

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt.of India Undertaking)

High Pressure Boiler Plant, Tiruchirappalli 620 014, India

MAINTENANCE & SERVICES DEPARTMENT

☎: (0431) 2575263,2575471 e-mail:gtraj@bheltry.co.in



39-300
ISO 9001

NOTICE INVITING TENDER

Date:28.04.2016

01.	Name of work	AMC for Earth Electrodes and Lightning Arresters in various shop floors/Buildings at BHEL factory premises.
02.	Enquiry Number:	9451600013 / Dt: 28.04.2016
03.	Earnest Money:	Rs. 20,000/-
04.	Tender document cost:	Rs. 750/-
05.	Completion Time (Period of Contract)	One year (From the date of commencement of the work)
06.	Last date for submission of offer	10.00 Hrs on 28.05.2016
07.	Techno Commercial Offer opening date:	10.30 Hrs on 28.05.2016
08.	Price Bid Opening date:	Shall be intimated separately to Technically qualified bidders.
09.	Guarantee Period:	NIL
10.	Area of Work	HPBP & Unit-II BHEL,Trichy

The Tender documents can be down loaded from BHEL website/Govt.website.
(www.bhel.com / tenders.gov.in)

Tender document consists of :

S.No.	PART	DOCUMENT DESCRIPTIONS	ANNEXURE	NO.OF PAGES
01	PART-1	PREAMBLE	-	4
02	1A	GENERAL INSTRUCTIONS TO TENDERERS	ANNEXURE-A	3
03	1B	GENERAL TERMS & CONDITIONS	ANNEXURE-B	3
04	1C	SPECIAL TERMS & CONDITIONS	ANNEXURE-C	3
05	1D	QUALIFICATION CRITERIAN	ANNEXURE-D	1
06	1E	JOB/WORK DESCRIPTIONS	ANNEXURE-E	4
07	PART-2	PRICE BID	-	4
			TOTAL PAGES	22

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SM/ Contracts
Maintenance & Services

BHARAT HEAVY ELECTRICALS LIMITED

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High Pressure Boiler Plant, Tiruchirappalli 620 014, India

MAINTENANCE & SERVICES DEPARTMENT

☎: (0431) 2575263 Fax: (0431) 2576805 e-mail:gtraj@bheltry.co.in



NOTICE INVITING TENDER

Sub: **AMC for Earth Electrodes and Lightning Arresters in various shop floors/Buildings at BHEL factory premises.**

Ref: Enquiry No. 9451600013 / Dated 28.04.2016.

** **

Tender for above mentioned work should be submitted in a sealed cover consisting of **three** inner sealed covers. First cover shall contain EMD & Tender document cost, second cover shall contain Part-1: Technical cum commercial offer and third cover shall contain Part-2: Price bid. All superscripting the name of work, enquiry number and enquiry due date.

- 1) EMD cover shall contain requisite EMD & Tender document cost in the form of Demand Draft drawn in favour of 'BHEL, Tiruchirappalli. **EMD in any other form will not be accepted.** Tenderers who had already remitted one time EMD should furnish the details of cash receipt No./ date, on the top of EMD cover. Tender without EMD / one time EMD reference will be summarily rejected and Tech. cum commercial offer & price bid shall not be considered.
- 2) Tech. cum commercial offer cover shall contain all documents duly filled and signed by the tenderer in all the pages with documentary evidences for qualifying criteria such as experience, value of work executed in the similar nature of work etc. Any bid without proper documentary evidence for qualifying criteria shall not be considered for further evaluation.

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- 3) The price bid cover shall contain price bid document duly filled in and signed by the tenderer in all the pages. The tenderer has to quote most competitive rates for all the items given in the Bill of Quantities in price bid.

The completed qualification bid and price bid along with requisite **EMD ₹ 20,000/-** for this work and tender document cost of ₹750/- shall reach the office of the undersigned on or before **28-05-2016 at 10.00 Hrs.**

The Technical cum commercial offer will be opened on the same day at 10.30 hrs. In case of opening day falls on holiday or happened to be declared as a holiday the receipt and opening of the tender shall automatically fall on the same timing of the next working day. Date and time of opening of the Price Bid shall be intimated only to those bidders whose Tech cum commercial offer is accepted. You / Your authorized representative may participate in the tender opening.

Clarification if any, can be obtained from the undersigned.

Thanking you,

Yours faithfully,
For Bharat Heavy Electricals
Limited,

SM/ contracts
Maintenance & Services

Encl :

- 1). Part-1: Technical cum commercial offer.
- 2). Part-2: Price bid.

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MAINTENANCE & SERVICES DEPARTMENT

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PREAMBLE

01. The scope of work includes AMC for Earth Electrodes and Lightning Arresters in various shop floors/Buildings at BHEL factory premises.
02. Time is the essence of the contract. Being a time bound work, the contractor should make all efforts to complete the work in the stipulated period of **12 months**.
03. Usually, working hours are limited to day time only. In emergency cases to carryout work during nights, it may be done so with the specific prior permission of BHEL. In such case, it is to be carried out in the presence of BHEL officials or their authorized persons.
04. The tenderers are advised to visit BHEL Factory at Tiruchirappalli and get themselves acquainted with the site conditions before submitting the offer.
05. The following eligibility criteria shall be complied to fulfill the qualification bid:-
 - a) Contractor should have separate Registration Code Nos. for EPF , ESI, Service Tax & PAN.
 - b) Average annual turnover of similar works in the last three years should be the value of Rs 2.20 Lacs respective work.
 - c) During last seven years should have successfully completed works either
 - i) Three similar works each not less than the value of Rs 2.93 Lacs respective work
(or)
 - ii) Two similar works each not less than the value of Rs 3.66 Lacs respective work
(or)
 - iii) One similar work not less than the value of Rs 5.88 Lacs respective work.
06. The norm for qualification with prescribed score is attached in the qualification Bid document. Evaluation will be done accordingly.

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07. The works executed in the own name of the tenderer only will be considered for eligibility criteria.
08. Dissimilar/ irrelevant works will not be considered for eligibility criteria.
09. Documentary evidences (Xerox copies – attested) for turnover, works experience, P.F,ESI,Service Tax & PAN registration etc., all as indicated & required in the tender document should be furnished without which it will not be taken into account.
10. Tender value is only approximate and liable for variation without entitling the tenderer to any compensation, till the total value of contract vary by $\pm 20\%$ (\pm twenty percentage).
11. Quoted rate shall be firm throughout the contract period of 4 months and extended contract period also and no cost escalation is allowed on any account.
12. The quantity indicated in the Bill of quantity is only tentative. The contractor has to execute any item of work irrespective of the quantity without any reservation till the total value of contract exceeds by 20%.
13. The work shall be carried out as per the scope of work and related drawings.
14. After award of work the contractor has to furnish the security deposit, as per Clause 16 of THE GENERAL INSTRUCTIONS TO TENDERERS (REVISED). Also it is to be noted that after award of work, the contractor has to furnish 50% of security deposit before the commencement of work.
15. The contractor has to carryout the work in production shops without affecting the production by planning such work on holidays/ obtaining proper shut down.
16. The decision of Engineer-in-charge shall be final and binding on the contractor regarding clarification of items in this tender schedule.
17. The contractor shall strictly adhere to various labour laws in force.
18. The contractor shall follow norms of BHEL security system for movement of men & materials within the complex.

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19. Since the responsibility for the quality, workmanship and accuracy of any work being carried out under this contract lies with the contractor, the contractor should ensure that no work is done without the presence of contractor's representative at the work spot.
20. The contractor has to submit the organization chart of their set up for the works and any change thereafter in the organization set up shall have the prior approval of BHEL.
21. The contractor should establish his own site office, handling facility, storage facility to stock installation materials, tools, machines etc., for which sufficient place will be allotted on specific request for which the rent will not be collected.
22. The tenderer has to deploy adequate labour of required categories such as Unskilled, labours, Electricians, Cable jointers, wiremen for field work. The technical persons with experience shall have to produce valid certificate for verification.
23. Separate non-technical persons should be engaged for arranging daily gate passes for labours entry in the gates of Factory complex.
24. The tenderer shall carryout health performance test at his cost for all the workmen engaged in the work through a registered medical practitioner and produce certificate on demand.
25. It shall be the responsibility of the contractor to see the workmen do not utilize the departmental canteen facilities. Contractor has to make his own arrangement to provide refreshment for the workmen.
26. All the works shall be executed as per the standard specifications as provided in Bill of quantities.
27. The works contract to be entered into with the successful tenderer will be governed by the BHEL General Conditions of contract in force.
28. The contractor should maintain proper accounts for all electrical accessories, other materials if any supplied by this organization and supply by the contractor and these should be available at the site of work for verification and check by the officials of this organization at any time.

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29. All materials brought by the Contractor for incorporation in the work shall be got inspected and approved by the Engineer-in -charge before they are incorporated in the work.
30. The contractor should use only the materials of brand and quality as approved by BHEL. (If any where in this contract is applicable)
31. The contractor should submit the programme for the completion of work and the list of equipments and labourers to be deployed for the work along with tender.
32. All materials and consumables brought by the contractor should have manufacturer's certificate.
33. Contractor's materials and tools & equipments shall have to be brought inside factory with proper invoice/voucher and make necessary entry in the security gate. They should maintain proper record for tools equipments, materials etc. brought inside the factory complex.
34. The contractor should extend fullest co-operation with the third party agencies engaged, if any by BHEL to adhere the Quality Control Procedures ensuring quality.
35. The contractor should extend fullest co-operation to the other contractors who may be doing other works in the same areas to enable them to execute their portions of work without any delay or difficulty.
36. Water, Electricity and compressed air will be provided by this organization at one point at the site of work at free of cost.
37. No advance / mobilization advance will be given.
38. LD/Penalty clause is applicable as per General conditions of contract. All the terms and conditions in the documents are binding on the tenderers and BHEL reserves its right to accept/ reject any or all the tenders and to award the work in full or parts to more than one agency without assigning any reasons.

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BHARAT HEAVY ELECTRICALS LIMITED
HIGH PRESSURE BOILER PLANT
TIRUCHIRAPALLI – 620 014
MAINTENANCE & SERVICES

GENERAL INSTRUCTIONS TO TENDERER:

01.	Sealed Tender enclosed for the work is hereby invited from contractor holding a valid Electrical contractor's license, issued by Tamilnadu Electrical Licensing Board and experienced in works of similar kind.
02.	Before tendering, the tenderers are advised to inspect the site of work and its environments and be well acquainted with the actual working and other relevant conditions, position of materials and labour. Tenderers are also requested to go through General -Terms & conditions and Special -Terms & conditions of Contract, drawings and specifications and all other documents which form part of the agreement to be entered into.
03.	Tender should be addressed to SM/Contracts, Maintenance & Services, 2 & 4-Building, BHARAT HEAVY ELECTRICALS LIMITED, Tiruchirapalli- 620 014 . Full name , address of the Tenderer and the name of the work should be noted on the covers of EMD, Technical bid & Price bid with tender No & due date of opening.
04.	The validity of the offer submitted by the tenderer shall be valid for a period of "Six months" from the date of opening of the tender.
05.	All entries in the tender documents shall be made in one ink. Erasure and over-writing are not permitted. All cancellations and insertions should be duly signed by the Tenderer concerned.
06.	Tenderer should fill in all the required particulars in the blank spaces provided for this purpose in the tender documents along with signature on each and every page of the tender document including corrigendum & the drawing attached there to while submitting their tender.
07.	Unit rates should be quoted in figures as well as in words with reference to each item and for all the items shown in the attached schedule. These rates shall be for the furnished work at site. Amount for each item and the totals page by page and also the grand total amount for the contract should also be filled in by the Tenderer.
08.	Rates for each item of the tender schedule should be quoted in Rupees and paise only, In case any difference in rates quoted to figures and in words, the lower of the rates will be taken as the tendered rate.
09.	Quantities shown in the attached schedule are only approximate and are subject to variation. The rate shall remain firm throughout the contract period. However executed work value shall remain within + 20% (plus Twenty percent) of work order value .
10.	In quoting the rates the tenderer is advised to take into account all factors including any fluctuations in market rates. No claim will be entertained on this account after acceptance of the tender or during the currency of the contract.
11.	Rates quoted shall be inclusive of all royalties, taxes, duties & other taxes except Service tax. Service Taxes as applicable shall be shown extra in the offer. The Bharat Heavy Electricals Limited, Tiruchirapalli will not entertain any claim what so ever in this respect. The applicable Service Tax can be claimed from BHEL, along with monthly bill . While claiming for Service tax, the contractor should produce copies of challans of previous Month/Quarter as proof of deposit of Service Tax, if applicable, along with a declaration that "The Service tax collected from BHEL has been remitted to Service Tax authorities.
12.	If a tenderer find discrepancies or omissions in the drawings or any of the tender documents and should there be doubts as to their meaning, he should at once address the authority inviting the tender for clarifications. Every endeavor is made to avoid any error which can materially affect the basis of the tender but the successful tenderer shall taken upon himself to provide for the risk or any error which may be subsequently discovered and shall make no subsequent claim on account thereof.

Contractor signature/seal

Accepting officer/BHEL

13.	In the event of tender being submitted by the firm, all pages of the tender must be signed legibly by each partner or member of the firm or in their absence, by the person holding the power of attorney on behalf of the firm concerned. In the latter case, a copy of the power of attorney duly attested by a Gazetted Officer must accompany the tender.
14.	Unless the Contractor, whose tender is accepted, signs the contract agreement within seven days (7 days) of the date of the order directing him to do so, the amount of Earnest Money Deposit already deposited by him will be forfeited and acceptance of the tender withdrawn.
15.	If after opening of tenders, a tenderer revokes his tender or increases his earlier quoted rates or after acceptance of his tender does not commence the work in accordance with the instructions of the Engineering-In-Charge, the Earnest Money Deposited by him will be forfeited and acceptance of his tender withdrawn. If only, a part of the work included in the tender has been awarded to the tenderer and the tenderer refuses to take up the work the amount of Earnest Money to be forfeited will be based on the value of the contract so awarded.
16.	The BHARAT HEAVY ELECTRICALS LIMITED, reserves the right to reject any or all the tenders received or accept any tender or part thereof without assigning any reason therefore. In the case of acceptance of the part of tender, time for completion may also be reduced to the extent considered appropriate by the accepting officer.
17.	Tenders not submitted in the prescribed forms are liable to be rejected.
18.	The Contractor who is not in the approved list of contractors of BHEL must submit the following documents along with their offers otherwise offers will be rejected. 01). Copy of work order received from any large reputed firm of similar nature to establish that the tenderer is an independent contractor working on his own. The contractor shall furnish details like name of the contact person, mobile no, email id and address. 02). Copy of performance certificate from atleast 2 reputed large firms or govt. bodies for having executed similar works satisfactorily in the last two years. BHEL reserves the right to verify with original certificate. 03). A certificate from a Bank regarding the tenderer's financial position. (Solvency) 04). License details of the firm or the contractor.
19.	The tender should be accompanied by a list of contracts already held by the contractor at BHEL-Trichy at the time of submission of the tender and giving the following particulars: a). WO reference number and value of contract. b). The balance of work in value remaining to be done for the same.
20.	Tender may be sent by post or dropped in <u>Electrical Tender box</u> available at Maintenance & Services, 2 & 4-Building, BHARAT HEAVY ELECTRICALS LIMITED, Tiruchirapalli- 620 014 . Tender submitted by Post should be sent by " Registered Post/Speed post. These should be posted well in advance with due allowance for any delay in postal delivery. Tender received after the due date of opening of tender shall be rejected.
21.	The Contractor's responsibility under this contract shall commence from the date of work order.
22.	If a tenderer expires after the submission of his tender or after the acceptance of his tender, the BHEL may at their discretion cancel such tender.
23.	The BHARAT HEAVY ELECTRICALS LIMITED, will not be bound by any power of attorney granted by the tenderer or by changes in the composition of the firm, made subsequent to the execution of the contract. They may, however, recognize such power of attorney and change after obtaining proper legal advice, the cost of which will be charged above to the contractor concerned.
24.	If the tenderer deliberately gives wrong information in his tender BHEL, reserves the right to reject tender at any stage.

Contractor signature/seal

Accepting officer/BHEL

25.	Words imparting the singular number shall also be deemed to include the plural number and vice the context so required.
26.	The 'General Instructions to Tenderers' and 'Special Terms and Conditions of Contract' are complementary to each other and where they are in conflict, the 'Special terms and conditions of Contract 'shall prevail.
27.	The expenses for completing and stamping the agreement shall be paid by the contractor.
28.	Tenderer shall not increase their quoted rates, in case BHEL, calls for negotiation for reduction of rates. Such negotiations shall not amount to cancellation or withdrawal of the original offer and the rates originally quoted shall be binding on the tenderers for the period of three months from the date of opening of tenders. (If price negotiation held on any tender, the revised offer should be submitted within a week.)
29.	All contractors will have to produce PAN/income tax clearance certificate from the Income Tax concerned along with their tender. The contractor whose Income is not taxable will be required to give affidavit for their income on the prescribed form. If the successful tenderer fails to produce the PAN/income tax clearance certificate within the stated period, the Earnest money deposit and the Security Deposit of the tenderer may be forfeited and the contract terminated.
30.	TENDERERS ARE REQUESTED TO COVER THEIR EMPLOYEE (SUPERVISORS AND LABOURERS) UNDER PF/ESI/GROUP INSURANCE/CONTRACT LABOUR REGULATIONS ACT.
31.	THE GENERAL INSTRUCTIONS TO TENDERER shall be deemed to form an integral part of the work to be entered into.

Contractor signature/seal

Accepting officer/BHEL



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BHARAT HEAVY ELECTRICALS LIMITED
HIGH PRESSURE BOILER PLANT
TIRUCHIRAPALLI – 620 014
MAINTENANCE & SERVICES

ANNEXURE-B

GENERAL TERMS AND CONDITIONS

A	EARNEST MONEY DEPOSIT:						
	Tender must be accompanied by Earnest Money for the amount mentioned in tender notice, pledged to BHEL, Trichy in any of the forms mentioned below. The Earnest Money Deposit will be refunded to the unsuccessful tenderers within 15 days of acceptance of the award of work by successful tenderer. In the case of successful tenderer, the Earnest Money Deposit will be retained as part of the Security Deposits for satisfactory completion of the work in accordance with clause 2.0 of the General Terms and Conditions of contract.						
A.1	The Earnest Money Deposit may be furnished in form of Pay order or Demand Draft drawn in favour of BHEL-Trichy. <i>Note: EMD shall not carry any interest.</i>						
A.2	Unless the Contractor, whose tender is accepted, signs the contract agreement, within seven days (7 days) of the date of the order directing him to do so, the amount of Earnest Money Deposit already deposited by him will be forfeited and acceptance of the tender withdrawn.						
A.3	If after opening of tenders, a tenderer revokes his tender or increases his earlier quoted rates or after acceptance of his tender does not commence the work in accordance with the instructions of the Engineer-In-Charge, the Earnest Money Deposited by him will be forfeited and acceptance of his tender withdrawn. If only, a part of the work included in the tender has been awarded to the tenderer and the tenderer refuses to take up the work the amount of Earnest Money to be forfeited will be based on the value of the contract so awarded.						
A.4	Tenderers who had already remitted one time EMD should furnish a copy of the cash receipt of the remittance in the EMD cover. EMD in any other form will not be accepted. MSE suppliers can avail EMD Waiver benefits only if they submit along with the offer, attested copies of either EM II Certificate having deemed validity (five years from the date of issue of acknowledgement in EM II) or valid NSIC certificate or EM II Certificate along with attested copy of a CA Certificate (Format Enclosed). Tenders without EMD/MSME proof as detailed above will be summarily rejected						
B	SECURITY DEPOSIT:						
	The contractor whose tender has been accepted shall, within seven days of receipt of the notification of acceptance of his tender, should deposit the prescribed sum as per Clause 2.1 towards Security Deposit.						
B.1	The rate of security deposit for the contract will be as follows:						
	<table border="1"> <tr> <td>a). For Contract Valued up to Rs 10.00 Lakh.</td> <td>: 10% of the Contract value.</td> </tr> <tr> <td>b). For Contract Valued above Rs 10.00 Lakh upto Rs 50.00 Lakh</td> <td>: Rs 1 lakh plus 7.5% on the balance of the contract value.</td> </tr> <tr> <td>c). For Contracts valued above Rs 50.00 Lakh</td> <td>: Rs 4 lakhs + Plus 5% on the balance of the contract value.</td> </tr> </table>	a). For Contract Valued up to Rs 10.00 Lakh.	: 10% of the Contract value.	b). For Contract Valued above Rs 10.00 Lakh upto Rs 50.00 Lakh	: Rs 1 lakh plus 7.5% on the balance of the contract value.	c). For Contracts valued above Rs 50.00 Lakh	: Rs 4 lakhs + Plus 5% on the balance of the contract value.
a). For Contract Valued up to Rs 10.00 Lakh.	: 10% of the Contract value.						
b). For Contract Valued above Rs 10.00 Lakh upto Rs 50.00 Lakh	: Rs 1 lakh plus 7.5% on the balance of the contract value.						
c). For Contracts valued above Rs 50.00 Lakh	: Rs 4 lakhs + Plus 5% on the balance of the contract value.						
B.2	The Security Deposit may be furnished in any of the following forms:						
	a). Pay order or Demand Draft drawn in favour of BHEL.						
	b). Local cheques of scheduled banks, subject to realization.						
	c). Securities available from Post offices such as National Savings Certificates, Kisan Vikas Patra etc. (Certificates should be held in the name of the contractor furnishing the security and duly pledged in favour of BHEL, Trichy and discharged on the back).						
	d). Bank Guarantee from scheduled Banks/Public Financial Institutions as defined in the Companies Act. The bank guarantee format should have the approval of BHEL.						
	e). Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The FDR should be in the name of the contractor, A/C BHEL, duly discharged on the back.						
	f). Security deposit can also be recovered at the rate of 10% from the running bills. However in such cases at least 50% of the Security Deposit will be collected before start of the work and the balance 50% may be recovered from the running bills.						
	h). EMD of the successful tenderer shall be converted and adjusted against the security deposit. NO INTEREST SHALL BE ALLOWED ON SECURITY DEPOSITS. BHEL, shall not be responsible for any loss of securities due to liquidation or any other reason whatsoever or any depreciation in the value of the Securities while in their charge or for any loss of interest thereon.						

Contractor signature/seal

Accepting Officer/BHEL

GENERAL TERMS AND CONDITIONS

	NOTE: Acceptance of Security Deposit against Sl. No. (c) and (d) above will be subject to hypothecation or endorsement on the documents (Signature of the Branch Manager must be present) in favour of BHEL. However, BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith.
B.3	All compensation or other sums of money payable by the contractor to BHEL under the terms of this contract or under any other contract with BHEL, may be deducted from the Security Deposit or realized by the sale of the securities of from the interest arising there from or from any sums which may be due or may become due to the contractor payable by BHEL, on any account whatsoever against this contract of any other contract with BHEL and in the event of his Security Deposit being reduced by reason of such deductions or sale as aforesaid, the Contractor shall within seven days thereafter make good in cash or in securities endorsed as aforesaid, any sum or sums by which the security Deposit has been so reduced.
B.4	Security Deposit will be refunded on completion of the work and after the expiry of the maintenance period. In case no maintenance period is applicable, then 100% of security Deposit will be refunded after confirming the final bill payment.
C	INCOME TAX :
C.1	<p>a). Income tax shall be deducted at the applicable rate in respect of the service contract including supply of labour for any work as follows: # Up to Rs. 10 lakhs: 10% # Above Rs. 10 lakhs up to Rs.50 lakhs: Rs.1 lakh + 7.5% of the amount exceeding Rs. 10 lakhs. # Above Rs. 50 lakhs: Rs 4 lakhs + 5% of the amount exceeding Rs. 50 lakhs. The security Deposit should be collected before start of the work by the contractor.</p> <p>b). Xerox copy of PAN card shall be submitted to Account Dept along with original for verification.</p> <p>c). TDS Certificate will be issued to vendors for each quarter ending as on 30th June,30th Sept,31st Dec. and 31st March during the following quarter.</p>
D	SERVICE TAX
D.1	<p>a). Wherever service tax is liable to be paid by the contractor, the contractor shall register himself under the Service Tax Rules and a copy of Certificate of Registration shall be furnished to Accounts Dept</p> <p>b). After registration, the payment of Service Tax shall be effected by the contractor to the Central Government monthly/quarterly based on the invoices raised before the due date of payment The Service Tax Return also shall be submitted to the Government before the due date.</p> <p>c). The invoice/bill in original duly signed by the contractor claiming the payment for Service Tax shall clearly indicate the following: 1) Continuous Serial no & date of the bill 2) Cost of the service 3) Separately showing the Service Tax amount calculated at the applicable rate 4) Separately showing the Cess on Service Tax amount 5) PAN based Service Tax Registration No.</p> <p>d). The service tax claimed in the bill will be paid to the contractor based on the proof of payment of service tax to the Central Government for the previous month/quarter as the case may be.</p>
E	CENVAT
E.1	a). Wherever the contractor claims payment for the supply of materials used in the service, "Duplicate for Transporter" copy in original clearly depicting the Cenvat paid apart from the original invoice is required to be submitted to BHEL for the purpose of availing the Cenvat Credit
F	VALUE ADDED TAX(VAT)
F.1	a). Wherever the service includes the supply of materials and claim is made for the payment of VAT, the original invoice duly signed by the contractor clearly indicating the cost of materials,rate of VAT,VAT amount,TIN no.is to be submitted for payment and availing the VAT credit.
G	LIQUIDATED DAMAGE/PENALTY :
G.1	a).If the contractor fails to complete the service/work as per terms & conditions of the order within the delivery schedule, 0.5% of the order value will be deducted for each week of delay or a part thereof subject to a maximum of 15% of the total contract value.

Certificate by Chartered Accountant on Letter Head

This is to certify that M/s. _____ (hereinafter referred to as 'company') having its registered office at _____ is registered under MSMED Act 2006, (Entrepreneur Memorandum No (Part II)) _____ dt. _____, Category :____(Micro/Small). (Copy enclosed).

Further verified from the Books of Accounts that the investment of the company as per the latest audited financial year _____ as per MSMED Act 2006 is as follows:

1. For Manufacturing Enterprises: Investment in plant and machinery (i.e. original cost excluding land and building and the items specified by the Ministry of Small Scale Industries vide its notification No. S.O.1722(E) dated October 5, 2006):

₹ _____ Lacs

2. For Service Enterprises: Investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED Act 2006):

₹ _____ Lacs

(Strike off whichever is not applicable)

The above investment of ₹ _____ Lacs is within permissible limit of ₹ _____ Lacs for _____ Micro / Small (Strike off which is not applicable) Category under MSMED Act 2006.

Or

The company has been graduated from its original category (Micro/Small) (Strike off which is not applicable) and the date of graduation of such enterprise from its original category is (dd/mm/yyyy) which is within the period of 3 years from the date of graduation of such enterprise from its original category as notified vide S.O. No. 3322(E) dated 01.11.2013 published in the gazette notification dated 04.11.2013 by Ministry of MSME.

Date:

(Signature)

Name:

Membership number:

Seal of Chartered Accountant



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BHARAT HEAVY ELECTRICALS LIMITED
HIGH PRESSURE BOILER PLANT
TIRUCHIRAPALLI – 620 014
MAINTENANCE & SERVICES

ANNEXURE-C

SPECIAL TERMS AND CONDITIONS

A	AWARD OF CONTRACT:
	Contract shall be awarded on Cumulative Service item L1 basis.
B	DEPLOYMENT OF WORKMEN & SUPERVISORS
	a). A list containing the name of persons who are working, their age, designations, pay, nature of work is to be furnished immediately on receipt of work order, in triplicate.
	b). The work should be carried out in the presence of contract supervisor and prior permission should be obtained from the concerned supervisor and the section before starting the work.
	c).The Contractor is required to cover their employee/labourers by suitable insurance scheme (like Janatha Insurance) against any risk. The policy taken by them should be produced to BHEL authorities concerned before commencing the work.
C	BIOMETRIC ENTRY/EXIT SYSTEM FOR CONTRACT WORKMEN
	a).The Entry/Exit of the contract workmen is to be regulated only through Biometric system.
	b).The Contractor initially will be issued with a temporary gang pass for his/her contract workmen for a period of ten days.
	c).The contractor should arrange photo coverage for all his/her workmen within the above stipulated time.
	d).The contractor has to submit Form I for all his/her contract workmen. All the particulars required in Form I are to be provided by the contractor without fail.
	e).The contractor should educate the contract workmen in registering the attendance through the system.
	f).Whenever a contract workman migrates or leaves service, the contractor has to surrender the biometric card of the particular contract workman to Contract Cell with immediate effect.
	g).If a contract workman having biometric card joins another contractor, the contractor who engages them, has to intimate contract cell along with the biometric card for switching over the contract workmen from the earlier contractor to
	h).On completion of the work, the contractor has to surrender all the biometric cards immediately to the contract cell. Otherwise, an amount of Rs.100/- per card will be deducted from the final bill/security deposit of the contractor.
	i).If any contract workmen lose his/her card, the contractor shall arrange a duplicate card for the workmen by paying an amount of Rs.100/-.
	j).The Contractor is totally responsible for the biometric cards issued to his/her contract workmen.
D	SAFETY :
	a). In case of cable laying ,work should be carried out after getting the prior permission from the concerned electrical supervisor and civil department for digging the road when it is required to ensure that proper precautions are taken.
	b). While digging the road, a good barricade and proper sign boards should be provided in the area.
	c). While erecting the poles, proper safety precautions such as supporting the poles, tying with ropes suitable lifting tackles etc. are to be adhered.
	d). While working at heights, proper platform ladder, safety belts, etc. should be used.
	e). The necessary safety equipments such as gloves, lineman's belts etc. should be used.
	f). Any other safety measure as necessitated by the nature of work should be strictly followed.
	g). If Contractor's workmen are found to violate the safety regulations punitive action will be taken by with-holding a sum of Rs. 100/- to Rs. 500/- for each such violation.
	h). These safety measures shall be deemed to form an integral part of the work order/agreement.

Contractorsignature/seal

Accepting officer/BHEL

E	COMPLIANCE WITH VARIOUS LABOUR LAWS :
	The Contractor shall in respect of labour employed by him either directly or through sub contractors, comply with or cause to be complied with the following statutory provisions, rules & in regard to all matters provided therein.
	a). The Contract labour (Regulation & Abolition) Act 1970 and the related Tamilnadu Rules.
	b). The Minimum Wage Act 1948 and the related Tamilnadu Rules.
	c). The Payment of Wages Act 1936 and the related Tamilnadu Rules.
	d). The Factories Act 1948 and the related Tamilnadu Rules.
	e). Employee's Provident Fund & Miscellaneous Provision Act 1952.
	f). The Workmen Compensation Act 1923.
	g). The Industrial Dispute Act 1947.
	h). Additional Amount of Rs 2500/-,Rs 3500/-,Rs 4100/- Rs 4100/- to all Unskilled, Semiskilled, Skilled labourers and Supervisors respectively over and above the minimum wage as per BHEL Corporate guidelines.
	i). Bonus payment to be made for the Contract employees as per Bonus Act.
	TENDERERS ARE REQUESTED TO COVER THEIR EMPLOYEE (SUPERVISORS AND LABOURERS) UNDER PF/ESI/GROUP INSURANCE/CONTRACT LABOUR REGULATIONS ACT.
F	STANDARDS FOR MATERIALS & SERVICES/WORKS
F.1	01). Small consumables like Screws, clamps, ceiling rose, PVC-L, T, Coupling, Bend, Elbow , Bolt,Nuts are the scope of the contractor.
	02). If any other materials required other than BHEL supply specified in the schedule is meant to contractor's scope of supply.
	03). Issue of materials from Stores is subject to the availability. The contractor shall not be entitled for any claim or compensation for non-supply or delay in supply from Stores under any circumstances.
	04). Entire work should be completed within the stipulated period.
	05). Cable glands, Electrical Power Boards, Switch Boxes are to be properly earthed.
	06). Safety precautions have to be ensured by the Contractor depending on the work nature. Necessary work permit system and personal protective equipments (PPE) such as electrical resistance rubber gloves, helmet, spectacle goggles, safety shoes, safety belt etc. as applicable to electrical works should be adhered while carrying out the work.
F.2	All the materials supplied by the contractor should conform to the relevant IS/BS/ISO/EN Specifications and agreeable to the engineer-in-charge.
F.3	The wiring shall confirm IS: 732:1989/2005 or any other relevant Indian Standard Specifications and Indian Electricity Rules.
F.4	Incase of PVC / Steel conduit wiring, the switches, plug sockets, regulators and other controls should be mounted on metal boxes. These boxes as well as all metal boxes used for street light controls should be fabricated as per IS 5133: Part-1: 1969 / 1996.
F.5	Erection of equipments includes testing and commissioning of equipments.
F.6	Completion reports should be submitted in the pro forma as per appendix 'E' of IS 732: 1989/2005.
F.7	The contractor should be present at the time of inspection of the installation by the Electrical inspector. Any defects pointed out by the Electrical inspector should be rectified by the contractor free of cost.
F.8	Final lay-out as well as foundation drawings should be submitted in advance for executing the civil works.
F.9	Any covering letter and comments of the contractor should be submitted in duplicate along with the offer.
F.10	If cables have to be laid in the ground, the following specification should be followed:
	FOR LT CABLE :
	For laying of single run of cable, trenches should be excavated up to a depth of 0.8 meter, width 0.3 metre (add 0.1 M width for additional run for excavation) and 0.075 meter deep layer of sand should be spread below as well as above the cable (0.15 M) and covered with one layer of brick with longitudinal direction.
	If two or more cables are run, the brick should be laid in a longitudinal direction for each cable separately and 0.075 meter deep layer of sand should be spread below as well as the above the cable for each run (0.15M).

	FOR HT CABLE : For laying of single run of cable, trenches should be excavated upto a depth of 1 meter,width 0.35 metre (add 0.35 M width for additional run for excavation) and 0.075 meter deep layer of sand should be spread below as well as above the cable (0.15M).The cable covered with bricks by box type formation. If two or more cables are run, the bricks should be laid in a box type formation for each cable and 0.75 meter deep layer of sand should be spread below as well as the above the cable (0.15M) for each run.
F.11	In case of open trench/wall/column,cables have to be taken with proper clamping either in cable racks/wall/column.The clamps have to be supplied by the contractor.
F.12	End Termination for the cable include supply and using solerless crimping type tinned copper lugs, glands and if necessary cable adaptor boxes etc. and earthing the glands and adaptor boxes with 8 SWG/7/20 GI wire.
F.13	The Cement will not be supplied by BHEL.
F.14	Cubicle/Industrial Type switch boards should be manufactured by any of the reputed manufacturer, (if the make of the switch board is not specifically mentioned in the detailed specification of the board),who have sufficient experience in manufacture of electrical switch boards. The switch board has to be approved by BHEL before dispatch to work spot.
F.15	For all sheet metal fabrication, pre-treatment of all metals with acid and rust preventing chemical has to be carried out and two coats of red oxide and one coat of stove enamelling paint has to be applied by spray painting.

PART-I (TECHNO COMMERCIAL OFFER)					
PART 1D - QUALIFICATION CRITERION					
ENQUIRY NO/ DATE: 9451600013 / 28.04.2016			ENQUIRY DUE DATE 28.05.2016		
NAME OF WORK: AMC for Earth Electrodes and Lightning Arresters in various shop floors/Buildings at BHEL factory premises.					
NAME OF THE COMPANY/ FIRM:					
QUALIFYING PARAMETERS FOR TECHNICAL CUM COMMERCIAL OFFER					
1	SEPARATE REGISTRATION FOR EPF, ESI, SERVICE TAX and PAN.	EPF REG. NO.	a).		
		ESI REG. NO.	b).		
		ST REG. NO.	c).		
		PAN NO.	d).		
2	VALID ES A/ ES B /EA/EB GRADE CONTRACTOR LICENSE ISSUED BY TAMILNADU ELECTRICAL LICENCING BOARD	LICENSE GRADE	LICENSE NO	VALIDITY	
3	INCOME TAX RETURN STATEMENT FOR LAST THREE ASSESSMENT YEARS (AY) (2013-14,2014-15, 2015-16)	STATUS	AY 2013-14	AY 2014-15	AY 2015-16
		YES/NO			
4	AVERAGE ANNUAL TURNOVER DURING THE LAST THREE FINANCIAL YEARS (2012-13,2013-14,2014-15)	QUALIFYING VALUE	FY 2012-13	FY 2013-14	FY 2014-15
		2.20 LAKHS			
5	EXPERIENCE OF HAVING SUCCESSFULLY COMPLETED SIMILAR WORKS (ELECTRICAL WORKS LIKE INSTALLATIONS, ERECTION, WIRING, LIG CABLE LAYING, END TERMINATION,EARTH ELECTRODE & LIGHTNING ARRESTER MAINTENANCE etc) DURING LAST SEVEN YEARS ENDING LAST DAY OF MONTH PREVIOUS TO THE ONE IN WHICH APPLICATION IS BEING INVITED.	QUALIFYING VALUE (% OF ESTIMATE VALUE)			
	THREE SIMILAR COMPLETED WORKS COSTING NOT LESS THAN 2.93 LAKHS	2.93LAKHS	WORK ORDER DETAILS		
			1).		
			2).		
			3).		
	(OR)				
	TWO SIMILAR COMPLETED WORKS COSTING NOT LESS THAN 3.66 LAKHS	3.66 LAKHS	WORK ORDER DETAILS		
1).					
		2).			
(OR)					
ONE SIMILAR COMPLETED WORK COSTING NOT LESS THAN 5.86 LAKHS	5.86 LAKHS	WORK ORDER DETAILS			
		1).			
6	ACCEPTANCE FOR GENERAL TERMS & CONDITIONS OF CONTRACT (Annexure-B)	ACCEPTED / NOT ACCEPTED			
7	ACCEPTANCE FOR SPECIAL TERMS & CONDITIONS OF CONTRACT (Annexure-C)	ACCEPTED / NOT ACCEPTED			
8	ACCEPTANCE FOR SCOPE OF WORK , TOOLS AND QUALIFICATION OF MANPOWER TO BE DEPLOYED FOR CONTRACT. (Annexure-D)	ACCEPTED / NOT ACCEPTED			
NOTE:					
1.CONTRACT WILL BE FINALIZED ON CUMULATIVE SERVICE ITEM L1 BASIS.					
2. ATTESTED COPY OF DOCUMENTS FOR DETAILS FURNISHED ABOVE SHOULD BE ATTACHED (By Gazetted officer) .					

Contractor signature/seal

Accepting officer/BHEL

ANNEXURE-E

PART-IE / TECHNO COMMERCIAL OFFER				
NAME OF WORK: AMC for Earth Electrodes and Lightning Arresters in various shop floors/Buildings at BHEL factory premises.				
NAME OF THE COMPANY/ FIRM:				
JOB DESCRIPTION				
S.No:	WORK DESCRIPTION	UOM	APPROX. QTY	QUOTED / NOT QUOTED
10/10	<p>Carrying out maintenance, measuring and recording the earth resistance values for Earth electrodes (of the Equipments/Earth bus(Sub Stations)/Lightning Arresters before and after commencing the work.</p> <p>Scope of work:</p> <p>(A).Opening the earth pit cover, cleaning the chamber and removing the plants/vegitations and foreign particles in and around the chamber.</p> <p>(B).Disconnecting the earth connection by removing the earth flat connection from the electrode, measuring the earth resistance value by using an earth megger (with standard 3 point procedure) in the presence of BHEL supervisor/electrical in charge, pouring of water in to the earth electrode and again measuring the earth resistance value.</p> <p>(C).Painting the earth electrode number, earth resistance value, date of measurement taken etc., on the inner wall of the chamber using black paint and white as back-ground.</p> <p>(D).Reconnect the earth flat connection with the electrode.</p> <p>(E).Checking the continuity of earth flat to the equipment/earthbus bar/lightning arrester before giving connection, if found abnormal correct the connections.</p> <p>This contract is 1 cycle/year.</p>	NO	864	
	<p>Area wise break up:</p> <p>01. Bldg No.1. Bay.1 - 12 & 1A,1B = 9 NO</p> <p>02. Bldg No.1. D.S & P.S = 33 NO</p> <p>03. Bldg No.5 = 24 NO</p> <p>04. Bldg No.6 = 54 NO</p> <p>05. Bldg No.50 = 27 NO</p> <p>06. Ancillary Bldg = 110 NO</p> <p>07. H R D C = 11 NO</p> <p>08. Unit-II = 82 NO</p> <p>09. Sub Station = 475 NO</p> <p>10. Gas & Services = 35 NO</p> <p>11. LPG yard at SSTP under Maint.of G&S = 4 NO</p> <p>-----</p> <p>Total = 864 NO</p>			
20/10	<p>Replacement of Damaged/disconnected/new laying of 25 mm x 3 mm Copper Earth flat on the wall (with supply and fixing of insulators and MS clamps for every 0.75 M where ever required)/column/ Chimney/ floor etc., from the Lightning arrester/Earth pit or existing Earth connections with the same size of flat.By Making Butt joint by fastening with 6 mm brass screws, flat washer, spring washer & nuts.</p> <p>Note: Earth flat will be issued by BHEL at store. All other materials are contractor's scope.</p> <p>Laying of 25 mm x 3 mm Copper flat :</p> <p>Area wise Breakup:</p> <p>01).1-Building(1-12 Bay & 1A,1B) = 50 M</p> <p>02).1-Building DS & PS = 150 M</p> <p>03).5-Building = 0 M</p> <p>04).6-Building = 100 M</p> <p>05).50- Building. = 60 M</p> <p>06).Ancillary Building = 5 M</p> <p>07) HRDC = 0 M</p> <p>08) Unit-II = 15 M</p> <p>09) Substation = 0 M</p> <p>10) Gas & Services = 1 M</p> <p>11).For maint.purpose = 50 M</p> <p>-----</p> <p>TOTAL = 431 M</p>	NO	431	

Contractor signature/seal

Accepting Officer-BHEL

S.No:	WORK DESCRIPTION	UOM	APPROX. QTY	QUOTED / NOT QUOTED
30/10	<p>Replacement of Damaged/dis connected/new laying of 25 mm x 3 mm GI Earth flat on the wall/column/Chmney/floor etc.,from the Earth pit/MP Boards/DB boards etc.,existing Earth connections in the cable trench with the same size of flat.By Making joining of GI flat by welding on the four edges of the Butt surface.After that aluminium paint to be coated on the welded surface. Note: GI Earth flat and Welding Electrodes will be issued by BHEL at store.All other materials are contractor's scope.</p> <p>Area wise Breakup :</p> <p>01). 1-Building(1-12 Bay & 1A,1B) = 50 NO 02). 1-Building DS & PS = 50 NO 03). 5-Building = 0 NO 04). 6-Building = 75 NO 05). Building 50 = 10 NO 06). Ancillary Bldg = 0 NO 07). HRDC = 0 NO 08). Unit II = 0 NO 09). Substation = 0 NO 10). Gas & Services = 20 NO 11). LPG Yard at SSTP under Maint of G&S = 0 NO</p> <hr/> <p>TOTAL = 205 NO</p>	NO	205	
40/10	<p>Replacement of Damaged/dis connected/new laying of 50 mm x 6 mm GI Earth flat on the wall/column/floor etc.,from the Earth pit/MP Boards/DB boards etc.,existing Earth connections in the cable trench with the same size of flat.By Making joining of GI flat by welding on the four edges of the Butt Surface.After that aluminium paint to be coated on the welded surface. Note: GI Earth flat and Welding Electrodes will be issued by BHEL at store.All other materials are contractor's scope.</p> <p>Area wise Breakup :</p> <p>01).1-Building(1-12 Bay & 1A,1B) = 50 NO 02).1-Building DS/PS = 75 NO 03).5-Building = 0 NO 04).6-Building = 30 NO 05).Building 50 = 10 NO 06).Ancillary Bldg = 10 NO 07).HRDC = 0 NO 08).Unit II = 25 NO 09).Substation = 200 NO 10).Gas & Services = 0 NO 11).LPG Yard at SSTP Under Maint of G&S = 0 NO</p> <hr/> <p>TOTAL = 400 NO</p>	NO	400	
50/10	<p>Construction of Earthing Chamber of Earth pit if it is found damaged over the ground level. Note:All materials should be supplied by the contractor.</p> <p>Area wise Breakup :</p> <p>01).1-Building(1-12 Bay & 1A,1B) = 1 NO 02).1-Building DS/PS = 4 NO 03).5-Building = 0 NO 04).6-Building = 4 NO 05).Building 50 = 4 NO 06).Ancillary Bldg = 0 NO 07).HRDC = 2 NO 08).Unit II = 5 NO 09).Substation = 0 NO 10).Gas & Services = 5 NO 11).LPG Yard at SSTP Under maint of G&S = 0 NO</p> <hr/> <p>TOTAL = 25 NO</p>	NO	25	

Contractor signature/seal

Accepting Officer-BHEL

S.No:	WORK DESCRIPTION	UOM	APPROX. QTY	QUOTED / NOT QUOTED
60/10	<p>Maintenance of Lightning arresters: Removing roof covering sheets (wherever required) or opening side glass windows and accessing the lightning arresters on roof/Furnace chimney at various locations from inside the building. The contractor may use platforms and stairways leading up to the roof for accessing the arresters. Examining and ensuring the tightness in connections of lightning arresters consisting of 4 feet copper tube, one bowl, one copper base plate at a height of 15 M to 22 M approx. Ensuring proper fixing (with supply and fixing of insulators and MS clamps for every 0.75 M where ever required) connectivity and tightness of connections of 25 mm x 3 mm copper flat, G.I clamps, 6 mm brass bolts, nuts, flat washers and spring washers. Examining and ensuring continuity and general healthiness of earthing connections from copper spike mounted on the roof until earth pit on the ground. Once the lightning arresters are inspected for any earthing discontinuity/damage and rectified, the contractor shall remove all working tools from the roof top and climb down, replacing the roof sheets in the same position (wherever removed)/closing the side window panes. In places where the connecting bolts have rusted/corroded, they shall be completely removed and replaced with new nuts, bolts and flat washers and spring washers. The earth flats routed along the side walls of the building shall be inspected using suitable support ladders brought by the contractor. This contract is 1 cycle/year.</p>	NO	64	
	<p>Area wise Breakup :</p> <p>01). 1-Building(1-12 Bay & 1A,1B) = 5 NO 02). 1-Building DS/PS = 7 NO 03). 5-Building = 3 NO 04). 6-Building = 7 NO 05). Building 50 = 10 NO 06). Ancillary Bldg = 10 NO 07). HRDC = 2 NO 08). Unit II = 19 NO 09). Substation = 0 NO 10). Gas & Services = 1 NO 11). LPG Yard at SSTP Under maint of G&S = 0 NO</p> <hr/> <p>TOTAL = 64 NO</p>			
10/20	<p>Supply and Fixing of new/replacement of damaged 5 spike copper lightning conductor with complete set of 4 feet copper tube, one no bowl, one no copper base plate on the top of the factory building to a height of 15 M to 22 M. If any old/damaged Lightning arresters found on the top of the building have to be returned to store with proper accounting. Note: All items are to be supplied by the contractor. Before fixing the Lightning arresters tighten the all accessories of the same. Area wise Breakup :</p> <p>01). 1-Building(1-12 Bay & 1A,1B) = 0 NO 02). 1-Building DS 7 PS = 2 NO 03). 5-Building = 0 NO 04). 6-Building = 2 NO 05). 50-Building = 4 NO 06). Ancillary Building = 5 NO 07). HRDC = 0 NO 08). Unit II = 4 NO 09). Substation = 0 NO 10). Gas & Services = 3 NO 11). LPG Yard at SSTP under Maint of G&S = 0 NO</p> <hr/> <p>TOTAL = 20 NO</p>	NO	20	

Contractor signature/seal

Accepting Officer-BHEL

S.No:	WORK DESCRIPTION	UOM	APPROX. QTY	QUOTED / NOT QUOTED
20/20	<p>Providing earth electrodes as per IS standards as follows: 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 masonry 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. Note: All items are to be supplied by the Contractor. SPECIAL INSTRUCTIONS for making earth pits :- a). Before commencement of work, contractor should discuss with Electrical in charge and finalise the location plan for the installation of earth pits. b). After excavation of earth & before closing the same it should be shown to Electrical in charge. c). Contractor should fill bentonite, river sand, charcoal around electrode with presence of Electrical in charge. d). Unique earth pit number should be allotted for every earth pit and same is to be painted with black colour paint on the inside wall of masonry chamber and cover. e). After erection of earth pit, the ohmic value to be measured in the presence of Electrical in charge and final report to be submitted. The value of the earth pit should be less than 2 ohms.</p>	NO	48	
	<p>Area wise Breakup :</p> <p>01). 1-Building(1-12 Bay & 1A,1B) = 2 NO 02). 1-Building DS & PS = 2 NO 03). 5-Building = 0 NO 04). 6-Building = 5 NO 05). 50-Building = 4 NO 06). Ancy Building = 5 NO 07). HRDC = 2 NO 08). Unit II = 4 NO 09). Substation = 20 NO 10) Gas * Services = 4 NO 11). LPG Yard at SSTP Under Maint of G&S = 0 NO</p> <hr/> <p>TOTAL = 48 NO</p>			
	<p>GENERAL INSTRUCTIONS :</p> <p>(01). This work should be carried out only by qualified Electricians holding valid license and necessary safety rules and regulations should be adhered. (02). Contractor should get prior permission from concerned shop Electrical supervisor/ executive, before carrying out maintenance to ensure power off condition of the related machine. Earth resistance values should be measured in the presence of BHEL supervisor/ Electrical in charge only. (03). Earth megger is contractor's scope. Valid Calibration Certificate from NABL accredited Lab Shall be Submitted as and when area Executive on demand. (04). G.I./Copper Earth flat (25x3 mm / 50x6 mm) Welding Electrode, Insulation tape and emery sheet only will be supplied by BHEL at free of cost at site. (05). Portable Welding Power source is in the Scope of the Contractors. Contractor Shall Bring Welding Power source & necessary welding works in GI Flats to be carried out as per the direction of Area Executive/In-charge. (06). Where ever copper flats to be Connected, 6 mm Brass Bots & Nuts with flat washers and spring washers to be used. (07). All the Bots, Nuts, Washers and other required materials and tools are in Contractors Scope.</p>			
	<p>(08). Quantity in Item 20, 30 and 40 may Vary +/- 15% depending on the Site Condition. (09). The contractor shall bring a complete set of PPEs such as safety belts, hand gloves, safety shoes, helmets etc., suitable for working at height of approx. 15 M to 22 M. (10). The contractor shall obtain necessary work permit for working at heights duly attested and approved by Safety Department/BHEL. (11). All the GI/Copper flats removed shall be collected, segregated and returned to area identified by M&S in-charge. (12). Contractor shall not carry the work While on raining, Lightning/thundering time. (13). The contractor shall be instructed to inspect and study the site before quoting for the above works.</p>			

Contractor signature/seal

Accepting Officer-BHEL

PART-II (PRICE BID)					
NAME OF WORK: AMC for Earth Electrodes and Lightning Arresters in various shop floors/Buildings at BHEL factory premises.					
NAME OF THE COMPANY/ FIRM:					
JOB DESCRIPTION					
S.No:	WORK DESCRIPTION	UOM	APPROX. QTY	RATE	AMOUNT
10/10	<p>Carrying out maintenance, measuring and recording the earth resistance values for Earth electrodes (of the Equipments/Earth bus(Sub Stations)/Lightning Arresters before and after commencing the work.</p> <p>Scope of work:</p> <p>(A).Opening the earth pit cover, cleaning the chamber and removing the plants/vegitations and foreign particles in and around the chamber.</p> <p>(B).Disconnecting the earth connection by removing the earth flat connection from the electrode, measuring the earth resistance value by using an earth megger (with standard 3 point procedure) in the presence of BHEL supervisor/electrical in charge, pouring of water in to the earth electrode and again measuring the earth resistance value.</p> <p>(C).Painting the earth electrode number, earth resistance value, date of measurement taken etc., on the inner wall of the chamber using black paint and white as back-ground.</p> <p>(D).Reconnect the earth flat connection with the electrode.</p> <p>(E).Checking the continuity of earth flat to the equipment/earthbus bar/lightning arrester before giving connection, if found abnormal correct the connections.</p> <p>This contract is 1 cycle/year.</p>	NO	864		
	<p>Area wise break up:</p> <p>01. Bldg No.1. Bay.1 - 12 & 1A,1B = 9 NO</p> <p>02. Bldg No.1. D.S & P.S = 33 NO</p> <p>03. Bldg No.5 = 24 NO</p> <p>04. Bldg No.6 = 54 NO</p> <p>05. Bldg No.50 = 27 NO</p> <p>06. Ancillary Bldg = 110 NO</p> <p>07. H R D C = 11 NO</p> <p>08. Unit-II = 82 NO</p> <p>09. Sub Station = 475 NO</p> <p>10. Gas & Services = 35 NO</p> <p>11. LPG yard at SSTP under Maint.of G&S = 4 NO</p> <hr/> <p>Total = 864 NO</p>				
20/10	<p>Replacement of Damaged/disconnected/new laying of 25 mm x 3 mm Copper Earth flat on the wall (with supply and fixing of insulators and MS clamps for every 0.75 M where ever required)/coloumn/ Chimney/ floor etc., from the Lightning arrester/Earth pit or existing Earth connections with the same size of flat.By Making Butt joint by fastening with 6 mm brass screws, flat washer, spring washer & nuts.</p> <p>Note: Earth flat will be issued by BHEL at store. All other materials are contractor's scope.</p> <p>Laying of 25 mm x 3 mm Copper flat :</p> <p>Area wise Breakup:</p> <p>01).1-Building(1-12 Bay & 1A,1B) = 50 M</p> <p>02).1-Building DS & PS = 150 M</p> <p>03).5-Building = 0 M</p> <p>04).6-Building = 100 M</p> <p>05).50- Building. = 60 M</p> <p>06).Ancillary Building = 5 M</p> <p>07).HRDC = 0 M</p> <p>08).Unit-II = 15 M</p> <p>09).Substation = 0 M</p> <p>10).Gas & Services = 1 M</p> <p>11).For maint.purpose = 50 M</p> <hr/> <p>TOTAL = 431 M</p>	NO	431		

Contractor signature/seal

Accepting Officer-BHEL

S.No:	WORK DESCRIPTION	UOM	APPROX. QTY	RATE	AMOUNT
30/10	<p>Replacement of Damaged/dis connected/new laying of 25 mm x 3 mm GI Earth flat on the wall/column/Chmney/floor etc.,from the Earth pit/MP Boards/DB boards etc.,existing Earth connections in the cable trench with the same size of flat.By Making joining of GI flat by welding on the four edges of the Butt surface.After that aluminium paint to be coated on the welded surface.</p> <p>Note: GI Earth flat and Welding Electrodes will be issued by BHEL at store.All other materials are contractor's scope.</p> <p>Area wise Breakup :</p> <p>01). 1-Building(1-12 Bay & 1A,1B) = 50 NO 02). 1-Building DS & PS = 50 NO 03). 5-Building = 0 NO 04). 6-Building = 75 NO 05). Building 50 = 10 NO 06). Ancillary Bldg = 0 NO 07). HRDC = 0 NO 08). Unit II = 0 NO 09). Substation = 0 NO 10). Gas& Services = 20 NO 11). LPG Yard at SSTP under Maint of G&S = 0 NO</p> <hr/> <p>TOTAL = 205 NO</p>	NO	205		
40/10	<p>Replacement of Damaged/dis connected/new laying of 50 mm x 6 mm GI Earth flat on the wall/column/floor etc.,from the Earth pit/MP Boards/DB boards etc.,existing Earth connections in the cable trench with the same size of flat.By Making joining of GI flat by welding on the four edges of the Butt Surface.After that aluminium paint to be coated on the welded surface.</p> <p>Note: GI Earth flat and Welding Electrodes will be issued by BHEL at store.All other materials are contractor's scope.</p> <p>Area wise Breakup :</p> <p>01).1-Building(1-12 Bay & 1A,18) = 50 NO 02).1-Building DS/PS = 75 NO 03).5-Building = 0 NO 04).6-Building = 30 NO 05).Building 50 = 10 NO 06).Ancillary Bldg = 10 NO 07).HRDC = 0 NO 08).Unit II = 25 NO 09).Substation = 200 NO 10).Gas& Services = 0 NO 11).LPG Yard at SSTP Under Maint of G&S = 0 NO</p> <hr/> <p>TOTAL = 400 NO</p>	NO	400		
50/10	<p>Construction of Earthing Chamber of Earth pit if it is found damaged over the ground level.</p> <p>Note:All materials should be supplied by the contractor.</p> <p>Area wise Breakup :</p> <p>01).1-Building(1-12 Bay & 1A,18) = 1 NO 02).1-Building DS/PS = 4 NO 03).5-Building = 0 NO 04).6-Building = 4 NO 05).Building 50 = 4 NO 06).Ancillary Bldg = 0 NO 07).HRDC = 2 NO 08).Unit II = 5 NO 09).Substation = 0 NO 10).Gas& Services = 5 NO 11).LPG Yard at SSTP Under maint of G&S = 0 NO</p> <hr/> <p>TOTAL = 25 NO</p>	NO	25		

S.No:	WORK DESCRIPTION	UOM	APPROX. QTY	RATE	AMOUNT
60/10	<p>Maintenance of Lightning arresters: Removing roof covering sheets (wherever required) or opening side glass windows and accessing the lightning arresters on roof/Furnace chimney at various locations from inside the building. The contractor may use platforms and stairways leading up to the roof for accessing the arresters. Examining and ensuring the tightness in connections of lightning arresters consisting of 4 feet copper tube, one bowl, one copper base plate at a height of 15 M to 22 M approx. Ensuring proper fixing (with supply and fixing of insulators and MS clamps for every 0.75 M where ever required) connectivity and tightness of connections of 25 mm x 3 mm copper flat, G.I clamps, 6 mm brass bolts, nuts, flat washers and spring washers. Examining and ensuring continuity and general healthiness of earthing connections from copper spike mounted on the roof until earth pit on the ground. Once the lightning arresters are inspected for any earthing discontinuity/damage and rectified, the contractor shall remove all working tools from the roof top and climb down, replacing the roof sheets in the same position (wherever removed)/closing the side window panes. In places where the connecting bolts have rusted/corroded, they shall be completely removed and replaced with new nuts, bolts and flat washers and spring washers. The earth flats routed along the side walls of the building shall be inspected using suitable support ladders brought by the contractor. This contract is 1 cycle/year.</p>	NO	64		
	<p>Area wise Breakup :</p> <p>01). 1-Building(1-12 Bay & 1A,1B) = 5 NO 02). 1-Building DS/PS = 7 NO 03). 5-Building = 3 NO 04). 6-Building = 7 NO 05). Building 50 = 10 NO 06). Ancillary Bldg = 10 NO 07). HRDC = 2 NO 08). Unit II = 19 NO 09). Substation = 0 NO 10). Gas & Services = 1 NO 11). LPG Yard at SSTP Under maint of G&S = 0 NO</p> <hr/> <p>TOTAL = 64 NO</p>				
10/20	<p>Supply and Fixing of new/replacement of damaged 5 spike copper lightning conductor with complete set of 4 feet copper tube, one no bowl, one no copper base plate on the top of the factory building to a height of 15 M to 22 M. If any old/damaged Lightning arresters found on the top of the building have to be returned to store with proper accounting. Note: All items are to be supplied by the contractor. Before fixing the Lightning arresters tighten the all accessories of the same.</p> <p>Area wise Breakup :</p> <p>01). 1-Building(1-12 Bay & 1A,1B) = 0 NO 02). 1-Building DS 7 PS = 2 NO 03). 5-Building = 0 NO 04). 6-Building = 2 NO 05). 50-Building = 4 NO 06). Ancillary Building = 5 NO 07). HRDC = 0 NO 08). Unit II = 4 NO 09). Substation = 0 NO 10). Gas & Services = 3 NO 11). LPG Yard at SSTP under Maint of G&S = 0 NO</p> <hr/> <p>TOTAL = 20 NO</p>	NO	20		

S.No:	WORK DESCRIPTION	UOM	APPROX. QTY	RATE	AMOUNT
20/20	<p>Providing earth electrodes as per IS standards as follows: 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 masonry 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. Note: All items are to be supplied by the Contractor. SPECIAL INSTRUCTIONS for making earth pits :- a). Before commencement of work, contractor should discuss with Electrical in charge and finalise the location plan for the installation of earth pits. b). After excavation of earth & before closing the same it should be shown to Electrical in charge. c). Contractor should fill bentonite, river sand, charcoal around electrode with presence of Electrical in charge. d). Unique earth pit number should be allotted for every earth pit and same is to be painted with black colour paint on the inside wall of masonry chamber and cover. e). After erection of earth pit, the ohmic value to be measured in the presence of Electrical in charge and final report to be submitted. The value of the earth pit should be less than 2 ohms.</p>	NO	48		
	<p>Area wise Breakup :</p> <p>01). 1-Building(1-12 Bay & 1A,1B) = 2 NO 02). 1-Building DS & PS = 2 NO 03). 5-Building = 0 NO 04). 6-Building = 5 NO 05). 50-Building = 4 NO 06). Ancy Building = 5 NO 07). HRDC = 2 NO 08). Unit II = 4 NO 09). Substation = 20 NO 10) Gas * Services = 4 NO 11). LPG Yard at SSTP Under Maint of G&S = 0 NO</p> <p>TOTAL = 48 NO</p>				
	<p>GENERAL INSTRUCTIONS :</p> <p>(01). This work should be carried out only by qualified Electricians holding valid license and necessary safety rules and regulations should be adhered. (02). Contractor should get prior permission from concerned shop Electrical supervisor/ executive, before carrying out maintenance to ensure power off condition of the related machine. Earth resistance values should be measured in the presence of BHEL supervisor/ Electrical in charge only. (03). Earth megger is contractor's scope. Valid Calibration Certificate from NABL accredited Lab Shall be Submitted as and when area Executive on demand. (04). G.I/Copper Earth flat (25x3 mm / 50x6 mm) Welding Electrode, Insulation tape and emery sheet only will be supplied by BHEL at free of cost at site. (05). Portable Welding Power source is in the Scope of the Contractors. Contractor Shall Bring Welding Power source & necessary welding works in Gi Flats to be carried out as per the direction of Area Executive/in-charge. (06). Where ever copper flats to be Connected, 6 mm Brass Bots & Nuts with flat washers and spring washers to be used. (07). All the Bots, Nuts, Washers and other required materials and tools are in Contractors Scope.</p>				
	<p>(08). Quantity in item 20, 30 and 40 may Vary +/- 15% depending on the Site Condition. (09). The contractor shall bring a complete set of PPEs such as safety belts, hand gloves, safety shoes, helmets etc., suitable for working at height of approx. 15 M to 22 M. (10). The contractor shall obtain necessary work permit for working at heights duly attested and approved by Safety Department/BHEL. (11). All the Gi/Copper flats removed shall be collected, segregated and returned to area identified by M&S in-charge. (12). Contractor shall not carry the work While on raining, Lightning/thundering time. (13). The contractor shall be instructed to inspect and study the site before quoting for the above works.</p>				
				TOTAL :	
				SERVICE TAX :	
				TOTAL INCL.SERVICE TAX :	

Contractor signature/seal

Accepting Officer-BHEL