

# BHARAT HEAVY ELECTRICALS LIMITED

(A Govt.of India Undertaking)

High Pressure Boiler Plant, Tiruchirappalli 620 014, India

**MAINTENANCE & SERVICES**

☎: (0431) 2575010 / 2575123 /e-mail: [umadsankar@bhel.in](mailto:umadsankar@bhel.in)



ISO 9001

ENQ No: 9451800024

Dt. 18.06.2018

## **NOTICE INVITING TENDER**

**SUB: Repairing/ Servicing of the Transformer and Rectifier Units of Elex – 3 (Electrostatic precipitator) of Producer Gas Plant, M&S, Unit I.**

**Ref: Enquiry No: 9451800024/ Dated: 16/06/2018; Due Dt: 11/07/2018.**

Tender of the following work should be submitted in a sealed cover consisting of three inner sealed covers such as 1) EMD cover, 2) Technical bid cover & 3) Price bid cover, all superscribing the name of work, enquiry number etc.

- 1) EMD cover shall contain requisite **EMD of Rs. ₹ 9,520/-** & Payment of EMD must be in e-Collect mode only.
- 2) 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 such as experience, value of work executed in the similar nature of work etc. Any bid without proper documentary evidence for pre-qualification shall not be considered for further evaluation.
- 3) One set of unpriced bid of Contract Work Schedule duly signed by the tenderer for accepting the work content (BOM) should be submitted along with the Technical bid for technical evaluation.
- 4) 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 only the percentage rates ie. Below (- %) / At par (0%) / Above (+ %) of the rates provided in Price bid.

The complete Technical bid and price bid along with requisite **EMD of Rs. ₹ 9,520/-** shall reach the office of the undersigned on or **11/07/2018 at 14.00 Hrs.** 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.)**

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 receipt and opening of the tender shall automatically fall on the same timing of the next working day. Date and time of opening of the Price Bid shall be intimated only to the bidders those who have qualified after evaluation of the Technical bid. You/ Your authorized representative may participate in the tender opening.

Clarification if any can be obtained from The Engineer/ Contracts/ M&S.

Encl: 1) NIT – Notice Inviting tender (Consists of Preamble, Technical Bid & Price bid Schedule)

Tender should be addressed to: **THE ENGINEER,**

**MAINTENANCE & SERVICES / CONTRACTS,**

**2&4 BUILDING, BHARAT HEAVY ELECTRICALS LIMITED,**

**HIGH PRESSURE BOILER PLANT,**

**TIRUCHIRAPPALLI, TAMILNADU - 620014.**

Sign & Seal of Contractor

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## **NOTICE INVITING TENDER**

01.	Name of work	<b>Repairing/ Servicing of the Transformer and Rectifier Units of Elex – 3 (Electrostatic precipitator) of Producer Gas Plant, M&amp;S, Unit I</b>
02.	Earnest Money Deposit	<b>₹ 9,520/-</b>
03.	Duration of the contract	4 Months
04.	Last Date for Receipt of Tender	14.00 Hrs. on 11/07/2018
05.	Date of Technical Bid Opening	14.30 Hrs. on 11/07/2018
05.	Date of Price Bid Opening	Will be intimated to those who are Qualified separately.
07.	Guarantee Period	Not applicable

The Tender documents can be downloaded from BHEL website ([www.bhel.com](http://www.bhel.com)) / govt. website ([www.tenders.gov.in](http://www.tenders.gov.in)) at free of cost.

Tender document contains 09 Pages (Technical Bid -08 Pages, Schedule for price bid – 01 page).

ISSUING OFFICER

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## TECHNICAL BID

**NAME OF THE WORK: Repairing/ Servicing of the Transformer and Rectifier Units of Elex – 3 (Electrostatic precipitator) of Producer Gas Plant, M&S, Unit I**

**Ref: Enquiry No: 9451800024/ Dated: 16/06/2018; Due Dt: 11/07/2018**

## PRE-QUALIFICATION CRITERIA

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

Sl. No	Description	Vendor to confirm
1	The Bidder has to submit documents proof of one maintenance / service work of transformer / rectifier in their name.	
2	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.	
3	(i) BHEL Vendor code (if applicable) - (ii) PAN Number (Copy to be Enclosed) - (iii) GSTN registration Number (Copy to be Enclosed) - (iv) Mobile number (Which is linked to GSTN registration Number) - (v) Email id (Which is linked to GSTN registration Number) – (vi) HSN/SAC Code – Offer will be entertained only if the vendor 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.	
4	Acceptance for Scope of Work as per the Enquiry	
5	Acceptance for All Terms & Conditions as per the Enquiry	
6	The bidder along with its associate/collaborators/sub-contractors/sub-vendors/consultans/service providers shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website <a href="http://www.bhel.com">http://www.bhel.com</a> and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice	
7	Only those bidders, who are meeting all the above qualifying criteria, will be considered for further evaluation and others will be summarily rejected.	

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## SCOPE OF WORK & BILL OF QUANTITIES:

Sl. No.	SCOPE OF WORK	UOM	QTY	RATE	VALUE
10/10	<p><b>VENDOR SCOPE:</b></p> <ol style="list-style-type: none"><li>1.Dismantling the transformer and rectifier including all power and control cables at BHEL site.</li><li>2.Draining the transformer oil from the rectifier and transformer unit and filling in oil barrels (provided by BHEL), keeping minimum oil in the units if required.</li><li>3.Moving the units and oil barrels to convenient place and loading in lorry.</li><li>4.Transporting the transformer, rectifier units and oil barrels to vendors works from BHEL, Trichy for which necessary insurance to be taken care by the vendor. The copy of insurance documents to be submitted to BHEL before transporting the transformer and rectifier units (Value of Rs. 6 Lakhs).</li><li>5.Dis-assembling the units - Examining all the parts of transformer and rectifiers units, like resisters, rectifiers reactors choke etc., and locate the fault.</li><li>6.Changing the defective rectifier, resister etc. if any after testing (if similar selenium rectifier units are not available, changing the unit with new diodes of same voltage rating).</li><li>7.Cleaning the tanks and washing the parts with new transformer oil, cleaning and painting inner surface of the transformer and rectifier tank with oil resistant paint, drying out the rectifiers, choke, reactor etc. in oven suitably.</li><li>8.Filtering/ conditioning the all transformer oil as per IS 1866:2000 to get the required BDV. Filling the oil in the barrels to transport to BHEL, Trichy.</li><li>9.Assembling the transformer and rectifier, providing new insulating boards, supports, effecting end connections, renewing insulation of leads, and packers, preparing new gaskets for HV bushing and tanks, fixing the top cover, filling the units with existing transformer oil.</li><li>10.Testing the transformer and rectifier unit as per IS/IEEE (ROUTINE TEST), painting the outer surface then transporting to BHEL site. Test report to be submit to BHEL.</li><li>11.After repair work the rectifier unloading at BHEL site, moving the unit to location, re-erecting the unit and carry out other works.</li><li>12.Filling the rectifier and transformer with old filtered oil and topping up with new oil supplied by M/S BHEL for any loss of oil during the filtering and testing.</li><li>13.Restoring the ELEX no.3 into operation.</li><li>14.Any tool tackle require will be under vendor scope.</li><li>15.Any spare or consumable required during the servicing/ maintenance activities is under vendor's scope.</li></ol>	AU	1	4,76,000	4,76,000

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## **BHEL SCOPE:**

- 1.Single point electrical supply will be provided if required.
- 2.Required empty oil barrels will be provided for draining, transporting, conditioning and refilling of transformer oil in the rectifier and transformer unit.
- 3.Mobile Crane will be provided for loading and unloading at BHEL factory end free of cost.

## **General Terms and conditions:**

1. Vendor must visit HPBP, BHEL, Trichy before participating in the TENDER for site inspection and asserting works, including spares requirement.

Otherwise the offer may be rejected for further evaluation.

- 2.Required tools, tackles and other necessities are under vendor's scope.
- 3.All safety measures should be taken care by the contractor during the disconnection, dismantling, shifting, loading, unloading, assembling and testing works of transformer and rectifier units.
- 4.Warranty: 12 months from the date of commissioning or 18 months from the date of dispatch whichever is earlier.

## **DETAILS OF ELECTROSTATIC PRECIPITATOR:**

The Electrostatic precipitator consists of High voltage step up Transformer and Rectifier unit to obtain require HVDC. The ELEX removes the tarry components from the producer gas and ensure clean gas to furnace and production shops of HPBP.

## **TECHNICAL SPECIFICATION AS FOLLOWS:**

### High voltage Transformer:

Make: CSEPELI(HUNGARY)

Rated output: 40 KVA, Voltage: 380/55 KV, Frequency: 50 Hz, Single phase, Oil Natural Cooling having thermometer, Buchholtz relay and oil stand indicator, Sizes: 1698x1410x1110 mms, weight: 1400kgs (approx.), oil capacity: 700 Litres.

### High voltage Rectifier:

Make: CSEPELI(HUNGARY)

Selenium rectifier is located in an Oil natural cooling, fully enclosed steel container, to provided sufficient cooling radiators, Buchholz relay, oil level indicator and thermometer for the reliable operation.

Input Voltage: 50KV AC(Max)

Rated output: 500 mA at 50000 V DC, Rectifier working voltage: 40000 V DC, Container Size: 2200x2200x1780 mm, Weight: 3000 Kg Approx.), oil capacity: 2200 Liters

At present the above said rectifier unit is having some abnormal noise coming from rectifier container when working voltage is more than 28 KV. Hence require repairing / maintenance of the transformer and rectifier units as per mentioned scopes and, also support to restore the machine at the earliest.

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## **GENERAL TERMS AND CONDITIONS FOR M&S CONTRACTS**

- 1) The workmen of contractor should be covered under PF/ESI, etc., as per labour laws.
- 2) Safety precautions have to be ensured by the Contractor Depending on the work nature. 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.
- 3) PPES for appropriate trade job has to be ensured by the contractor at the job site at all times.
- 4) The contractors may visit the area to assess the quantum of work before quoting.
- 5) The contractor should mention the point to point confirmation.
- 6) Contractor should commit for Terms and Conditions of the enquiry otherwise the offer shall be liable for rejection.
- 7) **TWO PART BID SYSTEM:** Contractor should send their offer for two part bid system as below.
- 8) The contractor should quote the exact time required to complete the work in their offer.

### **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,  
HIGH PRESSURE BOILER PLANT,  
TIRUCHIRAPALLI - 620 014.  
TAMIL NADU, INDIA.

- h) 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

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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.

## **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 10.30Hrs(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.

## **GST:**

1. Response to Tenders for Contractor will be entertained only if the vendor has a valid GST registration no which should be clearly mentioned in the offer. If any specific exemption is available, a declaration with due supporting documents need to be furnished for considering the offer.
2. Contractor shall mention their GSTN registration number in all their invoices 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), item description as per PO, Quantity, Rate, Value, applicable taxes with nomenclature (like IGST, SGST, CGST & UTGST) separately, HSN/ SAC Code, etc.
3. All invoices shall bear the HSN Code for each item separately (Harmonized System of Nomenclature)/ SAC code (Services Accounting Code).

## **LD CLAUSE:**

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 week of delay or part thereof subject to a maximum of 10% of the total contract value.

**IMPORTANT NOTE:** BHEL reserves the right to short close this contract 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 actual number of work carried out up to the period.

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## **COMMERCIAL TERMS AND CONDITONS FOR M&S CONTRACTS**

1. 100% payment will be made after completion of work on submission of invoice in triplicate duly certified by Area In – charge.
2. Attendance register should be maintained.
3. **Payment of EMD & SD must be in e-Collect mode only, while making such payment, Enquiry number may be mentioned in Remark column. Offers without EMD shall be liable for rejection.**
  - a. **Procedure to remit money to BHEL Trichy's Account :**
  - b. Login to : <https://www.onlinesbi.com/prelogin/icollecthome.htm?corpID=574693>
  - c. Select State Bank Collect available on the top ( pre login page )
  - d. Accept the terms and conditions and click "PROCEED"
  - e. Select State "TAMILNADU " and Institution type " INDUSTRY ".
  - f. Select " **BHEL TRICHY** under "INDUSTRY".
  - g. In the next page, Select APPROPRIATE category, fill details correctly & click "SUBMIT".
  - h. If all details entered are correctly populated, click "CONFIRM "to proceed.
  - i. 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**).
  - j. SAVE & Keep the copy of receipt for future reference.
4. 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. 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.
5. An additional payment as per circular ref. BHE/HR/W/EW/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:
  - a) Unskilled - Rs.3200/-
  - b) Semiskilled - Rs.3700/-
  - c) Skilled - Rs.4100/-
6. Bonus @ 8.33 % to workmen to be paid.
7. **Rate should be quoted as per price bid.**
8. The rate that is offered should be comprehensive and no separate charges will be made towards expenses like travel, boarding and lodging.
9. The contractor should quote the validity of the offer.
10. If two or more vendors offer the same rate, negotiation will be conducted separately.
11. 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.

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## **SCHEDULE FOR PRICE BID**

**SUB: Repairing/ Servicing of the Transformer and Rectifier Units of Elex – 3 (Electrostatic precipitator) of Producer Gas Plant, M&S, Unit I**

**Ref: Enquiry No.: 9451800024/ Dated: 16/06/2018; Due Dt: 11/07/2018**

Sl. No. (1)	Approx. Value of work (2)	Below (- %) / At par (0%) / Above (+ %) of the rates appended in Bill of quantities	
		In Figures (3)	In Words (4)
10	Rs. 4,76,000/- (Rupees Four Lakh Seventy Six Thousand only)		

- Taxes if any should be quoted extra.

- 1). 100% payment will be made after completion of work on submission of invoice in triplicate duly certified by Area In – charge.
- 2). Tax deduction will be made from every bill at the prevailing rate as per the Government rule and regulation from time to time.
- 3). Detailed scope of work and other terms and conditions are specified in the Technical Bid of the Tender.

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