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Organization

## BHARAT HEAVY ELECTRICALS LIMITED

High Pressure Boiler Plant, Tiruchirappalli- 620014

Maintenance & Services Dept. (FB)

• ☎: (0431) 257-5010

e-mail: [umadsankar@bhel.in](mailto:umadsankar@bhel.in)

Enq. No: 9452000007

04.09.2020

### NOTICE INVITING TENDER

Dear Sir/ Madam,

Subject: Two Part Tender Inviting Techno-commercial and Price Bids for **“ARC for LT Additions and Alterations on Electrical Installations for a period of Two Years”**. Please submit your competitive offer for the above subject work as per the conditions given in the WORK/ RATE SCHEDULE and tender conditions enclosed along with the tender.

|     |  |   |
|-----|--|---|
| 01. | Name of work                           | <b>ARC for LT Additions and Alterations on Electrical Installations for a period of Two Years</b> |
| 02. | Earnest Money Deposit (EMD)            | <b>₹ 24,811/-</b>   |
| 03. | Duration of the contract               | Two years (From the date of commencement of the work)   |
| 04. | Enquiry No. & Date                     | <b>9452000007, dt. 04.09.2020</b>   |
| 05. | <b>Last Date for Receipt of Tender</b> | <b>14.00 Hrs. on 14.09.2020</b>   |
| 06. | Date of Technical Bid Opening          | <b>14.30 Hrs. on 14.09.2020</b>   |
| 07. | Date of Price Bid Opening              | Will be intimated to those who are Qualified separately.  |
| 08. | Guarantee Period                       | Not applicable  |

- The Tender documents can be downloaded from BHEL website ([http://www.bhel.com/tender/tender\\_home.php](http://www.bhel.com/tender/tender_home.php)) free of cost.
- Tender document contains **31Pages** (Technical & Commercial Bid(incl. Annexure-I) – 30 pages, Schedule for Price Bid 01 page).
- The duly filled Tender should be addressed to:

**THE ENGINEER,  
MAINTENANCE & SERVICES / CONTRACTS,  
2&4 BUILDING, BHARAT HEAVY ELECTRICALS LIMITED,  
HIGH PRESSURE BOILER PLANT,  
TIRUCHIRAPPALLI, TAMILNADU - 620014.**

#### Special Instructions:

Tender of the following work should be submitted in a sealed cover super- scribing the NAME OF WORK, ENQUIRY NUMBER, etc., consisting of **three inner sealed covers** super-scribed such as **1) EMD cover, 2) Technical bid cover & 3) Price bid cover.**

- 1) EMD cover** shall contain EMD of **₹24,811/-** Mode of Payment of EMD: (a) e-Collect mode (as directed in Commercial T & C) or (b) Banker's cheque/ Pay Order/ DD in favour of BHEL. EMD shall not carry any interest.
- 2) EMD of ₹ 24,811/- must be paid** & Tender without EMD will be summarily rejected and the Technical bid & price bid shall not be considered. **(Note: There is no provision of EMD waiver for MSE suppliers and EMD amount as shown above must be paid.)**
- 3) Technical bid cover shall contain duly filled in Technical bid document signed by the tenderer in all the pages with documentary evidences for **Pre-Qualification Criteria (PQC)**. Any bid without proper documentary evidence for PQC shall not be considered for further evaluation.



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- 4) One set of unpriced bid of Contract Work Schedule **duly filled & signed** by the tenderer for accepting the work content (Bill of Quantity- BoQ), should be submitted along with the Technical bid for technical evaluation. All the corrections / cancellations / insertions, if any, shall be duly attested by the Bidders concerned.
  - 5) Should a tenderer find discrepancies or omissions in the tender documents, or should there be any doubt as to their meaning, he should at once address the authority inviting the tender, for clarification well before the due date, so as to submit his tender in time. No extension of time shall be given for submission of the tender on any account.
  - 6) All entries in the tender documents should be in one ink. Erasures, and overwriting are not permitted. All cancellations, and insertions should be duly attested by the tenderers concerned.
  - 7) Offer should be **valid** for a period of **120 (One Hundred & Twenty) days** from Techno-commercial bid opening date.
  - 8) The Bidder shall sign each and every page of tender documents, and affix seal for having accepted the conditions.
  - 9) Tender can be cancelled at any stage due to unavoidable circumstances.
  - 10) **Forfeiture of EMD:** EMD paid by the Tenderer will be forfeited as per Tender Documents if:
    - I. After opening the tender and within the offer validity period, the tenderer revokes his tender or makes any modification in his tender which is not acceptable to BHEL.
    - II. The Contractor fails to deposit the required Security deposit or commence the work within 15 days of LOI/ WO/ Contract.
  - 11)
    - I. EMD given by all unsuccessful tenderers shall be refunded after of award of work/ after offer validity period.
    - II. EMD shall not carry any interest.
    - III. EMD of successful tenderer will be retained as part of Security Deposit.
  - 12) The price bid cover shall contain price bid document in prescribed format **duly filled & signed by the tenderer** in all the pages. Care should be taken to fill the price bid without any overwriting & correction. Correction, if any, shall be duly attested by the Bidders concerned.
  - 13) Clarification if any can be obtained from the Maintenance Engineer/ Contracts/ M&S, BHEL, Trichy.
  - 14) The complete Technical bid and price bid along with requisite **EMD of Rs. 24811/-** shall reach the office of the undersigned on or before **14.09.2020** at 14.00 Hrs.
  - 15) The Technical bid will be opened on the same day at 14.30 hrs. In case of opening day falls on holiday or happened to be declared as a holiday the due date of receipt of offers and opening of the tender shall automatically fall on the same timing of the next working day unless intimated otherwise. Date and time of opening of the Price Bid shall be intimated only to the bidders those who have qualified after evaluation of the Technical bid. You / Your authorized representative may participate in the tender opening.

Encl:

- 1) NIT – Notice Inviting tender (Consists of Preamble, Technical Bid & Price bid Schedule)
- 2) CA certificate – Sample Format



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### TECHNICAL BID

NAME OF WORK: ARC FOR LT ADDITIONS AND ALTERATIONS ON ELECTRICAL INSTALLATIONS FOR A PERIOD OF TWO YEARS

Ref: Enquiry no: 9452000007: dt.04.09.2020; Due dt. 14.09.2020, 14.00 Hrs

### PRE-QUALIFICATION CRITERIA

The following eligibility criteria shall be complied to fulfill the Technical bid:

| Sl. No | Description   | Vendor to confirm |
|--------|---|-------------------|
| 1      | Only those vendors with valid Electrical-B license or higher electrical contractor license shall quote. Necessary proofs to be submitted along with the offer.  |                   |
| 2      | The vendor should have experience in executing Similar Works (i.e., Electrical Works Like Erection, Wiring, Cable Laying, End Termination, Maintenance of electrical installations/ equipment's etc.) within the past Seven years (as on tender date). (Experience proof from other than BHEL-Trichy shall contain work order copy along with Form 26AS / TDS certificate / bank statement for payment from the organization. Otherwise the offer shall be rejected).   |                   |
| 3      | Name and contact details like E-mail, Phone number, Fax no, etc. of the customer/ company where the maintenance contract is executed. Bidder to give details.   |                   |
| 4      | (i) BHEL Vendor code (if applicable) -<br>(ii) PAN Number (Copy to be Enclosed) -<br>(iii) GST registration Number (Copy to be Enclosed) -<br>(iv) Mobile number (Which is linked to GST registration Number) -<br>(v) Email id (Which is linked to GST registration Number) -<br>(vi) SAC Code -<br>Offer will be entertained only if the bidder submit the details as above & has a valid GST registration no. If any specific exemption is available, a declaration with due supporting documents need to be furnished for considering the offer. Otherwise the offer shall be rejected. |                   |
| 5      | Acceptance for Scope of Work as per the Enquiry.  |                   |
| 6      | Bidder to specific applicable GST in percentage (Only GST in %)   |                   |
| 7      | Acceptance for All Terms & Conditions as per the Enquiry; viz. Safety, LD/Penalty, Risk Purchase, Suspension of Contract, Indemnity, BHEL Fraud Prevention Policy, etc. as given in "General Terms & Conditions".   |                   |
| 8      | BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false/ incorrect, the offer shall be rejected.  |                   |

\* Scope of work and Bill of Quantities are attached in Annexure - I

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## GENERAL TERMS AND CONDITIONS FOR M&S CONTRACTS

### 1) SAFETY:

- a) Safety precautions have to be ensured by the Contractor Depending on the work. Necessary work permit system and personal protective equipment's (PPE) such as electrical resistance rubber gloves, helmet, spectacle goggles, safety shoes, safety belt, etc. as applicable to Mechanical works should be adhered while carrying out the work.
- b) PPES for appropriate trade job has to be ensured by the contractor at the job site at all times.
- c) The work nature may demand working at heights and/or at depth areas. Hence all staff members must be of sound Physical and Mental Health who can complete the job without harming himself and others.
- d) In case any employee found incompetent to carry out the work as stated above/ misbehaving others/ consumed alcohol, he shall be sent out of the factory and the contractor has to arrange alternate manpower immediately. Else the day shall be marked absent.

2) Before quoting the bidders may inspect the site of work and its environments and be well acquainted with the actual working and other relevant conditions, position of materials and labour. Tenderers are also requested to go through General -Terms & conditions, Special -Terms & conditions of Contract, Scope of work, Technical Terms & Conditions, drawings and specifications and all other documents which form part of the agreement to be entered into.

### 3) TENDERING CONDITIONS:

- a) The Bidders shall submit the offer in **TWO PART BID SYSTEM** (Part -I & II) along with EMD as indicated below which shall be sealed in ONE OUTER ENVELOPE.
- b) Envelope I- This sealed envelope should contain all the copies of technical bid together with un-priced commercial bid. This envelope should be clearly marked "Part I - Technical and commercial bid", indicating Enquiry No., Due Date and Address & Reference of the Bidder. Envelope I should contain sealed EMD cover indicating the enquiry detail.
- c) Envelope II - This sealed envelope should contain price details. This envelope should be clearly marked as - "Part -II Price bid", indicating Enquiry No., Due Date and Address & Reference of the Bidder.
- d) Envelope III - This sealed envelope should contain requisite **EMD**. This envelope should be clearly marked as - "EMD COVER", indicating Enquiry No., Due Date and Address & Reference of the Bidder.
- e) All the three envelopes shall be put in one cover, duly sealed, super scribing as offer for Enquiry No., and due date of opening, Name of the work and the address and reference of the Bidder.
- f) The offer should reach this office on or before the due date by 14.00 Hrs. (IST). Late offers will not be considered.
- g) Tender should not be addressed to any Individual's name but only by designation to:

THE ENGINEER,  
MAINTENANCE & SERVICES / CONTRACTS, 2&4 BUILDING,  
BHARAT HEAVY ELECTRICALS LIMITED, HPBP, TIRUCHIRAPALLI  
TAMIL NADU, INDIA - 620 014.

h) All entries in Tender documents shall be clearly written in one ink or typed. Tenders should be FREE FROM CORRECTION AND ERASURES, Corrections if any, must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.

i) Offers should be in ENGLISH and accompanied by detailed Point to point confirmation of the scope of work.

### 4) OPENING OF TENDERS:

- a) The Part I - Technical & un-priced commercial bid and EMD Cover alone would be opened on the Tender opening date (as mentioned in the enquiry) by 14.30Hrs(IST).
- b) The Part II - Price bid of technically suitable Bidders alone would be opened. The Technically Suitable Bidders would be informed about the Price bid opening date.
- c) Clarifications if any required by BHEL for Technical evaluation would be sought from Bidders before opening of Part II - price bid.

### 5. GST:

a) Response to Tenders for Indigenous supplier will be entertained only if the vendor has a valid GST registration No (GSTIN) which should be clearly mentioned in the offer. If the dealer is exempted from GST registration, a declaration with due supporting documents need to be furnished for considering the offer. Dealers under composition scheme should declare that he is a composition dealer supported by the screen shot taken from GST portal. The dealer has to submit necessary

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documents if there is any change in status under GST.

b) Supplier shall mention their GSTIN in all their invoices (incl. credit Notes, Debit Notes) and invoices shall be in the format as specified/prescribed under GST laws. Invoices shall necessarily contain Invoice number (in case of multiple numbering system is being followed for billing like SAP invoice no, commercial invoice no etc., then the Invoice No. which is linked/uploaded in GSTN network shall be clearly indicated), Billed to party (with GSTIN) & Shipped to party details, item description as per PO, Quantity, Rate, Value, applicable taxes with nomenclature (like IGST, SGST, CGST & UTGST) separately, HSN/ SAC Code, Place of Supply etc.

c) All invoices shall bear the HSN Code for each item separately (Harmonized System of Nomenclature)/ SAC code (Services Accounting Code).

d) Invoices will be processed only upon completion of statutory requirement and further subject to following:

(i) Vendor declaring such invoice in Form GST ANX-1

(ii) Receipt of Goods or Services and Tax invoice by BHEL

e) As the continuous uploading of tax invoices in GSTN portal (in GST ANX-1) is available for all (i.e. both Small & Large) tax payers under proposed new GST Return System, all invoices raised on BHEL may be uploaded immediately in GST portal on despatch of material /rendering of services. The supplier shall ensure availability of Invoice in GST portal before submission of invoice to BHEL. Invoices will be admitted by BHEL only if the invoices are available in GSTN portal (in BHEL's GST ANX-2).

f) In case of discrepancy in the data uploaded by the supplier in the GSTN portal or in case of any shortages or rejection in the supply, 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 or debit note (details also to be uploaded in GSTN portal) for the shortages or rejections in the supplies or additional claims, within the calendar month informed by BHEL.

g) In cases where invoice details have been uploaded by the vendor but failed to remit the GST amount to GST Department (Form PMT-08 or Form GST RET-01 to be submitted) within stipulated time, then GST paid on the invoices pertaining to the month for which GST return not filed by the vendor will be recovered from the vendor along with the applicable interest (currently 24% p.a) and all subsequent bills of the vendor will not be processed till filing of the GST return by the vendor

h) In case GST credit is denied to BHEL due to non-receipt or delayed receipt of goods and/ or tax invoice or expiry of timeline prescribed in GST law for availing such ITC, or any other reasons not attributable to BHEL, GST amount claimed in the invoice shall be disallowed to the vendor.

i) Where any GST liability arising on BHEL under Reverse Charge (RCM), the vendor has to submit the invoices to BHEL well within the timeline prescribed in GST Law, to enable BHEL to discharge the GST liability. If there is a delay in submission of invoice by the vendor resulting in delayed payment of GST by BHEL along with Interest, then such Interest payable or paid shall be recovered from the vendor.

j) Under GST regime, BHEL has to discharge GST liability on LD recovered from suppliers/contracts. Hence applicable GST shall also be recoverable from suppliers/contractors on LD amount. For this Tax Invoice will be issued by BHEL indicating the respective supply invoice number.

k) GST TDS will be deducted as per Section 51 of CGST Act 2017 and in line with Notification 50/2018 – Central Tax dated 13.09.2018. GST TDS certificate which will be generated in GST portal subsequent to vendor accepting the TDS deduction in the GST portal, will be issued to the vendor.

### 6. LD/ PENALTY CLAUSE:

Since it is a Rate Contract, Supplementary work orders will be issued as per requirement basis. The contractor has to commence work as per the commencement date mentioned in supplementary work order.

If the contractor fails to complete the work as per terms & conditions of the order within the delivery schedule, 0.5% of the order value will be deducted for each day of delay subject to a maximum of 10% of the total supplementary PO value.

7. Successful bidders have to submit filled forms forwarded by BHEL HR, i.e. Form-III & Form-VII (shall be given with WO copy) & submit to ALC, Pondicherry for License before commencement of work.

### 8. RISK PURCHASE:

In the event of any successful Tenderer's failure to fulfil any of the Tender / Contract obligations as per Contract / Agreement BHEL may entrust the job to alternate source and get it completed to meet BHEL requirement and additional expenditure, if any, including consequential cost, will be fully recovered from the Tenderer Contractor who failed to complete the job in line with Contract. The decision of BHEL with regard to the actual losses / consequential expenditures (incl. 5% overheads) incurred by BHEL shall be final and binding on the Tenderer / Contractor.

### 9. SUSPENSION OF CONTRACT:

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In the event of non-completion of contract/ un-satisfactory performance reported by the area Executive, resulting in cascading of events leading to impact in a negative way on financial/ safety/ procedures of various sections/ departments, the contract shall be terminated immediately with intimation and action shall be taken against the contractor as per the extant 'Guidelines for Suspension of business dealings with Suppliers/ Contractors'.

### 10. INDEMNITY:

The Contractor shall have to indemnify BHEL against all claims for injury or damage to any person or property caused by his negligence or negligence of his employees whilst in BHEL premises / sites.

### 11. BHEL FRAUD PREVENTION POLICY:

The bidder along with its associate/collaborators/sub-contractors/sub-vendors/consultants/ service providers shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website <http://www.bhel.com> & shall immediately bring to notice of BHEL management about any fraud/ suspected fraud as soon as it comes to their notice.

### 12. PF, ESI:

The workmen of contractor should be covered under PF, ESI

### 13. DAMAGE & LOSS TO PRIVATE PROPERTY & INJURY TO WORKMEN

The Contractor shall at his own expense reinstate and make good to the satisfaction of the respective area HOD 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 BHEL against all claims enforceable against BHEL (or any agent, servant or employee of BHEL) or which would be so enforceable against BHEL, 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 Employees Compensation Act or otherwise.

"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/Officers/townships and premises/Project sites
- c) Compensation in respect of each of the victims:
  - (i) In the event of death or permanent disability resulting from Loss of both limbs: Rs 10,00,000/- (Rs Ten lakh)
  - (ii) In the event of others 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"

### 14. ARBITRATION & CONCILIATION: -

(a) Except as provided elsewhere in this Agreement, in case amicable settlement is not reached between the parties, in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Agreement ; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Agreement ; or , in any manner touching upon the Agreement, then, either Party may , by a notice in writing to other Party refer such dispute or difference to sole arbitration of an arbitrator appointed by Head of the BHEL Units/Region/Division issuing the Agreement.

(b) The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the parties.

(c) Subject as aforesaid, the provision of Arbitration & Conciliation Act 1996 (India) or statutory modification or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceeding under this clause. The seat of arbitration shall be Trichy, Tamil Nadu.

(d) The cost of arbitration shall be borne as per the award of the Arbitrator.

(e) Subject to arbitration in terms of clause 28 above, the Courts at Trichy Tamil Nadu shall have exclusive jurisdiction over any matter arising out of or in connection with this Agreement.

(f) Notwithstanding the existence or any dispute or difference and/or reference for the arbitration, the Contractor shall proceed with and continue without hindrance the performance of its obligation under this Contract with due diligence and

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expedition in a professional manner except where the Contract has been terminated by either Party in terms of this Contract.

**In case of contract with Public Sector Enterprises (PSE) or a Government Department, the following shall be applicable**

In the event of any dispute or difference relating to the interpretation and application of the provisions of the Contract, such dispute or difference shall be referred by either Party for arbitration to the sole arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this clause. The award of the arbitrator shall be binding upon the Parties to the dispute, provided, however, any Party aggrieved by such award may make further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law and Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary or Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the Parties hereto finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

### **15. PAYMENT THROUGH BANK: -**

The contractor should remit the salary/wages for their workmen only through Bank. Monthly clearance will be given in respect of all contractors, if only the salary/ wages to the workmen has been remitted through the bank account of the contract workmen. The relevant Bank statement/proof for Bank payment should be produced along with PF and ESI challans to Welfare Section every month

### **16. 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.

### **17. SPLITTING OF CONTRACT:**

- The work shall be divided between commercially lowest offers (L1 and L2) in the ratio of 60:40.
- If L2 vendor does not accept the Counter offered L1 rate, then this will be offered to L3 and so on and so forth.
- If no other vendors accept the Counter offered L1 rate, then L1 vendor will be given 100 % work.
- H-1 Bidder will not be considered for Counter offering process.

### **18. 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, Earthquake 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 thereof neither of the parties shall by reason of such event be entitled to terminate this Contract or claim for damages against the other in respect of such non-performance or delay for such period. 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 may be granted for periods considered reasonable by the respective area HOD at his discretion subject to prompt notification by the contractor.

### **19. IMPORTANT NOTE:**

BHEL reserves the right to short close this work with one-month advance notice due to administrative reasons. BHEL's decision in this regard is final. Under such circumstances payment will be made for on pro rata basis for the service rendered out up to the period.

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## COMMERCIAL TERMS AND CONDITIONS FOR M&S CONTRACTS

- 1) 100% payment will be made after completion of work on pro-rata basis on submission of invoice in triplicate duly certified by Area In-charge. Bill Payments shall take minimum 45 days after submission of bill complete in all respect.
- 2) Attendance register should be maintained.
- 3) Payment of **EMD** should be done in the methods given in Spl. Instructions, sl.no.1, page-1 of the NIT.
- 4) Mode of Payment of **Security Deposit**:
  - a) **Bank Guarantee** from Scheduled Banks/ Public Financial Institutions as per Companies Act. Bank Guarantee format should have approval of BHEL or
  - b) **Local Cheques** of Scheduled Banks (subject to realization)/ **Pay Order/ DD/ Electronic Fund Transfer** in favour of BHEL or
  - c) **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) or
  - d) **Securities available from Indian Post Offices**, i.e. National Savings Certificates, Kisan Vikas Patras, etc. (held in the name of Contractor furnishing the security & duly endorsed/ pledged, as applicable, in favour of BHEL). While making such payment, Enquiry number should be mentioned in Remark column.
- 5) **Procedure to remit money to BHEL Trichy's Account (e-Collect Mode):**

Login to : <https://www.onlinesbi.com/prelogin/icollecthome.htm?corpID=5XX693>

  - a) Accept the terms & conditions, click "PROCEED".
  - b) Select State "TAMILNADU" and Institution type "INDUSTRY ". Select "BHEL TRICHY" under "INDUSTRY".
  - c) In the next page, select APPROPRIATE category, fill details correctly & click "SUBMIT".
  - d) If all details entered are correctly populated, click "CONFIRM" to proceed.
  - e) Make payment as per your convenience. (Options available are payment of fees through **SBI Net Banking, State Bank ATM cum Debit Cards / Other Bank Debit / Credit Cards and through SBI Branches**).
  - f) SAVE & Keep the copy of receipt for future reference.
- 6) EMD & SD amount shall not carry any interest.
- 7) Security Deposit shall be furnished by the successful vendor to the total contract value before starting the work. The total amount of Security Deposit will be 5% of the contract value. EMD of the successful tenderer shall be converted and adjusted towards the required amount of Security Deposit.
- 8) **SD is forfeited** in case of any failure in execution of the contract or due to any shortcomings observed in the documentation furnished earlier for getting qualified or in case the Contractor is banned. GST will be charged on the EMD/SD amount forfeited from the bidder at the applicable rates. GST tax Invoice will be issued to the vendor on receipt/recovery of GST amount from the vendor
- 9) An additional payment as per circular ref. BHEL: HR: W: EW, dt.08.04.2014 is to be paid to the contract workmen as below, over and above the minimum wages prescribed by the government of Tamil Nadu:

|             |             |
|-------------|-------------|
| Unskilled   | - Rs.3200/- |
| Semiskilled | - Rs.3700/- |
| Skilled     | - Rs.4100/- |
- 10) Bonus @ 8.33 % to workmen to be paid.
- 11) **Rate should be quoted as per price bid format.**
- 12) The rate that is offered should be comprehensive and no separate charges will be made towards expenses like travel, boarding & lodging.
- 13) GST not to be included in quoted rate & to mention separately as percentage. Other taxes, if any, are inclusive.
- 14) Tax deduction will be made from every bill at the prevailing rate as per the Government rule and regulation from time to time.
- 15) In the course of evaluation if more than one bidder happens to occupy L-1 status, effective L-1 will be decided by soliciting discounts from the respective L-1 bidders. In case more than one bidder happens to occupy the L-1 status even after soliciting discounts, the L-1 bidder shall be decided by a toss /draw of lots in the presence of the respective L-1 bidder(s) or their representative(s). Ranking will be done accordingly. BHEL's decision in such situations shall be final and binding.
- 16) In case of tie in other than L1(i.e.,L2,L3 and so on), the ranking shall be decided by a toss /draw of lots in the presence of the respective bidder(s) or their representative(s). Ranking will be done accordingly. BHEL's decision in such situations shall be final and binding.

\*\*\*\*\*

Sign & Seal of Contractor



An ISO: 9001  
Organization

**BHARAT HEAVY ELECTRICALS LIMITED**

High Pressure Boiler Plant, Tiruchirappalli- 620014

**Maintenance & Services Dept. (FB)**

• ☎: (0431) 257-5010

e-mail: [umadsankar@bhel.in](mailto:umadsankar@bhel.in)

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**PART-I (ANNEXURE-A)**  
**No Deviation Certificate**

Note: The following Declaration to be typed on the contractor's Letter Head, duly signed & stamped and to be attached along with your Technical bid of the tender.

-----  
**Name of Works: ARC FOR LT ADDITIONS AND ALTERATIONS ON ELECTRICAL INSTALLATIONS FOR A PERIOD OF TWO YEARS**

**Enquiry No: 9452000007: dt.04.09.2020; Due dt. 14.09.2020, 14.00 Hrs.**

I/We M/s. ....

have read and clearly understood all the Terms and conditions in Tender Schedule of and accordingly accept the same without any deviation what so ever.

1) I/ We unconditionally agree to all the tender conditions and no new conditions are imposed by us in the technical / price bid. I understand in the event of imposing any condition in the technical / price bid, such condition would be ignored by BHEL and only the prices will be considered for the purpose of evaluation”

2) I/ We confirm that none of our group concern or affiliates etc., appears on the list of banned firms / companies by BHEL (list available on [www.bhel.com](http://www.bhel.com)) nor any of the Director / Partner / proprietor of bidder / such group concern or affiliate etc. are involved with such company.

3) I/ We also declare that, we have not been suspended or black listed or issued with Show Cause Notice by BHEL- Trichy or any other BHEL Unit or any PSU/ Government organization.

4) I/ We confirm that other than us, none of our group concerns or affiliates etc. are participating in the tender either directly or indirectly through any other agency under same proprietor / common director(s) / common partner(s).

5) I/ We confirm that if any of the above statement / information furnished by us in this tender is found to be false/ fake at any stage of tender evaluation or during execution of contract, BHEL will have the right to initiate appropriate action including legal proceeds / termination of contract, recovery of damages, penalties etc. as deemed fit.

(Contractor Signature with Seal)

Sign & Seal of Contractor



An ISO: 9001  
Organization

## BHARAT HEAVY ELECTRICALS LIMITED

High Pressure Boiler Plant, Tiruchirappalli- 620014

Maintenance & Services Dept. (FB)

• ☎: (0431) 257-5010

e-mail: [umadsankar@bhel.in](mailto:umadsankar@bhel.in)

### SCHEDULE FOR PRICE BID

NAME OF WORK: ARC FOR LT ADDITIONS AND ALTERATIONS ON ELECTRICAL INSTALLATIONS FOR A PERIOD OF TWO YEARS

Ref: Enquiry no: 9452000007: dt.04.09.2020; Due dt. 14.09.2020, 14.00 Hrs.

| Sl. No. | Approx. Value of work   | Below (- %) / At par (0%) / Above (+ %) of the rates appended in Bill of quantities |            |
|---------|---|---|------------|
|         |   | % In Figures  | % In Words |
| (1)     | (2)   | (3)   | (4)        |
| 10      | ₹20,67,542.62/-<br>(Rupees Twenty lakhs sixty seven thousand and five hundred and forty two and paise sixty two only) |   |            |

- 1). Tax deduction will be made from every bill at the prevailing rate as per the Government rule and regulation from time to time.
- 2). Detailed scope of work and other terms and conditions are specified in the Technical Bid of the Tender.
- 3). Cumulative L-1 will be considered for ordering.
- 4). Cumulative percentage quoted (+ / 0 / -) in price bid will be applied on each item estimate given in the bill of quantities.
- 5). GST not to be included in the quoted percentage & to be mentioned as a percentage separately. Other taxes, if any, are inclusive.
- 6). **SPLITTING OF CONTRACT:**
  - a) The work shall be divided between commercially lowest offers (L1 and L2) in the ratio of 60:40.
  - b) If L2 vendor does not accept the Counter offered L1 rate, then this will be offered to L3 and so on and so forth.
  - c) If no other vendors accept the Counter offered L1 rate, then L1 vendor will be given 100 % work.
  - d) H-1 Bidder will not be considered for Counter offering process.

**\*\*Detailed scope of work and other terms and conditions are specified in the Technical Bid of the tender**

Sign & Seal of Contractor

**ANNEXURE- I - SCOPE OF WORK & BILL OF QUANTITIES FOR TWO YEARS**

| Item Sl. No. | Scope of Work  | Qty  | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|--|------|-----|---------------|----------------|
| 10/10        | Excavation of earth in the ORDINARY SOIL to form a trench upto a max. depth of 1 mtr and refilling the trench with already excavated earth material, to facilitate laying or removal of cable. After closing the trench the cable route marker to be erected on the cable route with regular intervals according to the instruction of the area Supervisor.<br>Note: The cable route marker will be issued by BHEL at site. The Excavation area inside/out side the factory.   | 500  | M3  | 357.50        | 178,750.00     |
| 10/20        | Excavation of earth in the ROCKY SOIL to form a trench upto a max. depth of 1 mtr and refilling the trench with already excavated earth material, to facilitate laying or removal of cable. After closing the trench the cable route marker to be erected on the cable route with regular intervals according to the instruction of the area Supervisor.<br>Note: The cable route marker will be issued by BHEL at site. The Excavation area inside/out side the factory.      | 350  | M3  | 429.00        | 150,150.00     |
| 10/30        | Excavation of earth in the FORMED TAR ROAD to form a trench upto a max. depth of 1 mtr and refilling the trench with already excavated earth material, to facilitate laying or removal of cable. After closing the trench the cable route marker to be erected on the cable route with regular intervals according to the instruction of the area Supervisor.<br>Note: The cable route marker will be issued by BHEL at site. The Excavation area inside/out side the factory. | 40   | M3  | 464.75        | 18,590.00      |
| 10/40        | Excavation of earth in the CONCRETE ROAD/ CONCRETE FLOOR to form a trench upto a max. depth of 1 mtr and refilling the trench with already excavated earth material, to facilitate laying or removal of cable with given pipe/existing pipe.<br>Note: The Excavation area inside/out side the factory. Pipe will be issued by BHEL at site for laying the cable inside it.   | 40   | M3  | 643.50        | 25,740.00      |
| 10/50        | Laying of 3/3.5/4 core Alu./Copper/XLPE/armoured /un armoured cables in the already excavated trench.<br>Size: from 4 sq.mm to 25 sq.mm .(Range:4/ 6/10/16/25 sq.mm).<br>Note: Cables laying inside the factory and it will be supplied by BHEL at stores.   | 200  | M   | 20.02         | 4,004.00       |
| 10/60        | Laying of 3/3.5/4 core Alu./Copper/XLPE/armoured/ un armoured cables in the already excavated trench.<br>Size: from 35 sq.mm to 95 sq.mm. (Range:35/50/70/95 sq.mm).<br>Note: Cables laying inside the factory and it will be supplied by BHEL at stores.  | 1200 | M   | 27.17         | 32,604.00      |
| 10/70        | Laying of 3/3.5/4 core Alu./Copper/XLPE/armoured/ un armoured cables in the already excavated trench.<br>Size: from 120 sq.mm to 185 sq.mm. (Range:120/150/185 sq.mm).<br>Note: Cables laying inside the factory and it will be supplied by BHEL at stores.  | 1500 | M   | 34.32         | 51,480.00      |
| 10/80        | Laying of 3/3.5/4 core Alu./Copper/XLPE/armoured/ un armoured cables in the already excavated trench.<br>Size: from 240 sq.mm. to 400 sq.mm. (Range: 240/300/400 sq.mm).<br>Note: Cables laying inside the factory and it will be supplied by BHEL at stores.  | 1    | M   | 34.32         | 34.32          |
| 10/90        | Laying of 3/3.5/4 core Alu./Copper/XLPE/armoured /un armoured cables in the already excavated trench.<br>Size:from 4 sq.mm to 25 sq.mm. (Range:4/6/10/16/25 sq.mm).<br>Note:Cables laying outside the factory and cable will be supplied by BHEL at stores.  | 600  | M   | 24.31         | 14,586.00      |

| Item Sl. No. | Scope of Work  | Qty  | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|--|------|-----|---------------|----------------|
| 10/100       | Laying of 3/3.5/4 core Alu./Copper/XLPE/armoured/ un armoured cables in the already excavated trench.Size:From 35 sq.mm to 95sq.mm. (Range:35/50/70/95 sq.mm). Note:Cables laying outside the factory and it will be supplied by BHEL at stores.   | 500  | M   | 31.46         | 15,730.00      |
| 10/110       | Laying of 3/3.5/4 core Alu./Copper/XLPE/armoured/ un armoured cables in the already excavated trench.Size: from 120 sq.mm to 185 sq.mm. (Range:120/150/185 sq.mm). Note:Cables laying outside the factory and it will be supplied by BHEL at stores.   | 600  | M   | 40.04         | 24,024.00      |
| 10/120       | Laying of 3/3.5/4 core Alu./Copper/XLPE/armoured/ un armoured cables in the already excavated trench.Size:from 240 sq.mm.to 400 sq.mm.(Range: 240/300/400 sq.mm). Note:Cables laying outside the factory and it will be supplied by BHEL at stores.  | 1    | M   | 42.90         | 42.90          |
| 10/130       | Supply and spreading of river sand under and over the cables laid in the trench inside/outside factory.  | 200  | M3  | 829.40        | 165,880.00     |
| 10/140       | Removing and refilling of sand under and over the cable in the formed trench/excavated trench inside/outside factory.  | 200  | M3  | 214.50        | 42,900.00      |
| 10/150       | Supply and laying of standard size construction bricks over the cables laid in the trench for protection purpose inside/outside the factory. Note: 1 SET (HN)= 100 Bricks.   | 200  | SET | 772.20        | 154,440.00     |
| 10/160       | Opening the trench cover at required interval,laying /removing of 3/3.5/4 core PVC AA/Copper/XLPE/armoured/un armoured cables in the trench and closing the trench cover to make good. Size: from 4 sq.mm to 25 sq.mm (Range:4/ 6/ 10/ 16/ 25 sq.mm). Note: Cables laying inside the factory and it will be supplied by BHEL at Stores. /Removed cable to be rolled and tied well.It should be handed over to BHEL stores. | 100  | M   | 28.60         | 2,860.00       |
| 10/170       | Opening the trench cover at required interval,laying /removing of 3/3.5/4 core PVC AA/Copper /XLPE/armoured/un armoured cables in the trench and closing the trench cover to make good. Size:35 sq.mm to 95 sq.mm. (Range:35/50/70/95 sq.mm). Note: Cables laying inside the factory and it will be supplied by BHEL at stores./Removed cable to be rolled and tied well.It should be handed over to BHEL stores.          | 400  | M   | 42.90         | 17,160.00      |
| 10/180       | Opening the trench cover at required interval,laying /removing of 3/3.5/4 core PVC AA/Copper/ XLPE/armoured/un armoured cables in the trench and closing the trench cover to make good.Size: from 120 sq.mm to 185 sq.mm (Range: 120/150/185 sq.mm). Note:Cables laying inside the factory and it will be supplied by BHEL at stores./Removed cable to be rolled and tied well.It should be handed over to BHEL stores.    | 2500 | M   | 50.05         | 125,125.00     |
| 10/190       | Opening the trench cover at required interval,laying/removing of 3/3.5/4 core PVC AA/ Copper XLPE/ armoured/un armoured cables in the trench and closing the trench cover to make good.Size:240 sq.mm to 400 sq.mm(Range:240/300/400 sq.mm) Note:Cables laying inside the factory and it will be supplied by BHEL at stores./Removed cable to be rolled and tied well.It should be handed over to BHEL stores.             | 200  | M   | 50.05         | 10,010.00      |

| Item Sl. No. | Scope of Work  | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|--|-----|-----|---------------|----------------|
| 10/200       | Opening the trench cover at required interval,laying/removing of 3/3.5/4 core PVC AA/ Copper/XLPE/ armoured/unarmoured cables in the trench and closing the trench cover to make good. Size:from 4 sq.mm to 25 sq.mm (Range:4/6/ 10/16/25 sq.mm).<br>Note:Cables laying outside the factory and it will be supplied by BHEL at stores./Removed cable to be rolled and tied well.It should be handed over to BHEL stores. | 100 | M   | 28.60         | 2,860.00       |
| 10/210       | Opening the trench cover at required interval,laying/removing of 3/3.5/4 core PVC AA/ Copper/ XLPE /armoured/un armoured cables in the trench and closing the trench cover to make good. Size:35 sq.mm to 95 sq.mm (Range:35/50/ 70/95 sq.mm).<br>Note:Cables laying outside the factory and it will be supplied by BHEL at stores./Removed cable to be rolled and tied well.It should be handed over to BHEL stores.    | 300 | M   | 42.90         | 12,870.00      |
| 10/220       | Opening the trench cover at required interval,laying/removing of 3/3.5/4 core PVC AA/ Copper/XLPE/ armoured/un armoured cables in the trench and closing the trench cover to make good.Size:from 120 sq.mm to 185 sq.mm (Range:120/150/185 sq.mm).<br>Note:Cables laying outside the factory and it will be supplied by BHEL at stores/Removed cable to be rolled and tied well.It should be handed over to BHEL stores. | 100 | M   | 50.05         | 5,005.00       |
| 10/230       | Opening the trench cover at required interval,laying/removing of 3/3.5/4 core PVC AA/ Copper/XLPE/ armoured/un armoured cables in the trench and closing the trench cover to make good.size:240 sq.mm to 400 sq.mm(Range:240/ 300/400 sq.mm)<br>Note:Cables laying outside the factory and it will be supplied by BHEL at stores./Removed cable to be rolled and tied well.It should be handed over to BHEL stores.      | 1   | M   | 57.20         | 57.20          |
| 10/240       | Laying of No.8/12 SWG GI wire(or)No.8/12 SWG bare copper wire in the trench/ wall/ column/truss and connect the both ends with earth points/body of the Electrical equipments/ Accessories.(along with the single/2/3/3.5/4 core PVC AA/XLPE/Copper cables/ PVC wiring/ Seperately.)<br>Note:GI/Copper wires only will be supplied by BHEL at stores.  | 500 | M   | 7.15          | 3,575.00       |
| 10/250       | Laying of No.14/16 SWG copper (or)7/20 GI wire in the trench/wall/ column/truss and connect the both ends with earth points/body of the Electrical equipments/Accessories. (along with the single/ 2/3/3.5/4 core PVC AA/XLPE/Copper cables/PVC wiring/Seperately.)<br>Note:14/16 SWG copper (or)7/20 GI wire only will be supplied by BHEL at stores.   | 500 | M   | 7.15          | 3,575.00       |
| 10/260       | Making end termination of the following 3/3.5/4 core,PVC AA/ XLPE/Copper,Armoured, medium voltage cables with supply of suitable copper lugs,glands and earthing clamp.Size:From 4 sq.mm to 16 sq.mm.(Range:4/6/10/16 sq.mm).<br>Note:All materials including glands,lugs,earthing clamps etc., are under the scope of the contractor.   | 30  | No. | 107.25        | 3,217.50       |
| 10/270       | Making end termination of the following 3/3.5/4 core,PVC AA/ XLPE/Copper, Armoured, medium voltage cables with supply of suitable copper lugs,glands and earthing clamp. Size:from 25 sq.mm to 70 sq.mm(Range:25/35/50/70 sq.mm).<br>Note:All materials including glands,lugs,earthing clamps etc., are under the scope of the contractor.   | 40  | No. | 429.00        | 17,160.00      |

| Item Sl. No. | Scope of Work  | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|--|-----|-----|---------------|----------------|
| 10/280       | Making end termination of the following 3/3.5/4 core,PVC AA/XLPE/Copper,Armoured, medium voltage cables with supply of suitable copper lugs,glands and earthing clamp. Size:from 95 sq.mm to 185 sq.mm(Range:95/120/150/185 sq.mm).<br>Note:All materials including glands,lugs,earthing clamps etc., are under the scope of the contractor.   | 100 | No. | 786.50        | 78,650.00      |
| 10/290       | Making end termination of the following 3/3.5/4 core,PVC AA/XLPE/Copper,Armoured, medium voltage cables with supply of suitable copper lugs,glands and earthing clamp. size:240 sq.mm to 400 sq.mm.(Range:240/300/400 sq.mm).<br>Note:All materials including glands,lugs,earthing clamps etc., are under the scope of the contractor.   | 10  | No. | 858.00        | 8,580.00       |
| 10/300       | Fixing of Three phase Fuse/MCB distribution board with TPN isolator as incomer on the column/Wall/ Floor with supply of suitable angle iron frame work,fasteners etc,making interconnections and, earthing.Type of DB:6/8 Way,15/16 Amps.<br>Note:Fuse/MCB distribution board and TPN isolator only will be supplied by BHEL at Stores.All other materials are under contractor's scope.   | 10  | No. | 1215.50       | 12,155.00      |
| 10/310       | Fixing of Three phase Fuse/MCB distribution board with TPN isolator as incomer on the column/Wall/Floor with supply of suitable angle iron frame work,fasteners etc,making inter connections and, earthing.Type of DB:12 Way,15/16 Amps.<br>Note:Fuse/MCB distribution board and TPN isolator only will be supplied by BHEL at Stores.All other materials including angle iron frame work,fasteners etc are under contractor's scope.      | 2   | No. | 1430.00       | 2,860.00       |
| 10/320       | Fixing of Three phase Fuse/MCB distribution board with TPN isolator as incomer on the column/Wall/Floor with supply of suitable angle iron frame work,fasteners etc.,making inter connections and, earthing.Type of DB:8/12 Way,30/32 Amps.<br>Note:Fuse/MCB distribution board and TPN isolator only will be supplied by BHEL at Stores.All other materials including angle iron frame work,fasteners etc., are under contractor's scope. | 10  | No. | 1430.00       | 14,300.00      |
| 10/330       | Fixing of Three phase Fuse/MCB distribution board with TPN isolator as incomer on the column/Wall/Floor with supply of suitable angle iron frame work,fasteners etc.,making inter connections and, earthing.Type of DB:6/8 Way,60/63 Amps.<br>Note:Fuse/MCB distribution board and TPN isolator only will be supplied by BHEL at Stores.All other materials including angle iron frame work,fasteners etc., are under contractor's scope.  | 4   | No. | 2145.00       | 8,580.00       |
| 10/340       | Fixing of Three phase Fuse/MCB distribution board with TPN isolator as incomer on the column/Wall/Floor with supply of suitable angle iron frame work,fasteners etc.,making inter connections and, earthing.Type of DB:12 Way,60/63 Amps.<br>Note:Fuse/MCB distribution board and TPN isolator only will be supplied by BHEL at Stores.All other materials including angle iron frame work,fasteners etc.,are under contractor's scope.    | 2   | No. | 2145.00       | 4,290.00       |

| Item Sl. No. | Scope of Work  | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|--|-----|-----|---------------|----------------|
| 10/350       | Fixing of Three phase Fuse/MCB distribution board with TPN isolator as incomer on the column/Wall/Floor with supply of suitable angle iron frame work,fasteners etc.,making inter connections and, earthing.Type of DB:4 Way,100 Amps.<br>Note:Fuse/MCB distribution board and TPN isolator only will be supplied by BHEL at Stores.All other materials including angle iron frame work,fasteners etc.,are under contractor's scope. | 2   | No. | 2145.00       | 4,290.00       |
| 10/360       | Fixing of Single phase Fuse/MCB distribution board with DP isolator/switch/MCB as incomer on the Wall/column with supply of suitable angle iron frame work,fasteners etc.,making inter connections and,earthing.Type of DB:6 Way,15/16 Amps(or)12 Way, 15 Amps.<br>Note:Fuse/MCB distribution board and DP isolator/ switch/MCB only will be supplied by BHEL at Stores.All other materials are under contractor's scope.            | 2   | No. | 2145.00       | 4,290.00       |
| 10/370       | Supply and fixing of adopter boxes(made up of 1.6 mm thick sheet steel)to facilitate end termination of cable and suitable for different makes,32A TP/TPN isolator/switch fuse units.<br>Note:All materials(MS sheet,fasteners,paint etc.,)are under contractor's scope.The adaptor should be painted with one coat of red oxide paint and two coats of grey colour enamel paint.  | 2   | No. | 500.50        | 1,001.00       |
| 10/380       | Supply and fixing of adopter boxes(made up of 1.6 mm thick sheet steel)to facilitate end termination of cable and suitable for different makes,63A TP/TPN isolator/switch fuse units.<br>Note:All materials(MS sheet,fasteners,paint etc.,)are under contractor's scope.The adaptor should be painted with one coat of red oxide paint and two coats of grey colour enamel paint.  | 4   | No. | 715.00        | 2,860.00       |
| 10/390       | Supply and fixing of adopter boxes(made up of 1.6 mm thick sheet steel)to facilitate end termination of cable and suitable for different makes,100 A TP/TPN isolator/switch fuse units.<br>Note:All materials(MS sheet,fasteners,paint etc.,)are under contractor's scope.The adaptor should be painted with one coat of red oxide paint and two coats of grey colour enamel paint.  | 4   | No. | 1287.00       | 5,148.00       |
| 10/400       | Supply and fixing of adopter boxes(made up of 1.6 mm thick sheet steel)to facilitate end termination of cable and suitable for different makes 200 A TP/TPN isolator/switch fuse units.<br>Note:All materials(MS sheet,fasteners,paint etc.)are under contractor's scope.The adaptor should be painted with one coat of red oxide paint and two coats of grey colour enamel paint.   | 10  | No. | 1716.00       | 17,160.00      |
| 10/410       | Supply and fixing of adopter boxes(made up of 2.0 mm thick sheet steel)to facilitate end termination of cable and suitable for different makes,315 A TP/TPN isolator/switch fuse units.<br>Note: All materials(MS sheet,fasteners,paint etc.,)are under contractor's scope.The adaptor should be painted with one coat of red oxide paint and two coats of grey colour enamel paint.   | 4   | No. | 2002.00       | 8,008.00       |
| 10/420       | Supply and fixing of adopter boxes(made up of 2.0 mm thick sheet steel)to facilitate end termination of cable and suitable for different makes,400 A TP/TPN isolator/switch fuse units.<br>Note:All materials(MS sheet,fasteners,paint etc.,)are under contractor's scope. The adaptor should be painted with one coat of red oxide paint and two coats of grey colour enamel paint.   | 4   | No. | 2860.00       | 11,440.00      |

| Item Sl. No. | Scope of Work  | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|--|-----|-----|---------------|----------------|
| 10/430       | Supply and fixing of adopter boxes(made up of 2.0 mm thick sheet steel)to facilitate end termination of cable and suitable for different makes 630 A,TP/TPN isolator/switch fuse units.<br>Note:All materials(MS sheet,fasteners,paint etc.)are under contractor's scope.The adaptor should be painted with one coat of red oxide paint and two coats of grey colour enamel paint.       | 8   | No. | 3575.00       | 28,600.00      |
| 10/440       | Supply and fixing of adopter boxes(made up of 2.0 mm thick sheet steel)to facilitate end termination of cable and suitable for different makes,750A/800A TP/TPN isolator/switch fuse units.<br>Note:All materials(MS sheet,fasteners,paint etc.,) are under contractor's scope.The adaptor should be painted with one coat of red oxide paint and two coats of grey colour enamel paint. | 1   | No. | 4290.00       | 4,290.00       |
| 10/450       | Fixing of 3 Phase 415 Volts,15 A/32 A TP/TPN Isolator/Switch/Switch Fuse Units on the existing angle iron frame works on the trench/floor/column/wall with supply of required fasteners. Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.All materials including fasteners etc.,are under contractor's scope.                                      | 6   | No. | 286.00        | 1,716.00       |
| 10/460       | Fixing of 3 Phase 415 Volts,63 A TP/TPN Isolator/ Switch/Switch Fuse Units on the existing angle iron frame works on the trench /floor/column/wall with supply of required fasteners. Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.All materials including fasteners etc.,are under contractor's scope.   | 1   | No. | 357.50        | 357.50         |
| 10/470       | Fixing of 3 Phase 415 Volts,100 A TP/TPN Isolator/Switch/Switch Fuse Units on the existing angle iron frame works on the trench/floor/column/wall with supply of required fasteners. Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.All materials including fasteners etc.,are under contractor's scope.  | 1   | No. | 500.50        | 500.50         |
| 10/480       | Fixing of 3 Phase 415 Volts,200 A TP/TPN Isolator/Switch/Switch Fuse Units on the existing angle iron frame works on the trench/floor/column/wall with supply of required fasteners. Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.All materials including fasteners etc.,are under contractor's scope.  | 1   | No. | 572.00        | 572.00         |
| 10/490       | Fixing of 3 Phase 415 Volts,300 A/315A TP/TPN Isolator/Switch/Switch Fuse Units on the existing angle iron frame works on the trench/floor/column/wall with supply of required fasteners.<br>Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.All materials including fasteners etc.,are under contractor's scope.                                  | 2   | No. | 572.00        | 1,144.00       |
| 10/500       | Fixing of 3 Phase 415 Volts,400 A TP/TPN Isolator/Switch/Switch Fuse Units on the existing angle iron frame works on the trench /floor/column/wall with supply of required fasteners. Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.All materials including fasteners etc.,are under contractor's scope.   | 1   | No. | 715.00        | 715.00         |
| 10/510       | Fixing of 3 Phase 415 Volts,600 A/630 A TP TPN Isolator/Switch/Switch Fuse Units on the existing angle iron frame works on the trench/floor/column/ wall with supply of required fasteners.<br>Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.All materials including fasteners etc.,are under contractor's scope.                                | 1   | No. | 715.00        | 715.00         |

| Item Sl. No. | Scope of Work   | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|---|-----|-----|---------------|----------------|
| 10/520       | Fixing of 3 Phase 415 Volts,15 A/32 A TP/TPN Isolator/Switch/Switch Fuse Units with supply of suitable angle iron frame works,fasteners etc.,on the trench/floor/column/wall. Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.Angle iron frame works,fasteners, paint etc.,are under contractor's scope.The Angle iron frame works should be painted with one coat of red oxide paint and two coats of grey colour paint.     | 4   | No. | 429.00        | 1,716.00       |
| 10/530       | Fixing of 3 Phase 415 Volts,63 A TP/TPN Isolator/Switch/Switch Fuse Units with supply of suitable angle iron frame works, fasteners etc.,on the trench/floor/column/wall. Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.Angle iron frame works, fasteners, paint etc. are under contractor's scope.The Angle iron frame works should be painted with one coat of red oxide paint and two coats of grey colour paint.        | 6   | No. | 500.50        | 3,003.00       |
| 10/540       | Fixing of 3 Phase 415 Volts,100 A TP/TPN Isolator/Switch/Switch Fuse Units with supply of suitable angle iron frame works, fasteners etc.,on the trench/floor/column/wall. Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.Angle iron frame works,fasteners, paint etc.,are under contractor's scope.The Angle iron frame works should be painted with one coat of red oxide paint and two coats of grey colour paint.        | 5   | No. | 715.00        | 3,575.00       |
| 10/550       | Fixing of 3 Phase 415 Volts,200 A TP/TPN Isolator/Switch/Switch Fuse Units with supply of suitable angle iron frame works, fasteners etc.,on the trench/floor/column/wall. Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.Angle iron frame works,fasteners, paint etc.,are under contractor's scope.The Angle iron frame works should be painted with one coat of red oxide paint and two coats of grey colour paint.        | 1   | No. | 1072.50       | 1,072.50       |
| 10/560       | Fixing of 3 Phase 415 Volts,300 A/315 A TP/TPN Isolator/Switch/Switch Fuse Units with supply of suitable angle iron frame works,fasteners etc.,on the trench/floor/column/wall. Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.Angle iron frame works, fasteners, paint etc.,are under contractor's scope. The Angle iron frame works should be painted with one coat of red oxide paint and two coats of grey colour paint. | 1   | No. | 1215.50       | 1,215.50       |
| 10/570       | Fixing of 3 Phase 415 Volts,400 A TP/TPN Isolator/Switch/Switch Fuse Units with supply of suitable angle iron frame works, fasteners etc.,on the trench/floor/column/wall. Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.Angle iron frame works,fasteners, paint etc.,are under contractor's scope.The Angle iron frame works should be painted with one coat of red oxide paint and two coats of grey colour paint.        | 1   | No. | 1287.00       | 1,287.00       |
| 10/580       | Fixing of 3 Phase 415 Volts,600 A/630 A TP/TPN Isolator/Switch/Switch Fuse Units with supply of suitable angle iron frame works,fasteners etc.,on the trench/floor/column/wall. Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.Angle iron frame works, fasteners, paint etc., are under contractor's scope.The Angle iron frame works should be painted with one coat of red oxide paint and two coats of grey colour paint. | 1   | No. | 1430.00       | 1,430.00       |

| Item Sl. No. | Scope of Work  | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|--|-----|-----|---------------|----------------|
| 10/590       | Fixing of 3 Phase 415 volts 15 A/32 A TP/TPN Isolator/Switch/Switch Fuse Units on the existing MP Board with supply of suitable size intermediate adapter box,angle iron frame works, fasteners,suitable rated copper conductor cable/copper bus/Aluminium bus,bus sleeveings etc.,making necessary inter connections and earthing with main earth bus on MP Board.<br>Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.All other materials Angle iron frame works,fasteners,paint etc.,are under contractor's scope.The Angle iron frame works and adapter boxes should be painted with one coat of red oxide paint and two coats of grey colour paint.      | 1   | No. | 1430.00       | 1,430.00       |
| 10/600       | Fixing of 3 Phase 415 volts 63 A TP/TPN Isolator/Switch/Switch Fuse Units on the existing MP Board with supply of suitable size intermediate adapter box,angle iron frame works,fasteners, suitable rated copper conductor cable/copper bus/Aluminium bus,bus sleeveings etc.,making necessary inter connections and earthing with main earth bus on MP Board.<br>Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.All other materials Angle iron frame works,fasteners,paint etc.,are under contractor's scope.The Angle iron frame works and adapter boxes should be painted with one coat of red oxide paint and two coats of grey colour paint.           | 1   | No. | 1430.00       | 1,430.00       |
| 10/610       | Fixing of 3 Phase 415 volts 100 A TP/TPN Isolator/Switch/Switch Fuse Units on the existing MP Board with supply of suitable size intermediate adapter box,angle iron frame works,fasteners, suitable rated copper conductor cable/copper bus/Aluminium bus, bus sleeveings etc.,making necessary inter connections and earthing with main earth bus on MP Board.<br>Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.All other materials Angle iron frame works,fasteners,paint etc. are under contractor's scope.The Angle iron frame works and adapter boxes should be painted with one coat of red oxide paint and two coats of grey colour paint.         | 1   | No. | 5005.00       | 5,005.00       |
| 10/620       | Fixing of 3 Phase 415 volts 200 A TP/TPN Isolator/Switch/Switch Fuse Units on the existing MP Board with supply of suitable size intermediate adapter box,angle iron frame works,fasteners, suitable rated copper conductor cable/copper bus/Aluminium bus, bus sleeveings etc.,making necessary inter connections and earthing with main earth bus on MP Board.<br>Note: TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.All other materials Angle iron frame works,fasteners,paint etc.,are under contractor's scope.The Angle iron frame works and adapter boxes should be painted with one coat of red oxide paint and two coats of grey colour paint.        | 1   | No. | 5005.00       | 5,005.00       |
| 10/630       | Fixing of 3 Phase 415 volts 300 A/315 A TP/TPN Isolator/Switch/ Switch Fuse Units on the existing MP Board with supply of suitable size intermediate adapter box,angle iron frame works, fasteners, suitable rated copper conductor cable/copper bus/ Aluminium bus,bus sleeveings etc.,making necessary inter connections and earthing with main earth bus on MP Board.<br>Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.All other materials Angle iron frame works,fasteners,paint etc.,are under contractor's scope.The Angle iron frame works and adapter boxes should be painted with one coat of red oxide paint and two coats of grey colour paint. | 1   | No. | 5005.00       | 5,005.00       |

| Item Sl. No. | Scope of Work   | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|---|-----|-----|---------------|----------------|
| 10/640       | Fixing of 3 Phase 415 volts 400 A TP/TPN Isolator/Switch/Switch Fuse Units on the existing MP Board with supply of suitable size intermediate adapter box,angle iron frame works,fasteners, suitable rated copper conductor cable/copper bus/Aluminium bus, bus sleeveings etc.,making necessary inter connections and earthing with main earth bus on MP Board.<br>Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.All other materials Angle iron frame works,fasteners,paint etc.,are under contractor's scope.The Angle iron frame works and adapter boxes should be painted with one coat of red oxide paint and two coats of grey colour paint.      | 1   | No. | 6435.00       | 6,435.00       |
| 10/650       | Fixing of 3 Phase 415 volts 600 A/630 A TP/TPN Isolator/Switch/Switch Fuse Units on the existing MP Board with supply of suitable size intermediate adapter box,angle iron frame works, fasteners,suitable rated copper conductor cable/copper bus/Aluminium bus,bus sleeveings etc.,making necessary inter connections and earthing with main earth bus on MP Board.<br>Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores.All other materials Angle iron frame works,fasteners,paint etc.,are under contractor's scope.The Angle iron frame works and adapter boxes should be painted with one coat of red oxide paint and two coats of grey colour paint. | 1   | No. | 7150.00       | 7,150.00       |
| 10/660       | Fixing of 3 Phase 415 volts 800 A TP/TPN Isolator /Switch/Switch Fuse Units on the existing MP Board with supply of suitable size intermediate adapter box,angle iron frame works, fasteners, suitable rated copper conductor cable/copper bus/Aluminium bus, bus sleeveings etc.,making necessary inter connections and earthing with main earth bus on MP Board.<br>Note:TP/TPN Isolator/Switch/Switch Fuse Units only will be supplied by BHEL at Stores. All other materials Angle iron frame works,fasteners,paint etc., are under contractor's scope.The Angle iron frame works and adapter boxes should be painted with one coat of red oxide paint and two coats of grey colour paint.  | 1   | No. | 7150.00       | 7,150.00       |
| 10/670       | Opening the trench at required intervals,removing of 3/3.5/4 core XLPE/PVC AA/PVC Cu.conductor armoured/un armoured cable, relaying back the given cable and closing the trench properly. Size: From 4 sq.mm to 25 sq.mm(Range: 4/6/10/16/25 sq.mm).<br>Note:Removed cable to be rolled and tied well.It should be handed over to BHEL stores.New cable will be issued by BHEL at stores.Removal and relaying of cable inside/outside the factory.  | 150 | M   | 35.75         | 5,362.50       |
| 10/680       | Opening the trench at required intervals,removing of 3/3.5/4 core XLPE/PVC AA/PVC Cu.conductor armoured/un armoured cable,relaying back the given cable and closing the trench properly. Size: From 35 sq.mm to 95 sq.mm.(Range: 35/50/70/95 sq.mm).<br>Note:Removed cable to be rolled and tied well.It should be handed over to BHEL stores.New cable will be issued by BHEL at stores.Removal and relaying of cable inside/outside the factory.  | 60  | M   | 50.05         | 3,003.00       |
| 10/690       | Opening the trench at required intervals, removing of 3/3.5/4 core XLPE/PVC AA/PVC Cu.conductor armoured/un armoured cable,relaying back the given cable and closing the trench properly. Size:From 120 sq.mm to 185 sq.mm.(Range: 120/150/185 sq.mm )<br>Note:Removed cable to be rolled and tied well.It should be handed over to BHEL stores.New cable will be issued by BHEL at stores.Removal and relaying of cable inside/outside the factory.  | 150 | M   | 68.64         | 10,296.00      |

| Item Sl. No. | Scope of Work  | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|--|-----|-----|---------------|----------------|
| 10/700       | Opening the trench at required intervals,removing of 3/3.5/4 core XLPE/PVC AA/PVC Cu.conductor armoured/un armoured cable,relaying back the given cable and closing the trench properly. Size:From 240 sq.mm to 400 sq.mm.(Range:240/300/400 sq.mm).<br>Note:Removed cable to be rolled and tied well.It should be handed over to BHEL stores.New cable will be issued by BHEL at stores.Removal and relaying of cable inside/outside the factory.   | 30  | M   | 68.64         | 2,059.20       |
| 10/710       | Removing of 3/3.5/4 core PVC AA/Copper/XLPE/armoured/un armoured cables in the already excavated trench and relaying back the given cable with replacement of available sand and bricks.Size: From 4 sq.mm to 25 sq.mm.(Range:4/6/10/16/25 sq.mm).<br>Note:Removed cable to be rolled and tied well.It should be handed over to BHEL stores.New cable will be issued by BHEL at stores.Removal and relaying of cable inside/outside the factory.     | 10  | M   | 57.20         | 572.00         |
| 10/720       | Removing of 3/3.5/4 core PVC AA/Copper/XLPE/ armoured/un armoured cables in the already excavated trench and relaying back the given cable with replacement of available sand and bricks.Size: From 35 sq.mm to 95 sq.mm.(Range:35/50/70/95 sq.mm).<br>Note:Removed cable to be rolled and tied well.It should be handed over to BHEL stores.New cable will be issued by BHEL at stores.Removal and relaying of cable inside/outside the factory.    | 10  | M   | 71.50         | 715.00         |
| 10/730       | Removing of 3/3.5/4 core PVC AA/Copper/XLPE/armoured/un armoured cables in the already excavated trench and relaying back the given cable with replacement of available sand and bricks.Size: From 120 sq.mm to 185 sq.mm.(Range:120/ 150/ 185 sq.mm).<br>Note:Removed cable to be rolled and tied well.It should be handed over to BHEL stores.New cable will be issued by BHEL at stores.Removal and relaying of cable inside/outside the factory. | 800 | M   | 78.65         | 62,920.00      |
| 10/740       | Removing of 3/3.5/4 core PVC AA/Copper/XLPE/armoured/un armoured cables in the already excavated trench and relaying back the given cable with replacement of available sand and bricks.Size: From 240 sq.mm. to 400 sq.mm(Range: 240/300/ 400 sq.mm).<br>Note:Removed cable to be rolled and tied well.It should be handed over to BHEL stores.New cable will be issued by BHEL at stores.Removal and relaying of cable inside/outside the factory. | 5   | M   | 85.80         | 429.00         |
| 10/750       | Making straight through joint using heat shrinkable/Epoxy joint kit for 3/3.5/4 core XLPE/PVC AA cable.size:From 70 sq.mm to 95 sq.mm.(Range:70/95 sq.mm)<br>Note: Cable joint kit only will be issued by BHEL at site. Other all materials including consumables are under the scope of the contractor.Cable joint work inside/outside the factory.   | 1   | No. | 715.00        | 715.00         |
| 10/760       | Making straight through joint using heat shrinkable/Epoxy joint kit for 3/3.5/4 core,XLPE/ PVC AA cable.size: From 120 sq.mm to 185 sq.mm.(Range:120/150/185 sq.mm)<br>Note: Cable joint kit only will be issued by BHEL at site. Other all materials including consumables are under the scope of the contractor.Cable joint work inside/outside the factory.   | 10  | No. | 1430.00       | 14,300.00      |
| 10/770       | Making straight through joint using heat shrinkable/ Epoxy joint kit for 3/3.5/4 core,XLPE/PVC AA cable.size:300 sq.mm.<br>Note: Cable joint kit only will be issued by BHEL at site. Other all materials including consumables are under the scope of the contractor.Cable joint work inside/outside the factory.   | 1   | No. | 2145.00       | 2,145.00       |

| Item Sl. No. | Scope of Work  | Qty  | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|--|------|-----|---------------|----------------|
| 10/780       | Making straight through joint using heat shrinkable/Epoxy joint kit for 3/3.5/4 core,XLPE/PVC AA cable.size:400 sq.mm.<br>Note:Cable joint kit only will be issued by BHEL at site.Other all materials including consumables are under the scope of the contractor.Cable joint work inside/outside the factory.  | 1    | No. | 2145.00       | 2,145.00       |
| 10/790       | Making straight through joint with supply of heat shrinkable joint kit for 3/3.5/4 core, XLPE/ PVC AA cable.size:From 1.5 sq.mm to 4 sq.mm.(Range: 1.5/2.5/4 sq.mm)<br>Note:All materials including joint kit,consumables etc.,are under the scope of the contractor.Cable joint work inside/ outside the factory.   | 1    | No. | 1430.00       | 1,430.00       |
| 10/800       | Making straight through joint with supply of heat shrinkable joint kit on 3/3.5/4 core XLPE/PVC AA cable.size:From 6 sq.mm to 16 sq.mm. (Range:6/10/16 sq.mm)<br>Note: All materials including joint kit,consumables etc.,are under the scope of the contractor.Cable joint work inside/ outside the factory.  | 1    | No. | 1430.00       | 1,430.00       |
| 10/810       | Making straight through joint with supply of heat shrinkable joint kit on 3/3.5/4 core XLPE/PVC AA cable.size:From 25 sq.mm to 50 sq.mm. (Range:25/35/50 sq.mm)<br>Note:All materials including joint kit,consumables etc.,are under the scope of the contractor.Cable joint work inside/ outside the factory.   | 5    | No. | 2574.00       | 12,870.00      |
| 10/820       | Making straight through joint with supply of heat shrinkable joint kit on 3/3.5/4 core XLPE/PVC AA cable.size:From 70 sq.mm to 95 sq.mm.(Range: 70/95 sq.mm)<br>Note:All materials including joint kit,consumables etc.,are under the scope of the contractor.Cable joint work inside/ outside the factory.  | 1    | No. | 3146.00       | 3,146.00       |
| 10/830       | Making straight through joint with supply of heat shrinkable joint kit on 3/3.5/4 core XLPE/PVC AA cable.size:From 120 sq.mm to 185 sq.mm. (Range:120/150/185 sq.mm).<br>Note:All materials including joint kit,consumables etc.,are under the scope of the contractor.Cable joint work inside/ outside the factory.   | 4    | No. | 4576.00       | 18,304.00      |
| 10/840       | Making straight through joint with supply of heat shrinkable joint kit on 3/3.5/4 core XLPE/PVC AA cable.size:300 sq.mm<br>Note:All materials including joint kit,consumables etc.,are under the scope of the contractor.Cable joint work inside/ outside the factory.   | 1    | No. | 6435.00       | 6,435.00       |
| 10/850       | Making straight through joint with supply of heat shrinkable joint kit on 3/3.5/4 core XLPE/PVC AA cable.size:400 sq.mm.<br>Note: All materials including joint kit,consumables etc.,are under the scope of the contractor.Cable joint work inside/ outside the factory.   | 1    | No. | 6435.00       | 6,435.00       |
| 10/860       | Wiring with 2 runs of 1.5/2.5 Sq.mm PVC insulated,unsheathed, multi strand, single core copper conductor cable in 19/20mm dia. PVC,medium quality rigid conduit pipe with continuous running of 14/16 SWG bare copper wire for earthing for light,fan and socket points and connecting both ends to the switches,equipments respectively. (1 Meter of wiring consists of PVC pipe,2 runs of wire,earth wire & required saddle clamps, PVC junction box,elbows,bends,Tees,rawl plugs,screws etc.)<br>Note:PVC straight length pipe and PVC insulated,unsheathed, multistrand, single core copper conductor cable,14/16 SWG bare copper wire only will be supplied by BHEL at Stores.All other materials are under contractor's scope. | 2000 | M   | 42.90         | 85,800.00      |

| Item Sl. No. | Scope of Work  | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|--|-----|-----|---------------|----------------|
| 10/870       | Wiring of additional single run of 1.5/2.5 sq.mm PVC insulated single core copper wire in the existing wiring.<br>Note:1.5/2.5 sq.mm PVC insulated single core copper wires only will be issued by BHEL at stores.   | 700 | M   | 17.16         | 12,012.00      |
| 10/880       | Wiring of additional 2 runs of 1.5/2.5 sq.mm PVC insulated single core copper wire in the existing wiring.<br>Note:1.5/2.5 sq.mm PVC insulated single core copper wires only will be issued by BHEL at stores.   | 400 | M   | 35.75         | 14,300.00      |
| 10/890       | Wiring with 2 runs of 4 Sq.mm PVC insulated, unsheathed, multi strand, single core copper conductor cable in 19/20 mm dia. PVC,medium quality rigid conduit pipe with continuous running of 14/16 SWG bare copper wire for earthing for light,fan and socket points and connecting both ends to the switches,equipments respectively.(1 Meter of wiring consists of PVC pipe,2 runs of wire,earth wire & required saddle clamps,PVC junction box,elbows,bends,Tees,rawl plugs,screws etc.)<br>Note:PVC straight length pipe and PVC insulated, unsheathed,multistrand, single core copper conductor cable,14/16 SWG bare copper wire only will be supplied by BHEL at Stores. All other materials are under contractor's scope.                  | 500 | M   | 42.90         | 21,450.00      |
| 10/900       | Wiring of additional single run of 4 sq.mm PVC insulated single core copper wire in the existing wiring.<br>Note:4 sq.mm PVC insulated single core copper wire only will be issued by BHEL at stores.  | 60  | M   | 17.16         | 1,029.60       |
| 10/910       | Wiring of additional 2 runs of 4 sq.mm PVC insulated single core copper wire in the existing wiring.<br>Note:4 sq.mm PVC insulated single core copper wire only will be issued by BHEL at stores.  | 5   | M   | 35.75         | 178.75         |
| 10/920       | Wiring with 2 runs of 6 Sq.mm PVC insulated, unsheathed,multistrand,single core copper conductor cable in 19/20mm dia.PVC Grey/Black colour medium quality rigid conduit pipe with continuous running of 14/16 SWG bare copper wire for earthing for light,fan and socket points and connecting both ends to the switches,equipments respectively.(1 Meter of wiring consists of PVC pipe,2 runs of wire,earth wire & required saddle clamps,PVC junction box, elbows, bends, Tees, rawl plugs,screws etc.,)<br>Note:PVC straight length pipe and PVC insulated, unsheathed, multistrand,single core copper conductor cable,14/16 SWG bare copper wire only will be supplied by BHEL at Stores.All other materials are under contractor's scope. | 50  | M   | 57.20         | 2,860.00       |
| 10/930       | Wiring of additional single run of 6 sq.mm PVC insulated single core copper wire in the existing wiring.<br>Note:6 sq.mm PVC insulated single core copper wire only will be issued by BHEL at stores.  | 5   | M   | 21.45         | 107.25         |
| 10/940       | Wiring of additional 2 runs of 6 sq.mm PVC insulated single core copper wire in the existing wiring.<br>Note:6 sq.mm PVC insulated single core copper wire only will be issued by BHEL at stores.  | 5   | M   | 35.75         | 178.75         |

| Item Sl. No. | Scope of Work  | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|--|-----|-----|---------------|----------------|
| 10/950       | Wiring with 2 runs of 1.5/2.5 Sq.mm PVC insulated, unsheathed, multi strand, single core copper conductor cable in the concealed 19/20 mm dia. PVC conduit pipe with continuous running of 14/16 SWG bare copper wire/single core pvc copper conductor cable for earthing for light, fan and socket points and connecting both ends to the switches, equipments respectively. (1 Meter of wiring consists of 2 runs of PVC wire and earth wire etc.).<br>Note: PVC insulated, unsheathed, multistrand, single core copper conductor cable, 14/16 SWG bare copper wire/1 core pvc copper conductor cable only will be supplied by BHEL at Stores. All other materials are under contractor's scope. | 5   | M   | 85.80         | 429.00         |
| 10/960       | Wiring with 2 runs of 4/6 Sq.mm PVC insulated, unsheathed, multi strand, single core copper conductor cable in the concealed 19/20 mm dia. PVC conduit pipe with continuous running of 14/16 SWG bare copper wire/single core pvc copper conductor cable for earthing for light, fan and socket points and connecting both ends to the switches, equipments respectively. (1 Meter of wiring consists of PVC pipe, 2 runs of wire, earth wire etc.)<br>Note: PVC insulated, unsheathed, multistrand, single core copper conductor cable, 14/16 SWG bare copper wire/1 core pvc copper conductor cable only will be supplied by BHEL at Stores. All other materials are under contractor's scope.   | 5   | M   | 107.25        | 536.25         |
| 10/970       | Wiring with 2 runs 1.5/2.5 Sq.mm PVC insulated, unsheathed, multistrand, single core copper conductor cable in 16/19/25/35/40 mm size PVC medium quality casing and capping with continuous running of 2.5 sq.mm insulated copper wire for earthing for lights, fans and socket points and connecting both ends to the switches, equipments respectively.<br>Note: Casing and capping and 1.5/2.5 sq.mm PVC single core copper conductor cable, insulated copper wire for earthing only will be supplied by BHEL at Stores. All other materials are under contractor's scope.  | 50  | M   | 45.76         | 2,288.00       |
| 10/980       | Wiring of additional single run of 1.5/2.5 sq.mm PVC insulated single core copper wire in the existing wiring.<br>Note: 1.5/2.5 sq.mm PVC insulated single core copper wires only will be issued by BHEL at stores.  | 50  | M   | 14.30         | 715.00         |
| 10/990       | Wiring of additional 2 runs of 1.5/2.5 sq.mm PVC insulated single core copper wire in the existing wiring. Note: 1.5/2.5 sq.mm PVC insulated single core copper wires only will be issued by BHEL at stores.   | 5   | M   | 28.60         | 143.00         |
| 10/1000      | Wiring with 2 runs 4/6 Sq.mm PVC insulated, unsheathed, multistrand, single core copper conductor cable in 16/19/25/ 35/40 mm size PVC medium quality casing and capping with continuous running of 2.5 sq.mm insulated copper wire for earthing for lights, fans and socket points and connecting both ends to the switches, equipments respectively.<br>Note: Casing and capping and 4/6 sq.mm PVC single core copper conductor cable, insulated copper wire for earthing only will be supplied by BHEL at Stores. All other materials are under contractor's scope.   | 5   | M   | 45.76         | 228.80         |
| 10/1010      | Wiring of additional single run of 4/6 sq.mm PVC insulated single core copper wire in the existing wiring.<br>Note: 4/6 sq.mm PVC insulated single core copper wires only will be issued by BHEL at stores.  | 5   | M   | 17.16         | 85.80          |
| 10/1020      | Wiring of additional 2 runs of 4/6 sq.mm PVC insulated single core copper wire in the existing wiring.<br>Note: 4/6 sq.mm PVC insulated single core copper wires only will be issued by BHEL at stores.  | 10  | M   | 35.75         | 357.50         |

| Item Sl. No. | Scope of Work  | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|--|-----|-----|---------------|----------------|
| 10/1030      | Fixing of flush type switch 1 number on hylam top of teak wood box with necessary inter connections and including earth connection.<br>Note:Teak wood box with hylam top & switch only will be supplied by BHEL at Stores.All other materials are under contractor's scope.                        | 1   | No. | 57.20         | 57.20          |
| 10/1040      | Fixing of the following flush type switches up to 2 numbers on hylam top of teak wood box with necessary inter connections and including earth connection.<br>Note:Teak wood box with hylam top & switch only will be supplied by BHEL at Stores.All other materials are under contractor's scope. | 2   | SET | 57.20         | 114.40         |
| 10/1050      | Fixing of the following flush type switches up to 4 numbers on hylam top of teak wood box with necessary inter connections and including earth connection.<br>Note:Teak wood box with hylam top & switch only will be supplied by BHEL at Stores.All other materials are under contractor's scope. | 2   | SET | 85.80         | 171.60         |
| 10/1060      | Fixing of the following flush type switches up to 6 numbers on hylam top of teak wood box with necessary inter connections and including earth connection.<br>Note:Teak wood box with hylam top & switch only will be supplied by BHEL at Stores.All other materials are under contractor's scope. | 30  | SET | 114.40        | 3,432.00       |
| 10/1070      | Fixing of additional flush type switch 1 number on existing switch box(on hylam top of teak wood box)with necessary interconnections and including earth connection.<br>Note:switch only will be supplied by BHEL at Stores.All other materials are under contractor's scope.                      | 20  | No. | 57.20         | 1,144.00       |
| 10/1080      | Fixing of flush type fan regulator(electronic)1 no on hylam top of teak wood box with necessary interconnections and including earth connection.<br>Note:Teak wood box with hylam top,fan regulator only will be supplied by BHEL at Stores. All other materials are under contractor's scope.     | 30  | No. | 57.20         | 1,716.00       |
| 10/1090      | Fixing of additional flush type fan regulator 1 number on existing switch box(on hylam top of teak wood box)with necessary interconnections and including earth connection.<br>Note:Fan regulator only will be supplied by BHEL at Stores.All other materials are under contractor's scope.        | 6   | No. | 71.50         | 429.00         |
| 10/1100      | Fixing of flush type switch 1 number on sheet metal box with necessary interconnections and including earth connection.<br>Note:Sheet metal box and switch only will be supplied by BHEL at Stores.All other materials are under contractor's scope.   | 1   | No. | 71.50         | 71.50          |
| 10/1110      | Fixing of flush type switch 2 numbers on sheet metal box with necessary interconnections and including earth connection.<br>Note:Sheet metal box and switches only will be supplied by BHEL at Stores.All other materials are under contractor's scope.  | 1   | SET | 71.50         | 71.50          |
| 10/1120      | Fixing of flush type switch 4 numbers on sheet metal box with necessary interconnections and including earth connection.<br>Note:Sheet metal box and switches only will be supplied by BHEL at Stores.All other materials are under contractor's scope.  | 2   | SET | 107.25        | 214.50         |
| 10/1130      | Fixing of flush type switch 6 numbers on sheet metal box with necessary interconnections and including earth connection.<br>Note:Sheet metal box and switches only will be supplied by BHEL at Stores.All other materials are under contractor's scope.  | 1   | SET | 107.25        | 107.25         |

| Item Sl. No. | Scope of Work  | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|--|-----|-----|---------------|----------------|
| 10/1140      | Fixing of additional flush type switch 1 number on existing sheet metal box with necessary interconnections and including earth connection.<br>Note:switch only will be supplied by BHEL at Stores.All other materials are under contractor's scope.   | 4   | No. | 107.25        | 429.00         |
| 10/1150      | Fixing of flush type fan regulators(electronic)1 number on sheet metal box with necessary interconnections and including earth connection.<br>Note:Sheet metal box and fan regulator only will be supplied by BHEL at Stores.All other materials are under contractor's scope.   | 1   | No. | 107.25        | 107.25         |
| 10/1160      | Fixing of additional flush type fan regulators (electronic)on existing sheet metal box with necessary interconnections and including earth connection.<br>Note:Fan regulators only will be supplied by BHEL at Stores.All other materials are under contractor's scope.  | 1   | No. | 107.25        | 107.25         |
| 10/1170      | Fixing of 5 Amps 3 pin/5 pin flush type switched socket on hylam top of teak wood box with necessary interconnections and including earth connection.<br>Note:Flush type switched socket and TW Box with Hylum top will be supplied by BHEL at Stores.All other materials are under contractor's scope.                  | 25  | No. | 107.25        | 2,681.25       |
| 10/1180      | Fixing of 15 Amps/3 pin(or)5 A/15 Amps 6 pin flush type switched socket on hylam top of teak wood box with necessary inter connections and including earth connection.<br>Note:Flush type switched socket and TW Box with hylum top will be supplied by BHEL at Stores.All other materials are under contractor's scope. | 60  | No. | 143.00        | 8,580.00       |
| 10/1190      | Fixing of 15 Amps 3 pin flush type socket on the hylam top of teak wood box with necessary interconnections and including earth connection.<br>Note:Flush type switched socket and TW box with hylam top will be supplied by BHEL at Stores.All other materials are under contractor's scope.                            | 5   | No. | 71.50         | 357.50         |
| 10/1200      | Fixing of 15 Amps flush type single pole switch on the hylam top of teak wood box with necessary interconnections and including earth connection.<br>Note:Flush type SP switch and TW box with hylam top will be supplied by BHEL at Stores.All other materials are under contractor's scope.                            | 5   | No. | 71.50         | 357.50         |
| 10/1210      | Fixing of 5 Amps 3 pin/5 pin flush type switched socket on top of sheet metal box with necessary interconnections and including earth connection.<br>Note:Flush type switched socket and sheet metal box will be supplied by BHEL at Stores.All other materials are under contractor's scope.                            | 5   | No. | 143.00        | 715.00         |
| 10/1220      | Fixing of 15 Amps/5 A/15 Amps 3 pin/5 pin flush type switched socket on sheet metal box with necessary interconnections and including earth connection.<br>Note:Flush type switched socket and sheet metal box will be supplied by BHEL at Stores.All other materials are under contractor's scope.                      | 10  | No. | 143.00        | 1,430.00       |
| 10/1230      | Fixing of 15 Amps 3 pin flush type socket on the sheet metal box with necessary interconnections and including earth connection.<br>Note:Flush type switched socket and sheet metal box will be supplied by BHEL at Stores.All other materials are under contractor's scope.   | 5   | No. | 143.00        | 715.00         |
| 10/1240      | Fixing of 15 Amps flush type single pole switch on the metal plate top of sheet metal box with necessary interconnections and including earth connection.<br>Note:Flush type SP switch and sheet metal box will be supplied by BHEL at Stores.All other materials are under contractor's scope.                          | 1   | No. | 107.25        | 107.25         |

| Item Sl. No. | Scope of Work   | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|---|-----|-----|---------------|----------------|
| 10/1250      | Breaking the wall to make pocket hole on the wall,concealing the Teak wood box with hylam top/sheet metal box of various sizes (4" X 4"/6" X 4"/8" X 4"/10" X 4"/12" X 4"/6" X6"/8" X 6"/10" X 8"/12" X 8") in the pocket hole and closing the outer sides with massonry materials to make good.Also make an entry for inserting the pvc pipe/casing capping on the TW/SM box.<br>Note:TW box & Sheet metal box only will be supplied by BHEL at Stores.All required massonry materials are under contractor's scope. | 5   | No. | 429.00        | 2,145.00       |
| 10/1260      | Breaking the wall to make pocket hole for laying the pvc pipe and junction box (wherever required) suitable for concealed wiring and after laying the pipe,closing the pocket hole outer with massonry materials to make good after completing the wiring.<br>Note:PVC pipe will be issued by BHEL at stores.All required massonry materials and PVC accessories are under contractor's scope.  | 1   | M   | 107.25        | 107.25         |
| 10/1270      | Fixing of Single/Double pole 16/32/63/100 amps MCB's in the Sheet metal box on the wall/column with supply of 20 x 3 mm MS flat.<br>Note:MCB only will be issued by BHEL at stores.All other materials are to be supplied by the contractor.  | 2   | No. | 71.50         | 143.00         |
| 10/1280      | Fixing of Three Four pole 16/32/63/100 amps MCB's in the Sheet metal box on the wall/column/ with supply of 20 x 3 mm MS flat.<br>Note:MCB only will be issued by BHEL at stores.All other materials are to be supplied by the contractor.  | 1   | No. | 143.00        | 143.00         |
| 10/1290      | Assembling,fixing and commissioning of 1200/1400 mm sweep ceiling fan with standard MS down rod/0.5 M long on the existing hook on the ceiling.<br>Note:Ceiling fan with MS down rod only will be supplied by BHEL at Stores.All other materials are under contractor's scope.  | 1   | No. | 143.00        | 143.00         |
| 10/1300      | Assembling, fixing and commissining of 1200/1400 mm sweep ceiling fan with supply of MS down rod(0.75 to 1.0 M long)on the existing hook on the ceiling.<br>Note:Ceiling fan only will be supplied by BHEL at Stores.All other materials are under contractor's scope.  | 30  | No. | 214.50        | 6,435.00       |
| 10/1310      | Assembling,fixing and commissioning of 1200/1400 mm sweep ceiling fan with supply of MS down rod(1.0 to 2.0 M long)on the existing hook on the ceiling.<br>Note:Ceiling fan only will be supplied by BHEL at Stores.All other materials including MS down rods are under contractor's scope.  | 10  | No. | 250.25        | 2,502.50       |
| 10/1320      | Supply and fixing of heavy duty"U" type ceiling hook on the ceiling with anchoring bolts and washers etc.,<br>Note:All materials are under contractor's scope.  | 20  | No. | 143.00        | 2,860.00       |
| 10/1330      | Fixing and commissioning of 300/350/380 mm sweep(light duty/ heavy duty)exhaust fan with supply of suitable wooden screws and rawl plugs on the wall including making necessary openings on the wall and finishing the wall opening with masonry materials to make it good.<br>Note:Exhaust fans only will be supplied by BHEL at Stores.All other materials including iron frame work(duly painted), fasteners,masonry materials etc.,are under contractor's scope.  | 10  | No. | 1072.50       | 10,725.00      |
| 10/1340      | Fixing and commissioning of 300/350/380 mm sweep(light duty/ heavy duty)exhaust fan with supply of suitable grouting bolts and nuts on the existing opening in the wall.<br>Note:Exhaust fans only will be supplied by BHEL at Stores.All other materials are under contractor's scope.   | 2   | No. | 500.50        | 1,001.00       |

| Item Sl. No. | Scope of Work  | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|--|-----|-----|---------------|----------------|
| 10/1350      | Fixing and commissioning of 300/350/380 mm sweep(light duty/ heavy duty)exhaust fan with supply of suitable size iron frame work,fasteners, masonry materials etc.,on the ventilator/Wall.<br>Note:Exhaust fans only will be supplied by BHEL at Stores.All other materials including iron frame(duly painted) work, fasteners,masonry materials are under contractor's scope.   | 2   | No. | 715.00        | 1,430.00       |
| 10/1360      | Fixing and commissioning of 400/450 mm sweep (light duty/heavy duty)exhaust fan with supply of suitable size angle iron frame, fasteners and masonry materials etc.,on the existing opening in the wall. Note:Exhaust fans only will be supplied by BHEL at Stores.All other materials including iron frame work, fasteners, masonry materials are under contractor's scope.   | 1   | No. | 715.00        | 715.00         |
| 10/1370      | Fixing of 600 mm sweep,3-phase exhaust fan in the existing MS angle iron frame work and connecting to the available power supply.<br>Note:Exhaust fan only will be supplied by BHEL at stores.All other materials are under contractor's scope.  | 1   | No. | 715.00        | 715.00         |
| 10/1380      | Fixing of 600 mm sweep,3-phase exhaust fan on the wall with supply of suitable size of MS angle iron frame work.<br>Note:Exhaust fan only will be supplied by BHEL at stores.All other materials are under contractor's scope.   | 1   | No. | 715.00        | 715.00         |
| 10/1390      | Fixing and commissioning of 1x28/40 Watts(or) 2x28/40 Watts Box/Industrial/Decorative fluorescent light fitting with lamps on the Ceiling/ Wall using polished T.W round blocks by embedding 4 inch long, ¼ inch dia G.I bolts on the ceiling.<br>Note:Light fittings with lamps only will be supplied by BHEL at Stores.All other materials (TW round blocks,GI bolts & nuts, screws etc.,)are under contractor's scope.  | 70  | No. | 286.00        | 20,020.00      |
| 10/1400      | Fixing and commissioning of 1x28/40 Watts(or) 2x28/40 Watts Box/Industrial/Decorative fluorescent light fitting on the Ceiling/Fall ceiling using polished T.W round blocks,0.5 to 1.0 m long down rods,ball and socket arrangements,by embedding 4 inch long,¼ inch dia G.I bolts on the ceiling for fixing the T.W round block. Note:Light fittings with lamps only will be supplied by BHEL at Stores.All other materials(Down rods,ball and sockets,TW round blocks,GI bolts&nuts,screws etc.,)are under contractor's scope.         | 30  | No. | 500.50        | 15,015.00      |
| 10/1410      | Fixing and commissioning of 1x28/40 Watts(or) 2x28/40 Watts Box/Industrial/Decorative type fluorescent light fitting on the Ceiling/Fall ceiling using polished T.W round blocks,1.0 to 2.0 m long down rods,ball and socket arrangements,by embedding 4 inch long,¼ inch dia G.I bolts on the ceiling for fixing the T.W round block.<br>Note:Light fittings with lamps only will be supplied by BHEL at Stores.All other materials(Down rods,ball and sockets,TW round blocks,GI bolts&nuts,screws etc.,)are under contractor's scope. | 10  | No. | 572.00        | 5,720.00       |
| 10/1420      | Fixing and commissioning of 1x14/18/28 Watts (or)2 x14/18/28 Watts Decorative type fluorescent light fitting on the Ceiling/Fall ceiling using polished T.W round blocks,0.5 to 1.0 m long G.I Chain by embedding G.I hooks on the ceiling for hanging and resting on the fall ceiling.<br>Note:Light fittings with lamps only will be supplied by BHEL at Stores.All other materials(G.I chains, G.I hooks,G.I bolts& nuts,screws etc.,)are under contractor's scope.   | 1   | No. | 286.00        | 286.00         |

| Item Sl. No. | Scope of Work   | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|---|-----|-----|---------------|----------------|
| 10/1430      | Fixing and commissioning of 1x28/36/40 Watts(or) 2x28/36/40 Watts box/industrial/decorative type fluorescent light fitting on the Ceiling/Fall ceiling using polished T.W round blocks,1.0 to 2.0 m long G.I Chain by embedding G.I hooks on the ceiling for hanging and resting on the fall ceiling.<br>Note:Light fittings with lamps only will be supplied by BHEL at Stores.All other materials(G.I chains,G.I hooks,G.I bolts& nuts, screws etc.)are under contractor's scope. | 5   | No. | 357.50        | 1,787.50       |
| 10/1440      | Removing of existing faulty/old wiring(wired in the Reaper/PVC pipes/casing capping of sizes 16/19/20/25/32 mm) and handing over the same to disposal stores.   | 200 | M   | 35.75         | 7,150.00       |
| 10/1450      | Fixing of DOL starter on the wall with supply of suitable angle iron frame on the wall/column/metal frame and making necessary inter connections.<br>Note:DOL starter only will be issued by BHEL at stores.All other materials are under contractor scope.   | 6   | No. | 500.50        | 3,003.00       |
| 10/1460      | Assy & fixing of 3 pin 20/30/32 Amps metal clad plug & socket in the metal box along with 20/30/32 Amps circuit breaker on the wall and connecting the wiring points including earth wire.<br>Note:20/30/32 Amps plug & socket,circuit breaker and metal box will be supplied by BHEL at stores.All other materials are contractor's scope.   | 2   | SET | 286.00        | 572.00         |
| 10/1470      | Assy & fixing of 3 pin 20/30/32 Amps metal clad plug & socket in the metal box along with 20/30/32 Amps circuit breaker on the wall after making necessary pocket holes for concealed wiring and connecting the wiring points including earth wire.<br>Note:20/30 Amps plug & socket,circuit breaker and metal box will be supplied by BHEL at stores.All other materials are contractor's scope.   | 1   | SET | 572.00        | 572.00         |
| 10/1480      | Laying of 3/3.5/4 core PVC AA/Copper/XLPE/ armoured/un armoured cable on the wall/column/ truss/cellar with supply of suitable MS heavy duty clamps for every 0.25 mtr interval including fastners.Size:From 4 sq.mm to 25 sq.mm.(Range:4/6/10/16/25 sq.mm).<br>Note:Cables laying inside/outside the factory and it will be supplied by BHEL at stores.All other materials are under contractor's scope.   | 600 | M   | 50.05         | 30,030.00      |
| 10/1490      | Laying of 3/3.5/4 core PVC AA/Copper/XLPE/ armoured/un armoured cable on the wall/column/ truss/cellar with supply of suitable MS heavy duty clamps for every 0.25 mtr interval including fastners.Size: From 35 sq.mm to 95 sq.mm .(Range:35/50/70/95 sq.mm).<br>Note:Cables laying inside/outside the factory and it will be supplied by BHEL at stores.All other materials are under contractor's scope.   | 150 | M   | 71.50         | 10,725.00      |
| 10/1500      | Laying of 3/3.5/4 core PVC AA/Copper/XLPE/ armoured/ un armoured cable on the wall/column/ truss/cellar with supply of suitable MS heavy duty clamps for every 0.25 mtr interval including fastners.Size:From 120 sq.mm to 185 sq.mm. (Range:120/150/185 sq.mm).<br>Note:Cables laying inside/outside the factory and it will be supplied by BHEL at stores.All other materials are under contractor's scope.   | 25  | M   | 85.80         | 2,145.00       |
| 10/1510      | Laying of 3/3.5/4 corePVC AA/Copper/ XLPE/ armoured/un armoured cable on the wall/column /truss/cellar with supply of suitable MS heavy duty clamps for every 0.25 mtr interval including fastners.Size: From 240 sq.mm to 400 sq.mm. (Range:240/300/400 sq.mm).<br>Note:Cables laying inside/outside the factory and it will be supplied by BHEL at stores.All other materials are under contractor's scope.   | 5   | M   | 100.10        | 500.50         |

| Item Sl. No. | Scope of Work  | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|--|-----|-----|---------------|----------------|
| 10/1520      | Removing of 3/3.5/4 core PVC AA/Copper/ XLPE /armoured/un armoured cable on the wall/column/ truss/cellar.Size:From 4 sq.mm to 25 sq.mm. (Range:4/6/10/16/25 sq.mm). Note:Removed cable to be rolled and tied well.It should be handed over to BHEL stores.  | 150 | M   | 28.60         | 4,290.00       |
| 10/1530      | Removing of 3/3.5/4 core PVC AA/Copper/ XLPE/ armoured/un armoured cable on the wall/column /truss/cellar.Size:From 35 sq.mm to 95 sq.mm. (Range:35/50/70/95 sq.mm). Note:Removed cable to be rolled and tied well.It should be handed over to BHEL stores.  | 20  | M   | 42.90         | 858.00         |
| 10/1540      | Removing of 3/3.5/4 core PVC AA/Copper/XLPE/ armoured/un armoured cable on the wall/column /truss/cellar.Size: From 120 sq.mm to 185 sq.mm. (Range:120/150/185 sq.mm). Note:Removed cable to be rolled and tied well.It should be handed over to BHEL stores.  | 30  | M   | 64.35         | 1,930.50       |
| 10/1550      | Removing of 3/3.5/4 corePVC AA/Copper/XLPE/ armoured/un armoured cable on the wall/column/ truss/cellar.Size: From 240 sq.mm to 400 sq.mm. (Range:240/300/400 sq.mm) Note:Removed cable to be rolled and tied well.It should be handed over to BHEL stores.  | 1   | M   | 64.35         | 64.35          |
| 10/1560      | <p>Providing earth electrodes as per IS standards as follows:<br/>Excavation of earth,supply and installation of earth electrode generally conforming to IS:3043-1987.The electrode should be of 50 mm dia.G.I.pipe,class C having wall thickness of 5 mm and length 2500 mm.with supply and filling of alternate layers of Bentonite,river sand and charcoal around the electrode, construction of masonry chamber and cover etc.,with supply of massonry materials.Earth resistance value(to be measured using earth megger),earth electrode No.and date of inspection are to be painted inside the chamber wall and on the top of the cover.</p> <p>SPECIAL INSTRUCTIONS for making earth pits :-</p> <p>a).Before commencement of work,cont ractor should discuss w ith Electrical in charge and finalise the locat ion plan for the installat ion of earth pits.</p> <p>b).Af ter excavat ion of earth &amp; before closing the same it should be shown to Electrical in charge.</p> <p>C).Cont ractor should fill bentonite,river sand,charcoal aroundelect rode with presence of Elect rical in charge.</p> <p>d).Unique earth pit number should be allot ted for every earth pit and same is to be painted with black colour paint on the inside wall of masonry chamber and cover.</p> <p>e).After erection of earth pit ,the ohmic value to be measured in the presence of Elect rical in charge and final report to be submitted.The value of the earth pit should be less than 2 ohms.</p> | 30  | No. | 7007.00       | 210,210.00     |
| 10/1570      | <p>Wiring in the steel cabin with 2 runs of 1.5/2.5 Sq.mm PVC insulated, unsheathed,multistrand,single core copper conductor cable in 19/20mm dia. PVC,medium quality rigid conduit pipe with continuous running of 14/16 SWG bare copper wire for earthing for light,fan and socket points and connecting both ends to the switches,equipments respectively.(1 Meter of wiring consists of PVC pipe,2 runs of wire,earth wire &amp; required saddle clamps,PVC junction box,elbows,bends,Tees,MS clamps,saddle clamps,screws etc.,)</p> <p>Note:PVC straight length pipe and PVC insulated, unsheathed, multistrand, single core copper conductor cable,14/16 SWG bare copper wire and welding electrodes only will be supplied by BHEL at Stores.All other materials and welding of pipe fixing clamps etc., are under contractor's scope.MS Clamp should be painted with one coat of red oxide paint.</p>   | 100 | M   | 50.05         | 5,005.00       |

| Item Sl. No. | Scope of Work  | Qty | UOM | Rate (in Rs.) | Value (in Rs.) |
|--------------|--|-----|-----|---------------|----------------|
| 10/1580      | <p>Wiring In the steel cabin with 2 runs of 4 Sq.mm PVC insulated, unsheathed, multistrand, single core copper conductor cable in 19/20 mm dia. PVC, medium quality rigid conduit pipe with continuous running of 14/16 SWG bare copper wire for earthing for light, fan and socket points and connecting both ends to the switches, equipments respectively. (1 Meter of wiring consists of PVC pipe, 2 runs of wire, earth wire &amp; required saddle clamps, PVC junction box, elbows, bends, Tees, MS clamps, saddle clamps, screws etc.,)</p> <p>Note: PVC straight length pipe and PVC insulated, unsheathed, multi strand, single core copper conductor cable, 14/16 SWG bare copper wire and welding electrodes only will be supplied by BHEL at Stores. All other materials and welding of pipe fixing clamps etc., are under contractor's scope. MS Clamp should be painted with one coat of red oxide paint.</p>              | 10  | M   | 57.20         | 572.00         |
| 10/1590      | <p>Wiring In the steel cabin with 2 runs of 6 Sq.mm PVC insulated, sheathed, multistrand, single core copper conductor cable in 19/20mm dia. PVC Grey/Black colour medium quality rigid conduit pipe with continuous running of 14/16 SWG bare copper wire for earthing for light, fan and socket points and connecting both ends to the switches, equipments respectively. (1 Meter of wiring consists of PVC pipe, 2 runs of wire, earth wire &amp; required saddle clamps, PVC junction box, elbows, bends, Tees, MS clamps, saddle clamps, screws etc.,)</p> <p>Note: PVC straight length pipe and PVC insulated, unsheathed, multistrand, single core copper conductor cable, 14/16 SWG bare copper wire and welding electrodes only will be supplied by BHEL at Stores. All other materials and welding of pipe fixing clamps etc., are under contractor's scope. MS Clamp should be painted with one coat of red oxide paint.</p> | 10  | M   | 71.50         | 715.00         |
| 10/1600      | <p>Laying of 50 mm x 6 mm GI Earth flat on the floor/ formed trench/ excavated trench/wall by fixing/ welding and to be connected the both ends to Main existing earth connection/Earth pit/Electrical Equipments/ MP(or) ML boards and other accessories. Only 50 mm x 6 mm GI flat and welding electrodes will be issued by BHEL at store/Electrical Section. All other items like screws and clamps etc., should be supplied by the contractor. Clamp should be coated with one coat of red oxide paint.</p>  | 50  | M   | 52.91         | 2,645.50       |
| 10/1610      | <p>Laying of 25 mm x 3 mm GI Earth flat on the floor/ formed trench/ excavated trench/wall by fixing/ welding and to be connected the both ends to Main existing earth connection/Earth pit/Electrical Equipments/MP(or) ML boards and other accessories. Only 25 mm x 3 mm GI flat and welding electrodes will be issued by BHEL at store/Electrical Section. All other items like screws and clamps etc., should be supplied by the contractor.</p>  | 100 | M   | 32.89         | 3,289.00       |
| 10/1620      | <p>Removing end termination of the following 3/3.5/4 core, PVC AA/ XLPE/Copper, Armoured, medium voltage cables with supply of suitable copper lugs, glands and earthing clamp. Size: From 4 sq.mm to 16 sq.mm. (Range: 4/6/10/16 sq.mm)</p>   | 5   | No. | 107.25        | 536.25         |
| 10/1630      | <p>Removing end termination of the following 3/3.5/4 core, PVC AA/ XLPE/Copper, Armoured, medium voltage cables with supply of suitable copper lugs, glands and earthing clamp. Size: from 25 sq.mm to 70 sq.mm (Range: 25/35/50/70 sq.mm).</p>  | 20  | No. | 429.00        | 8,580.00       |
| 10/1640      | <p>Removing end termination of the following 3/3.5/4 core, PVC AA/ XLPE/Copper, Armoured, medium voltage cables with supply of suitable copper lugs, glands and earthing clamp. Size: from 95 sq.mm to 185 sq.mm (Range: 95/120/150/185 sq.mm)</p>   | 30  | No. | 786.50        | 23,595.00      |

| Item Sl. No.       | Scope of Work  | Qty | UOM | Rate (in Rs.) | Value (in Rs.)      |
|--------------------|--|-----|-----|---------------|---------------------|
| 10/1650            | Removing end termination of the following 3/3.5/4 core,PVC AA/XLPE/Copper,Armoured,medium voltage cables with supply of suitable copper lugs,glands and earthing clamp.size:240 sq.mm to 400 sq.mm.(Range:240/300/400 sq.mm).  | 1   | No. | 858.00        | 858.00              |
|                    | <p>GENERAL NOTE:</p> <p>01).Where ever welding work required,the same to be carried out by the Contractor.</p> <p>02).Welding electrode will be issued by the Area supervisor/Executive at Electrical section.</p> <p>03).Necessary height of the ladder and all types of required tools must be brought by the Contractor.</p> <p>04).While fixing of the Electrical equipments all types of masanory work wherever required is to be done by the contractor.</p> <p>05).All types of debris and other wastage materials are to be disposed properly as per the instructions.</p> <p>06).Personal protective Safety Equipments to be supplied to the their workers by the Contractor.</p> <p>07).Safety precautions to be strictly adopted by the workers of the Contractor.</p> <p>08).Necessary Material "IN" gate pass to be kept safe and it to be produced when billing.</p> <p>09).Periodical running bill to be claimed compulsarily.</p> <p>10).Since it is a Rate Contract, the quantity mentioned for this work is tentative only. It may vary +/- 20 %. Supplementry work order will be issued as per requirement basis.</p> |     |     |               |                     |
| <b>TOTAL VALUE</b> |  |     |     |               | <b>2,067,542.62</b> |