required time by the bidders, to upload such prices online and if such required time is not available at the disposal of **Service Provider**. at the time of receipt of the fax message from the bidders, **Service Provider**. will not be uploading the prices and either BHEL or **Service Provider**. are not responsible for this unforeseen circumstances. In order to ward-off such contingent situation bidders are requested to make all the necessary arrangements / alternatives whatever required so that they are able to circumvent such situation and still be able to participate in the reverse auction successfully.

Failure of power or loss of connectivity at the premises of bidders during the Reverse auction cannot be the cause for not participating in the reverse auction. On account of this, the time for the auction cannot be extended and neither BHEL nor **Service Provider**, is responsible for such eventualities.

12.Proxy bids: Proxy bidding feature is a pro-bidder feature to safe guard the bidder's interest of any internet failure or to avoid last minute rush. The proxy feature allows bidders to place an automated bid in the system directly in an auction and bid without having to enter a new amount each time a competing bidder submits a new offer. The bid amount that a bidder enters is the minimum that the bidder is willing to offer. Here the software bids on behalf of the bidder. This obviates the need for the bidder participating in the bidding process until the proxy bid amount is decrementally reached by other bidders. When proxy bid amount is reached, the bidder (who has submitted the proxy bid) has an option to start participating in the bidding process.
The proxy amount is the minimum amount that the bidder is willing to offer. During the course of bidding, the bidder cannot delete or change the amount of a proxy bid.
Bids are submitted in decrements (decreasing bid amounts). The application automates proxy bidding by processing proxy bids automatically, according to the decrement that the auction originator originally established when creating the auction, submitting offers to the next bid decrement each time a competing bidder bids, regardless of the fact whether the competing bids are submitted as proxy or standard bids. However, it may please be noted that if a manual bid and proxy bid are submitted at the same instant manual bid will be recognized as the L1 at that instant.

In case of more than one proxy bid, the system shall bid till it crosses the threshold value of each lowest proxy bid and thereafter allow the competition to decide the final L1 price.

Proxy bids are fed into the system directly by the respective bidders. As such this information is privy only to the respective bidder(s).

13. Bidders are advised to get fully trained and clear all their doubts such as refreshing of Screen, quantity being auctioned, tender value being auctioned etc. from **Service Provider.**
14. **Service Provider**, shall arrange to demonstrate / train the bidder or bidder (s) nominated person(s), without any cost to bidders. **Service Provider**, shall also explain the bidders all the business rules related to the Reverse Auction. Bidders are required to submit their acceptance to the terms and conditions / modalities before participating in the Reverse Auction in the process compliance form as enclosed. Without this, the bidder will not be eligible to participate in the event.
15.Successful bidder shall be required to submit the final price (L1) in prescribed format (Annexure – VI) for price breakup including that of line items, if required, quoted during the online Reverse Auction duly signed and stamped as token of acceptance without any new conditions (other than those already agreed to before start of auction), after the completion of auction to **Service Provider**, besides BHEL within two working days of Auction without fail.

16.Any variation between the final bid value and that in the confirmatory signed price breakup document will be considered as tampering the tender process and will invite action by BHEL as per extant guidelines for suspension of business dealings (as available on www.bhel.com).

17.Bidders' bid will be taken as an offer to execute the work / supplies the item as per enquiry no. **BAP:CF:OT:06/2019-20 Dt: 04/05/2019**. Bids once made by the bidder, cannot be cancelled/ withdrawn and bidder shall be bound to execute the work as mentioned above at bidder's final bid price. Should bidder back out and not execute the contract as per the rates quoted, BHEL shall take action as per extant guidelines for suspension of business dealings (as available on www.bhel.com).

18.Bidders shall be able to view the following on their screen along with the necessary fields during Online Reverse Auction:

a. Leading (Running Lowest) Bid in the Auction (only total price of package)
b. Bid Placed by the bidder
c. Start Price
d. Decrement value
e. Rank of their bid during bidding as well as at the close of auction.

19.BHEL's decision on award of contract shall be final and binding on all the Bidders.

20.BHEL reserves the right to extend, reschedule or cancel the Reverse Auction process / tender at any time, before ordering, without assigning any reason, with intimation to bidders.

21.BHEL shall not have any liability to bidders for any interruption or delay in access to the site irrespective of the cause. In such cases, the decision of BHEL shall be binding on the bidders.

22.Other terms and conditions shall be as per bidder(s) techno-commercial offers and other correspondences, if any, till date.

23.If there is any clash between this business document and the FAQ available, if any, in the web site of **Service Provider**. the terms & conditions given in this business document will supersede the information contained in the FAQs. Any changes made by BHEL or **Service Provider**. (due to unforeseen contingencies) after the first posting shall be deemed to have been accepted if the bidder continues to access the portal after that time.

24.Bidder shall not divulge either his
Bids or any other exclusive details of BHEL to any other party. If the Bidder or any of his representatives are found to be involved in Price manipulation / cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant BHEL guidelines for suspension of business dealings (as available on www.bhel.com), shall be initiated by BHEL.

Annexure – III to RA

Process Compliance Form:

(The bidders are required to print this on their company's letterhead and sign, stamp before RA)

To

Service Provider name and address.

Sub: Agreement to the Process related Terms and Conditions.

Dear Sir,

This has reference to the Terms & Conditions for the Reverse Auction mentioned in the BHEL enquiry no - **BAP:CF:OT:06/2019-20 Dt: 04/05/2019**.

This letter is to confirm that:

1. The undersigned is authorized official / representative of the company to participate in RA and to sign the related documents.

2. We have studied the Reverse Auction Terms & Conditions and the Business rules governing the Reverse Auction as mentioned in your letter and confirm our agreement to them.

3. We also confirm that we have taken the training on the auction tool and have understood the functionality of the same thoroughly.

4. We also confirm that, in case we become L1 bidder, we will email / fax the price confirmation & break up of our quoted price (including that of line items) as per *Annexure - IV* within **two** working days (of BHEL) after completion of RA event, besides sending the same by registered post / courier both to M/s. BHEL and {**Service Provider**.}

5. We also confirm that in case we become L1 bidder, the envelope sealed price bid submitted by us shall be opened by BHEL and we agree to accept the lower of the two bids (RA closing price & envelope sealed price) for placement of order and we have understood that in case online sealed bid placed by us is found higher than envelope sealed price bid submitted by us, then BHEL may take action as stipulated in NIT.

We, hereby confirm that we will honour the Bids placed by us during the auction process.
With regards

Signature with company seal
Name –
Company / Organization
Designation within Company / Organization
Address of Company / Organization

Sign this document and Fax it to **Service Provider,** prior to start of the Event.

Annexure – IV to RA

RA price confirmation and breakup:

To

Service Provider Name and Address

CC: BHARAT HEAVY ELECTRICALS LIMITED
BOILER AUXILIARIES PLANT
CIVIL PROJECTS & SERVICES
RANIPET-632 406

Sub: **Final price quoted during Reverse Auction and price breakup**

Dear Sir,

We confirm that we have quoted.

Rs. {_____ in value & words _____} for item covered under tender enquiry No. BAP:CF:OT:06/2019-20 Dt: 04/05/2019.

Total price of the items covered under above cited enquiries is inclusive of *Goods and services tax and other as per NIT*.

Our final landed prices as quoted during the Reverse Auction conducted today {*xx/05/2019*} which will be valid for a period of 90 (Ninety) days.

========
Total (Grand total including Goods and Services tax) - Rs.
========
(Details of individual price breakups for each sections of price schedules is attached herewith in BHEL Excel sheet format)

Thanking you and looking forward to the valuable order from BHEL.
Yours sincerely,

For _____
Name:
Company:
Date:
Seal:

CONTACT INFORMATION:

Service Provider	**Bharat Heavy Electricals Limited**
Contact person Name Company Address Contact No E-mail ID	**Civil Projects & Services Department** **Shri. T. EZHILNBAN,** **Senior Manager/CP & S** **BHEL, Ranipet – 632 406** **Email : ezhil@bhel.in** **Phone : 04172 284632** **Cell : 09443344592** **Smt S.M. KAVIYA,** **Deputy Manager/CP & S** **BHEL, Ranipet – 632 406** **Email : smkaviya@bhel.in** **Phone : 04172 284792** **Cell : 09488052739**

CHAPTER – VII

Statutory Annexure: The following statutory requirements should be fulfilled by the Contractor.

1. **Minimum Wages Act, 1948 :**

    1. PF (12%) and Admin Charges (1%)= 13% (Employer) + 12% (Employee)
    2. PF to be remitted in contractor's own code
    3. ESI = 4.00% (Employer) + 1.00% (Employee)
    4. If ESI is not available in that area, then take insurance
    5. Contract License as per CL Act
    6. Issue of employment card to contract labours
    7. Issue of one-month notice before termination of contract
    8. Maintain all registers under various acts
    9. Minimum wages as per current stipulation.
    10. Payment of wages – within in stipulated time and other statutory requirements under various applicable labour laws to be ensured.

2. **Compensation:**

"BHEL shall recover the amount of compensation paid to victim(s) by BHEL towards loss of life / permanent disability due to an accident which is attributable to the negligence of contractor, agency or firm or any of its employees as detailed below.

a) Victim: Any person who suffers permanent disablement or dies in an accident as defined below.

b) Accident: Any death or permanent disability resulting solely and directly from any unintended and unforeseen injurious occurrence caused during the manufacturing/ operation and works incidental thereto at BHEL factories / offices and precincts thereof, project execution, erection and commissioning, services, repairs and maintenance, trouble shooting, serving, overhaul, renovation and retrofitting, trial operation, performance guarantee testing undertaken by the company or during any works / during working at BHEL Units / Townships and premises / Project Sites.

c) Compensation in respect of each of the victims:
   (i) In the event of death of permanent disability resulting from Loss of both limbs: Rs.10,00,000/- (Rs. Ten Lakh)
   (ii) In the event of other permanent disability: Rs.7,00,000/- (Rs.Seven Lakh)

d)Permanent Disablement: A disablement that is classified as a permanent total disablement under the proviso to Section 2 (i) of the Employee's Compensation Act, 1923."

The compensation details are provided at:
http://intranet.bhel.in/HR%20Cirulars/HR%20Circular%20No.%20016%20OF%202018.pdf

CHAPTER – VIII

(SCHEDULE – A) : LIST OF WORKS AND PRICES

Details and quantities of each item shown in the bill of quantities here to are only approximate. They are given as a guide for the purpose of tendering only and are liable to variation and alteration at the discretion of the competent authority. The work under each item as executed shall be measured and priced at the corresponding rate quoted by the contractor in the bill of quantities attached hereto.

Sl.No.	Description of work/supply	Total amount of work / supply (in figures and words)	Period of Completion
1	**"Civil, Structural, Architectural and Associated Electrification-Construction work for ESP, R&M TANGEDCO Mettur TPS Unit-4 (210 MW), Salem, TamilNadu, Section - A& B.**	**As per Annexure - A**	**SIX MONTHS** (3 months period for Erection front construction and balance 3 months period for finishing works and handing over to customer)

ANNEXURE - A TO SCHEDULE – A

NAME OF WORK **"Civil, Structural, Architectural and Associated Electrification-Construction work for ESP, R&M TANGEDCO Mettur TPS Unit-4 (210 MW), Salem, TamilNadu, Section - A& B.**

SL.NO	APPROXIMATE QUANTITY	DESCRIPTION OF WORK	SPECIFICATION	RATE (both in Figures and words)	UNIT	AMOUNT
Refer Tender Document Part-II (Price Bid - BOQ)						

(ANNEXURE - B) : BHEL GCC and GSS Acknowledgement

It is hereby agreed by me / us that the **BHEL General Conditions of Contract and General and Special Specification** including subsequent amendments / additions / deletions to clauses if any, and conditions pertaining to the settlement of disputes by Arbitration form an integral part of the tender documents and that the tender submitted by me / us is subject to the aforesaid BHEL General Conditions of Contract which has been read and accepted by me / us.

ISSUE OF STORES MATERIALS TO THE CONTRACTOR

SCHEDULE – B : FREE ISSUE OF MATERIALS

The free issue of materials is NIL for this contract.

SCHEDULE – C

LIST OF TOOLS AND PLANTS TO BE ISSUED ON HIRE TO CONTRACTOR

SL.NO	QUANTITY	PARTICULARS	HIRE CHARGES PER UNIT PER DAY OF 8 HOURS	PLACE OF ISSUE	REMARKS
------ NIL ------					

a) Machinery shall not be worked overtime without the written permission of the Engineer-in-charge and cost of liability of the same will be contractor's expense.

b) All coolies, waterman, etc., required in addition to BHEL crew mentioned in Column 4 above shall be arranged for by the contractor at his own expense.

SCHEDULE – D

NOTE:

All drawings are to be signed by the contractor as well as the officer entering in to contract for "**Civil, Structural, Architectural and Associated Electrification-Construction work for ESP, R&M TANGEDCO Mettur TPS Unit-4 (210 MW), Salem, TamilNadu, Section - A& B"**

SL.NO	DRAWING NUMBER	DESCRIPTION	REVISION

QUESTIONNAIRE

Questionnaire to be answered by the tenderer by ticking the suitable boxes.

Sl. No.	Description	Yes	No
01	Whether the tenderer has understood the scope of work and agrees to deploy required man power as indicated in the tender. (If there is any clarification required, the same may be got cleared from the Executive-in-charge, before submitting the offer.)		
02	Whether the tenderer has agreed to all Terms & Conditions given in the tender. (If there is any deviation, the same may be mentioned in separate sheet.)		
03	Whether the tenderer has their own code for ESI & PF. (A copy of the certificate to be enclosed).		
04	Whether the tenderer has enclosed copy of the present Service / Sales / Works contract sales Tax registration certificates. If a vendor is exempted from the registration under Service / Sales Tax, the reason there of be stated.		
05	Whether the vendor / Contractor is availing Goods and Services Tax credit / VAT Credit for their inputs.		
06	Whether the vendor will submit Goods and Services Tax invoice as per the existing ACT and the rules their under.		
07	Full Goods and Services Tax indicated in the price bid applicable as extra for this tender.	18.00%	
08	Whether the tenderer agrees to Pay Wages as per Minimum Wages Act, EL Wages, and Holiday Wages as per Tamil Nadu Factory rules. (Necessary proof should be submitted while claiming running bill and final bill.)		
09	Whether the PAN Number of the vendor is furnished. If exempted from IT, the exemption certificate shall be enclosed.		
10	Whether the tenderer agrees to keep the validity of their offer for **three months** from the date of opening of bid and keep the prices firm throughout the contract period.		
11	Whether the tenderer agrees for the payment terms of BHEL.		
12	Whether the tenderer has agreed to submit EMD of **Rs. 6,41,670.00/-** as per Chapter-III, Annexure-1, Clause-11 and has submitted the same along with technical bid. (If not enclosed, the tender will not be considered)		
13	Whether the tenderer has agreed to submit Security Deposit immediately after receipt of the work order.		
14	Whether the tenderer has enclosed the list of their clients with addresses & contact persons.		
15	Whether the tenderer has enclosed the completion certificates received from Government / Reputed organization for the similar work done for the last 7 years ending on **31/03/2019.**		

16	Whether the tenderer has enclosed the list of similar works carried out with supporting documents		
17	Whether the includability / excludability of the taxes and duties in the rates offered has been clearly indicated. If the same is not done, BHEL will choose to assume the rates are inclusive only.		
18	All payments by BHEL will be made through e-payment only. The required certificate as enclosed in the tender is submitted by the vendor with Banker's signature.		
19	Whether the tenderer has enclosed the list of technical personnel, their qualification & experience for who will be deployed for this work.		
20	Whether the tenderer has indicated the address of their local office in Ranipet along with phone no. & fax no.		
21	Whether the tenderer has enclosed the DD towards the cost of Tender Document, along with the Technical bid. (In case the tenderer has downloaded the tender document directly from the Web Site and If DD is not enclosed, the tender will not be considered).		
22	Whether the tenderer accepts reverse auctioning process through internet.		
23	Whether the tenderer has enclosed the annual report (audited P&L Account, Balance Sheet & IT Return) for the last three financial years **(2015-16, 2016-17 & 2017-18).**		
24	Whether the tenderer has submitted the proof of average annual turnover for last 3 years for a value **not less than 30% of the estimated cost.**		
25	Whether the tenderer agrees for the compensation for Delay clause as per GCC page 20 Clause 41.		
26	Whether the Bidder has read the Guidelines for Suspension of Business Dealings with Suppliers/ Contractors referred to in this Tender / Enquiry and confirms acceptance to the same?		

Note: If any of the question is not applicable, please mention as "Not Applicable (NA)"

GOODS AND SERVICES TAX (GST)

Registration & GST Rate

1. Bidder should indicate GSTIN No. (Copy of GST registration to be enclosed) and PAN No. (copy of PAN to be enclosed).

2. Tender will be considered/ accepted, if & only if the vendor has a valid GST Registration No.

3. Central Tax/ State Tax/ Integrated Tax/ Union Territory tax to be quoted as extra in %.

4. Bidders to ensure correct applicability of Central Tax/ State Tax/ Integrated Tax/ Union Territory tax based on the Inter / Intra state movement Supply of goods and provision services or both.

Invoicing & Payment

5. The Tax Invoice for supply of Goods & Services should be raised as per the provision of GST Act & Rules and must compulsorily mention the following: -

    a. BHEL-RANIPET GSTIN: 33AAACB4146P2ZL
    b. HSN Code or Service Accounting Code for supply of goods or services.
    c. Name & address of supplier
    d. GSTIN of Supplier
    e. Consecutive Serial Number & date of issue
    f. Description of goods or services
    g. Total value of supply
    h. Taxable value of supply
    i. Tax Rate – Central Tax & State Tax or Integrated Tax, Cess
    j. Amount of Tax charged
    k. Place of supply
    l. Address of delivery if different from place of supply
    m. Signature of authorized signatory

6. Reimbursement of GST to the vendor is contingent upon complying with the following condition by the service provider: -

    i. Uploading the onward GST Return (GSTR-1) in GSTN Network portal within the statutory time period.
    ii. Discharging the GST tax liability to the Government.
    iii. Submission of Tax Invoice to BHEL.
    iv. Submission of proof of payment of GST to BHEL.
    v. Availment of Input Tax Credit by BHEL.

Input Tax Credit

7. In case GST credit is delayed/ denied to BHEL, due to non/delayed receipt of goods and/or services and/or tax invoice or expiry of timeline prescribed in GST Law for availing such ITC, or any other reason not attributable to BHEL, GST amount shall be recoverable from Vendor along with interest & penalty levied/ leviable.

8. In case vendor delays declaring such invoice in his return and GST credit availed by BHEL is denied or reversed subsequently as per GST law, GST amount paid by BHEL towards such ITC reversal as per GST law shall be recoverable from vendor/contractor along with interest & penalty levied/ leviable on BHEL.

9. In case of discrepancy in the data uploaded by supplier in the GSTN portal or in case of any incomplete work/service, then BHEL will not be able to avail the tax credit and will notify the supplier of the same. Supplier has to rectify the data discrepancy in the GSTN portal or issue credit note (details to be uploaded in GSTN portal).

10. For any such delay in availing of tax credit for reasons attributable to vendor (as mentioned above), interest as per the GST Act & Rules, along with penalty, if any will be deducted for the delayed period i.e. from the month of receipt till the month tax credit is availed, from the running bills.

Penalty for Non-compliance of GST Act

11. Penalty amount so determined along with GST if applicable thereon shall be recovered from the contractor.

Other Provision

12. Any reduction in rate of Tax on any supply of goods or services or the benefit of input tax credit shall be passed on to the recipient by way of commensurate reduction in prices.

13. The agency should quote the applicable taxes and duties in the technical bid (part-A) as well as in price bid (Part-B).

14. All the terms & conditions of the contract with respect to Taxes & Duties are subject to the new taxation laws introduced from time to time (e.g., GST). The terms & conditions will be modified in accordance with the provisions of new laws (e.g., GST).

15. The Prices quoted above must be inclusive of all taxes and duties and exclusive of GST, which will be payable extra as per applicable rules and subject to Submission of documentary evidence.

GST Quote:

Price Bid: "Civil, Structural, Architectural and Associated Electrification-Construction work for ESP, R&M TANGEDCO Mettur TPS Unit-4 (210 MW), Salem, TamilNadu, Section - A& B.

The Bidder shall not include Goods and Services Tax (GST) in their quoted rates; but the bidder has to separately indicate the GST rate, amount and workings thereof in the Price bid schedule included in the bid documents.

If GST amount is not indicated separately in the price bid schedule included in the Bid documents, it will be presumed that the quoted rate is inclusive of applicable GST and bids will be evaluated accordingly.

1. The bidder has to quote GST rate extra as applicable in the tabulation given in the Price Bid.

2. The quoted rate for the work shall be inclusive of all taxes other than GST.

3. In case of reverse charge applicability, BHEL will not reimburse to the bidder the reverse charge of GST paid by BHEL.

Bidders are requested to fill the full GST for the quoted rate as applicable for this tender in the following tabulation.

Sl No	GST	Service Account Code (SAC)	Applicable GST % (Fill the applicable GST % as quoted by you in the Price Bid)		Applicable GST Amount (Amount not to be filled in this technical bid) - Tick Quoted / Not Quoted only	Remarks
			Section-A	Section-B		
1	CGST				Quoted / Not Quoted	
2	SGST				Quoted / Not Quoted	
3	IGST				Quoted / Not Quoted	
4	UTGST				Quoted / Not Quoted	
5	CESS				Quoted / Not Quoted	

Any statutory variation in GST rate during contract period shall be reimbursed by the Company based on claim by the Agency along with valid documentary evidence.

*****

CHAPTER – IX

CERIFICATE OF NO DEVIATION

I / We ..... of M/s ..... hereby certify that **there is no deviation** from the tender conditions either technical or commercial and I am / we are agreeing to all the terms and conditions mentioned in the Tender Specification No: **BAP:CF:OT:06/2019-20 Dt: 04/05/2019**.

I / We have submitted our offer for this tender. I / We have fully gone through, understood and accepted all specifications, terms & conditions of the whole tender documents uploaded in BHEL web site including all corrigenda, addenda etc published in the website time to time for this tender.

(In case of any deviation)

I / we have taken deviation from the tender. The details of the deviation, which I / we have furnished in a separate sheet(s) along with our offer.

(Please strike off the above paragraph if no deviation is taken)

Date:

Signature of the tenderer

ACCEPTANCE FOR ELECTRONIC FUND TRANSFER / RTGS TRANSFER

01	**NAME & ADDRESS OF THE SUPPLIER / VENDOR PHONE NO. WITH STD CODE**	PAN NO.
02	**VENDOR CODE** (as in WORK ORDER)	
03	**Details of Bank Account:**	
A)	**NAME & ADDRESS OF THE BANK** (WITH PIN CODE)	
B)	**BANK TELEPHONE NUMBER** (WITH STD CODE)	
C)	**BANK BRANCH CODE:**	
D)	**MICR CODE**	
E)	**ACCOUNT NUMBER**	
F)	**TYPE OF ACCOUNT**	CURRENT / OD / CASH CREDIT
G)	**VENDOR NAME AS PER BANK RECORDS**	
H)	**BANK BRANCH RTGS IFSC CODE**	
I)	**BANK BRANCH NEFT IFSC CODE**	
J)	**VENDOR'S EMAIL ID** (give two ids)	
K)	**NAME OF AUTHORISED SIGNATORY**	

CERTIFICATE

I / We hereby agree to receive the payments due from BHARAT HEAVY ELECTRICALS LIMITED, RANIPET by the National Electronic Funds Transfer and/or RTGS Transfer mode by credit to my / our above mentioned Bank Account. I / We also agree that payments made to the above mentioned Account is a valid discharge of the liability of Bharat Heavy Electricals Limited, Ranipet. I / we also agree to bear the applicable Bank Charges for the above mode of transfer.

AUTHORISED SIGNATORY OF VENDOR WITH SEAL

Banker's Certification

We confirm that we are enabled for receiving RTGS and NEFT credits and we further confirm that the account number of _____ (name of account holder), the signature of the authorized signatory and the MICR and IFSC codes of our Branch mentioned above are correct.

PLACE:

DATE:

_____
(Manager / Officer's Signature Under Bank stamp)
Authorisation No._____

Note: This EFT Form is to be submitted duly filled in manually in all fields and duly signed by Authorised Signatory and certified by Banker.

GENERAL AND SPECIAL SPECIFICATIONS

1. Site Clearance

All the area upon which the construction is to be carried out and areas which are required by the Contractor for his construction facilities are to be cleared off all rubbish and objectionable matter at Contractor's own cost. Trees, if any, shall not be uprooted or cut without the prior approval of the Engineer-in-charge. All spoils, unserviceable materials and rubbish shall be burnt or removed from site. Usable materials, saleable timber, fire-wood etc., shall be stocked properly at work site in the manner as directed by the Engineer-in-charge. The cost of clearing the areas shall be deemed to have been included by the renderer in his general rate.

2. Earthwork for Foundations

Earthwork excavation for foundations and filling in foundations shall conform to TNBP 23 and 24. The area to be excavated or filled in with excavated materials shall be clearly demarcated in the field by the Contractor. Excavation shall be done to lines and levels defined. Excavation shall be carried out to such widths, lengths, depths, profiles and grades as shown in the drawing or as may be specified by the Engineer – in – charge. Rough Excavation may be carried out up to a depth 15 cm less than the final level but the balance shall be excavated to precise level with special care. All soft pockets of soil met with even below the final level shall be removed and the excavation filled up as directed by Engineer-in-charge. The methods of excavation shall in every case be subject to the approval of the Engineer-in-charge and the contractor shall ensure the safety and stability of the excavations, being executed by him as well adjacent buildings, structures, services and other works in the vicinity of the site of work. Wherever necessary Engineer-in-charge may direct that the sides of the excavation should be timbered and shored at the contractor's own cost, adopting a proper method approved by the Engineer-in-charge. Not withstanding the above, should any slip occur, the contractor shall remove all the slipped materials from the excavated pit, at his own cost. He shall also make good at his own all damages caused to the work as well as adjacent buildings, structures etc., as a result of the slip, referred to.

All excavation work shall be subject to inspection and approved by the Engineer-in-charge before any further works in the excavated areas allowed commencing. Should any excavation be carried out beyond the specified depth, the contractor should fill it up at his own cost with the same type and class of material as it is proposed to be laid over the excavated portion. No payment will however be made to the contractor on his account.

The contractor shall ensure that the excavations and the structures under construction are kept free from water logging at all stages of construction. He shall take all necessary precautions and `streams, aquifers, springs, surface flows etc., are excluded effectively so as to ensure that the works are carried out in a reasonable dry conditions in accordance with the construction schedule.

Back filling around the foundations, trenches, and plinth and under the floor shall be done in accordance with TNBP 24 and 25. The finished level of the plinth filling shall be trimmed to the slope required to be given to the finished floor. Back filling, watering and consolidation of excavated earth in layers etc., complete as per specifications shall be done unless otherwise stipulated in the tender schedule.

Removal of Hard rock by Blasting

This shall include all rock occurring in large masses which cannot be removed except by blasting. Blasting shall be done in conformity with TNBP 19 & 23 and as instructed by the Engineer-in-charge. When rock blasting has to be done adjacent to structures, the following precautions shall be observed.

(1) All blasting should be completely muffled to prevent damage by flying pieces.

(1) Blasting within 3 meters of the structures shall be avoided

(2) No blasting should be done within 1.5 meters of concrete / masonry structures.

(3) An isolated boulder extending under the existing structure but projecting within the area of blasting should be blasted.
(4) The contractor shall be responsible for all damages caused by blasting and shall replace or repair the damaged structures at his own cost.

3. Plain and Reinforced Cement Concrete Works:

All design and construction shall be performed in accordance with the Indian standard code of Practice for plain and reinforced concrete – IS 456 and TNBP 30. Any Special requirements noted on the drawings or bill of quantities shall govern over the provisions of this specifications. Controlled concrete shall be used wherever specified in the schedule of items complying with all requirements of IS: 456 and as per special specifications appended herewith.

The coarse aggregate to be used shall be of hard broken granite stone jelly of various sizes as specified under respective items in the Bill of Quantities, conforming to IS 383 latest edition. The Engineer-in-charge may require the contractor to carryout moisture content tests in both fine and coarse aggregates. For determination of moisture content IS – 2386 shall be referred to. The amount of water to be added shall be then adjusted to compensate for any observed variation in the moisture contents. Proper control of mixing water is deemed of paramount importance. Mixtures with automatic water measuring drums shall be used or else. Water should be measured by volume in calibrated buckets. All measuring equipments shall be maintained in a clean serviceable condition and the accuracy periodically checked and got certified by the Engineer-in-charge. The contractor shall carryout slump tests apart from taking test cubes at regular intervals. All such methods of sampling and analysis of concrete shall be in accordance with IS – 1199.

Mixing of concrete shall be strictly carried out in an approved type mechanical mixer. The mixing equipment shall be capable of combining the aggregates, cement and water within the specified time (not less than 2 Minutes) into a thoroughly mixed and uniform mass and of discharging the mixture without segregation. Mixing shall be continued until there is a uniform colour and consistency, Concrete shall be handled from the place of mixing to the place of final deposit as rapidly as practicable by methods which will prevent segregation or loss of any of the ingredients. Before depositing the concrete, all debris and dirt shall be removed from the space to be occupied by concrete. Concreting shall not be done unless the formwork conform to the shapes, lines and dimension as shown in the drawings.

Unless otherwise approved, concrete shall be placed on single operation to the full thickness of slabs and beams and similar members and not exceeding 1 metre deep in walls, columns and similar members. Concrete shall be placed continuously until completion of the part of the work between construction joints or as directed by the Engineer-in-charge. The concrete after being laid shall be compacted by means of vibrators of approved type under proper supervision as directed by the Engineer-in-charge. Care should be taken to avoid segregation and formation of air bubbles. The whole process starting from the mixing of concrete to the placing and compaction shall not take more than 20 minute and the process shall be completed before the initial setting takes place. Curing shall be accomplished in accordance with IS-456 by keeping the concrete covered with a layer of sacking, canvas or similar absorbent materials and kept constantly wet for the period as directed by the Engineer-in-charge.

Reinforcement

All reinforcement shall be clean and free from pitting, loose mill-scales, dust, loose rust and coats of paint, oil or other coatings which may destroy or reduce bond. General construction details and workmanship relative to reinforcement including bar bends, lap splices and installation shall be in accordance with the IS-2502 as well as IS-456. All bars be bent as per the bar bending schedules indicated in the drawings or supplied separately relevant to particular drawing. The contractor shall in all cases verify himself the correctness of schedules, giving the number, length and the bending details of the bars. The numbers, sizes, shape and position of all the reinforcement shall, unless otherwise, directed or authorized

by the Engineer-in-charge be strictly in accordance with the drawing. The reinforcement shall be adequately held in position by 18 / 20 SWG soft black annealed binding wire. The contractor must obtain the approval of Engineer-in-charge for the reinforcement placed, before any concrete is placed in the form. All reinforcing bars shall be so tied as to form a rigid cage to prevent displacement before or during concreting. Rate quoted for reinforcement should include cost of transporting M.S. Rods / CTD bars from BHEL Store to site of work, cleaning, cutting, bending, placing, binding with contractor's own binding wire and providing necessary cover blocks of concrete but excluding cost of steel which shall be supplied free of cost at BHEL Stores.

Form Work

Formwork shall conform to the shape, lines and dimensions of concrete and RCC structures as shown in the drawings and shall be well within the permissible tolerance. Formwork for concrete shall be of plywood, steel, good seasoned timber or other approved materials, properly designed easy for removal and cleaning. They shall be of sufficient strength and rigidity to maintain their position and shape under loads incidental to placing concrete. The number of props, their sizes and dispositions shall be such as to able safely carry the full dead load area constructional loads. The arrangement and alignment of formwork shall be got approved by the Engineer-in-charge prior to concreting. However this shall not relieve the contractor from his responsibility for proper work and safety. Formwork shall be sufficiently tight to prevent loss of cement slurry from the concrete. All joints and holes in the formwork shall be caulked with putty jute cloth or other approved materials to the satisfaction of the Engineer-in-charge. The stripping time for the shuttering and the formwork shall in general conform to the provisions in the relevant clauses of IS 456. Unless otherwise specified rates for reinforced cement concrete shall include cost of centering, shuttering charges also.

.4. Stone Masonry

General: Stone masonry shall conform to TNBP 35. Stone shall be obtained from the approved quarry and shall be free from decay and weathering.

All stones shall be thoroughly wetted before use. The mortar used for jointing shall be as per approved Drg. .

The walls shall be carried up truly plumb. Every stone shall be carefully fitted to the adjacent stones so as to form neat and closed joints.

To give sufficient lateral bond, vertical joints shall be avoided. Prescribed number of headers as required shall be provided to give sufficient transverse bond. At junctions of wall the stones each alternate course shall be so carried into each of the respective walls as to unite the work thoroughly. Where breaks are unavoidable in carrying up the work continuously in horizontal course sufficiently long steps shall be left to join the old and new work building of two thin faces and filling up the middle with small stuff or dry packing shall be strictly avoided. When plastering or raised pointing is not required to be done joints shall be struck flush and finished simultaneously.

Random rubble masonry

Random rubble masonry work shall conform to TNBP 35-L and J. Stones shall be hammer dressed at faces and joints to enable them to come into close proximity with each other. The face stone shall be laid headers and stretchers alternately, so as to break the joint by at least 75mm. Thickness of joint shall not exceed 12mm. No pinning shall be used on the face and face stone shall extend well back into the headers. Stones less than 130 mm. in height shall not be used on the face.

Bond stones running through the wall shall be provided at 1.8M intervals in walls up to 0.60 M. thickness and if the wall is more than 0.60 M. thick a line of headers shall be laid from face to back each header overlapping the other by at least 150 mm.

5. Brick Masonry:

First class Bricks: Brick shall be sound, hard, tough, and rectangular in shape and size, well burnt of uniform deep red or copper colour and conform to IS – 1077.

Brick shall be free from cracks, chips, flaws, stone or humps of any kind. Bricks shall be homogeneous in texture and evict a clear ringing sound on being struck and shall have a minimum compressive strength of 50KG / sq.cm. And shall not absorb water more than 20% of its weight, when soaked cold water for 24 Hrs. All bricks shall be table moulded.

Second Class Bricks: These shall be ground moulded but should otherwise conform to the specifications of first class bricks except for some surface cracks are allowable. These shall have minimum compressive strength of 50 Kg./sq.cm.

Samples of each type of brick, shall be got approved by the Engineer-in-charge before being used. All subsequent deliveries shall be up to the standards of the approved samples.

Brickwork shall conform to TNBP31 and IS –2212.

Brick works shall be classified as first or second class according to the classification of bricks used and the method of lying. The thickness of joints shall not exceed 6 mm. in first class brickwork and 10 mm in second class brick work.

Bricks shall be well soaked before use on works for at least 6 hrs. The soaked bricks shall be kept on wooden planks or platform. Brick required for masonry with clay or lime mortars shall not be soaked.

Brickwork shall be laid with specified mortar to be prepared in accordance with IS –2250. Brick works shall be laid in English Bond unless otherwise specified. Half or cut bricks shall not be used except when needed to complete the bond. Each course shall be taken up truly plumb, if battered, the batter is to be truly maintained. The level of brickwork shall be checked up at every one metre interval. Bricks shall be laid with frogs upward, while laying bricks shall be thoroughly bedded and flushed in mortar and taped into position with a wooden mallet and the superfluous mortar removed. Walls of all structures shall be carried up regularly in all cases, leaving no part, one metre lower than the other. Where the masonry of one part has to be delayed, the work shall be raked back according to bond (and not toothed) an angle not exceeding 45 Deg. But the raking back should not start within 60cm. of a corner vertical joints in alternate courses shall come directly over one another. The brickwork shall not be raised more than 14 courses per day. All iron fixtures, pipes, conduits, drains, sleeves, bolts, holdfasts of doors and windows etc. which are required to be built in walls shall be embedded in cement mortar or cement concrete as specified, in their correct position as the work proceeds.

Joints

Joints shall be restricted to 6 mm in first class brickwork and 10mm in second class brick work. All bed joints shall be normal to the pressure upon them, radial in arches and at right angles to the face in battered retaining walls. Care shall be taken that all joints are fully mortared (proportion as specified in the schedule items) well flushed up and in case where no pointing to be done, neatly struck at the work proceeds. The joints in faces which are to be plastered or pointed shall be squarely raked out to a depth of 12 mm while the mortar is still green. The raked joints shall be well brushed to remove loose particles. After the work the faces of work shall be cleared well by brush so as to remove any splashed mortar during the course of raising the brickwork.

Curing

Green work shall be protected from rain by suitable covering. Masonry work shall be kept thoroughly well watered on all faces for at least 10 days after completion. In case of fat lime mortar curing shall commence two days after laying of masonry and shall continue for seven days.

6. Scaffolding

Scaffolding will generally be single but may be double if warranted for the particular work as approved by the Engineer-in-charge. The contractor shall take all measure to ensure safety of work and the working people.

Payment for brickwork shall be made on cubic metre basis on the volume of actual work done. Half brick wall and brick on edge wall shall be paid on square metre basis. The rate of brick work shall include scaffolding and all items mentioned above and no extra payment will be made for cutting bricks if required either for openings or for rounding or insertions or for recesses at the time of brick wall construction.

7. Damp Proof Course

Damp proof course shall either be with cement concrete or with cement mortar of specified thickness as mentioned in the relevant item of schedule. Damp proof course shall not be carried across doorways. It shall be laid for all walls except verandah retaining wall or for particular wall only directed by the Engineer-in-charge. It shall be laid flush with floor level or as instructed by the Engineer-in-charge.

Damp proof course with cement concrete shall be of 25 or 38 mm thick in cement concrete M15/M20 as specified using 12mm. and down size aggregate well rammed and smoothened with trowel. It will be kept wet for 40 hours and after it has dried, two coats of hot bitumen shall be applied over it and allowed it to dry after which sand shall be sprinkled over it.

Damp proof course with cement mortar shall be 12 or 20 mm thick in cement mortar 1:3 well mixed with crude oil at 5% by weight of cement used.

8. Cement Plastering:

Cement plastering shall be in accordance with IS – 1661 and TNBP –56 & 57, Cement mortar shall conform to IS – 269. The mortar of specified mix and thickness shall be used.

The surface to be plastered shall be thoroughly cleaned so that it is free from dust, oil, salts etc., the joints of masonry shall be racked out to a depth of at least 12 mm. On cement concrete surfaces the surface shall be cleaned with wire brush and scarified by lines with trowel or hacking done. The surfaces in both cases shall be washed properly and kept wet for 4 hours before plastering is commenced.

Plastering shall be started from top and gradually worked down towards the floor. It shall not at any place be thinner than specified. To ensure even thickness plaster of about 15 cm X 15 cm shall be first applied horizontally and vertically at not more than 2 metres intervals over the entire surface to serve as gauges. The surface of these gauges shall be truly in the plane of finished surface. The mortar shall then be laid in the wall or other surfaces between the gauges and finished even. All corners shall be rounded to a radius of 24 mm unless otherwise directed. The contractor shall not be paid for any extra thickness of plaster done than as specified.

Plaster, when more than 15 mm thick shall be applied in two coals, a base coat followed by the finishing coat. Thickness of the base coat shall be just sufficient to fill up unevenness in the surface, no single coat, however, shall exceed 12mm in thickness. The under coat shall be roughened or scratched before it is fully hardened.

Curing shall start 24 hours after the plaster is laid. It shall be kept wet for 14 days. During this period it shall be suitably protected from all damages at the contractor's cost by such means as approved by the Engineer-in-charge.

Any cracks which appear in the surface shall be cut out in rectangular shape and redone as directed by the Engineer-in-charge. Wherever specified standard waterproofing compound as approved by the

Engineer-in-charge shall be added to the mortar at the rate of 2% or as specified by the manufacturer by the weight of cement for which the rate shall be paid separately. The rate for plastering shall include cost of scaffolding, swing etc., needed for the work with labour and material all complete.

9. Steel Door, Windows and Ventilators:

All steel doors, windows and ventilators shall conform to IS – 1038, IS – 1361 and IS 1081 or equivalent as mentioned in the bill of quantities and as approved by the Engineer-in-charge.

Rolled steel sections shall conform to IS – 226. The sections shall be cold straightened and finished goods shall be free from bends and other defects. Materials used in the fabrication shall be the best procurable and conforming to relevant IS specification. Thickness and specification of the glass to be provided shall be as indicated in the relevant item of the bill of quantities. Glass shall be free from flaws, specks, bubbles, etc., Bolts, nuts, screws, peg stays and other mild steel fittings shall be treated for corrosion as per relevant Indian Standards. Putty for glazing shall conform to IS – 420.

Doors, windows and ventilators, etc., shall be truly square and free from twist and warp. They shall be constructed of sections which have been cut to the required lengths and welded or riveted at the corners as per standard specifications.

All steel surfaces shall first be thoroughly cleaned free of rust scale or dirt and mill scale by approved means and shall be painted with one coat of approved primer conforming IS – 102 before dispatch. Alternatively if specified they may be galvanized by the “Hot dip” zinc spray or electro galvanizing process described IS – 1361. Doors, windows and ventilators shall be fixed in positions, as specified under IS 1081.

Whenever contractor is required to supply the doors, windows and ventilators etc., he shall first submit to the Engineer-in-charge, the details about source of supply, detailed drawing and specifications etc.,. for prior approval.

11. Wooden Doors, Windows and Ventilators :

All wood work for doors, windows, ventilators cup board, shelves, etc., conform to relevant IS specification and TNBP 82 and shall be well seasoned teak wood or well seasoned country wood (Pillamarudu or Karumarudu) as the case may be. Timber shall be best quality and shall be free from knots, injurious open shales, bore holes, decay, soft or spongy spots, hollow pockets and all other defects and blemishes. Timber shall conform to IS 1003 (Part 1). Size of doors, windows and ventilators shall as specified in the relevant item of schedule and detailed drawings and generally in conformity with IS – 1003, part I and part II. The rates for doors, windows and ventilators etc., shall be for the finished work inclusive of fixing them in position with necessary iron hold fasts and furniture fitting of oxidized iron or aluminium or oxidized brass as stated in the description of the relevant items of the bill of quantities and as directed by the Engineer-in-charge. Fittings and furniture shall be of best quality and machine made and robust type. Wherever glazed shutters are to be provided, the cost of glass panes of specified thickness and fixing them in position should be included in the quoted rate. All glass shall be of superior quality from approved manufacturer. In case of solid core flush doors, they should conform to IS:2202 Part I and Part II. The flush door shutters should have a finished thickness as specified in the scheduled item. Flush door shutters shall be obtained from firms of repute as approved by the Engineer-in-charge.

12. ROOFING : (A) R.C.C Slabs :

Roof slab shall be of RCC of specified mix conforming to IS : 456, with adequate main tensile, transverse and adhesive reinforcement of ribbed steel bars of mild steel rounds. Unless otherwise mentioned the rates for RCC slab shall include cost of concrete, centering and shuttering charges, vibration charges, rounding of corners, curing and finishing etc., complete. Expansion joints in reinforced cement slabs shall be as per TNBP 30.

The ceiling should be finished as per Clause 30 of TNBP. No extra payment shall be made towards cost of ceiling plaster necessitated on account of defective centering materials used or poor workmanship.

The top of roof slab shall be finished with weathering course treatment if so specified. The weathering course work shall conform to TNBP 44-HJ and consist of concrete with broken brick in neat slacked lime of specified thickness finished with one course of pressed split tiles / pressed tiles of specified thickness and size as described in the bill of quantities.

13. A.C. Rain Water Pipes

The pipes shall be of standard quality conforming to IS 1628. These shall be straight, true smooth and regular in thickness. They shall be free from cracks and other flaws. The supply shall include all necessary pipe fittings and accessories.

All pipes shall be fixed to wall or columns by standard M.S butt holder clamps of approved make. The spigot of the upper pipe shall be properly fitted into the socket of the lower pipe, such that there is uniform annular space for filling with the jointing materials. One third depth of this annular space is to be filled with spun yarn soaked in bitumen of approved quality and properly pressed with caulking tool. The remaining two, third depth of the joint is to be filled with Cement Mortar 1:2 (1Cement : 2 coarse sand) and shall be pressed with caulking tool and finished smooth at the top at an angle of 45 Deg. sloping up.

The rate shall include supplying and fixing pipes with specials and accessories, including sizing as required, jointing, testing, cutting of walls and making good necessary scaffolding etc., complete.

14. Flooring :

Flooring shall consist of a base course of cement concrete of specified thickness and proportion laid over the compacted earth or sand filling as specified and a finishing layer of concrete, mosaic, glazed tiles or any other material as specified to be laid. Flooring work for Factory shop floors as well as mosaic flooring shall be done as per the special specifications.

The bed flooring shall be prepared either level or sloped as per relevant drawing or as instructed by the Engineer-in-charge. Filling in basement with earth or sand shall be in accordance with TNBP 25. On the prepared bed, cement concrete of specified mix and thickness shall be laid and well consolidated.

A. Ellispattern, 1st Sort Flooring

On the clean wet surface of the concrete base before it has set, will be laid a layer of cement concrete to give a finished depth of 20/25 mm over the base concrete. The cement concrete will be of 1:3 proportions (1 cement and 3 hard broken stone chippings 3 to 10 mm Size). To make a coloured floor red oxide iron powder or other approved materials should be mixed with cement at the rate 10% of the weight of cement or as directed by the Engineer-in-charge. Ellis pattern flooring shall be done as described under clause 41-G of TNBP.

B. Glazed Tile Flooring

The tiles shall be of ceramic white or coloured and of specified dimensions as described in the schedule item. The top surface of tiles shall be glazed with a neat finish of uniform colour and texture and free from flaws, cracks, craze, specks or other imperfections. Tiles shall be true and shape with straight edges, non-absorbing and non – fading. Samples of tiles together with manufacturer's literature shall be submitted to the Engineer-in-charge for approval. Tiles shall conform to IS 177 latest.

Over the prepared surface of the floor a bedding layer of Cement Mortar (1:3) of specified thickness shall be laid-in-proper level and slope using screed patterns. The bedding layer shall be deeply scratched while it is set. A mortar set bed of 6mm thickness in cement lime mortar 1:1:3 (one cement one lime putty and three sand), shall be laid over the bedding layer. After mortar setting, bed has been leveled, a skin of neat cement shall be trowel led to the mortar setting bed immediately before the tiles are set. As soon as the mortar setting bed has sufficiently hardened, all tiles shall be finally secured in place and gently beaten in and finished surface brought to desired level. When grouting the glazed tiles, special care shall be taken to prevent scratching of the glazed surface. Joints shall be pointed with white or coloured cement to match the tile surface and cured. No joint shall be more than 1.5 mm thick.

15. White Washing and Colour Washing

White washing and colour washing shall be done as per clauses 63 and 64 of TNBP. The surface shall be thoroughly cleaned off mortar drops and foreign matter. All patching must be scraped properly. The white washing shall be done from pure shell lime / Janathacem. Samples of lime shall be got approved by the Engineer-in-charge. The wash shall be applied with a brush, the coats being laid on vertically and horizontally alternatively, each coat being allowed to dry before next coat is applied. For colour washing the desired shade shall be obtained by mixing approved quantity of colouring matter or distemper with shell lime solution and applied as per white. The contractor shall take every precaution to prevent white wash being splashed on wall, floor and other places and articles not to be white washed. No colour wash shall be done unless a sample pattern of the mixed colour has been approved by the Engineer-in-charge. The rates shall be inclusive of scaffolding charges, cost of ladder etc.,

16. Painting

All painting work shall be done in accordance with TNBP-66 and the relevant Indian Standard Specifications. Paints, varnishes, cement paints etc., shall be the highest grade products of well known approved manufacturer and shall be delivered to site in original sealed containers. It is desired that materials of one manufacturer only shall be used as far as possible. Colours shall be uniform and nonfading. Samples of all colours selected shall be submitted to the Engineer in charge for approval before bulk purchase is made. All finished work shall match corresponding samples kept with the Engineer.

Preparation of Surface :

Before painting wooden surfaces, protruding timber fibres shall be removed and nail marks shall be covered with putty. The surface shall be thoroughly cleaned and sand prepared. In case of steel work it shall be scraped, well brushed and cleaned free of rust, scale dirt. Base preparation for painting concrete, masonry and plastered surfaces shall be carried out as per IS 2395 – Part I. Before actually proceeding with the work of painting the concrete, masonry and plastered surfaces, it shall be verified that the surfaces shall be completely dry, free from efflorescence and alkaline effect.

Application

The primer shall be applied with brushes and spread as evenly and as smooth as possible. For steel work a priming coat of Red Oxide / Zinc Chromate paint shall be applied. Painting shall be done by skilled labourers in a work-man like manner. All coats shall be of proper consistency and shall be well brushed out, so that no brush marks are visible. The under coating should be nearest to the specified colour of the finishing coat. Unless otherwise specified ready mixed synthetic enamel paints shall be used for painting, wood and steel work. Under coats should be completely dry before finishing coat is taken up. Priming coat and under coat shall be rubbed with sand paper and dusted clean. The finished coat of approved paint shall then be applied.

17. Cement Painting

Cement Paint solution shall be applied to the surface with hair brushes in a number of coats to get uniform finish. After the first coat of paints has hardened, it shall be cured with water at least for 24 hours. The surface shall be wetted again before the application of the second coat. At least 24 hours should lapse between the two coats, number of coats shall be as specified in the schedule of quantities. It shall be kept damp at least for seven days.

18. French Polish

French polish to be used shall comply with IS 348. Polishing shall be obtained by dissolving 1 lb, of shellac in one gallon of mentholated spirit without applying any source of heat. After the shellac has dissolved ¼ lbs of cobalt, ¼ lbs of lobano and 0.4 oz of crystals of desired pigment shall be added. The solution shall be applied with a pad of fine muslin cloth tied as per general practice. The pad shall be dipped into the solution and wrung with fingers and be rubbed hard on the surface in this way, the first coat is to be given after this gets dried up, the successive coats shall be given in the same fashion till the mirror like surface is obtained. The wood to be polished shall be first applied with filler composed of 1.25 Kg. of whiting mixed with one litre of mentholated spirit and then sand papered when dry. The finished surface shall have uniform texture and gloss. Approved transparent sealer shall only be used in base preparation.

SPECIAL SPECIFICATION FOR CONTROLLED CONCRETE

a) PROPORTIONING MIX:

The proportion of aggregate, Cement and water to be used for controlled concrete shall be designed by preliminary tests of the materials to be actually used to obtain the densest to workable concrete requiring the minimum quantity of cement paste for binding the materials to give the required strength. However the maximum total quantity of aggregate by weight per 50 kg. of cement shall not normally exceed 450kg All proportions shall be by weight. However water may be added by weight or volume.

b) MIX DESIGN:

Immediately upon the receipt of the award of the contract, the Contractor shall inform the Engineer-in-charge the exact location of the sources of materials which he proposes to use and get the materials approved. The mix with the actual approved materials to be used shall be got designed by the Contractor in an approved laboratory chosen by BHEL and got approved by the Engineer-in-charge. These proportions shall be used so long as the materials continue to be the same quality and from the same sources. If during the progress of work, the Contractor wishes to change the materials, the proportions shall be fixed on the basis of fresh preliminary tests to give the required strength. No change of materials shall be allowed unless fresh tests with new materials show satisfactory results.

c) STRENGTH REQUIREMENTS OF CONCRETE:

Controlled concrete shall be in the following grades, M 15, M 20, M 25, M 30, and M 35 & M 40. The concrete mix shall be designed to produce the grade of concrete having the required workability and characteristic strength not less than the appropriate values (as per I.S. 456) as given in table below:

Sl. No	Grade of. Concrete	Specified Characteristic Cube Strength	
		Preliminary test N/mm2	Works test N/mm2
1.	M 15	20	15
2.	M 20	26	20
3.	M 25	32	25
4.	M 30	38	30
5.	M 35	44	35
6.	M 40	50	40

d) WORKABILITY OF CONCRETE:

The proportions chosen shall be such that the concrete is of adequate workability for the conditions prevailing on the work in question, and shall be properly compacted. Water shall be added to the mixer to give the required workability. The water content of each batch shall be adjusted as necessary to maintain the required workability with simultaneous adjustment of cement concrete such that the water cement ratio is not changed. The workability tests shall be carried out in accordance with IS : 1199 - Latest, "Methods of sampling and analysis".

Workability of concrete shall be controlled by direct measurement of water content, making allowance for any surface water in the fine and coarse aggregates. Allowance shall be made for surface water present in the aggregate when computing the water content. Surface water shall be determined by one of the field methods described in IS : 2386, Part III.

e) CONSISTENCY AND SLUMP:

The concrete shall have a consistency such that it will be workable in the required position. It shall be of such consistency that when properly vibrated it will flow around reinforcing steel and all embedded parts. The slump for concrete as determined by slump tests as per Indian Standard 456 (latest edition) shall not exceed the maximum slumps indicated below for each type of construction as approved by the Engineer-in-charge.

Workability	Slum in MM		Type of Construction
	Min.	Max.	
Medium	40	80	All RCC works

The contractor shall not place concrete having a slump outside the limits specified without the approval of the Engineer-in-charge.

At least one slump test shall be made for every compressive strength test carried out. More frequent tests shall be made if there is a distinct change in job conditions or if required by the Engineer-in-charge.

f) TESTS:

Test shall conform to the specifications laid down in IS : 456. These tests shall be got done in an approved laboratory and in accordance with IS : 516 - Latest at the cost of the Contractor (for making necessary cube moulds, transporting the cubes to the Laboratory and all other incidental etc.). The test fees for the cubes shall be borne by the contractor. In order to ensure proper quality control sampling of the concrete of each specification placed on any day in work shall be done in accordance with the following table.

Quantity of Concrete in work	Total Number of samples(each sample to consist of 6 test cubes)
Up to 5.00 Cu.m.	1
Greater than 5.00 Cu.m. and less than 15.00 Cu.m	2
Greater than 15.00 Cu.m. and less than 30.00 Cu.m.	3
Greater than 30.00 Cu.m. and less than 50.00 Cu.m.	4
Greater than 50.00 Cu.m.	4 + one additional sample for each additional 50 Cu.m. or part thereof.

i) The sampling shall be spread as evenly as possible throughout the day. When wide changes in weather conditions occur during concreting, additional samples may be taken as desired by Engineer-in-charge. Each sample shall consist of 6 cubes of 15 x 15 x 15 cm concrete. Test cubes shall be kept immersed in water until required for test which will be usually at 7 days and minimum crushing strength of not less than the following:

Grade of Concrete	M15	M20	M25	M30	M35	M40
Crushing strength in N/mm2 at the end of						
a) 7 days	10	13.50	17	20	23.50	27
b) 28 days	15	20	25	30	35	40

All costs connected with the preliminary tests for proportioning the mix, sampling, curing, handling, other incidental charges, labour charges and cost of materials shall be borne entirely by the Contractor. Testing charges for cubes (work tests) shall be borne by contractor. Such testing shall be conducted at approved laboratory as directed by the Engineer-in-charge or at the contractor's own laboratory set up at site itself.

All samples for tests shall be taken in the presence of Engineer-in-charge and the Contractor or his authorized agents.

A set of six specimens from random mixer batches, shall constitute a test, three being tested for 7 days and three being tested for 28 days strength.

The strength test result shall be the average strength of the three companion test specimens, tested at 28 days, except that, if one specimen in a test shows manifest evidence of improper sampling, moluding or testing, the result shall be discarded and the remaining two strengths averaged.

ii) Normally, 7 days and 28 days tests shall be made on specimens. For any mix, a correlation between 7 days and 28 days strengths may be made in the laboratory. Soon after a job starts, a similar correlation will be evolved for samples of a concrete taken from the mixer. After that correlation has been established, the results of the 7 days test may be used as an indicator of the compressive strength which should be expected at 28 days, provided such results are consistent, if 7 days tests shown compressive strength that are too low, corrective measures shall be taken at once, at the Engineer's direction, without waiting for the results of the 28 days tests.

iii) Each class of concrete shall meet the following strength requirements:

The average of any three consecutive strength tests shall have a value equal to or greater than the specified strength subject to the condition that only one out of three consecutive tests may give a value less than the specified strength but this shall not be less than 90% of the specified strength.

iv) In the event that concrete tested in accordance with the requirements of this specification, fails to meet the requirement, the Engineer shall have the right to require any one or all the following.

1. Changes in the concrete mix proportions for the remaining work.
2. Curing and testing of the concrete represented by the tests which failed.
3. **Replacement of any such portions of the structure. (No payment for dismantled concrete, associated from worker or reinforcement shall be made. Embedded fixtures, reinforcement and adjoining structures, damaged during dismantling shall be made good by the Contractor at his own expense).**

4. Extended curing of the concrete represented by the specimen.
5. The contractor shall carry out all such measures as directed at his own expense.

Load tests of structural members may be required by the Engineer when the strength of the job control tests falls below the required strength and is not acceptable as per "Acceptance Criteria" stated earlier. The entire cost of the load test shall be borne by the Contractor. If the load testing is decided by the Engineer, the member under consideration shall be subjected to a superimposed load equal to one and quarter (1.25) times the specified superimposed load used for design and this load shall be maintained for a period of 24 hours before removal.

The detailed procedure of the test shall be decided by the Engineer-in-charge.

If, within 24 hours of the removal of the load, the structure does not show a recovery of at least 75 percent of the deflection after the 24 hours under load, the test should be repeated. The structure should be considered to have failed to pass the test if the recovery after the second test is not at least 80 percent of the maximum deflection occuring during the second test.

If the member shows evident failure, such changes as are necessary to make the structure adequately strong, shall be made by the contractor free of cost to the Department. If on the other hand, the failure becomes apparent, the Engineer under special circumstances, can retain the portion of the structure under test, provided suitable strengthening and or load dispersed arrangement is feasible. Cost of such strengthening or load dispersed arrangement shall be borne by the Contractor.

Load test shall not be made until the expiry of 56 days of effective hardening of the concrete.

If a portion of the structure is found to be unacceptable it shall be dismantled and replaced by a fresh structure as per specification. The cost of such dismantling and reconstruction should be borne by the Contractor.

The proportions of cement, fine aggregate, coarse aggregate and water necessary to produce a concrete mix which will fulfill the requirements of this specification for each grade of concrete shall be determined on the basis of trial mixes conducted with the samples of the material to be used in the work by the Engineer-in-charge in the field Laboratory.

All mix design and test data and results shall be maintained as part of the record of the contract and shall be signed by the Engineer-in-charge and the Contractor. A register showing such record shall be maintained at site of work.

GENERAL CONDITIONS OF CONTRACT
FOR
LUMP SUM, ITEM RATE AND PERCENTAGE CONTRACT

Bharat Heavy Electricals Limited

BOILER AUXILIARIES PLANT

RANIPET

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CHAPTER -1

1.In these General Conditions of Contract, the following terms shall have the meaning hereby assigned to them, except where the context otherwise requires:-

a) The "Contract" means, the documents forming the tender and acceptance thereof, together with all the documents referred to therein including general and special conditions to contract. All these documents as applicable taken together shall be deemed to form one contract and shall be complementary to one another.

b) The "work" means, the work described in the tender documents in individual work-orders as may be issued from time to time to the contractor by the Officer-In-charge within the power conferred upon him including all notified or additional items of works and obligations to be carried out as required for the performance of contract.

c) The "contractor" means, the individual Firm or Company whether incorporated or not, undertaking the work and shall include the legal personal representatives of such individuals or the persons composing the firm or Company or the successors of the firm or company and the permitted assigns of such individual or firm or Company.

d) "The Officer-In charge" means, the Officer deputed by the SM/CP&S to supervise the work or part of the work.

e) "Approved" and "Directed" means, the approval or direction of SM/CP&S, or person deputed by him for the particular purposes.

f) "BHARAT HEAVY ELECTRICALS LIMITED" (herein after referred to as BHEL) shall mean the Board of Directors, Chairman, Executive Director, General Manager or other Administrative Officer of the said Company including SM/CP&S authorized to invite tenders and enter into contract for works on behalf of the Company.

g) The "Contract sum" means, the sum accepted or the sum calculated in accordance with the prices accepted in tender and / or the contract rates as payable to the contractor for the execution of the work during the currency of the contract.

h) A "week" means, Seven Days, without regard to the number of hours worked or not worked in any day in that week.

i) A "day" means, the day of 24 hours (TWENTY FOUR) irrespective of the number of hours worked or not worked in that day.

j) A "working day" means, any day other than that prescribed by the NEGOTIABLE INSTRUMENTS ACT as being a Holiday, and consists of the number of hours of labour as commonly recognized by good employers in the trade in the district where the work is carried out or as laid down in the BHEL regulations.

k) In the case of Lump-sum Contracts **'**CONTRACTOR's PERCENTAGE' means the percentage offered by the Contractor as addition / deduction from the cost of building, or other works listed in Schedule "A" to provide a Lump-sum quotation for performance of the contract inclusive of all extra costs, profit, establishment charges, carriage, insurance etc., complete.

l) In the case of Percentage rate contracts “Contractor's Percentage" shall, if the context so permits mean the uniform percentage tendered by the Contractor and accepted by the Accepting Officer, and the expression **'CONTRACT RATE**' shall likewise mean the rates in the BHEL Schedule of Rate applicable as on date as adjusted by the said Contractor's percentage, if any.

m. **'EMERGENCY WORKS'** means any urgent measures which in the opinion of the Engineer-in-Charge, become necessary during the progress of the work to obviate any risk of accident or failure which become necessary for security.

n. **'PROVISIONAL SUM'** or "Provisional Lump-sum" means a Lump-sum included by the BHEL in the tender documents and represents the estimated value of work for which details are not available at the time of inviting the tender.

o **'PROVISONAL ITEMS'** means items for which approximate quantities have been included in the tender documents.

p. **'DAY WORK'** means an item of work requiring the employment of labour with, or without materials as the case may be which in the opinion of the Engineer-in-charge, is not capable of being evaluated by the accepted methods of measurement or assessment and is paid for on the basis of the actual labour and materials utilized on the particular item of work referred to.

q. The **'DATE OF CONTRACT'** shall mean the date /dates on which the parties to the contract have signed the contract agreement.

r. **MAINTENANCE PERIOD / GUARANTEE PERIOD** shall mean the period during which the contractor shall remain liable for satisfactory performance of the work under the contract, repair or replacement of any part of the work performed under the contract.

s. '**COST'** shall mean and include any liability, expenditure, overhead costs whether on the site or off the site incurred by BHEL.

The contractor shall be deemed to have carefully examined all the documents to his satisfaction. If he shall have no doubt as to the manner of the contract document, he shall obtain the details / clarification from **the Company** before signing the contract.

MANNER OF EXECUTION OF CONTRACT:

The contract shall be deemed to have come into force from the date of Letter of Intent unless otherwise provided in the Letter of Intent. Unless and until the contract agreement is executed, the Letter of Intent read in conjunction with the tender documents will constitute a binding contract.

CHAPTER - II
SCOPE OF CONTRACT

2. Heading to Contract:
The heading to these conditions shall not affect the interpretation thereof.

3. Contract Documents:

The Accepting Officer shall furnish to the Contractor on demand "FREE OF COST" three copies of signed Drawings and one copy of the signed agreement comprising of preamble to agreement, General and Special Specification, Schedule A,B,C & D etc., (but excluding General Conditions of Contract and Drawings) and three copies of all further drawing issued the progress of work.

However, for any additional copies of the agreement or drawings required by the Contractor, the same will be supplied on payment of the specified cost. The Contractor shall keep one copy of all the Drawings and the Specifications on the site and the Engineer-in-Charge or his representative shall be at all reasonable times to have access to them. None of these documents shall be used by the contractor for any purpose other than that of this contract.

3a. Secrecy

The Contractor shall take necessary steps to ensure that all persons employed by them on any work in connection with this contract have noted that the Indian Officials Secret Act 1923 (XIX of 1923) & any Company's guidelines issued from time to time applies to them fully and shall continue so to apply even after the execution of such work under this contract. All classified documents furnished to the contractor shall be returned to the Engineer-in-charge on the completion of works or the earlier determination of the Contract.

4. Works to be carried out

The Contract shall, except as provided under Schedules 'B' and 'C' include all labour materials, tools, plant, equipment, and transport which may be required in preparation for and in the entire execution and full completion of the work. Schedule 'A' shall be deemed to have been prepared in accordance with good practice and recognized principles and unless otherwise stated, the descriptions given therein shall be held to include waste on materials, carriage, cartage, lead, hoisting, setting and fixing in position and all other labour necessary for the entire execution and full completion aforesaid. Any error in description or quantity in Schedule 'A' or any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the work comprised therein according to the Drawings and Specifications, or from any of his obligations under the Contract.

The insertion of the name of any firm of suppliers in the Tender Documents is for the purpose of obtaining a particular class or quality of materials or workmanship but the articles or materials specified may be obtained from any other firm subject to prior written approval of the Engineer-in-Charge.

In the case of a discrepancy between schedule 'A' and the specification and / or the Drawings, the Accepting Officer shall be the sole deciding authority as to which shall prevail and his decision shall be final and conclusive. If neither drawings nor specifications contain any mention of minor details of construction, which is in the opinion of the Accepting Officer, whose decision shall be final and conclusive, are reasonable and obviously and fairly intended for the satisfactory completion of the work, such details shall be provided by the Contractor without any extra cost as if they were specially mentioned and shall be deemed to be included in the contract.

The Contractor will be deemed to have satisfied himself as to the nature of the site, local facilities of access and all matters affecting the execution and completion of the work. No extra charges consequent on any mis-understanding in these respects or otherwise will be allowed.

5. Provisional Items

The full amount of provisional Lump-sums and the value annexed to each provisional item inserted in the Tender Documents shall be deducted from the contract sum and the value of work ordered and executed there under shall be ascertained by measurement of valuation as for deviations.

No work under these items is to be begin without instructions in writing from the Engineer -in-charge.

The extent of quantities or items described as "Provisional" shall not be held to guarantee or limit the amount and description of the work to be executed by the Contractor either in respect of the items concerned or the work as a whole.

No addition or deduction shall be made by the Contractor to the amount of the provisional Lump-sum as included in the tender documents.

6. Deviations

The contractor shall not make any alteration in addition to or omission from the work as described in the tender documents except in pursuance of the written instructions of the Engineer-in-charge. No such deviation from the work described in the tender documents shall be valid unless the same has been specifically confirmed and accepted by the Accepting Officer in writing and incorporated in the contract.

The Accepting Officer may deviate either by way of addition or deduction, from the work so described, provided that the contract sum be not thereby varied on the whole by not more than percentage set out in the tender documents. The value of all additions and deductions will be added to or, deducted from the contract sum, whenever the Accepting Officer intends to exercise such a right, his intentions shall specify the deviations which are to be made, the lump-sum assessment or the proposed basis of payment, the extra time allowed if any, and the date for completion of the entire contract.

Any objection to the Contractor to any matter concerning the order shall be communicated by him in writing to the Engineer-in-charge within seven days from the date of such order, but under no circumstances shall the work *be* stopped (unless so ordered by the Engineer-in-charge in writing) owing to differences or controversy that may arise from such an objection. In the absence such communication of objection by the contractor, he will be deemed to have accepted the order and the conditions stated therein, in the event of the contractor failing to agree with the Engineer-in-charge regarding the terms of the proposed deviation, the objection shall be referred to the Head of Civil Engineering Department whose decision shall be final, conclusive and binding on the contractor.

7. Time

Notwithstanding anything to the contrary, including, but not limited to, provisions relating to extension of time and compensation/or delay, time is and shall be **the essence of the contract** and is specified in the tender documents or in each individual Work Order. Time shall continue to be the essence of the contract even in respect of extension(s) that may be granted as per the terms of the Contract.

As soon as possible after the contract is let or any substantial Work Order is placed and before work order is to begin, the Engineer-in-charge and the Contractor shall
Agree to a Time and progress Chart. The Chart shall be prepared in direct relation to the time stated in the tender documents or the Work Order for the completion of the individual items thereof and the contract or order as a whole. It shall indicate the forecast of the dates for the commencement of the various trade processes or sequence of the work and shall be amended as may be required by agreement between the Engineer-in-charge and the Contractor within the limitation of the time imposed in the tender, document or order.

In the absence of any specific Time and Progress chart to be agreed to between the Contractor and Engineer-in-charge the contractor shall ensure and maintain uninterrupted progress of the work such that the entire work shall be completed within the time imposed in the Tender documents or Order and that the proportion of the work completed up to any time in relation to the entire work to be under the Contract or Order shall not be less than the proportion that the time elapsed bears to the total time of completion provided in the Tender documents or Order.

The Contractor shall suspend the execution of the work, or any part or parts thereof whenever call upon in writing by the Engineer-in-charge to do so, and shall not resume work thereon until so directed in writing by the Engineer-in-charge. The Contractor will be allowed an extension of time for completion not less than the period of suspension. However, no other claim in this respect for compensation or otherwise, however will be admitted. Provided the cause for suspension is not attributable to any default of the contractor's part to proceed with or fulfill the contractual obligations. This may also be extended to allow for alteration of work made by the deviation order.

8. Stores and Materials

8.1 Materials to be supplied by the Contractor

The Contractor shall at his own cost and expense provide all materials required for the work other than those listed in Schedule-B which are to be supplied by Bharat Heavy Electricals Ltd.

All materials to be provided by the Contractor shall be brand new and in conformity with the specifications laid down in the contract and the Contractor shall if requested by the Engineer-in-charge furnish proof, to the satisfaction of the Engineer-in-change, that the materials so comply.

The Contractor shall at his own cost and expense and without delay, supply to the Engineer-in-charge samples of materials proposed to be used in the works. The Engineer-in-charge shall within seven days of supply of samples or within such further period as he may require and intimate to the Contractor in writing, inform, the Contractor whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Engineer-in-charge for his approval fresh samples complying with the specification laid down in the contract.

The Engineer-in-charge shall have full powers to requires removal of any or all of the materials brought to site by the Contractor which are not brand new and not in accordance with the contract specifications or do not confirm in character or quality to samples approved by him. In case of default on the part of the Contractor in removing rejected materials, the Engineer-in-charge shall be at liberty to have them removed by other means at the Contractor's expense and risk. The Engineer-in-charge shall have full power to require other proper materials to be substituted for rejected materials and in the event of the contractor refusing to comply, he may cause the same to be procured by other means. All costs, charges and expenses which may attend such substitution shall be borne by the contractor. All charges on account of Octroi, terminal or sales tax and other duties on materials obtained for the work from any source (excluding materials supplied by BHEL) shall be borne by the Contractor.

The Engineer-in-charge shall be entitled to have tests carried out as specified in the Contract for any materials supplied by the Contractor other than those for which, as stated above, satisfactory proof has already been furnished, at the cost of the Contractor and the Contractor shall provide at his expense all facilities which the Engineer-in-charge may require for the purpose.

8.2 Materials to be supplied by BHEL

Materials which BHEL are prepared to supply are shown in Schedule-B which also stipulates place of issue and rate(s) to be charged in respect thereof. Soon after acceptance of the tender the Contractor shall agree in writing with the Engineer-in-charge *on* a phased programme of his requirements with regard to deliver of materials.

In the event of delay in supply of any Stores and materials mentioned in Schedule-B the contractor shall be entitled to reasonable extension of time as provided for under condition-9 but no claim for compensation or damage on any ground whatsoever shall be entertained by BHEL.

For the materials listed in Schedule-B the contractor shall give a reasonable notice in writing of his requirement to the Engineer-in-charge in accordance with the phased programme.

AII materials issued to the Contractor by BHEL for incorporation or fixing in the works shall on completion or on foreclosure of the works and before submission of bills, be returned by the Contractor at his expense, at the place of issue, after making due allowance for actual consumption reasonable wear and tear and / or waste. If the Contractor is required to deliver such materials at a place other than the place less the transportation charges which would have been incurred by the Contractor had such materials been delivered at the place of issue, shall be borne by BHEL.

The Contractor shall bear the cost of loading, transporting to site, unloading storing under covered area as necessary, assembling and joining the several parts together as necessary and incorporating or fixing materials in the work including all preparatory work of whatever description as may be required and of dosing preparing, loading and returning empty cases or containers to the place of issue.

If, in the opinion of the Engineer-in-charge (which shall be final and conclusive) any stores supplied by BHEL have either during currency of the work or after completion of the work whilst under the custody, of the contractor, becomes damaged to such an extend that they cannot be usefully utilized, either in the same work or in other works, the Engineer-in-charge shall not accept the stores and will recover the cost at the rates specified in the contract. The contractor shall not be entitled to any claim whatsoever on this account.

The Engineer-in-charge shall have access to the stores where materials issued by BHEL as per schedule -B of the contract is stored to ensure the balance stock of materials on hand after taking into consideration the materials used on the work is as per the issue and usage. If there be any discrepancy, the cost towards the same will be recovered at the **double recovery rate** indicated for the material concerned. This is without prejudice to and in addition to the overall reconciliation of materials to be made at the completion of work.

If on completion of works, the Contractor fails to return surplus materials out of those supplied by BHEL then, in addition to any other liability, which the Contractor would incur, the Engineer-in-charge may, by written notice to the Contractor, request him to pay within a fortnight of receipt of the notice for such un-returned surplus materials given in sub para-4.

The Contractor shall have to build a weather-proof shed for the storage of Cement (required for 15 days consumption of the work).

8.3 General

Materials required for the works, whether brought by the Contractor or supplied by BHEL shall be stored by the Contractor only at places approved by the Engineer-in-charge. Storage and safe custody of materials shall be at the risk, cost and the responsibility of the Contractor.

Officials concerned with contract shall be entitled at any time to inspect and examine any materials intended to be used in or in the works either on the site or at factory or workshop or other places where such materials are assembled, fabricated or manufactured or at any place(s) where these are lying or from which these are being obtained and the Contractor shall give such facilities as may be required for such inspection and examination.

All materials brought to the site shall not be removed off the site without the prior written approval of the Engineer-in-charge. But whenever the works are finally completed and advance if any, in respect of any such materials is fully recovered the Contractor shall at his own expense forthwith remove from the site all surplus materials out of originally supplied by him and upon such removal the same shall revert in and became the property of the Contractor

Should the Engineer-in-charge consider at any time during the construction or reconstruction prior to the expiry of the MAINTENANCE PERIOD that the stores or materials provided by the Contractor are unsound or of a quality inferior to that contracted for or otherwise not in accordance with Contract (in respect where of the decision of the Engineer-in-charge shall be final and conclusive) the contractor shall on demand in, writing from the Engineer-in-charge specifying the Stores or materials complained of not withstanding that the same may have been inadvertently passed, certified and paid for, forthwith remove the Stores or materials so specified and provide other proper and suitable stores or materials at his own expense, to the entire satisfaction of the Engineer-in-charge and in the event of his failing to do so within a period to be specified by the Engineer-in-charge in his demand aforesaid the Engineer-in-charge may replace with others the Stores or materials complained of at the risk and expense in all respects of the Contractor. The liability of the Contractor under this condition shall not extend beyond the maintenance period aforesaid except as regards Stores or materials which the Engineer-in-charge shall have previously given notice to the Contractor to replace.

9. Delay and Extension of Time:

If, in the opinion of Engineer-in-charge the work is delayed:

i) by reason of abnormally bad weather, OR

ii) by reason of serious loss or damage by fire OR

iii) by reason of Civil commotion local combination of workmen, strike or lockout, affecting any of the trades employed on the work, OR

iv) by delay on the part of the agency or tradesman engaged by BHEL in executing work not forming part of this Contract OR

v) by reason of any other cause which in the absolute discretion of the Engineer-in-charge is (when he is the Accepting Officer of the Contract), beyond the Contractor's reasonable control, then in such cases the Accepting Officer, on the recommendation of the Engineer-in-charge or higher authority may make fair and reasonable extension in the completion dates of the individual items of work of the Contract as a whole. Such extension which will be communicated to the Contractor by the Engineer-in-charge in writing shall be final and binding on the Contractor. No other claim in this respect for compensation or otherwise howsoever is admissible. Upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-charge but shall nevertheless use constantly his best endeavor to prevent or make good the delay and shall do all that may reasonably be required to the satisfaction of the Engineer-in-charge to proceed with the work.

10. Patent Rights

The Contractor shall fully indemnity BHEL or the agent, servant, employee of BHEL against any action, claim or proceeding relating to infringement or the use of any patent or design *or* any alleged patent of design rights, and shall pay any royalties which may be payable in respect of any article / or part thereof included in the Contractor. In the event of any claim, being made or action brought against BHEL or any agent, or servant or employee of BHEL in respect of the matters aforesaid: the Contractor shall immediately be notified thereof for taking necessary action provided that payment of indemnity shall not apply when such infringement has taken place in complying with the specific directions issued by the **BHEL** but the Contractors shall pay any royalties payable in respect of any such use.

11. Tax & Duties

BHEL will deduct all tax & duties for TDS of GST & IT

12. Royalties

Royalties fixed from time to time as per prevalent local rules will be recovered for materials, which the Contractor may be allowed to remove from quarries situated on land which is in charge of the BHEL authorities.

13. Plant & Equipment:

The Contractor shall at his own expense, supply all tools, plant and equipment (Herein after referred to as T&P) required for the execution of the contract.

14. Assignment of Transfer of Contract

The Contractor shall not without the prior written approval of the BHEL, assign or transfer the contract or any part thereof, or any share, or interest thereon to any other persons. No sum of money which may become payable under the contract shall be payable to any person, other than the contractor unless the prior written approval of the BHEL to the assignment or transfer of such money is given.

a. Sub-Contract
The Contractor shall not sub-let any portion of the contract without the prior written approval of the BHEL.

15. Compliance to Regulations and Bye-Laws

The Contractor shall confirm to the provisions of any statute relating to the work and regulations and Bye-Laws of any local authority. The Contractor shall be bound to give all notices required by statute regulations or By-Laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof.

CHAPTER -III

PERFORMANCE OF THE CONTRACT

16. Security deposit

a) The rate of Security Deposit (SD) will be 5% of the contract value.

b) 50% of the required Security Deposit, including the EMD, shall be collected before start of the work from the Contractor. Balance of the Security Deposit can be collected by deducting 10% of the gross amount progressively from each of the running bills of the Contractor till the total amount of the required Security Deposit is collected.

c) The security deposit may be furnished in any one of the following forms:

1) Local cheques of scheduled banks, subject to realization.

2) Pay order / Demand draft / Electronic fund transfer in favour of BHEL,

3) Bank guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL.

4) Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The FDR should be in the name of the contractor, A/c BHEL, duly discharged on the back and lieu marked by the bank in favor of BHEL.

5) Securities available from Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (Certificates should be held in the name of Contractor furnishing the security and duly endorsed / hypothecated / pledged in favour of BHEL and discharged on the back).

EMD of the successful tenderer can be converted and adjusted against the security deposit.
The security deposit shall not carry any interest.

(Note: Acceptance of security deposit against Serial No.4 & 5 above will be subject to hypothecation or endorsement on the documents in favour of BHEL. However BHEL will not be liable or responsible in any manner for the collection of Interest or renewal of the documents or in any other matter connected therewith.)

Security Deposit shall be released to the Contractor upon fulfilment of contractual obligations as per terms of the contract.

Security Deposit shall not carry any interest.

17. Orders Under the Contract

All orders, notices etc. to be given under the contract shall be in writing, type-script or printed and if sent by registered post to the address given in the tender of the Contract, shall be deemed to have been served on the date, when in the ordinary course they would have been delivered to him. The Contractor shall carry out without delay all orders given to him.

18. Admission to Site

The contractor shall not enter on (other than for inspection purposes) or take possession of the site unless permitted to do so by the Engineer-in-charge. The portions of the site to be occupied by the Contractor will be clearly defined and marked on the site plan, and the contractor will not be allowed to extend his operations beyond these areas The Contractor shall provide if necessary or required at the site, temporary access thereto and shall alter, modify and maintain the same as required from time to time. He shall clear away the access route when no longer required restoring the area to its original condition.

The Engineer-in-Charge shall have power to execute other works (whether or not connected with the work, in the contract agreement) at the site contemporaneously with the execution of the original work and contractor shall give reasonable facilities for this purpose.

BHEL reserves the right of taking *over,* at any time, any portion of .the site which they may require and the contractor shall at his own expense clear such portion forthwith. No photographs of the site or of the work or any part there of shall be taken or published or otherwise circulated without the prior approval of the Engineer-in-charge.

No such approval shall however exempt the Contractor from complying with any statutory provision in regard to the taking and publication of such photographs.

BHEL Officials connected with the Contract shall have the right of entry to the site at all times.

Engineer-in-change shall have the power to exclude from the site any person whose admission there to may, in his opinion is undesirable for any reason whatsoever.

The Contract shall be governed by the security regulations of BHEL including the entry or exit timings as may be in force from time to time. The Contractor should follow these regulations strictly and no claims for any additional payment whatsoever will be entertained in this regard under any circumstances.

19. Contractor's Supervision

The Contractor shall either himself supervise the execution of the contract or shall appoint a competent agent acceptable to the SM/CP&S to act in his stead.

Orders given to the Contractor's agent shall be considered to have the same force as if they have been given to the Contractor himself.

The Contractor or his accredited agent shall attend when required without making any claim for doing so, either the office of the SM / Civil Projects & Services or the OFFICER-INCHARGE, to receive instructions.

The SM/CP&S shall have full powers and without assigning any reason, require the Contractor to immediately cease to employ in connection with this contract, any agent, servant or employee where continued employment is, in his opinion undesirable. The Contractor shall not be allowed any compensation on this account.

20. Labour Laws

The Contractor shall remain liable for the payment of all wages or other moneys to his work-people or employees under the payment of Wages Act 1936, Employees Liability Act. 1938, Workmen's Compensation Act 1923 or any other Act or enactment, relating thereto and rules framed, thereunder from time to time.

21. Safety Rules

The Contractor shall comply with all safety rules of BHEL and deploy qualified safety Officer in full time at site works.

22. Water, Power, Compressor Air

The Contractor shall allow in his Tender and provide at his cost all water, power, compressed air required for the work or his employees on the work, together with all pipes and fittings or other means that may be necessary or required to ensure a proper and ample supply of water etc for all purposes connected with the work.

In the event of a provision existing in the Tender documents for supply of water, power and compressed air on payment by Bharat Heavy Electricals Limited, the same will be supplied from the BHEL supply system or other sources. at any points fixed by the Engineer-in-charge on the site of work, the contractor shall make necessary arrangement for lifting, pumping, carrying or Conveying the the same as .'required at his own cost. **The levy of charges to be borne by the contractor in such case shall be specifically mentioned in the tender documents.**

In the case of work to be carried at BHEL customer's site, the terms and conditions on the provision of power, water and compressed air will be subjected to BHEL contract with customer and tender conditions.

23.Temporary workshops, Stores Etc.,

The Contract shall, during the progress of the work provide, erect and maintain at his own expense all necessary temporary workshops. Offices etc., required for the proper and efficient execution of the work. The planning, and erection of these buildings shall have the approval of the Engineer-in-charge and the Contractor shall at times keep them tidy and in a clean and sanitary condition to the entire satisfaction of the Engineer- in -charge.

On completion of the work all such temporary building shall be cleared away and the site restored and left in a dean and tidy condition to the entire satisfaction of the Engineer - in - charge.

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24.Tools and Plant on site

All tools, plant and equipment brought to. the site shall not be removed from the site without the prior written approval or the Engineer-in-charge. When the work is finally completed or the contract is determined for reasons other than the default of the contractor he shall, forth with remove from the site all tool plant, equipment etc.. (other than those as may have been provided by BHEL)

25. Statements of Hire Charges

A monthly detailed statement of the hire charge incurred in respect of BHEL tools, plant, equipments etc. shall be given to the Contractor by the Engineer-in-charge.

26. Precautions Against Risks

The Contractor shall be responsible for providing at his own expense for all precautions to prevent loss or damage from any and all risks and to minimize the amount of any such loss or damage and for the necessary steps to be taken for the said purpose.

27. Notices and Fees

The Contractor shall give all notices required by any Statutory provision or by the regulations and for bye-laws of any Iocal / or of any same are or will be connected. The contractor shall pay and indemnify BHEL against any statutory fees and charges payable under such Acts, Regulation and / or bye-laws in respect of the work and shall make and supply all drawings and plans required in connection with any such notice.

28. Setting out of the works and Protective and Maintaining signals and works

The Engineer-in-charge shall supply dimensioned drawings, levels and other information necessary to enable the contractor to set out the work, the contractor shall at his own expense set accurately according to the drawings and figured dimension thereon, all the work comprised in the contract and any extras or additions there to and shall be solely responsible for their being so set out and executed.

All bench marks, pegs, signals on the surface alignment stones, milestones and all similar marks whether put in by BHEL Authorities for the purpose of checking the Contractor's work or in the nature of permanent survey marks will during the tenure of the contract, be under the care of the Contractor who shall at his own expense take all proper and reasonable precautions and care to preserve and maintain them in their true position. In the event of these marks being disturbed or obliterated by accident or due to any other cause whatsoever, the same may, if deemed necessary be replaced by the Engineer-in-charge at the Contractor's expense and the cost thereof be deducted from any money then or thereafter becoming due to the Contractor

Where requested by the Contractor, the level marks, centre line and chain age pegs corresponding to those shown on the Drawing will be pointed out to the Contractor on the ground but all bench marks or chain age pegs additional to those shown on the Drawing will be set out by BHEL authorities.

29. Site Drainage

All water that may accumulate on the site during the progress of the work, or in trenches and excavations shall be removed to the entire satisfaction of the Engineer-in-charge and at Contractor's expense.

30. Excavation, Relics, etc.

Materials of any kind obtained from excavation on the site shall remain the property of BHEL and shall be disposed off as Engineer-in-charge directions.

All gold, silver, oil and other minerals of any description and all precious stones coins treasures, relice, antiquities and other similar items which may be found in or. upon the site shall be the property of Bharat Heavy Electrical Limited and the contractors shall duly preserve the same to the satisfaction of the BHEL and shall from time to time deliver the same to such person or persons as the BHEL may appoint to receive the same.

31. Foundations

The Contractor shall not lay any, foundations until the excavations for the same have been examined and approved in writing by the Engineer - in-charge.

32. Covering in work

The Contractor shall give reasonable notice in writing to the Engineer - in-charge whenever any work is to be permanently covered up or concealed, whether by earth or other means so that it can finally be inspected or measured, if necessary. In default of so doing, the Contractor shall if required by the Engineer-in-charge un-cover such work at his own expense.

33. Approval of Works by Stages

All work embracing more than one process shall be subject to examination and approval at each stage thereof and the Contractor shall give due notice in writing to the Engineer-in-charge when each stage is ready. In default of such notice being received, the Engineer-in-charge shall be entitled to approve the quality and extent thereof at any time he may choose and in the event of any dispute, the decision of the Engineer-in-change thereon shall be final conclusive.

34. Execution of the work

The work shall be executed in a workman like manner and to the satisfaction in all respects of the Engineer-in-charge.

The Engineer-in-charge will communicate or confirm his instructions to the Contractor in respect of the execution of the works in a "**Work Site Order Book**" maintained at his office and the Contractor shall visit this office daily and shall confirm receipt of such instruction by signing the relevant entries in this book. Such entries will rank as order to notices in writing the intent and meaning of these conditions.

35. Day Work

No ‘day – work’ shall be performed without the prior written instructions of the Accepting Officer.

The Contractor shall give to the Engineer-in-charge reasonable notice of the start of any work ordered to be executed by day-work and shall deliver to the Engineer-in-charge within two days of the end of each pay week a return in duplicate giving full detailed accounts of labour and materials for the pay week. One copy of each of these returns, if found correct will be certified by the Engineer-in-charge and returned to the Contractor and must be produced at the time of adjustment of accounts.

An Invoice in duplicate signed by the Contractor or his agent shall be sent with each delivery of materials for day-work and the Contractor will be furnished with receipt signed by the Engineer-in-charge specifying the description, quantities, weight or measurement (as the case may be) of the articles approved, reference will made in this receipt in the return aforesaid and the Contractor's Bill.

In the case of Lump sum Contracts, the rates to be charged and the percentage addition for profit and establishment charges etc. will be agreed upon between the Accepting Officer and the Contractor prior to the execution of the work.

36. Inspection of the Work

BHEL Officers concerned with the contract shall have power at any time to inspect and examine any part of the work and the Contractor shall give such facilities as may be required to be given for such inspection and examination.

Should Engineer-in-charge consider, at any time during the expiry of the maintenance period, that any work has been executed with unsound, imperfect or unskilled workmanship or of a quality inferior to that contracted for or not otherwise in accordance with the contract (in respect}. Where of the decision of the Engineer-in-charge shall by final and conclusive the contractor shall, on demand in writing from the Engineer-in-charge specifying the fault not withstanding that the same may have been inadvertently passed, certified and paid for, forthwith rectify or removed and reconstruct the work so specified in whole or in part a& the case may require at his own expense to the entire satisfaction of the Engineer-in-charge and in the event of his failing to do so within a period lo be specified by the Engineer-in-charge in his demand as aforesaid, the Engineer-in-charge whose decision shall be final and binding may carry out the work by other means at the risk and expense in all respects of the Contractor. However, the liability of the Contractor under this condition shall not extend beyond the maintenance period except as regards workmanship which the Engineer-in-charge shall have previously given notice to the Contractor to rectify.

37. Responsibility for Building

In the event of any building or part of any building being handed over to the' Contractor for the execution of work there to under the provisions of the Contract he shall give a written receipt for all fixtures, glass etc., and he shall be required to make good at his own expense all damages resulting from the cause whatsoever while in his charge and on completion of the work to deliver the said building or part thereof in a clean state complete in every particular to the entire satisfaction of the. Engineer-in-charge.

38. Insurance

The contractor shall, within one month after the date of acceptance of the contract, insure the work on **"all risks" basis** against loss and damage by fire, tempest, floods, earthquake, riots, strike and against damage by aircraft with an insurance office approved by the accepting officer, from the date of acceptance of work or actual commencement of work whichever is earlier. Such insurance shall be effected in the name of BHEL and shall be for the full value of the contract sum. The contractor shall lodge with BHEL the policies and receipts of the premiums for such insurance and shall maintain such policies in force until the entire completion of the work as certified by the Engineer-in-charge. The cover shall also include whenever necessary the risks of testing including breakdown or explosion or plant and machinery undergoing testing, trial and commissioning operations. The insurance shall also specifically cover removal of debris cost. The sum Insured shall represent the estimated full value of the contract work inclusive of value of free supply materials by BHEL, transport charges, customs dues, express freight, overtime charges, cost of erection, value of constructional plants and machinery; removal of the debris and excavation of costs. Where the contract includes a maintenance period, the Insurance cover shall specifically include the Contractor's liabilities during the maintenance period. The insurance shall also be extended to cover third party personal injury and property damage for a sum to be specified by BHEL.

If the contractor fails to comply with the terms of this condition, the accepting officer may insure the work and may deduct the amount of premiums from any money that may become payable to the contractor or may at his discretion refuse payment of any advance payment to the contractor until the contractor shall have complied with the terms of this condition.

Such insurance whether effected by the Accepting officer or the Contractor shall not be a limit or bar to the liability and obligation of the contractor to complete the entire work in all respects as certified by the Engineer-in-charge.
In case of such a loss or damage as aforesaid, the money payable under any such insurance shall be received and may be retained by BHEL until the work is finally completed and shall then be credited to the contractor in the final statement of accounts in the event of the contract not having been previously cancelled under these conditions, after taking into account the delay in completion, settlement to his workers for damages, damage to BHEL's property etc.

39. Damage & Loss to Private Property & Injury to Workmen

The Contractor shall at his own expense reinstate and make good to the satisfaction of the SM/CP&S and pay compensation for any injury, loss or damage occurred to any property or rights whatever including property and rights of BHEL (or agents) servants or employee of BHEL, the injury loss or damage arising out of or in any way in connection with the execution or purported execution of the contract and further the contractor shall indemnify, the BHEL against all claims enforceable against BHEL (or any agent, servant or employee of BHEL) or which would be so enforceable against BHEL where BHEL is a private person, in respect of any such injury (including injury resulting in death) loss or damage to any person whomsoever or property including all claims which may arise under the Workmen's Compensation Act or otherwise.

40. Completion:

The works shall completed to the entire satisfaction of the Engineer - in -charge and in accordance with the Contractor's forecast of Time and progress where operative, and all unused stores and materials, tools, plants equipment, temporary Building and things shall be removed from the site and work cleared of rubbish and all waste materials and leveled up clean and tidy to the satisfaction of the Engineer-in-charge at the Contractor's expense and/or before the Schedule date of completion.

The BHEL shall have power to take over from the Contractor from time to time such sections of the Work as have been completed to the satisfaction of the Engineer-in-charge. I n such an event, the contractor is not entitled for any extension of time or any other compensation for executing the balance work In case the Contractor fails to remove any of his properties, assets or fails to clear the rubbish and waste materials within 30 days of the completion of the contract, it is lawful for the contracted, that is BHEL to take such action as it deems fit to clear, dispose of such properties, assets or such waste materials and charge the Contractor any expenses Incurred thereon.

The Engineer-in-charge shall certify to the Contractor the date on which the work is completed and the state thereof.

The Engineer-in-charge shall also certify to the Contractor the state of the work at the end of maintenance period, where applicable.

41. Compensation for delay

If the Contractor fails to maintain the required progress in terms of condition 7 or to complete the work and clear the site on or before the contracted or extended period of completion, he shall, without prejudice to any other right or remedy of the BHEL on account of such breach pay as agreed compensation an amount calculated as stipulated below or such smaller amount as may be fixed by the BHEL on the contract value of the work for every week that the progress remains below that specified in condition 7 or that the work remains incomplete.

This will also be applicable to items or groups of items for which separate period of completion has been specified.

For the purpose term "Contract Value" shall be the value at contract rates of the work or ordered,

a) Completion period (as originally stipulated) not exceeding 6 months	at 1 percent per week
b} Completion period (as originally stipulated) exceeding 6 months and not exceeding 2 Years	at ½ percent per week
c) Completion period (as originally stipulated) exceeding 2 years	at ¼% percent per week

Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed the under noted percentage of the contract value or of the item or group of items of work for which a separate period of completion is given

a) Completion period *(as* originally stipulated) not exceeding 6 months	10 percent
b) Completion period (as originally stipulated) exceeding 6 months and not exceeding 2 Years	7½ percent
c) Completion period (as originally stipulated) exceeding 2 years	5 percent

The amount of compensation may be adjusted or set-off against any sum payable to the contractor under this or any other contract with the BHEL.

Over run charges: Notwithstanding anything contrary. BHEL shall not be liable over run charges for any reason whatsoever.

42. Laws Governing the Contract

The contract shall be governed by the Indian Laws for time being in force.

43. Cancellation of Contract for Corrupt Acts

BHEL, whose decision shall be final and conclusive, shall without prejudice to any other right or remedy which shall have accrued shall accrue thereafter to BHEL cancel the contract in any of the following cases and the Contractor shall be liable to make payment to BHEL for any loss or damage resulting from any such cancellation to the same extend as provided in the case of cancellation for default.

If the Contractor shall: -

a) Offer or give or agree to give to any person in BHEL service any gift or consideration of any kind, as an inducement or reward for doing or for bearing to do or for having done or for borne to do any act, in relation to the obtaining or execution of this or any other contract for BHEL service,

OR

b) enter in to a contract with BHEL in connection with which commission has been paid or agreed to be paid by him or with his knowledge, unless the particulars of any such commission and the terms of payment thereof have previously been disclosed in writing to BHEL,

OR

c) Obtain a contract with BHEL as a result of ring tendering or by non-bonafide methods of competitive tendering, without first disclosing the fact in writing to BHEL.

44. Risk Purchase Clause

If the contractor fails to carry out the specified works as per the contract scope of work within the timeframe as directed by SM/CP&S or his authorized officials and continues in that state after a reasonable notice from SM/CP&S or his authorized officials, BHEL reserves the right to have the work done by any means at the Contractor's risk and expenses provided always that in the event of the cost of the work so done (as certified by SM/CP&S which is final and conclusive) being less than the contract cost, the advantage shall accrue to the BHEL and if the cost exceeds the money due to Contractor under the contract, the Contractor shall either pay the excess amount ordered by SM/CP&S or the same shall be recovered from the Contractor by other means.

45. Cancellation of Contract for Insolvency Assignment of Transfer of Sub-Letting of Contract

BHEL, without prejudice to any other right or remedy, which shall have accrued or shall accrue thereafter to BHEL, shall cancel the contract in any of the following cases:

If the Contractor,

a) being an individual or if a firm any partner thereof shall at any time be adjudged bankrupt or have a receiving order for administration of his estate, made against him or shall take any proceedings for liquidation or composition under any bankruptcy Act or assignment of his effects of composition or arrangement for the benefit of his creditors or purport to do so, or if any application made under any Bankruptcy Act for the time being in force for the sequestration of his estate or if a trust deed be granted by him on behalf of his creditors

OR

b) being a Company, shall pass a resolution or the Court shall make an order for the liquidation of its affairs, or a receiver or Manager on-behalf of the debenture holders shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or Manager,

OR

c) Assigns, Transfers, Sub-lets or attempts to assign, transfer or sub-let any portion of the work without the prior written approval of the BHEL.

d) Whenever BHEL exercise the authority to cancel the contract under this conditions, BHEL may have the work done by any means at the Contractor's risks and expenses provided always that in the event of the cost of the work so done (as certified by SM/CP&S which is final and conclusive) being less than the contract cost, the advantage shall accrue to the BHEL and if the cost exceeds the money due to Contractor under the contract, the Contractor shall either pay the excess amount ordered by SM/CP&S or the same shall be recovered from the Contractor by other means.

e) In case BHEL carries-out the work under the provisions of this condition the cost to be taken into account in determining the excess cost to be charged to the Contractor under this condition shall consist of the cost of the materials, hire charges of tools and plants and/or labour provided by the BHEL with an addition of such percentage to cover superintendence and establishment charges as may be decided by the SM/CP&S whose decision shall be final and conclusive.

46. Cancellation of Contract in Part or Full for Contractor's Default

If the Contractor:

a) makes default in carrying out the work as directed and continues in that state after a reasonable notice from SM/CP&S or his authorized representative;

b) fails to comply with any of the Terms and Conditions of the contract or after reasonable notice in writing with orders properly issued thereunder;

c) BHEL, may without prejudice to any other right or remedy which shall have accrued or shall accrue thereafter to BHEL CANCEL the contract as whole or in part thereof or only such work order or items of work in default from the contract. Whenever BHEL exercise the authority to cancel the contract as whole or part under this condition BHEL may complete the work at the contractor's risk and cost (as certified by SM/Stores which is final and conclusive) being less than the contract cost, the advantage shall accrue to the BHEL. If the cost exceeds the moneys due to the Contractor under this contract the Contractor shall either pay the excess amount ordered by SM/CP&S or the same shall be recovered from the Contractor by other means. In case the BHEL carries out the work or any part thereof under the provisions of the conditions the cost to be taken into account in determining the excess cost to be charged to the Contractor under this condition shall consist of the cost of the materials, hire charges of tools and plant and/or labour provided by the BHEL with an addition of such percentage to cover the superintendence and establishment charges as may be decided by the SM/CP&S whose decision shall be final and conclusive.

47. Termination of Contract on Death of contractor

Without prejudice to any of the rights or remedies under this contract, if the Contractor dies, or if the firm is dissolved or the company is liquidated BHEL shall have the option of terminating the contract without compensation to the Contractor.

48. Special powers of Determination

If at any time after the award of contract, BHEL shall for any reason whatsoever not require whole or any part of the work to be carried out the SM/CP&S shall give notice in writing of the fact to the Contractor who shall have no claim to any payment of compensation or otherwise howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the fore-closing of the work.

He shall be paid at contract rates for the full amount of the executed including such additional works, e, g. clearing of site, etc., as may be rendered necessary by the said foreclosing**. *He shall also be allowed a reasonable payment (as* decided by the Accepting office)** for any expenses sustained on account of labour and 'materials collected but which could not be utilized on the work, as verified by the Engineer-in-charge. Neither shall the contractor have any claim for compensation on account of any alterations have been made fn the original specifications, drawings, designs and instructions, involving any curtailment of the work as original contemplated.

“If any employee / labourer working in the contract is found involved in corruption activities, the contract will be terminated and the contractor will be banned for applying for any future contract for 3 years.”

CHAPTER - IV

VALUATION AND PAYMENT

49. Records and Measurements

All items having a financial value shall be entered in the BHEL Measurement Book (MB)so that a complete record is obtained of all works performed under the contract. Buildings, etc., priced in schedule 'A' as a unit Lump-sum will be entered by number at the unit Lump-sum.

Work carried out for agreed Lump-sum will be described and similarly recorded

Lump-sum omissions will be entered for deduction. Measurement shall be restricted to that required to ascertain the financial liability of BHEL "under the contract"

Work, which fails to be measured in detail shall be measured physically, without reference to any local custom that may obtain excepting where it may otherwise be directed in the tender documents. The measurements **shall be taken jointly** by any person duly authorized on the part of the BHEL and-by the contractor.

The engineer -in-charge shall give reasonable notice in writing to the contractor the date of appointment of measurement.

The contractor shall without, extra charge, provide assistance with appliance and other things necessary for-measurement.

The contractor shall bear all the cost of measurements of his work.

Measurements shall be entered in the BHEL measurement book and signed and dated by both parties each day at the site, on completion of measurement. If the contractor objects to any of the measurements recorded on behalf of the BHEL, a note to that effect to be made in the BHEL measurement book or against the item or items objected to; and such note shall be signed and dated by both the parties' engaged in taking the measurement.

If as a result of such objection, it becomes necessary to re-measure the work wholly or impart the expense of such measurement shall be borne by the party requiring the measurement.

Measurement to be re-taken provided that a net error is found by this re measurement to amount to less than 5% (Five percent) of the value as-recorded by the first measurement .But where the net errors amount to 5% and over of the said value then the cost is to be borne by the other party. In any case if the net value of errors found exceeded to Rs. 500 the expense or re-measurement is said to be borne by th other party. If the contractor's representative fails to attend when required, the Engineer-in-charge shall have power to proceed by himself to take measurement and in that case those measurements shall be considered as accepted by the contractor as final. The contractor shall, once in every month submit to the engineer-in-charge with a copy to the Accepting officer details, of his claims for the work done by him up to and including the previous month, which are covered by his contract agreement in any of the following respects.

a) Deviation from the items and specifications provided in the contract documents.

b) Extra Items / Items of work,

c) Quantities in excess of those provided in the contract schedule.

d) Items in respect of which rates have not been settled. He should, in addition furnish a clear certificate to the effect **that** the claims submitted by him as aforesaid cover all his claims and that no further claims shall be raised by him in respect of work done up to and including the period under report.

Except where any general to detailed description of the work in quantities expressly shows to contrary, schedule of quantities shall be deemed to have been prepared and measurements shall be taken in accordance with the procedure set forth in the schedule of rates specification not withstanding any provision in the relevant standard method of measurement or any general or local custom. In the case of items which are not covered by the schedule of rates / specification, measurement shalll be taken in accordance with relevant standard method of measurement issued by the Indian Standard institution or as per Standard engineering practice,

50. Valuation of Deviations

Rates for deviated items of work will be fixed as follows:

1. For any item of work required to be carried out after the contract has been awarded and which is not covered by Contractor's Schedule but is covered by B.H.E.L schedule of Rates the payable for such a fresh item will be derived from B.H.E.L. Schedule by the method of proportion as follows:

a) In the same proportion to the BHEL Schedule of rates as the tendered rate for the nearest analogous item of work in contractor's schedule bears to rate for the particular analogous item of work in BHEL schedule of rates. However in case of nearest analogous item of work in contract schedule forms part of individual chapter of the BHEL schedule of rates the above proportion will be worked out only for such items which are found both in contract schedule and BHEL Schedule of rates as group of items under the chapter.

b) If a single appropriate analogous item of work is not available in both schedule (contractor's and BHEL schedule) then the method of proportion will be applied to the nearest analogous group items available in both the schedule referred to i,e., in the same proportion as the total tendered cost of that particular group of item (the sum of the products of the tendered rates and the quantities for which orders are placed) bears to the total cost of the same items and quantities and BHEL Schedule of Rates.

c) If even an appropriate analogous group of items is not available in contractor's schedule and BHEL Schedule, then the methods of proportion will be applied to all those items of the whole work, which are available in both the schedule and for which orders have been placed on the contractor i. e., in the same proportion as the total cost of all these items of work (the work of the products of the tendered rates and the quantities for which order are placed) bears to the total cost of the same items and quantities all the BHEL schedule of rates.

The selection of analogous items or analogous group of items referred to above shall be done by the Engineer-in-charge. Where the rates for deviated items or new items of work car be derived by the selection of different analogous items or analogous group of items, the lowest of all such derived rates shall be taken as the correct rate.

In the case of the contracts for which the Engineer-in-charge is the Accepting officer ail disputes regarding the settlement of rates of deviated or new items or work shall be referred to the Head of Civil Engineering Department whose decision shall be final and conclusive as the case may be.

II. If any work not covered by any of the foregoing is ordered of the contractor, the basis of payment shall be decided by the Accepting Officer whose decision shall be final and conclusive and binding en the parties.

51. Reimbursement / Refund on Variation in Price, Materials

If after submission of the tender and / or during the progress of the works, the price of any material (not being a material supplied from the BHEL store in accordance with the conditions of the contract) is increased or decreased by an Act of Legislature (central or state)and / or any notification there under or on account of new duties or levies such as Octroi or on account of increase or decrease in such duties affecting the price of materials required for incorporation in the works and made from materials of which the price has increased or decreased as aforesaid and the contractor has thereupon to pay in respect of such material or item, a price which is higher or lower than the price of that material or item as prevailing immediacy before the passing of such act or levying, increasing / decreasing of such duty, then BHEL shall increase in price or the duly reimbursed to the contractor the increase in price *at* additional or increased duty paid by the contractor and in case of decrease in price the BHEL shall be entitled to a refund of the reduction in the price or the reduction in duty. **This will be applicable only for material, which are directly incorporated on the work**, the contractor shall however indicate the assumption he has made while submitting the tender. However no reimbursement or refund shall be made if the increase / decrease is not more than + 10% of the said price, and if so the reimbursement or refund shall be made only / on the excess over + 10% provided always that any such increase shall not be payable if, in the opinion of the Accepting officer (whose decision shall be final and conclusive) the increase is attributable to the delay in the execution of the contract with the control of the contractor or that any such Increase has become operative after the contracted/ or extended dated of completion of the works or items of work in question.

The Contractor shall, for the purpose of this condition, keep such books of account and other document as are necessary to show the amount of any increase claimed or any reduction available and shall allow inspection of the same by any duly authorized representative of the BHEL and further shall at the request of the Engineer-in-charge furnish for verification such other information as the Engineer-in-charge may require.

The Contractor shall within a reasonable time of his becoming, aware of any alteration in the prices of any such materials give notice thereof in writing to-the Engineer-in-charge stating that the rate is submitted in pursuance to this condition together with all information relating thereto which he may be in a position to supply.

Except for the variation in prices as aforesaid, the contract price shall remain fixed during the tenure of the contract, unless specifically provided for in the special conditions of the contract.

52. Advance on account

No payment shall be made for work estimated to cost less than Rupees ONE THOUSAND till after the whole of the work shall have been completed and a certificate of completion given by the Competent authority.

In the case of work estimated to cost more than Rupees FIVE THOUSAND the contractor may at intervals of not less than one month or as otherwise provided for in the Contract documents, counting from the date on which order to commence work is given by Engineer-in-charge submit claims on BHEL forms for payment of advances on account of work done and of materials delivered in connection with the Contract.

The Contractor shall be paid in respect of such claims to the extent approved and passed by the Engineer-in-charge subject to a maximum of 90% of the value of the work actually executed to the satisfaction of the Engineer-in-charge. The certificate of the Engineer-in-charge regarding such approval and passing of the sums so payable shall be final and conclusive against the contractor.

Notes:

"After the full amount of Security Deposit is made up through the 10% deduction from On account bills, 100% payment of all subsequent bills may be made to the contractor, subject to statutory deductions

The Contractor may also be paid during the progress of the work 75% of the value of any materials which are in the opinion *of* the Engineer-in-charge in accordance with the Contract, and are actually required for incorporation in the work and which have reasonably been brought to the site in connection there with and are adequately stored and or protected against damage by weather or other, causes, but which have not at the time of payment of the advance been incorporated the work on furnishing a formal **hypothecation deed**. Payment of such advances, however shall be purely at the discretion of the Accepting Officer provided always that payment shall not be made under these periodical certificate in respect of perishable materials like lime, cement, timer, sand, kankar, etc.

Any sums, due from the Contractor on account of Tools and Plant, stores or any other items provided by BHEL shall be deducted from the respective advances. The Engineer-in-charge shall from time *to* time certify the sums payable to the Contractor after retaining the reserves.

Any certificate relating to work done or materials delivered may be modified *or* corrected by any subsequent interim certificate or by the final certificate of the Engineer-in-charge supporting an advance payment shall itself be conclusive evidence that any work or materials it relates are in accordance with the contract. All such intermediate payments shall be regarded as advance against the final payment only and shall not be considered an admission of the performance of the contract or any part thereof in any respect or the accruing of any claim whatsoever.

Such intermediate payment shall not conclude, determine or affect in any way the powers of the Engineer-in-charge as to the final settlement and adjustment of the account or otherwise or in any way vary or affect the contract.

53. Final Bill

As soon as possible after the completion of the work to the satisfaction of the Engineer-in-charge, the contractor shall forward a certified final account on BHEL forms, in duplicate.

It shall be accompanied by all abstracts, vouchers, etc, in support there of add shall be prepared in the manner prescribed by the Engineer-in-charge.

No claims will be entertained after the receipt of the final bill.

The Final bill is to be submitted within 90 days of completion of work or within the time period extended by the Officer –In-Charge. No claim of any nature will be entertained thereafter.
The Contractor shall be entitled to be paid the final sum less the value of payments already made on account, subject to certification of the final bill by the Engineer-in-charge. Any sums due from the Contractor on account of Tool and Plant, Stores or any other items provided by BHEL not yet recovered from the contractor shall be deducted from the final sum aforesaid.
No charge shall be allowed to the Contractor on account of the preparation of the final bill.

54. Submission of Bills by Contractor

The Contractor at the end of each month shall submit a bill in triplicate detailing the various items of work done during the month supported by the requisitions issued from time to time. The Contractor shall, once in every month, submit to the SM/CP&S separately details of his claims for the work done by him up to and including the previous month which are not covered by his contract agreement in any of the following respects:

a) Deviation from the items provided in the contract documents.

b) Extra items / new items of work.

c) Items in-respect of which rates have not been settled. He should in addition furnish a clear certificate to the effect that the claims submitted by him as aforesaid cover all his claims and that no further claims shall be raised by him in respect of the work done up to and including the period under report.

55. Payment of Bills

All payments to be made to the Contractor, under this contract shall be by "CHEQUE" crossed "A/C PAYEE ONLY" OR by NEFT / RTGS payment within a reasonable time after the certification of bills by SM/CP&S.

56. Recovery from Contractor

Whenever under the contract, any sum of money, shall be recoverable from or payable by the Contractors, the same may be deducted from or any sum then due or which at any time thereafter may become due to Contractor under the contract or under any other contract with BHEL or from his Security Deposit or he shall pay the claim on demand.

57. Post Technical Audit of Work and Bills

BHEL reserves the right to carry out the post-payment Audit and technical examination of the work and final bill including all supporting vouchers, abstracts etc., and enforce recovery of any sum becoming due as a result thereof in the manner provided in the presiding sub-paragraphs. However, no such recovery shall be enforced after three years of passing the final bill.

58. Refund of Security Deposit

The Security Deposit mentioned in condition 16 above may be refunded to the Contractor after a period of one month on termination or expiry of the contract provided always that the Contractor shall first have been paid the last and final bill and have rendered a "NO DEMAND CERTIFICATE".

59. Force Majeure Clause

If, at any time during the continuance of this Contract the performance in whole or in part by either party of any obligations under this Contract shall be prevented or delayed by reason of any War, Hostile acts of the public enemy Civil Commotion, Epidemics, or Acts of God (Floods, Storm/Cyclone, Hurricane, Earth Quake etc.) then provided notice of happening of any such event is given by either party to other within 7 days from the date of occurrence therefor neither party shall by reason of such event be entitled to terminate this Contract nor shall either party have any claim for damages against the other in respect of such non-performance and delay in performance under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist. If the performance in whole or part of any obligation under this Contract is prevented or delayed by reason of any such event, claims for extension of time shall be granted for periods considered reasonable by the SM/CP&S subject to prompt notification by the contractor. However, Force Majeure shall not include the following circumstances:

a. mechanical breakdown of equipments of the Contractor of whatsoever kind not resulting itself from an event of Force Majeure;
b. Financial distress of Contractor or its subcontractor, lack of funds or the inability of the Contractor to make payments in the manner specified herein;
c. inclement weather;
d. any event or circumstance that makes performance by the Contractor merely uneconomic or commercially impracticable including without limitation due to recession, depression, inflation, deflation, tax rate or law changes, exchange rate fluctuations, or changes in prices;
e. any act or omission or default on the part of a subcontractor or a vendor that is not itself attributable to an event of Force Majeure (as defined herein); and
f. the imposition of sanctions by any governmental authority due primarily to the failure of the Contractor to comply with any Applicable Laws.

60. Conciliation

The Parties agree that if at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation, effect, interpretation or breach of the agreement, contract or the Memorandum of Understanding (delete whichever is inapplicable), which the Parties are unable to settle mutually), arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators.
Notes:
1.No serving or a retired employee of BHEL/ Administrative Ministry of BHEL shall be included in the BHEL Panel of Conciliators.
2.Any other person{s) can be appointed as Conciliator(s) who is/are mutually agreeable to both the parties from outside the BHEL Panel of Conciliators.
The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and the rules as provided at http://www.bhel.com/pdf/Brief_Procedure_under_BHEL_Conciliation_Scheme-06-10-18.pdf
("Conciliation Rules").
The Conciliation Rules together with it's Formats will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in this GCC.
The Contractor agrees that BHEL may make any amendments or modifications to the provisions stipulated in the Conciliation Rules to this GCC from time to time and confirms that it shall be bound by such amended or modified provisions of the Conciliation Rules with effect from the date as intimated by BHEL to it.

61. Arbitration

All disputes between the parties to the contract, arising out-of or relating to the contract, other than those for which the decision of the SM/CP&S or Accepting Officer or any other person is by the contract expressed to be final and conclusive shall after written notice by either party to the contract to the other party be referred to the Arbitration by a sole Arbitrator to be appointed by the Unit Head of BHEL Ranipet.

Unless the parties otherwise agree, such reference shall not take place until after the completion, alleged completion or abandonment of the work or the determination of the contract.

The place of Arbitration shall be Ranipet. The venue of Arbitration may be at such a place or places as may be fixed by the Arbitrator in his sole discretion. The award of the Arbitrator shall be final, conclusive and binding on both parties to the contract.

The Contractor agrees that no claim for interest or damages will be entertained or be payable by BHEL in respect of any money or balances or amounts of whatsoever nature which may be lying with BHEL owing to any disputes or differences between the parties irrespective of whether the same is decided by any authority to be paid or returned to the Contractor

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/ Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD as mentioned in DPE OM No. 4(1)/2013-DPE(GM)/FTS-1835 dated 22-05-2018.

62. Jurisdiction of Court

Subject to the provisions of the contract relating to arbitration, for the purpose of Court proceeding, if any, same shall be in the Court having jurisdiction over Ranipet - 632 406. (Vellore District, Tamilnadu).

63.Signing of Contract

Each contract document shall be signed by the Contractor with his usual signature. Contract by partnership of Hindu Joint Family firm, may be signed in the FIRM'S name by one of the Partners or the Karta or Manager as the case may be or by any other duly authorized representative followed by the name and designation of the persons so signing. Contracts by a Company shall be signed with the name of the Company by a person authorized in this behalf and a power of attorney or other satisfactory proof showing that the persons signing the Contract documents on behalf of the Company is duly authorized to do so, shall accompany the contract.

All statutory requirements under Minimum Wages Act,1948, Factories Act 1948, Workmen Compensation Act 1923,Employees Provident Fund and Miscellaneous Provisions Act, 1952,Payment of Gratuity Act 1972, Employee State Insurance Act 1948, Contract Labour (R&A) Act 1970, Payment of Bonus Act 1965, Income Tax Act, Goods and Services Tax Act and all other applicable Acts shall be complied with by the Contractor.

Contractor shall comply with all statutory requirements, rules, regulations, notifications in relation to employment of his employees issued from time to time by the concerned authorities.

Contractor shall indemnify BHEL against all claims and losses under various Labour Laws, statutes or any civil or criminal law in connection with employees deployed by him.

Contractor wherever applicable shall maintain proper records prescribed by the concerned statutory authorities and provides a copy of the same to BHEL.

Contractor shall furnish proper returns to the concerned statutory authorities and provide a copy of the same to BHEL.

Without prejudice to any other right of BHEL, BHEL shall have the right to recover any money which in the sole opinion of BHEL is due from the Contractor from any money due to the Contractor under this Contract or any other contract or from the Security Deposit furnished by the Contractor under this Contract or any other contract.

No interest shall be payable by BHEL on Earnest Money or Security Deposit, if applicable, or any money due to the Contractor by BHEL

For every month, the Contractor shall prepare and submit bills in the succeeding the month within one week from the date of certification of quantity by user department.

Any billing related to query, clarification, document requirement, etc., shall be resolved in one go by the Contractor within one week from the date of intimation.

****

64. Health, Safety & Environment Policy

In BHEL, Health, Safety and Environment (HSE) responsibilities are driven by our commitment to protect our employees and people we work with, community and environment. BHEL believes in zero tolerance for unsafe work/non-conference to safety and in minimizing environmental footprint associated with all its business activities. We commit to continually improve our HSE performance by:

- Developing safety and sustainability culture through active leadership and by ensuring availability of required resources.
- Ensuring compliance with applicable legislation, regulation and BHEL systems.
- Taking up activities for conservation of resources and adopting sound waste management by following Reduce / Recycle / Reuse approach.
- Continually identifying, assessing and managing environmental impacts and Occupational Health & Safety risks of all activities, products and services adopting approach based on elimination / substitution / reduction / control.
- Incorporating appropriate Occupational Health, Safety and Environment criteria into business decisions, design of products & systems and selection of plants, technologies and services.
- Imparting appropriate structured training to all persons at workplace and promoting awareness amongst customers, contractors and suppliers on HSE issues.
- Reviewing periodically this policy and HSE Management Systems to ensure its relevance, appropriateness and effectiveness.
- Communicating this policy within BHEL and making it available to interested parties.

******

CHAPTER - X

Annexure – V

TERMS AND CONDITIONS REGARDING COMPLIANCE WITH VARIOUS LABOUR LAWS BY THE CONTRACTORS FOR BHEL

1. The contractor shall employ labour in sufficient numbers either directly or through sub-contractors to maintain the required date of progress and of quality to ensure workmanship to the degree specified in the contract and to the satisfaction of the Engineer – in – charge.

2. The Contractor shall pay to labour employed by him, either directly or through sub-contractors, wages not less than fair wages, as defined in the Contractor's Labour Regulations.

3. The Contractor shall in respect of labour employed by him, either directly or through sub-contractors, complies with or cause to be complied with contractor's labour Regulations in regard to all matters provided therein.

4. The Contractor shall apply to the ESI Authorities, get himself registered with them and obtain a code Number. He shall pay the remittances under his Code Number only.

5. The Contractor shall be liable to his contribution and the employee's contribution towards PF as per Provident Fund Rules and Regulations, in respect of all labour employed by him for the execution of the contract. The Contractor shall apply to the PF Authorities, get himself registered and obtain a code number from them. He shall pay the remittances towards PF under his code number only.

6. The Engineer-in-charge shall, on a report having been made by an Inspecting Officer as defined in the Contractor's 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 a from his or their wages which are not justified by the terms of the Contract of non-observance of the said Contractor's Labour Regulations.

7. The Contractor shall indemnify BHEL against any payment to be made under and for observance of the Regulations aforesaid without prejudice to his right to claim indemnity from his sub-contractors.

8. In the event of the Contractor committing a default or breach of any of the provisions of the aforesaid contractor's 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 BHEL a sum not exceeding Rs. 50/- as liquidated damages for every default, breach, or furnishing, making, submitting, filling materially incorrect statements 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/- per day for each day of default subject to a maximum percent of the estimated cost of works put to tender. The Contractor shall defend the case by himself any action brought in by such Government Agencies for non-compliance of any Labour Regulations and / or reimburse the expenses incurred by BHEL in this regard.

9. 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 decisions of the Engineer-in-charge in this respect shall be final and binding.

10. The contractor shall not employ in connection with the work any person who has not completed 18 years of age.

11. The contractor shall in respect of labour employed by him either directly or through sub-contractors, comply with or cause to be complied with the following statutory provisions and rules and in regard to all matters provided therein.

    (a) The contract labour (Regulation and abolition Act 1970) and the related Tamilnadu Rules.

    (b) The minimum wages Act1948 and the related Tamilnadu Rules.

    (c) The payment of wages act 1936 and the related Tamilnadu Rules.

    (d) The Factories Act 1948 and the related Tamilnadu Rules.

    (e) The Employees Provident Fund and Miscellaneous Provisions Act 1952.

    (f) The Employees State Insurance Act 1948.

    (g) The workmen's Compensation Act 1923.

    (h) The Industrial Dispute Act 1947, and any other law, or modifications to the above or to the rules made thereunder from time to time.

And any other law or modifications to the above or there to the Rules made thereunder from time to time.

12. **REGISTRATION AND LICENSING**:

Every contractor shall register his/her name with the welfare section of BHEL before taking up the work awarded to him/her by giving the following information and getting a code number:

(a) The name of the contractor.
(b) Nature of contract work.
(c) Period of work.
(d) Number of maximum labour employed by him on any one day.
(e) License No. and date (applicable in case of contractors employing 20 or more worker)
(f) Whether enrolled for PF, ESI etc., and enrolment no. (contractor shall obtain their own PF code)

This information is called for the purpose of informing the inspector of Factories wherever they call for information regarding contracts.

13. The contractor employing 20 or more workmen is required to obtain license from the authorities (The Deputy Chief Inspector of Factories/Assistant Commissioner of Labour as the case may be). This license shall be amended and/or renewed wherever there is an increase in the workmen employed by him/her or in the event of contract being extended or renewed. The contractor shall inform the license number to the BHEL management before taking up the work.

14. The contractor (Licensed or unlicensed) shall promptly furnish every information and document required by BHEL authorities for the purpose of fulfilling their obligations as principal employer and/or occupier of the factory and shall render all necessary assistance for the same.

15. The contractor shall get the contract labourers engaged by him/her insured under workmen's compensation policy from General Insurance Corporation of India.

16. The contractor shall ensure that all his workmen are covered under the Employees State Insurance Act and produce the registration number/enrolment number to the welfare section before executing the contract.

17. The contractor shall also ensure that all his/her workmen are covered under Employees Provident Fund and Misc. Provisions Act 1952.

WAGES

18. **The tenderer has to ensure payment of Minimum Wages as per Tamil Nadu State Minimum Wages as applicable under law from time to time (Normally the revision will be with effect from 1st April of every year) for the employment in General Engineering & Fabrication Industry. In addition the contractor has to pay BHEL Ad-hoc payment of Rs.3200/- per month for USW, Rs.3700/- per month for SSW & Rs.4100/- per month for SW etc. to the workers deployed in the work.**

    Also the labourers shall be paid a minimum bonus which shall be 8.33% as per the payment of Bonus Act 1965 for the Payment of minimum. The Contractor shall have to remit EPF & ESI contributions at the rates applicable under law to the authorities concerned for the total wages paid (i.e.) Payment of minimum wages as mentioned above.

19. The Contractor shall fix wage periods in respect of which wages shall be payable. No wage period shall exceed one month.

20. The Contractor shall ensure payment of wages to the contract labour employed by him within three days from the end of wage period in case the wage period is one week or a fortnight and in all other cases before 10th day of the following month

21. All Payment of wages shall be made on working days on date notified in advance. In case the work is completed before the expiry of the wage period final payment shall be made within 48 hours of the last working day.

22. Where the employment of worker is terminated by or on behalf of the Contractor, the wages earned by him shall be paid before the expiry of the second working day from the day on which his employment is terminated.

23. Wages due to every worker shall be paid to him direct or to the person authorized him in this behalf. All wages shall be paid in current coin or in both / Remittance of payment in bank account of the workers.

24. The Contractor shall ensure the disbursement of wages in the presence of authorized representative of BHEL Management / Remittance of payment in bank account of the workers.

25. The above payment shall be verified by the authorized office / representative of BHEL with the following certificate of the payment sheet "Certified that the amount shown in Column No…….…. has been paid to the workmen concerned in the presence on ……. at…….

26.A certificate of payment shall be furnished in duplicate by the Contractor to the Engineer in charge each month in Form "A" enclosed. Copy of proof of remittance of payment in bank account.

27. A notice showing the wage period and the place and time of disbursement of wages shall be displayed at the work and a copy to be sent to the Welfare Department by the Contractor under acknowledgement.

28.Notices showing the rate of wages, weekly rest days, hours of work, wage period, date of payment of wages, names and addresses of the Inspector having jurisdiction, the date of unpaid wages shall be displayed in Tamil and English in conspicuous places at the establishment and work at work site by the Contractor. The Contractor shall inform the BHEL Management every month the details of contract labour engaged for contract in this following form:

a. Serial Number.
b. Location.
c. Period of work.
d. No. of days worked.
e. No. of man worked.
f. Wages paid to workers.

The above statement shall be furnished to BHEL Management at the end of every month.

REGISTERS AND RECORDS AND COLLECTION OF STATISTICS

29.The following documents / formats under Contract Labour (Regulation & Abolition) Act 1970 and Tamil Nadu Rules thereunder shall be maintained by each contractor.

a. Register of persons employed by the Contractor.
b. Employment Card.
c. Service Certificate.
d. Muster Roll, Wage Register, Deduction Register, wage slip, Overtime Register, register of Fines, Register of Advances etc.,

30.The Contractor shall display the abstract of the Contract Labour (Regulation & Abolition) Act and the Rules thereunder both in English and Tamil.

31.Half yearly Return shall by the Contractor in duplicate to the Licensing Officer.

32.The Contractor shall submit the returns required under the Contract Labour (Regulation * Abolition) Act 1970 periodically to BHEL Management.

33.The Contractor shall without fail give up to date information in writing to the attendance of the workers employed by him.

34.The Contractor shall ensure that his workers keep and produce their Employment Card when coming to duty and take them back when leaving duty.

35.All the above registers and records shall be preserved in original for a period of three years. All the registers, records and notice maintained under the Act and rules shall be produced on demand

by Inspector or any authority under the Act.

WORKING HOURS AND WORKING CONDITIONS

36.No worker shall be required or allowed to work on Sunday unless he has or will have a holiday on anyone of the three days before or after the said say.

37.The Contractor shall inform BHEL Management in the prescribed form details of the contract workers scheduled to work on Sunday, the way of rest and also indicate the substituted holiday in lieu thereof. This shall be intimated two days in advance before his workmen and booked for work Sunday.

38.The contract labour working for more than nine hours in any day or for more than 48 hours in any week shall be paid wages at the rate of twice the ordinary rate of twice the ordinary rate of wages in accordance with the provisions of Sections 59 of the Factories Act 1948.

39.The Contractor shall provide all safety devices and personal protective equipment to his workmen at his own cost and shall ensure that his workmen wear / use such devices or equipment provided to them while doing the work and there should not be any relaxation on this.

40.The Contractor shall give four paid National Holidays to his workers, viz., 26th January, 1st May 15th August and 2nd October.

41.The Contractor shall ensure that his workmen vacate the premises after the shift is over.

42.The contractor shall give leave with wages to his/her workmen who have worked for a period of 240 days or more in the factory premises during a calendar year. This leave shall be allowed during the subsequent calendar year at the rate of one day for every 20 days or work performed by the worker during the previous calendar year. The worker whose service commences on a day other than the first of January shall be entitled to leave with wages at the above rate (one day for every 20 days or work) only if he had worked for a minimum of 2/3 of the total number of days in the reminder of the calendar year. This leave will be admissible only during the subsequent calendar year.

43.No woman worker shall be required or allowed to work in the Factory except between the hours of 6.00 A.M. and 7.00 P.M.

44.The Contractor shall comply with the provisions relating to Welfare and Health facilities as provided in the Contractor Labour (Regulation and Abolition) Act 1970 read with the Tamil Nadu Contract Labour Rules 1975.

NOTICE OF ACCIDENTS

45.Notwithstanding anything contrary to this, in the event of accident the contractor shall be required to fill injury report and submit the Engineer in chare immediately and ensure the compliances of ESI / workmen's compensation Act, Factories Act and Rules made there under. He shall also maintain a register of accident as per the Act.

46.The Contractor shall get the contract labour engaged by him insured under Workmen's Compensation policy from general should be for the entire period of Contract. The Contract shall comply with the provisions of the Workmen's Compensation Act 1923. (This should be read in conjunction with the provisions of ESI Act).

COVERAGE UNDER THE ESI ACT / PF AND MISCELLANEOUS PROVISIONS ACT

47.The contractor shall ensure that all his workmen are covered under the Employee's State Insurance Act and producer to BHEL such Registration Number / Enrolment Number before executing the contract work.

48.The Contractor shall regularly pay the amount of contribution. i.e., employer's contributions as well as employee's contribution pursuance of the above scheme as time. The Contribution payable presently is 1.75% wages to be recovered from his workmen and 4.75% of wages to be contributed by the Contractor. Contributions recovered from employee and contribution made by the contractor may be rounded to the higher multiples of five paise.

49.The Contractor shall take note of any amendment that may be brought forth in the above contribution rate and act accordingly.

50.The contractor shall ensure that his workmen are covered under the EPF & Miscellaneous Provisions Act 1952 and accordingly produce to the BHEL Management the registration / enrolment number before awarding of contract work. As per the existing provisions every worker shall be entitled and required to become a member of the fund. The employee's contribution payable at present is 12% of wages which will be recovered by the contractor from the wages of his workmen and the contractor should pay equal contribution. The contractor is also liable to pay any administrative charges in this behalf that may be decided from time to time. It will be the responsibility of the contractor to ensure such contribution payable in respect of workmen employed through sub-contractors also.

51.The Contractor shall take note of any amendment in the rate of contribution payable under the scheme from time to time.

52.The Contractor shall with seven days of the close of every month submit to BHEL a statement showing the amount of contribution payable / paid for employees engaged by him or through him and shall also furnish to BHEL such information as Principal Employer is required to furnish under the provisions of the ESI Act and PF as well as the schemes made thereunder to the authorities concerned.

53.Whenever any sum of money is found to be recoverable from or payable by the contractor under the above Act, the sum shall be deducted from any sum that may be due or which at any time thereafter may become due to the Contractor under this contract or under any other contract or from his security deposit, the contractor shall immediately thereafter such further sums as may be required to replenish the shortage caused by such recoveries in amount of security deposit.

54.The Contractor shall abide by all the labour and other laws applicable to contract labour / worker under this contract and shall at all times keep BHEL indemnified against all loses, claims, prosecutions under any law.

55.In case of non-compliance of any of the provisions of the Acts and in case BHEL having complied with the same BHEL will be entitled to recover the same from the contractor / sub-contractor.

56.Non-exercise of any of the powers of rights available to BHEL hereunder to under any law shall not in any way operate as waiver thereof.

Note: The Specimen forms for the following are available in BHEL.

1) Form “A” - Payment Certificate.
2) Form IV - Application for License.
3) Form XIII - Register of Workmen employed by contractor.
4) Form XIV - Employment Card.
5) Form XV - Service Certificate.
6) Form XVI - Muster Roll.
7) Form XVII - Register of wages.
8) Form XIX - Wage up.

57.MODEL RULES FOR LABOUR WELFARE

The Contractor shall, at his own expense, comply with or cause to be complied with Model Rules for Labour Welfare as appended to these conditions or rules framed by Government from time to time, for the protection of health and for making sanitary arrangements for workers employed directly or indirectly on the works. In case the Contractor fails to make arrangements as aforesaid, the Engineer-in-charge shall be entitled to do so and recover the cost there from the contractor.

58.POLICE VERIFICATION

The Contractor shall obtain police verification of all his contract workers and submit the same to BHEL at the commencement of work. The Contractor shall not deploy any contract worker without such police verification.

FORM - IV

(See Rule 21 (1*}* of Tamil Nadu Contract Labour Rules) Application for License

1. Name and Address of the Contractor (including his Father's Name in case of Individuals)

2. Date of Birth and age {in case of Individuals)

03. Particulars of Establishment where Contract Labour is to be employed

   a) Name and Address of the Establishment

   b) Type of business .trade industry manufacture

   c) Number and date of certificate of Registration of occupation, which is carried on the Establishment under the Act.

   d) Name and address of the Principal Employer

4. Particulars of contract labour :

   a) Nature of work in which contract labour is employed or is to be employed in the establishment

   b) Duration of the proposed contract work (give particulars of proposed date of commencing and ending)

   c) Name and address of the agent or Manager of contractor at the worksite

   d) Maximum No. of contract labour proposed to be employed in the establishment on any date

5 Whether the contractor was convicted of any offence within the proceeding rive

years, jf so give details:

6. Whether there was any order against the contractor revoking or suspending license or forfeiting security deposit in respect of an earlier contract if so the date of such order:

7. Whether the contactor has worked in any other establishment within the past five years, if so, give details of the principal employer Establishment and nature of work:

8. whether a certificate by the principal Employer in form V is enclosed :

9. Amount of license fee paid No of Treasury challan and Date :

10 Particulars of security deposit if any, requested to be adjusted, including Treasury Receipt number :

11. The amount of security deposit or balance if any after adjustment of amount to be refunded under rule 31 deposited with treasury Receipt Number and date :

DECLARATION

I hereby declare that the details above are correct to the best of my knowledge and belief.

PLACE :
DATED :

SIGNATURE OF THE APPLICANT
[CONTRACTOR]

NOTE : The application should be accompanied by a treasury Receipt for the appropriate amount and a certificate in Form V From the principal employer.
(To be filled in the office of the Licensing officer) Date of receipt of the application with challan for fees / security Deposit.

SIGNATURE OF THE LICENSING OFFICER CONTRACTOR

FORM-XIII

See Rule 75 of Tamil Nadu Contract Labour Rules 1975}

Register of workman employed bv contractor

Name and Address of the Contractor :

Name and location of work :

Name and address of establishment in, /under which contract is carried on

Name and address of Principal Employer

1. Serial Number
2. Name and surname of workman
3. Age and sex
4. Father's / Husband's Name
5. Nature of Employment /Designation

06. Permanent Home address of workman (village Taluk and District)

7. Local Address :
8. Dale of commencement of Employment :
9. Signature or Thump Impression of workman
10. Date of termination of Employment :

FORM - XIV

(See Rule 76 of Tamil Nadu Contract Labour Rules) EMPLOYMENT CARD

Name and Address of contractor : Name and address of Establishment in/under which contract is carried on _____

Mature of work and location of work : Name and address of Principal Employer

1. Name of the workmen

2. SI. No. of register of workmen employed

3. Name of Employment / Designation

04. Wage rate (with particulars of unit in case of Piece work) :

5. Wage period

6. Tenure of Employment

7. Remarks

SIGNATURE OF CONTRACTOR

FORM - XV

Rule 77 of Tamil Nadu Contract Labour Rules} SERVICE CERTIFICATE

Name and Address of the contractor

Name and address of Establishment in/under which contract is carried on

Name and location of the work

Name and address of the workman

Name and address of Principal Employer

Age or Date of Birth

Identification marks Father's / Husband's

Name

SI.No	Total period for which employed		Nature of work done		Rate of wage (with particulars units in case of piece of work	Remarks
	From	To				
(1)	(2)	(3)	(4)	(5)	(6)	(7)

SIGNATURE

FORM - XVI

(See Rule 78 of Tamil Nadu Contract Labour Rules) MUSTER ROLL

Name and Address of contractor : Name and address of Establishment in/under which contract is carried on _____

_____

Nature of location of **the** work : Ma me and address of Principal Employer __

For the Month of

Sl. No	Name of workmen	Father's/Husbands Name	Sex	Dates 1 2 3 4 5	Remarks
(01)	(02)	(03)	(04)	(05)	(06)

SIGNATURE OF CONTRACTOR

FORM - XVII
(See Rule 78(1) (a) (i) of Tamil Nadu Contract Labour Rules)

Register of wages

Name and Address of the Contractor :

Nature and location of work :

Name and address of establishment in/under

which contractor is carried on :

Name and address of Principal Employer :

Wage Period : MONTHLY

1. Serial Number :
2. Name of workman :
3. SL No. in Register of workman :
4. Designation / Nature of work done :
5. No, of days worked :

06 Units work done :

07. Daily rate of wages / Piece rate ;

6. Basic wages :

9. Dearness allowance :
10. Overtime :
11. Other cash Payment
    (Nature of payment to be indicated) :
12. Total :
13. Deductions, If any [indicate nature] :
14. Net amount paid :
15. Signature / Thump impression of workman :
16. Initials of contractor or his representative :

CONTRACTOR

FORM - XIX

(See Rule 78(1) (b) of Tamil Nadu Contract Labour (Rules)

Wage Slip

Name and Address of Ihe Contractor

Name and Father's / Husband Name of the workman ____

Name and location of work

For the week / Fortnight / Month ending

01. No of days worked

02- No. of units worked in case of piece rate workers

03. Rate of daily wages /piece rate

04. Amount of over time wages

05, Gross wages Payable

06, Deductions, if any

07. Net amount of wages paid

INTIALS OF THE CONTRACTOR OR HIS REPRESENTATIVE

FORM - XX

(See Rule 78(1) (a) (i) of Tamil Nadu Contract Labour Rules)

Register of deductions to damage

Name and Address of the Contractor :

Mature and location of work ;

Name and address of establishment in/under which contractor is carried on :

Name and address of Principal Employer :

1. Serial Number ;
2. Name of workman :
3. Father[1]s / Husband's Name :
4. Designation / Nature of employment :
5. Particular of damage or loss :

0B- Date of damage or loss :

07. Whether workman showed cause against deduction ;

8. Name of person in which presence employee's explanation was heard :
9. Amount of deduction imposed :

Date of Recovery

10. No. of installments imposed :
11. First Installments :
12. Final Installments. :
13. Remarks :

FORM-XXI

(See Rule 78(1) (a) *(ii)* of Tami Nadu Contract Labour Rules) Register of Fines

Name and Address of the Contractor Nature and location of work

Name and address of establishment in/under which contractor is carried on

Name and address of Principal Employer

1. Serial Number
2. Name of workman
3. Father's / Husband's Name
4. Designation / Nature of employment'
5. Act / Omission for which fine imposed

06 Date of offence

07. Whether workman showed cause against fine

03. Name of the person in whose presence employee's explanation was heard

9. Wage period & Wage payable

10. Amount off me imposed

11. Date on which fine realized

12 Remarks

FORM - XXII

(See Rule 78 (1) (a) (ii) of Tamil Nadu Contract Labour Rules)

Register of Advance

Name and Address of the Contractor ;

Nature and location of work :

Name and address of establishment in/under which contractor is carried on :

Name and address of Principal Employer :

1. Serial Number :

2. Name of workman :

3. Father's / Husband's Name :

4. Designation / Nature of employment :

5. Wage period and wages payable :

6. Date and amount of advance given :

7. Purposes (s) for which advance made :

08 No, of installments by which advance to be repaid

9. Date and amount of each installment repaid :

10. Date on which installment was repaid :

11. Remarks :

FORM-XXIII

(See Rule 78(1) (a) (iii) of Tamil Nadu Contract Labour Rules)

Register of Overtime

Nam e and Address of the Contractor :

Nature and location of work :

Name and address of establishment in/under which contractor is carried on :

Name and address of Principal Employer :

1. Serial Number :
2. Name of workman :
03 Father's / Husband's Name :
4. Sex :
5. Designation / Nature of employment :
6. Dates on which overtime worked ;
7. Total overtime worked or production in case of piece -rated
8. Normal rate of wages
9. Overtime rate of wages
10. Overtime earning
11. Date on which Overtime wages paid
12. Remarks

PAYMENT **CERTIFICATE**

FORM "A"

Certified that :

1. I as contractor of .....
have made payment to all contract Labourers in full in respect of contract No.....as per terms of my contract and in no case less than the rates applicable up to the period ending.

2. *The* above payment have been made by me in the presence of the authorized representative of .....
of .....for.....: .....
Employees amounting to Rs.....

3. The necessary payment registers attendance register / Form *A? .* Leave register/ book under Labour and industrial Law and other relevant have been maintained by me and available with me for production as and when required.

4. No payment is due / outstanding to any contract Labourers engaged by me in respect of the aforesaid contract up to the period ending…..…..

CONTRACTOR

NAME DATE

SUPERVISOR

NAME DESIGN
DATE

COUNTERSIGNED OFFICER INCHARGE

NAME
DESIGN
DEPT.

CHAPTER - IX

ANNEXURE VI: GENERAL SAFETY PRECAUTION TO BE FOLLOWED AT WORK SITE DURING EXECUTION TO BE TAKEN BY THE CONTRACTORS

The Contractor must inspect the area of work to decide the safety precautions necessary for executing this contract. The following safety measures should be strictly adhered to during execution of works at sites.

1. Whenever people work at height more than six feet, platform shall be provided or the workers shall wear safety belt to avoid fall from the height.

2. Wherever any area declared as dangerous, the workers shall not be allowed to work till a written clearance is obtained from appropriate authorities.

3. No material of any kind shall be dropped or allowed to be dropped from any height.

4. Defective ladders shall not be used at all.

5. All excavations must be barricaded and red lamps must be provided.

6. No work should be taken up of execution inside shop floor / factory premises, without obtaining necessary work permit.

7. Providing helmet for high level work

8. All personal protective equipment conforms to standard specification as per the details given in the code of conduct.

9. The necessary safety equipment's such as gloves, boots, helmets etc. must be issued to the workmen and strictly to be used while carrying out the work.

10. Providing dust or fume respirator in places where dust and fume concentration exist.

11. Providing goggles and welding screens.

12. Providing acid and alkali – proof rubber gloves for handling acid and alkali and chemical which are corrosive.

13. Providing rubber gloves for working on electrical works.

14. All temporary electrical connections shall be properly earthed, insulated and periodically checked.

15. Inflammable materials shall not be stored near places where the sparks are likely to occur.

16. The gas cylinders must be always handled on trolleys or kept tied down when not in use. They should never be rolled as Roller for conveying.

17. Cylinders should not be used without Regulators

18. If the contractor's workmen are found to be violating the safety precautions, punitive action will be taken by withholding a sum of Rs.500/- to Rs.1000/- from the contractor's bill for each violation.

19. The working area shall be kept clean and free from all obstructions.

20. Ensuring proper lashing of the components while being transported in vehicles.

21. The vehicles must have side supports or have body to support the materials conveyed.

22. The materials should not to be allowed to extend or overflow the sides of the vehicles.

23. Materials should not be allowed to overhang from the rear edge of the body of the vehicle.

24. Driver of the vehicle must possess valid license.

25. Vehicle must not be overloaded beyond the prescribed limits.

26. Red flags and lights for parts projecting from the body of vehicle must be provided.

27. The speed restrictions within the factory premises must be strictly adhered to.

28. The contractor should maintain a register regarding the driver license particulars.

29. The contractor should arrange WORKMEN COMPENSATION / INSURANCE POLICY covered for all his/her workmen. A copy of the policy has to be submitted before commencement of work.

30. All safety precautions are to be taken by the contractor at his cost.

31. These safety measures shall be deemed to form an integral part of the Work Order/ Agreement.

All Contractors including their sub-contractors, agents and labour engaged on the work are required to scrupulously adhere to the safety regulations, safety precautions and measurers. Any violation thereof will invite punitive action being taken against them. Also contractors with frequent violations of safety regulations will not be entrusted with further work in this organization.

Contractor shall provide thick hat, safety glass with side shield, full face shield, ear plug set, face mask, nose mask, protective & chemical resistant gloves, safety shoe, gum boots, safety belt, rain coat, chemical resistant protective clothing to the workers wherever necessary / as per instruction of Engineer in charge within the quoted rates.

SAFETY CODE

RESPONSIBILITIES OF THE CONTRACTOR IN RESPECT OF SAFETY OF MEN, EQUIPMENT, MATERIAL AND ENVIRONMENT

1. Before commencing the work, the contractor is required to submit a "SAFETY PLAN" to the authorized BHEL official. The 'safety plan' shall indicate, in detail, the measure that would be taken by the contractor to ensure safety of men, equipment, material and environment during execution of work. The plan shall take care to satisfy all requirements specified hereunder.

The contractor shall submit safety plan along with his offer. During negotiations before placing of work order and during execution of the contract, BHEL shall have right to review and suggest modification in the safety plan. The contractor shall abide by BHEL's decision in this respect.

2. The contractor shall take all necessary safety precautions and arrange for appropriate appliances as per direction of BHEL, or its authorized officials, to prevent loss to human lives, injuries to personnel engaged, and damage to property and environment.

3. The contractor shall provide to its work force and ensure the use of the following personal protective equipment as found necessary and as directed by the authorized BHEL officials:-

(i) Safety helmets conforming to IS-2925: 1984.
(ii) Safety Belts conforming to IS-3521:1983
(iii) Safety Shoes conforming to IS-1989:1978.
(iv) Eye and Face protection devices conforming to IS-8520:1977. And IS-8940:1978.
(v) Hand and body protection devices conforming to

1. IS-2573:1975 (2) IS-6994:1973 (3) IS-8807:1978 (4) IS-8519:1977.

4. All tools, tackles, lifting appliances, material handling equipment, scaffolds, cradles, safety nets, ladders, equipment etc. used by the contractor shall be of safe design and construction. These shall be tested and certificate of fitness obtained, before putting them to use and from time to time as instructed by authorized BHEL official who shall have the right to ban the use of any item.

5. All the electrical equipment, connections and wiring for constructions, power, its Distribution and use shall conform to the requirement of Indian Electricity Act and Rules. Only electricians licensed by the appropriate statutory authority shall be employed by the contractor to carry out the all types of electrical works. All electrical appliances including portable electric tools used by the contractor shall have safe plugging system to source of power and be appropriately earthed.

6. The contractor shall not use any hand – lamp energized by electric power with supply voltage of more than 24 Volts. For work in confined spaces, lighting shall be arranged with power source of not more than 24 Volts.

7. The contractor shall adopt all fire safety measures as laid down in the "Code for Fire Safety at Construction sites" issued by the safety department of BHEL and as per the directions of the authorized BHEL official. A copy of the above referred "Code for Fire Safety at Construction sites" shall be made available by BHEL to the contractor for reference, on demand by the contractor, during tendering stage itself.

8. Where it becomes necessary to provide and/or store Petroleum Products, explosives, chemicals and liquid or gaseous fuel or any other substance that may cause fire or explosion, the contractor shall be responsible for carrying out such provisions and / or storage in accordance with the rules and regulations laid down in the relevant government acts, such as Petroleum Act, Petroleum and Carbides of Calcium Manual of the Chief Controller of Explosives, Govt. of India etc., Prior approval of the authorized BHEL official at the site shall also be taken by the contractor in all such matters.

9. The contractor shall arrange at his cost (wherever not specified), appropriate illumination at all work spots for safe working when natural daylight may not be adequate for clear visibility.

10. The contractor shall be held responsible for any violation of statutory regulations local, state or central and BHEL instructions, that may endanger safety of men, equipment, material and environment in his scope of work or another contractor's or agency's. Cost of damages if any, to life and property arising out of such violation of statutory regulations and BHEL instructions, shall be borne by the contractor.

11. In case of fatal or disabling injury/accident to any person at construction / work sites due to lapses by the contractor, the victim and/or his/her dependents shall be compensated by the contractor as per statutory requirements. However, if considered necessary, BHEL have the right to impose appropriate financial penalty on the contractor and recover the same from payments due to the contractor for suitably compensating the victim and/or his/her dependents. Before imposing any such penalty, appropriate enquiry shall be held by BHEL giving opportunity to the contractor to present his case.

12. In case of any damage to property due to lapses by the contractor, BHEL shall have the right to recover cost of such damages from payments due to the contactor after holding an appropriate enquiry.

13. In case of any delay in the completion of a job due to mishaps attributable to lapses by the contractor, BHEL shall have the right to recover cost of such delay from payments due to the contractor, after notifying the contractor suitably and giving him opportunity to present his case.

14. If the contractor fails to improve the standards of safety in its operation, to the satisfaction of BHEL, after being given a reasonable opportunity to do so and / or / if the contractor fails to take appropriate safety precautions or to provide necessary safety devices and equipment or to carry out instructions regarding safety issued by the authorized BHEL official, BHEL shall have the right to take corrective steps at the risk and cost of the contractor, after giving a notice of not less than seven days, indicating the steps that would be taken by BHEL.

15. The contractor shall submit report of all accidents, fires and property damage, dangerous occurrence to the authorized BHEL official immediately after such occurrence, but in any case not later than twelve hours of the occurrence. Such reports shall be furnished in the manner prescribed by the contractor to the authorized BHEL official from time to time as prescribed.

16. Before commencing the work, the contractor shall appoint/nominate a responsible office to supervise implementation of all safety measures and liaison with his counterpart of BHEL.

17. If the Safety record of the contractor is to the satisfaction of Safety Department of BHEL, issue of an appropriate certificate to recognize the safety performance of the contractor may be considered by BHEL after completion of the job.

Tender Document

Tender Specification No: BAP:CF:OT:06/2019-20 Dt: 04/05/2019

Name of Work:

CIVIL, STRUCTURAL, ARCHITECTURAL AND ASSOCIATED ELECTRIFICATION – CONSTRUCTION WORK FOR ESP, R&M TANGEDCO METTUR TPS UNIT-4 (210 MW), SALEM, TAMILNADU, SECTION A & B

Period of Contract: **SIX MONTHS**

Part – II – Price Bid

(Pages 1 – 41 including this cover page – Price bid only)

CIVIL PROJECTS & SERVICES
BHARAT HEAVY ELECTRICALS LIMITED
(A Government of India Undertaking)
BOILER AUXILIARIES PLANT
INDIRA GANDHI INDUSTRIAL COMPLEX
RANIPET – 632 406

BHARAT HEAVY ELECTRICALS LIMITED

BOILER AUXILIARIES PLANT

RANIPET - 632406

PRICE BID

ESTIMATE REF NO : CF/MET/18/32

NAME OF WORK : CIVIL, STRUCTURAL, ARCHITECTURAL AND ASSOCIATED ELECTRIFICATION- CONSTRUCTION WORK FOR ESP R & M TANGEDCO METTUR TPS UNIT-4 (210 MW) , SALEM, TAMIL NADU. SECTION-A.

CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
	100	**EARTH WOK**				.00
PPR	101	**Earth work in excavation in all types of soil including ash which can be excavated by any means including setting out, levelling, dewatering (but excluding special type of dewatering viz. well point method), sheeting, shoring & strutting (wherever required), dressing the sides & bottom, all lifts, ramming/compacting the excavated bottom, stacking, disposal of surplus excavated materials within a lead up to 500 m, spreading/levelling of disposed materials etc . All complete as per customer & contract specification and drawing.**				.00
DO	101A #	**Depth from ground level but not exceeding 2 m**	1393.000	CUM	132.71	184865.03
DO	101B #	**Depth exceeding 2 m but not exceeding 4 m**	285.000	CUM	180.48	51436.80
DO	101C #	**Depth exceeding 4 m but not exceeding 6 m**	61.000	CUM	234.99	14334.39
DATA	102	**Dewatering using 3 HP to 70 HP diesel engine pumpset including hire charges,cost of disel,Engine oil,pump operator,labour charges,conveyance of pumpset and fuel to site and back, loading,unloading and any other incidental charges etc.,Complete.**				.00
DO	102A #	**Hire charges for Disel pump set for 3 HP**	500.000	PER HOUR	170.71	

CONTRACTOR/ TENDERER

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
					85355.00	
DO	102B #	**Hire charges for Disel pump set for 5 HP**	500.000	PER HOUR	223.68	

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
					111840.00	
PPR	103	**Earth work in excavation in soft rock (rock without any recovery of excavated materials in the form of hard stone/boulder) including weathered rock which can be excavated by means of crow bar, pick axe, pneumatic rock breaker attachment with excavator machine etc but does not require chiselling or blasting including setting out, levelling, dewatering (wherever required), shoring & strutting (wherever required), dressing the sides & bottom, all lifts, ramming/compacting the excavated bottom, stacking, disposal of surplus excavated materials within a lead up to 500 m, spreading / levelling of disposed materials etc.All complete as per customer & contract specification and drawing.**				.00
DO	103A #	**Depth from ground level but not exceeding 2 m**	1386.000	CUM	195.08	270380.88
DO	103B #	**Depth exceeding 2 m but not exceeding 4 m**	261.000	CUM	308.09	80411.49
DO	103C #	**Depth exceeding 4 m but not exceeding 6 m**	43.000	CUM	366.39	15754.77
PPR	104	**Earth work in excavation in hard rock requiring chiselling including wedging, line drilling, pre shearing etc as required, setting out, levelling, deawtering (wherever required), dressing the sides & bottom, all lifts, stacking/disposal of surplus excavated material within a lead upto 500m, spreading / levelling of disposed materials etc all complete for following depths below ground level.**				.00

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
DO	104A #	Depth from ground level but not exceeding 2 m	2617.000	CUM	932.80	2441137.60
DO	104B #	Depth exceeding 2 m but not exceeding 4 m	568.000	CUM	982.13	557849.84
DO	104C #	Depth exceeding 4 m but not exceeding 6 m	33.000	CUM	1065.54	35162.82
PPR	105	Back filling up to any depth below ground level around foundations, plinths, trenches, drains etc to proper grade and level in layers not exceeding 300 mm thickness using/with selected materials from compulsorily excavated soil available within a lead up to 500m and compacted as specified including re-excavation of stacked earth, watering, ramming/compaction by manual/mechanical means, dressing etc .All complete as per customer & contract specification and drawing.				.00
DO	105A #	Each layer compacted so as to achieve 90 % of the standard proctor density at OMC. as per IS-2720 (Part-VII)	545.000	CUM	110.14	60026.30
PPR	106	Back filling up to any depth below ground level around foundations, plinths, trenches, drains etc to proper grade and level in layers not exceeding 300 mm thickness using/with selected materials directly from excavation and compacted as specified including watering, ramming/compaction by manual/mechanical means, dressing etc. All complete as per customer & contract specification and drawing.				.00
DO	106A #	Each layer compacted so as to achieve 95 % of the standard proctor density at OMC. as per IS-2720	85.000	CUM	116.22	9878.70
DO	106B #	Each layer compacted so as to achieve 90 % of the standard proctor density	303.000	CUM	106.16	32166.48

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		at OMC. as per IS-2720				
PPR	107	Extra over ST No. 101 and 103 to 106 for carriage of excavated earth/selected materials for every 1 km or part thereof by Mechanical means beyond an initial lead of 500m.				.00
DO	107A #	Carriage beyond 500 m and not exceeding 1 Km (1 KM shall be measured beyong initial lead of 500m)	1697.000	CUM	47.77	81065.69
DO	107B #	Carriage beyond 1 KM and not exceeding 2 KM	727.000	CUM	47.77	34728.79
DO	108C #	Carriage beyond 2 Km and not exceeding 3 Km	485.000	CUM	47.77	23168.45
PPR	109	Back filling up to any depth below ground level around foundations, plinths, trenches, drains,rails & roads etc to proper grade and level in layers not exceeding 300 mm thickness using/with approved borrowed soil from borrow areas and compacted as specified including supplying borrowed soil, royalty (if any), watering, ramming/compaction by manual/mechanical means, dressing etc. All complete as per customer & contract specification and drawing.				.00
DO	109A #	Each layer compacted so as to achieve 90 % of the standard proctor density at OMC. as per IS-2720	2991.000	CUM	372.89	1115313.99
PPR	110 #	Supplying and filling sand up to any depth under floors, around foundations, plinths etc. in layers not exceeding 300mm thickness and compacted so as to achieve at least 80% relative density as per IS-2720 (Part-XIV) including spreading, watering, ramming/compaction by manual / mechanical means, dressing, royalty (if any) etc. All complete as per customer & contract specification and	129.000	CUM	790.94	102031.26

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		drawing.				
	200	**CONCRETE WORKS** Providing and placing concrete work including cost of labour, materials and equipment for handling, transportation, batching, mixing, placing, vibrating and curing, (excluding cost of centering, shuttering and reinforcement) with mechanised equipments like batching plant, transit mixer, concrete pump etc. All complete as per customer & contract specification and drawing.				.00
	200A	"Note: Fly ash based portland pozzo1ana cement conforming to IS : 1489 (Part - 1) shall preferably be used (unless required otherwise to counteract soil water chemical environment). However, the contractor may use portland slag cement conforming IS: 455 or ordinary portland cement conforming to IS : 269 or IS: 8112. Coarse aggregate - Coarse aggregate for concrete shall be chemically inert, hard,strong, durable against weathering of limited porosity and free from deleterious materials. It shall be properly graded. II shall meet the requirement of IS : 383,Fine aggregate - Sand shall be hard, durable, clean and free from adherent coatings of organic matter and clay balls or pellets. Sand, when used as fine aggregate in concrete shall conform to IS : 383.All complete as per customer & contract specification and drawing."				.00
PPR	201 #	Plain Cement Concrete of grade M 7.5 ((1 part cement, 4 part sand, 8 parts of 40 mm graded aggregate by volume) as filling course at any depth below finished floor level, under and	228.000	CUM	3896.20	888333.60

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		around foundations/floors, mass fill etc All complete as per customer & contract specification and drawing.				
PPR	202 #	Plain Cement Concrete of grade M 10 ((1 part cement, 3 part sand, 6 parts of 40 mm graded aggregate by volume) as filling course at any depth below finished floor level, under and around foundations/floors, mass fill etc aAll complete as per customer & contract specification and drawing.	22.000	CUM	4465.76	98246.72
PPR	203 #	Plain Cement Concrete of grade M15 (1 part cement, 2 part sand, 4 parts of 40 mm graded aggregate by volume) under masonry wall foundation etc .All complete as per customer & contract specification and drawing.	4.000	CUM	5273.88	21095.52
PPR	204	REINFORCEMENT CEMENT CONCRETE WORKS Reinforced Cement Concrete under floors, paving, plinth protection, pipe encasing, column encasing etc complete with 20 mm nominal size graded aggregate at any depth below finished floor level. All complete as per customer & contract specification and drawing.				.00
DO	204A #	M20 Grade	4.000	CUM	5681.98	22727.92
PPR	205	Providing and laying Design Mix cement concrete conforming to IS:456 & IS 10262-2009 for reinforced concrete works with coarse sand and graded hard stone aggregate of 20mm nominal size in foundations/substructure, grade slab, paving, drains, under floors etc at any level below finished floor level, any shape, position or thickness etc complete including use of plasticizer/ super plasticizer conforming to IS:9103 (latest) to achieve required slump in concrete .All complete as per customer &				.00

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		contract specification and drawing.				
DO	205A #	**M25 Grade**	802.000	CUM	6308.78	5059641.56
PPR	206	**Providing and laying Design Mix cement concrete conforming to IS:456 & IS 10262-2009 for reinforced concrete works with coarse sand and graded hard stone aggregate of 20mm nominal size in superstructure at any level above finished floor level, any shape, position or thickness etc complete including use of plasticizer/ super plasticizer conforming to IS:9103 (latest) to achieve required slump in concrete all complete.All complete as per customer & contract specification and drawing.**				.00
DO	206A #	**M25 Grade**	286.000	CUM	6591.24	1885094.64
PPR	207	**Providing and encasing of structural steel member with concrete using nominal aggregate size of 12.5mm down. Encased member shall be wrapped with welded wire mesh/chicken wire mesh with proper lap etc. All complete as per customer & contract specification and drawing.**				.00
DO	207A #	**M20 grade**	9.000	CUM	5742.52	51682.68
DO	207B #	**M25 grade**	21.000	CUM	7028.08	147589.68
PPR	208	**Providing and laying Design Mix cement concrete as per IS:456 & IS 10262-2009 for reinforced concrete works using graded aggregate for Concrete in precast works like roof slabs/trench covers, fins, lintels, chajas, beams, fencing posts columns, wall panels, facias etc.at all levels in all kinds of work including formwork/moulds, curing, rendering the top exposed surface with cement sand mortar (1:3), handling, storing, transporting, all**				.00

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		leads, erection without damage, setting in position with cement sand mortar (1:3), filling the gaps between adjacent precast units with concrete or cement sand mortar (1:3) and including making of holes for bolts for fixing, welding etc.complete with graded aggregate (20/12.5/10 mm).All complete as per customer & contract specification and drawing.				
DO	208A #	M 25 grade	24.000	CUM	7339.49	176147.76
PPR	209	Providing and laying Design Mix cement concrete as per IS:456, IS 3370 & IS 10262 2009 for reinforced concrete works using graded aggregate for Concrete in water retaining/conveying structures including addition of suitable plastisizer cum waterproofing cement additives confirming to IS 9103 latest to achieve a slump more than 125 mm in concrete as per manufacturers recommendation and conforming to limits of permeability as per IS 2545 and specification with 20 mm nominal size graded aggregate for following grades.All complete as per customer & contract specification and drawing.				.00
DO	209A #	M 25 grade	9.000	CUM	7087.11	63783.99
PPR	210	Dismantling concrete work for all types of structures at all levels including stacking of serviceable material to a lead of 500 m and disposal of unserviceable material up to a lead of 2 km, cutting of reinforcement, labour, equipment, safety precautions etc .All complete as per customer & contract specification and drawing.				.00
DO	210A #	Plain cement concrete of all grades	205.000	CUM	2401.96	492401.80

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
DO	210B #	Reinforced cement concrete of all grades	633.000	CUM	3390.60	2146249.80
PPR	211 #	Chipping manually (wherever machine cutting is not possible) of masonry/ PCC/ RCC work for making pockets, openings at any floors/ foundations of all levels and according to shapes and sizes as per drawing, including making good broken edges/ surface with cement mortar (1:3), disposal of waste materials upto a lead of 2 km as directed by Engineer-in-charge.	191.000	CUDM	123.33	23556.03
PPR	212 #	Extra over and above St No 216 for cutting of reinforcement, all sizes and types including labour, equipment, return of cut reinforcement to store etc all complete as per specification, drawings and instructions of engineer in charge. Measurement shall be on the cross sectional area of reinforcement cut.	128.000	SQCM	154.14	19729.92
PPR	213 #	Cutting Reinforced concrete with mechanised tools like Core drilling machine etc. for cutting pockets, holes, cores in slab, beam, column or foundation as per direction of engineer in charge.All complete as per customer & contract specification and drawing.	255.000	CUDM	128.71	32821.05
PPR	214 #	Providing & laying Plum cement concrete 1:3:6 with 75% graded metal of maximum size 40 mm and 25% plums of maximum size 150 mm.All complete as per customer & contract specification and drawing.	85.000	CUM	4522.49	384411.65
	300	FORM WORKS Providing, fixing and removing formwork at any elevations for all structures, as per specifications and including all labour, material, scaffoldings and centereing complete				.00

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		including pockets etc. All complete as per customer & contract specification and drawing and as per direction of engineer in charge for the following.				
PPR	301 #	Fairface form work with good quality water proof ply wood of required thickness and smooth surface below finished ground floor level for foundations, footings, base of columns, walls, columns, pilasters, beams, mass concrete, trenches etc.	1197.000	SQM	411.38	492421.86
PPR	302 #	Fairface form work with good quality water proof ply wood of required thickness and smooth surface above finished ground floor level for columns, beams, suspended floors, roofs, lintels, cantilevers, staircases, landings, balconies, domes, arches, circular overhead tanks etc. for all heights.All complete as per customer & contract specification and drawing and as per direction of engineer in charge for the following.	156.000	SQM	521.57	81364.92
PPR	303	Providing, fixing and removing formwork in block-outs/pockets and openings (below 0.1 sqm plan area) at all elevations including cutting, formation of all shapes and all other operations required for making the required shape and size.All complete as per customer & contract specification and drawing.				.00
DO	303A #	Up to 150 mm depth	298.000	EACH	491.26	146395.48
DO	303B #	Pockets of depths more than 150mm and up to 300 mm depth	181.000	EACH	509.23	92170.63
DO	303C #	Pockets of depths more than 300mm and up to 600 mm depth	72.000	EACH	811.71	58443.12

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
DO	303D #	**Pockets of depths more than 600mm and up to 1000 mm depth**	21.000	EACH	1125.63	23638.23
DO	303E #	**Pockets of depths more than 1000 mm depth**	21.000	EACH	1654.82	34751.22
	400	**REINFORCEMENT**				.00
DATA	401 #	**"Providing , straightening, cutting, bending, placing in position at any level, binding in position High yield deformed bar of IS: 1786 (Fe. 500/500D) with minimum 14.5 percent elongation. All complete as per customer & contract specification and drawing and as per direction of engineer in charge for the following."**	177000.000	KG	60.60	10726200.00
	500	**JOINTS AND FILLERS** **Joints & fillers including all labour, material, equipment, transportation, handling etc at any level. All complete as per customer & contract specification and drawing and directed by engineer - in - charge.**				.00
PPR	501	**Supplying & installation of preformed bitumen impregnated fibre board confirming to IS 1838 as joint filler at joints in concrete including nailing, coating of both faces with coal tar pitch/bitumen etc. All complete as per customer & contract specification and drawing.**				.00
DO	501A #	**12mm to 15mm thk wide joints**	9.000	SQM	1340.49	12064.41
DO	501B #	**"20 mm wide joints."**	9.000	SQM	1775.90	15983.10
DO	501C #	**50mm thick joints**	26.000	SQM	2995.68	77887.68
PPR	502	**Providing and applying polysulphide based sealant conforming to IS:12118 in expansion joints in concrete including cleaning of joints, raking out groove, application of primer,**				.00

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		scaffolding etc. All complete as per customer & contract specification and drawing.				
DO	502A #	**12mm X 25mm**	164.000	RM	189.77	31122.28
DO	502B #	**20mmX25mm**	9.000	RM	296.88	2671.92
DO	502C #	**50mmX25mm**	170.000	RM	1112.64	189148.80
PPR	503	**Providing and fixing PVC water stops in joints conforming to IS 12200 & IS 15058 All complete as per customer & contract specification and drawing.**				.00
DO	503A #	**150 mm wide and 6 mm thick**	2.000	RM	436.23	872.46
DO	503B #	**230 mm wide and 6 mm thick**	2.000	RM	1048.44	2096.88
	600	**MS EMBEDMENTS** Embedments including all labour, material, equipment, transportation, handling etc. at any level. All complete as per customer & contract specification and drawing and directed by engineer - in - charge.				.00
PPR	601 #	**Supply, fabricating and fixing of mild steel embedments, BOLTS assembly,inserts, pipe sleeves, angle pieces, rungs of various diameters, plates of dimensions as required etc. including cost of all labour, materials and equipment, transportation, loading, unloading, handling, painting, welding, bolting, riveting,cutting, drilling, scaffolding, setting etc. all complete.**	4.000	MT	91656.14	366624.56
PPR	602 #	**Same as above with BHEL supllied material free of cost including loading, transportation, unloading etc. all complete from BHEL store to**	3.000	MT	28830.56	86491.68

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		plant site.				
PPR	603 #	Fixing of embedments, inserts, pipe sleeves, angle pieces, anchor bolts and its assembly of various diameters, plates of dimensions as required etc. including scaffolding, setting in position, transportation from BHEL site stores to work spot etc. All complete as per customer & contract specification and drawing.	9.000	MT	19336.93	174032.37
PPR	604	Providing, fabricating, transporting, erecting and installing at all elevations miscellaneous steel/PVC pipes, expansion fasteners in concrete/brickwall, for all kind of works, including the cost of labour, material and equipment, setting material in concrete, layout, scaffoling, handling at site, cutting, forming, grinding, drilling, bolting, welding, jointing, testing etc. all complete as per drawings and specifications and instructions of engineer. Contractor to supply all materials.				.00
DO	604A #	MS pipes of all diameters	2.000	QUINTAL	11525.41	

CONTRACTOR/ TENDERER

ACCEPTING OFFICER

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
					23050.82	
DO	604B #	**PVC pipes / conduits of all diameters**	2.000	QUINTAL	23369.22	

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
					46738.44	
DO	604C	**Expansion fasteners (mechanical galvanised) of HILTI make or equivalent of safe tensile capacity as specified below for brick work with expansion sleeve of A6 polyamide:**				.00
DO	604C1#	**Upto 250 kg**	2.000	EACH	362.36	724.72
DO	604C2#	**Beyond 250 Kg and upto 500 kg**	2.000	EACH	562.37	1124.74
DO	604C3#	**Beyond 500 Kg and upto 750 kg**	2.000	EACH	907.68	1815.36
DO	604D	**Expansion fasteners (mechanical galvanised) of HILTI make or equivalent of safe tensile capacity as specified below for concrete work with expansion sleeve of stainless steel:**				.00
DO	604D1#	**Upto 250 kg**	2.000	EACH	428.73	857.46
DO	604D2#	**Beyond 250 Kg and upto 500 kg**	2.000	EACH	652.96	1305.92
DO	604D3#	**Beyond 500 Kg and upto 750 kg**	2.000	EACH	1026.08	2052.16
	700	**GROUTING** **Grouting including all labour, material, equipment, roughening surface, cleaning, ramming, curing etc. at any level unless otherwise specified as per specification, drawings and as directed by engineer - in - charge. All complete as per customer & contract specification and drawing.**				.00
PPR	701 #	**Providing & grouting of pocket holes, pipe sleeves and under base plates of structural steel work/ machinery/ pipe supporting structures etc including roughening of surface, cleaning, ramming, curing etc. all complete with nonshrink cementatious flowable grout**	3.000	CUM	10639.62	31918.86

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		(Fosroc OR EQUIVALENT of minimum Grade M-30. (Cost of all material and cleaning of the pockets by compressed air shall be in the scope of the contractor).All complete as per customer & contract specification and drawing.				
PPR	702 #	Providing & grouting for equipment foundation etc including roughening of surface, cleaning, ramming, curing etc. all complete with ready mixed nonshrink chloride free ,cement based,free flowing,non metalic grout (Fosroc OR EQUIVALENT)of minimum Grade M-60. (Cost of all material and cleaning of the pockets by compressed air shall be in the scope of the contractor).All complete as per customer & contract specification and drawing.	9.000	CUM	10635.86	95722.74
	800	DOORS, WINDOWS, VENTILATORS, LOUVERS Doors, windows, ventilators, louvers, roof ventilators, rolling shutters, partitions including all labour, material, equipments, transportation, handling, preparation of working drawings etc. at any level as per specification, drawings and as directed by engineer - in - charge.All complete as per customer & contract specification and drawing.				.00
PPR	801 #	"Providing, fitting and fixing solid core flush door shutter e as per IS 2202 part II,35mm thick homogenous particle board bonded with BWP type phenolformaldihyde synthetic resin, partical board core conforming to IS 3087 type I, 35x12 mm thick teakwood beading all around including preparation of working drawings. godrej or equivalent make mortice lock with handels on both sides,approved ISI mark anodised	4.000	SQM	5060.12	20240.48

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		fittings like door stopper,300mm long tower bolts,16x300mm long aldrops ,125mm long handles on both sides etc. butt hinges, sliding bolt, knobs, (all fittings shall be anoidised aluminium color dyed), finish synthetic paint over primer, screws etc. all complete as per drawing, specification and instruction of engineer in charge. with commercial faces and teak wood edges. All complete as per customer & contract specification and drawing."				
PPR	802 #	Providing and fixing anodized extruded aluminium doors (single or double shutter) conforming to IS:1948, IS:1949 fabricated from extruded sections of INDAL or equivalent make having minimum 2mm wall thickness as per IS:1285, IS:733 electro statically powder coated (min 30 microns) fixed with rawl plugs, expansion fasteners,SS screws / fixing clips necessary filling of gaps at Junctions, at top, bottom & sides with required PVC / neoprene felt for bi-metallic protection etc. Glazing shall be as per specified thickness, conforming to IS : 2553 including rubber lining or EPDM gasket and extruded anodised aluminium beading, snap fit type beading, concealed screws, fixtures, Godrej or equivalent make Mortice lock with handle on both sides, etc all complete as per customer specifications :Aluminium section shall be smooth, free of stains, straight, mitred & jointed mechanically wherever required. (Glazing shall be paid separately).All complete as per customer & contract specification and drawing.	3.000	SQM	7207.19	21621.57
PPR	803	Providing and fixing steel windows/ventilator with steel				.00

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		sections as per IS:1038, IS:1361 & IS:7452 latest revision.including all fittings, metal beadings, hold fasts, shop and final powder coating ,glazing etc. all complete. (Glazing shall be paid separately).				
DO	803A #	openable type	3.000	SQM	3680.95	11042.85
DO	803B #	Fixed type	3.000	SQM	3527.58	10582.74
PPR	804 #	Providing and fixing anodised aluminium work of Jindal, Hindalco or other equivalent approved make for door frames, windows, ventilators, partitions, railing etc with extruded standard and other sections including all fittings & fixtures and accessories of approved make conforming to IS733 and IS1285, electro statically powdered coated (min 30 microns) to required shade, fixed with rawl plugs, expansion fasteners, SS screws or with fixing clips, including necessary filling of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt for bi-metallic protection etc.including preparation of working drawings, aluminium cleat angle, aluminium snap-on-beading for glazing/panelling, stair case tread nosing, with all fittings and fixtures (like tower bolts, handles, door stopper with rubber shoes, 'L' drops, stays, floor springs, hydraulic door closures etc.), CP brass/stainless steel screws, providing and fixing hinges/pivots, and making provision for fixing of fitting wherever required including cost of PVC/neoprene gasket, all complete as per drawing, specification and instructions of engineer in charge (Glazing and panelling shall be paid separately). Weight of aluminium	13.000	KG	445.11	5786.43

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		section only shall be measured. All complete as per customer & contract specification and drawing.				
PPR	805	Providing and fixing of door closers as per IS 3564 ,of approved make & quality all complete of following type				.00
DO	805A #	Over head hydraulic door closures	2.000	EACH	2027.04	4054.08
DO	805B #	Floor mounted Hydraulic door closers	2.000	EACH	3450.90	6901.80
PPR	806 #	Providing and fixing pressed steel frames fabricated from 16 gauge M.S sheet mortised, reinforced drilled and tapped for hinges and locks bolts strikes, hold fasts adjustable floor anchors, floor tiles/weather bars ,paintings etc. All complete as per customer & contract specification and drawing.	9.000	KG	146.61	1319.49
PPR	807	"Providing, fixing and fitting of glazing in steel/aluminium/wooden frames, where ever required, cleaning after fixing including hardware, gaskets, clips, beadings etc. all complete. Below mentioned glass thickness are bare minimum only and actual thickness will depend on the panel size of the glazing to be provided. Glazing shall have uniform refractive index.All complete as per customer & contract specification and drawing. (Note - Payment shall be made on measured clear area after gasket/sealent Only)"				.00
DO	807A #	6 mm thick toughened glass plain/tinted	9.000	SQM	2269.20	20422.80
PPR	807B #	Two nos. 6 mm thick clear toughened float glass hermetically sealed by beading of anodized aluminium and separated by 12 mm thick air gap	9.000	SQM	3834.33	34508.97

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		for thermal insulation (only single elevation area to be measured)				
PPR	807C #	Providing and fixing 12 mm thick BWP Homogeneous particle board, decorative veneer (prelaminated) on both sides bonded with BWP type Phenol Formaldehyde Synthetic resin confirming to IS 3087, as panels in aluminium framed door shutter, fixed with necessary snap-on-beading etc. All complete as per customer & contract specification and drawing. (excluding aluminium works)	5.000	SQM	2364.28	11821.40
PPR	807D #	Providing and fixing steel louvered window with ISMC 100 frame all round including Z shaped louver blade & verticals with 18G pressed steel louvers in E27 steel frames, powder coating etc. All complete as per customer & contract specification and drawing..	4.000	SQM	4217.44	16869.76
PPR	808	Supply and placing in position suitable grill for all windows and ventilators on ground floor of all buildings.All complete as per customer & contract specification and drawing.				.00
DO	808A #	steel	4.000	KG	79.82	319.28
DO	808B #	Aluminium	4.000	KG	224.13	896.52
	900	BRICK WORK Brickwork masonry including all labour, material, equipment, transportation, handling, scaffolding etc. at all levels as per specification, drawings and as directed by engineer - in - charge. with burnt clay bricks/fly ash bricks/solid concrete blocks/hollow concrete blocks .All complete as per customer & contract specification and				.00

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		drawing.				
PPR	901	Providing brick work in cement mortar 1:6 (1 part cement 6 parts coarse sand) in walls, chambers etc. in thickness varying from 230mm to 460mm at all depths, places and positions below plinth including raking out joints, curing, scaffolding etc. complete excluding plastering and painting.				.00
DO	901A #	Using fly ash lime bricks confirming to IS 12894 with crushing strength of 75 kg/cm2	2.000	CUM	3813.70	7627.40
DO	901B #	Using burnt clay bricks of class designation 5.0Kg/cm2 of nominal dimension	2.000	CUM	4351.85	8703.70
PPR	902	Providing brick work in cement mortar 1:6 (1 cement 6 coarse sand) in walls, chambers etc. in thickness 230mm at all heights, places and position above plinth including raking out joints, curing, scaffolding etc All complete as per customer & contract specification and drawing.				.00
DO	902A #	Using fly ash lime bricks confirming to IS 12894 with crushing strength of 75 kg/cm2	4.000	CUM	4935.42	19741.68
DO	902B #	Using burnt clay bricks of class designation 5.0 kg/cm2 of nominal dimension	4.000	CUM	4533.36	18133.44
PPR	903	Providing brick work in cement mortar 1:4 (1 cement 4 coarse sand) in partition walls, chambers etc. in thickness 115mm at all heights, places and position above or below plinth/graded level including providing two nos. 6 mm diameter MS bars at every third layer, raking out joints, curing, scaffolding etc				.00

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		complete as per customer specifications:				
PPR	903A #	Using fly ash lime bricks confirming to IS 12894 with crushing strength of 75 kg/cm2	13.000	SQM	705.88	9176.44
DO	903B #	Using burnt clay bricks of class designation 5.0 of nominal dimension	9.000	SQM	774.94	6974.46
PPR	904 #	Breaking of existing brick work at all levels including plastering, removing the rubbish up to a distance of 500 m including transportation, loading, unloading etc. all complete as directed by the engineer.	9.000	CUM	1138.19	10243.71
PPR	905 #	Providing and encasing of structural steel member with masonry work around flanges, webs etc. and filling the gap between steel and masonry by minimum 12mm thick mortar. Encased member shall be wrapped with chicken wire mesh with 50mm lap/mild steel wire fabric etc. complete as per specification. (Chicken wire mesh/mild steel wire fabric to paid separately).	2.000	CUM	4471.12	8942.24
PPR	906 #	Making openings in existing brick wall or partition wall including making good the broken edges/surface with cement mortar etc. complete.	4.000	CUM	1527.00	6108.00
PPR	907 #	Filling existing brick wall/ partition wall opening at all level including making good the broken edges/surface with cement mortar, painting, finishing to match with existing finishing, scaffolding/supporting at any level, removal of debris upto a lead of 1 km including loading, unloading, transportation etc. All complete as per customer & contract specification and drawing.	4.000	SQM	884.36	3537.44

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
	908	**CEMENT MORTAR PLASTER** Cement mortar plaster including making grooves whereever required including all labour, material, scaffolding, curing,chicken mesh etc at any level. All complete as per customer & contract specification and drawing and directed by engineer - in - charge.				.00
PPR	909 #	Providing 18mm thick plaster in two layers outside the building/boundary wall in cement mortar 1:6 on walls, finished to a smooth finish including providing 3mmx3mm size grooves at junctions of two dissimilar materials all complete.	21.000	SQM	201.30	4227.30
PPR	910 #	Providing 12mm thick plaster inside (smooth side) the building wall in cement mortar 1:6 on walls finished to a smooth finish all complete as per customer specifications.	21.000	SQM	152.61	3204.81
PPR	911 #	Providing 6mm thick plaster on ceiling in cement mortar 1:4 finished to a smooth all complete as per customer specifications.	9.000	SQM	142.04	1278.36
PPR	912 #	Providing 12mm thick plaster in walls, drains/culverts in cement mortar 1:4 finished to a smooth with a paste of neat cement @ 1kg/sqm and rubbed smooth with trowel etc. all complete.	204.000	SQM	154.72	31562.88
PPR	913 #	Forming groove (horizontal & vertical) of uniform size 20 x 10mm in plastered surface as per approved pattern, using wooden battens nailed to the under layer, including removal of wooden battons, repair of the edges of plaster panel and finishing the groove etc. complete as customer specification :	81.000	RM	46.54	3769.74

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
PPR	914 #	Providing drip coarse on plastered surface with 1:3 cement sand mortar at all elevations for all type of work such as chajjas, parapet, projections etc. including scaffolding, finishing etc. complete with all labour, tools and plants as per specification, drawing and instructions of engineer in charge.	9.000	RM	31.84	286.56
	915	FINISHES TO CONCRETE / PLASTERED SURFACES Finishes, painting to concrete, plastered surfaces including all labour, material, equipment, surface preparation, scaffolding etc. at any level All complete as per customer & contract specification and drawing and directed by engineer - in - charge.				.00
PPR	916 #	Two or more coats of white wash/ colour wash as per IS 627 of approved brand and manufacture to give an even shade including a priming coat as per specifications.	85.000	SQM	21.17	1799.45
PPR	917 #	Providing and applying two or more coats of acrylic destemper as per IS 428 of approved brand, shade and manufacture to give smooth, hard, durable & glossy finish over a coat of primer over prepared plaster surface all complete as per customer specifications	85.000	SQM	99.45	8453.25
PPR	918 #	Providing and applying two or more coats of acrylic emulsion paint as per IS 5411 of approved brand, shade and manufacture to give smooth, hard, durable & glossy finish over a coat of primer over prepared plaster surface as per manufacturers guideline.	85.000	SQM	158.17	13444.45
PPR	919 #	"Providing and applying 2 or more coats of acid/alkali resistant paint of approved brand	9.000	SQM	442.67	3984.03

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		and colour to floors, walls and ceiling including preparation of surface to receive paint, providing and applying bitumen primer confirming to IS 158 complete all as per manufacturer's recommendations and as approved by engineer, at all heights above or below grade level, complete as per specifications."				
PPR	920 #	Two or more coats of fire resistant transparent paint as per IS 162 on all woodwork over french polish as per IS 348 or flat oil paint as per IS 137 of approved grade and manufacture to give an even shade as per specifications.	9.000	SQM	556.83	5011.47
PPR	921 #	Two or more coats of black anti-corrosive bitumastic painting of approved brand and manufacture to give an even shade complete.	9.000	SQM	189.31	1703.79
PPR	922 #	Two or more coats of synthetic enamel paint of approved make made from synthetic resins and drying oil with rutile titanium dioxide and other selected pigments to give smooth, hard, durable & glossy finish to wooden and Steel surfaces complete.	17.000	SQM	119.74	2035.58
PPR	923 #	Providing and applying two or more coats of water proof cement based paint as per IS:5410 of approved make and color on exterior surface at all heights including material, labour, scaffolding, curing etc including primer coat .All complete as per customer & contract specification and drawing and directed by engineer - in - charge.	85.000	SQM	75.49	6416.65
PPR	924 #	Providing and applying 2 mm thick plaster of paris (polymer based)punning on walls including	170.000	SQM	89.87	15277.90

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		preparation of surface, staging, etc. to achieve a smooth even surface All complete as per customer & contract specification and drawing and directed by engineer - in - charge.				
	925	**FLOORING AND SKIRTING** Flooring and skirting at any level including base layer, labour, material, equipments, transportation, handling, curing, polishing etc. at any level as per specification, drawings and as directed by engineer - in - charge				.00
PPR	926 #	Providing and laying 50 mm thick heavy duty cement concrete in flooring with metallic hardener pigmented topping 12mm thick uniform graded treated iron paricles in flooring. Under layer of 38mm thick cement concrete mix 1:2:4 (1 cement: 2 sand : 4 stone aggregates 12.5mm well graded) and top layer of 12mm thick metallic concrete of mix 1:2 (1 cement hardner mix with approved quality metallic hardening compound :2 stone aggregate 6mm nominal size) by volume including cement slurry, rounding off edges, aluminium strips etc. all complete for following (Quoted item rate shall be inclusive of providing glass joint strips).All complete as per customer & contract specification and drawing and directed by engineer - in - charge.	43.000	SQM	520.01	22360.43
PPR	927 #	Providing and laying 50 mm thick heavy duty cement concrete mix 1:2:4 (1 cement: 2 sand : 4 stone aggregates) flooring with metallic hardener pigmented topping of 10 mm thick uniform graded treated iron particles in skirting and dado. All complete as per customer & contract specification and drawing and	21.000	SQM	564.44	11853.24

BHARAT HEAVY ELECTRICALS LIMITED
BOILER AUXILIARIES PLANT
RANIPET - 632406

PRICE BID

ESTIMATE REF NO : CF/MET/18/32
NAME OF WORK : CIVIL, STRUCTURAL, ARCHITECTURAL AND ASSOCIATED ELECTRIFICATION- CONSTRUCTION WORK FOR ESP R & M TANGEDCO METTUR TPS UNIT-4 (210 MW) , SALEM, TAMIL NADU. SECTION-A.

CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		directed by engineer - in - charge.				
PPR	928 #	Providing polished Kota stone 18mm to 20mm thk in staircase,lobby & skirting ,dado projecting 6mm from adjacent plaster including cutting brick wall up to the required depth, edging, finishing etc. all complete as per customer specifications.	17.000	SQM	1299.28	22087.76
PPR	929	Providing and laying polished mirror Vitrified Ceremic tiles of size 600mm x 600mm shall be as per approved manufacturer`s standards, complete including under bed of cement mortar 1:3 with neat cement slurry etc. all complete as per customer specifications.				.00
DO	929A #	10mm thick tiles In flooring	4.000	SQM	2160.29	8641.16
DO	929B #	10mm thick tiles In skirting and dado upto specific height	4.000	SQM	2305.27	9221.08
PPR	930	Providing and laying Heavy Duty dust pressed Ceramic Tiles in flooring/dado of 7mm thick of reputed manufacturer of approved finish shade and colour including underbed of cement mortar 1:3 with neat cement slurry etc. all complete.				.00
DO	930A #	300X300 mm	4.000	SQM	1283.04	5132.16
DO	930B #	600X600 mm	4.000	SQM	1408.16	5632.64
PPR	931	Providing & fixing Acid / Alkali resistant (Chemical resistant) tiles confirming to IS:4457 in flooring/Dado and shall be laid over bitumin primer confirming to IS 158 followed by bitumastic lining of min 12mm thick (to be laid in layers of 6mm each). The tiles shall be applied with 6mm thick Potassium Silicate bedding mortar as per IS:4441, 4443 & 4832 and				.00

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		including preparation of surface, application of bitumen primer, curing etc. all complete for following thicknesses. The tiles should be abrasion resistant & durable.All complete as per customer & contract specification and drawing and directed by engineer - in - charge.				
DO	931A #	20mm thick	4.000	SQM	3447.52	13790.08
DO	931B #	38mm thick	4.000	SQM	4684.21	18736.84
	932	FALSE CEILING False ceiling including all labour, material, equipment, transportation, handling, suspension system etc at any level. All complete as per customer & contract specification and drawing and directed by engineer - in - charge.				.00
PPR	933 #	Providing and fixing False ceiling of 15 mm thick mineral fibre board, in tile form of size 600mm x 600mm, along with galvanised light gauge rolled form supporting system in double web construction pre painted with steel capping, of approved shade and colour, to give grid of maximum size of 1200x600. as per manufacturers details including supporting grid system, expansion fasteners for suspension arrangement from RCC, providing openings for AC ducts, return air grills, light fixtures, etc., all complete..suspension system shall be as per manufaturer's specification supported over movment platform.The work to be complete as per specifications, drawings and direction of engineer.	4.000	SQM	1357.34	5429.36
PPR	934 #	Providing and Fixing Under deck insulation provided on the ceiling (underside of roof slab) and underside of floor slab of air - conditioned	4.000	SQM	1779.13	7116.52

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		areas depending upon the functional.requirements. This under deck insulation shall consist of 50 mm thick mineral wool insulation mat conforming to IS: 8183 having a density of 32 kg/cum for glass wool backed or having a density of 48 kg/cum for rock-wool with 0.05mm thick aluminium foil and 24G x 25 mm mesh wire netting and shall be fixed to the ceiling with 14G wire ties.				
	935	**RAIN WATER DOWN TAKE PIPES** Rain water down take pipes including all labour, material, transportation, 2 coats of approved paint over one primary coat, fixtures, accessories etc at any level as per specification, drawings and as directed by engineer - in - charge.				.00
PPR	936 #	Providing and fixing Medium grade galvanised mild steel Downtake pipes of minimum 100mm clear dia. Provided with welded joints and with grating shoebends, junctions, brackets, cast iron clamps & painted with anticorrosive paint ove coat of primer. Galvanisation shall be as per IS 4736 etc. all complete as per customer specifications	9.000	RM	1708.41	15375.69
	937	**MISCELLANEOUS WORKS** Miscellaneous works including all labour, material, equipment etc. at any level unless otherwise specified. All complete as per customer & contract specification and drawing and directed by engineer - in - charge.				.00
PPR	938 #	Providing and Filling in trenches, plinths, area paving and other underground structures with rubble soling stone (63 mm downgraded hard stone aggregate as per IRC specification in layers not exceeding	59.000	CUM	1760.97	103897.23

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		230 mm in thickness including breaking of stone boulders to required sizes, filling the interstices with selected sand (cost including) and compacting to 85 % of original volume of stone stack for all lifts etc. all complete as per drawing and technical specification. Payment shall be made for the measurement of the volume of the compacted fill.				
PPR	939 #	Providing and fixing aluminium strips minimum 18 SWG thk and 300mm wide over expansion joints with minimum lap of 50mm length including brass / aluminium screws, rawl plugs etc. all complete.	4.000	KG	616.18	2464.72
PPR	940 #	Providing and fixing GI rungs in concrete/brick walls having zinc coating of minimum 900 g/sqm etc. all complete.	17.000	KG	143.33	2436.61
	941	STRUCTURAL STEEL Structural steel works including all labour, material (BHEL supplied materials), equipments, transportation, handling etc. at any level as per specification, drawings and as directed by engineer - in - charge.				.00
PPR	942 #	Supplying, fabrication, erection and alignment of factory made electroforged galvanised grating units with mild steel (having minimum galvanisation of 610 g/sqm) (conforming clean to Sa 2 1/2 finish of Swedish standard SIS-05-5900 or cleaned acid pickling)in flooring, platforms, drain and trench covers, walk- ways, passages, staircases with edge binding strips and anti-skid nosing in treads etc. including fixing clamps, fittings, fixtures, all taxes, duties, packing,	7.000	MT	157018.20	1099127.40

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		grinding, drilling, welding, edge preparation, etc. all complete.				
PPR	943 #	Dismantling of steel structure, lowering of material and carriage of the dismantled material up to field fabrication shop / projects storage including temporary dismantling, cutting, re-welding, supporting, and restoring to correct position all temporarily dismantled members, re-alighment of all adjacent connected members to their correct positions (weight of such adjacent members and temporarily dismantled members not payable), scafolding, staging, tools & tackles, gas cutting, welding, consumables etc all complete.	3.000	MT	11310.35	33931.05
PPR	944 #	Supply, fabrication and fixing of MS pipe hand railing of 32 mm dia (Medium Grade) including transportation, loading/unloading, painting etc. all complete as per customer Specifications .	21.000	KG	100.42	2108.82
PPR	945	Painting of steel surfaces (other than those embedded in concrete and not covered in ST. No. 2301 including steel doors, rolling shutters, windows, etc.) including steel doors, rolling shutters, windows, in all indoor & outdoor structures				.00
DO	945A #	"Primer coat shall consist of 2 coats of red-oxide zinc-chromate primer (minimum 25 micron Dry Film Thickness ¿ DFT each). Intermediate (Under) coat (minimum 60 micron DFT) shall be of synthetic enamel paint of approved shade and colour as per accepted standards. Top / Finish coat (minimum 50 micron DFT) shall be of synthetic enamel paint of approved shade and colour with glossy finish as per	3.000	SQM	163.62	490.86

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		accepted standards.. Colour and shade of the coat shall be as approved by the Employer."				
	946	OTHER MISCELLANEOUS ITEMS				.00
PPR	947	Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m.				.00
DO	947A #	i) All kinds of soil.	43.000	SQM	8.70	374.10
PPR	948 #	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.	34.000	SQM	4.48	152.32
PPR	949 #	Clearing grass and removal of the rubbish upto a distance of 50 m outside the periphery of the area cleared.	85.000	SQM	2.24	190.40
PPR	950	Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.				.00
DO	950A #	i) Beyond 30 cm girth upto and incl. 60 cm girth	1.000	EACH	139.02	139.02
DO	950B #	ii) Beyond 60 cm girth upto and incl. 120 cm girth	1.000	EACH	609.90	609.90
DO	950C #	iii) Beyond 120 cm girth upto and incl. 240 cm girth	1.000	EACH	2811.84	2811.84
DO	950D #	iv) Above 240 cm girth	1.000	EACH	5641.62	5641.62

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CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS	RATE P	AMOUNT RS	AMOUNT P
PPR	951 #	Applying ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanized iron/steel works.	9.000	SQM	14.80		133.20	
PPR	952	"Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of"					.00	
DO	952A #	G.S. Sheet	38.000	SQM	42.60		1618.80	
DO	952B #	Asbestos sheet	38.000	SQM	20.18		766.84	
PPR	953 #	"Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge"	213.000	SQM	14.80		3152.40	
PPR	954	"Dismantling G.I. pipes (external work) including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means including stacking of pipes within 50 metres lead as per direction of Engineer-in-charge"					.00	
DO	954A #	15 mm to 40 mm nominal bore	43.000	RM	40.81		1754.83	
DO	954B #	Above 40 mm nominal bore	43.000	RM	46.64		2005.52	
PPR	955	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete andBstacking within 50 metres lead					.00	
DO	955A #	Of area 3 sq. metres and below	9.000	EACH	94.18		847.62	
DO	955B #	Of area beyond 3 sq. metres	9.000	EACH	130.05		1170.45	

CONTRACTOR/ TENDERER

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ESTIMATE REF NO : CF/MET/18/32

NAME OF WORK : CIVIL, STRUCTURAL, ARCHITECTURAL AND ASSOCIATED ELECTRIFICATION- CONSTRUCTION WORK FOR ESP R & M TANGEDCO METTUR TPS UNIT-4 (210 MW) , SALEM, TAMIL NADU. SECTION-A.

CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
CF/MET/18/3(	956 #	Supplying and laying HDPE Sheet or water proof 0.5mm thick over the existing surface including cost of materials ,all labour charges, all lead & lift,etc.,complete.	50.000	SQM	170.00	8500.00

Escalation is not applicable for this Item Sl. No.

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ESTIMATE REF NO : CF/MET/18/32

NAME OF WORK : CIVIL, STRUCTURAL, ARCHITECTURAL AND ASSOCIATED ELECTRIFICATION- CONSTRUCTION WORK FOR ESP R & M TANGEDCO METTUR TPS UNIT-4 (210 MW) , SALEM, TAMIL NADU. SECTION-A.

TOTAL ESTIMATED VALUE BEFORE ESCALATION			31427850.83
**ESCALATION @	%		0.00
TOTAL ESTIMATED VALUE		(A)	31427850.83
CONTRACTOR TENDER PERCENTAGE @ ABOVE [1] / BELOW [2] / AT PAR [3]	_____%	(B)	
(Percentage in words)			
SUB TOTAL [4] if above (A) + (B)		(C)	
[5] if below (A) - (B)		(C)	
[6] if at par (A)		(C)	
[7] *GST @	_____ %	(D)	
GST HEAD : _____			
[8] TOTAL VALUE OF WORK [(C) + (D)]		(E)	

(Rupees in words)

NOTE :

1) Tick whichever is applicable. In case of ommission in Ticking, figures indicated in the amount column will be considered.
2) Boxes 1,2,3 any one box is to be ticked as per quote. Boxes 4,5,6 any one box is to be filled in with appropriate figures. Box 8 value is equal to Box 4 or 5 or 6 plus box 7.
3) Free Issue of Material by BHEL is Rs. **0.00 /-**
**4) Escalation not included for item sl no. marked with # symbol.

CONTRACTOR/ TENDERER

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BOILER AUXILIARIES PLANT
RANIPET - 632406

PRICE BID

ESTIMATE REF NO : CF/MET/18/32

NAME OF WORK : CIVIL, STRUCTURAL, ARCHITECTURAL AND ASSOCIATED ELECTRIFICATION- CONSTRUCTION WORK FOR ESP R & M TANGEDCO METTUR TPS UNIT-4 (210 MW) , SALEM, TAMIL NADU. SECTION-A.

SPECIAL CONDITION

1	Items of works other than those mentioned in Bill of Quantities will have to be carried out at the rates to be fixed by this organisation in line with General Conditions of Contract (GCC).
2	Few of the above items may / may not be operated. The tenderer / Contractor shall have no claims in this regard.
3	Safety precautions should be taken while doing the work. You will have to follow all safety requirements to carry out the work inside the Power Plant premises.
4	TAXES & DUTIES:
5	The tenderer shall have been registered under Excise, Sales, VAT, Goods and Service Tax regulations if applicable and provide a copy of such registration to BHEL as part of the tender document.
6	GST shall be paid by the tenderer as per GST rules.
7	If due to difficiency in the document submitted, BHEL could not avail CENVAT, VAT Credit, the credit amount will be recovered from the amount due to the contractor.
8	If payment of statutory dues are not made in accordance with the applicable provisions of the relevant Act within the time specified and Penalty, interests etc., paid / payable by the contractor, the same shall not be reimbursed by BHEL and the entire implication is only to be born by the contractor. The tenderer shall clearly indicate the rate of applicable taxes and duties for the work to be executed.
9	The quote submitted shall include all taxes and duties of whatsoever in nature but exclusive of Goods and Service Tax, which shall be quoted seperately as applicable. After tender opening addition of any taxes and duties are not admissible.
10	The tenderer / contractor has to make their own arrangement for required water & Compressed air. Power will be given at free of cost for work only at one point, however for all arrangements for distribution is on Contractor's scope only. For labours & staff colony power will be charged at the prevailing rates at site. No extra claim shall be entertained on this account.
11	All materials shall confirm to the latest IS / IRC specifications and EIL specifications wherever specified.
12	Once the work is completed the contractor should remove all the unwanted materials from the site time to time and it should be disposed off as per the instructions of Engineer - in - charge without any delay.
13	Time is the essence of the contract. Any delay beyond the delivery date will be subjected to Liquidated Damage.

CONTRACTOR/ TENDERER

ACCEPTING OFFICER

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ESTIMATE REF NO : CF/MET/18/33

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TANGEDCO METTUR TPS UNIT-4 (210 MW) , SALEM, TAMIL NADU. SECTION-B.

CPWD 2013 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
PPR	01 #	Supply and laying of 75x10 mm GI strip conductor as per specification and standard pratice. The rate shall include the supply and services of 75x10 mm thick GI strip.	300.000	RM	632.16	189648.00
PPR	02 #	supplying and laying of earthing mats/rods including risers, transportation from yard stores, loading,unloading,cutting to length,welding,protective painting of joints etc., all complete. Excation and back filling shall be paid separately under respective item of earth work.	6.000	MT	59734.55	358407.30
PPR	03 #	Providing Earthing pit as per drawing with charcoal and salt, GI pipes, GI earth electrodes, GI wire, GI strips, brick chamber / concrete with covers including associated earthwork etc., All work shall be completed as per drawing and direction of Engineer-in-charge.	12.000	EACH	8960.18	107522.16

Escalation is not applicable for this Item Sl. No.

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TANGEDCO METTUR TPS UNIT-4 (210 MW) , SALEM, TAMIL NADU. SECTION-B.

TOTAL ESTIMATED VALUE BEFORE ESCALATION			655577.46
**ESCALATION @	%		0.00
TOTAL ESTIMATED VALUE		(A)	655577.46
CONTRACTOR TENDER PERCENTAGE @ ABOVE [1]			
BELOW [2]			
AT PAR [3]	_____%	(B)	
(Percentage in words)			
SUB TOTAL [4] if above (A) + (B)		(C)	
[5] if below (A) - (B)		(C)	
[6] if at par (A)		(C)	
[7] *GST @	_____ %	(D)	
GST HEAD : _____			
[8] TOTAL VALUE OF WORK [(C) + (D)]		(E)	

(Rupees in words)

NOTE :

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TANGEDCO METTUR TPS UNIT-4 (210 MW) , SALEM, TAMIL NADU. SECTION-B.

SPECIAL CONDITION

1	Items of works other than those mentioned in Bill of Quantities will have to be carried out at the rates to be fixed by this organisation in line with General Conditions of Contract (GCC).
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10	The tenderer / contractor has to make their own arrangement for required water & Compressed air. Power will be given at free of cost for work only at one point, however for all arrangements for distribution is on Contractor's scope only. For labours & staff colony power will be charged at the prevailing rates at site. No extra claim shall be entertained on this account.
11	All materials shall confirm to the latest IS / IRC specifications and EIL specifications wherever specified.
12	Once the work is completed the contractor should remove all the unwanted materials from the site time to time and it should be disposed off as per the instructions of Engineer - in - charge without any delay.
13	Time is the essence of the contract. Any delay beyond the delivery date will be subjected to Liquidated Damage.

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