



**BHARAT HEAVY ELECTRICALS LIMITED**  
**HEEP HARIDWAR INDIA-PIN 249403**  
**FAX NO: 0091 1334 226462**  
**PHONE NO: 0091 1334 281561**

Enq. No.: T/6410/2015/4094Q/1

Date of issue : 04.12.2015

M/S.....

Sub: BHEL-HEEP/OPEN-TENDER (COMPONENT)/2015

Dear Sir,

The Heavy Electricals Equipment Plant (HEEP) located in Haridwar, India is one of the major manufacturing plants of Bharat Heavy Electricals Ltd. The core business of HEEP includes design and manufacture of large steam and gas turbines, turbo generators and so on.

Sealed tenders with the Tender No. and opening date clearly super scribed on the cover are invited from the manufacturers (registered as well as unregistered) for the supply of the following items:-

Sl. No.	Tender No.	Description of Item	Qty.	Opening Date
1	T/6410/2015/4094Q/1	<b>HW7799920904</b> <b>HYDRO TESTING PUMP SET AS PER</b> <b>TECHNICAL SPECIFICATION STT0078</b>	02 NO.	28/12/2015

The details with required delivery are given in **Annexure-1**.

The tender documents can be downloaded from our web site [www.bhel.com](http://www.bhel.com) or [www.bhelhwr.co.in](http://www.bhelhwr.co.in) or [www.tenders.gov.in](http://www.tenders.gov.in), after downloading the tender documents from web site, while submitting the tender as detailed in "Instruction to Bidders", intending vendors must remit **tender fee of Rs. 2,000/-** against each tender along with the requisite EMD in the form of Cash(as permissible under income tax Act)/ Demand Draft or Pay Order only. **EMD Shall be Rs.40,000/- in this tender. EMD in form of cheque/Bank Guarantee is not acceptable. If EMD and/or tender fees are not submitted then the offer may be out rightly rejected.** As per notification reference no. NSIC/HO/GP/15(4)/2013-14 dated 07.07.2013 Micro & Small Enterprises (MSEs) is not required to submit tender fees & EMDs. A certificate issued from competent authority shall be submitted in support of Micro & Small Enterprises (MSEs). BHEL will not be responsible for any type of postal delay / incomplete information from vendor.

**The date for opening of tender shall be 28.12.2015.** Tenders will be received up to 1.45 P.M. on **28.12.2015** and opened on the same day at 2.00 P.M. in the Tender Room. **Please note that tender received after due date & time (1.45PM on 28.12.2015) will not be REPEAT will not be opened.** BHEL will not be responsible for any type of postal / courier delay.

Specifications & Drawing of the above items are available on our above mentioned website. Other cross referred documents can either be physically collected from BHEL, Haridwar or can be obtained by email [sanjeev-k@bhelhwr.co.in](mailto:sanjeev-k@bhelhwr.co.in) against proof of draft of the tender fee in favor of BHEL, Haridwar. This draft is to be submitted along with offer. Amendments/Corrigendum, if any, will be hosted on our web site only. Other terms and conditions will be as per tender documents.

**Request for extension in tender opening date shall only be considered against proof of tender fees submission.**

**The total quantity may undergo change at the time of ordering.**

**Any vendor who is under suspension at the time of price bid opening, their price bid shall not be opened.**

Please submit your Techno-Commercial offer only for the above requirement subject to our terms and conditions.

BIDS shall be opened at 2 PM on the due date in the presence of authorized representative of the bidders who may like to be present. The authorized representative should bring authority letter from their parent company (Manufacturer) for the specific tender no. attending the bid opening.

BHEL will forfeit the EMD if, the successful bidder / vendor refuses to honor the order after award of the same on him and / or withdraws his bid and / or unilaterally changes the offer and / or any of its terms & conditions within the validity period.

**KINDLY READ "INSTRUCTIONS TO BIDDERS." QUOTATION NOT IN ACCORDANCE WITH THE INSTRUCTIONS ARE LIABLE TO BE DISQUALIFIED AND IGNORED.**

## INSTRUCTIONS TO BIDDERS FOR OPEN TENDER

### 1.0 DEFINITION

Registered Vendors - Are those who are registered with BHEL, Haridwar for Megawatt rating/ Size/ Weight of tendered components in respective steel grade or machining of such components.

Un-registered Vendors - Are those who are not registered with BHEL, Haridwar for Megawatt rating/ Size/ Weight of tendered components in respective steel grade or machining of such components.

### 2.0 TECHNICAL QUALIFICATION

- Enclosed format – Annexure-2 to be submitted. It is the mandatory requirement. Offer of Vendors not meeting these requirements may not be considered.

### 3.0 ESSENTIAL INSTRUCTIONS

1. All un-registered vendors shall be approved by BHEL, if found suitable, on the basis of data furnished by them in Supplier Registration Form (SRF) Foreign Vendors or Indigenous Vendors. Vendor (s) shall not be considered for ordering if not approved by BHEL.
2. BHEL team may visit the vendor (s) works for verification of capability and capacity claimed in tender documents/offer (s).
3. The tenders shall be submitted in two parts as described below on or before the due date. Vendor Registration Form shall be submitted by unregistered vendors only.

i. Part I (Envelop I) – A. EMD &/ or Tender Fee

Or

Valid certificate towards exemption of EMD & tender fee, applicable for Micro and small Enterprises, as mentioned below:

MSE Suppliers can avail the intended 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 where deemed validity of EM II certificate of five years has expired) applicable for the relevant financial year (latest audited). Date to be reckoned for determining the deemed validity will be the date of bid opening (Part 1 in case of two part bid). Non submission of such documents will lead to disqualification of their offer. Documents should be notarized or attested by a Gazetted Officer.

B. Pre-Qualifying Requirement (PQR) – refer Annexure – 2.

C. Vendor Registration Form (SRF documents to be placed separately in part-I and not to be mixed with other documents).

D. Techno -Commercial Bid

ii. Part II (Envelop II) - Price Bid

4. The Quotation should be from the Principal / Original Manufacturer, failing which the quotation is likely to be ignored. However, if OEM / Principal insist on engaging the services of an agent, such agent shall not be allowed to represent more than one manufacturer / supplier in the same tender. Moreover, either the agent could bid on behalf of the manufacturer / supplier or the manufacturer / supplier could bid directly but not both. In case bids are received from both, the manufacturer / supplier and the agent, bid received from the agent shall be ignored. In Case the quotation is submitted through agent, the quotation must accompany original authorization letter from the Principal / Original Manufacturer.
5. The bidders will have to submit ink-signed offer / bid in original directly to BHEL. **Unsigned bids shall be ignored.**
6. The suppliers or their authorized person may be allowed to attend the tender opening, if duly authorized by their principals, through a specific letter for a particular enquiry or for specific price bid opening on that particular day. General authorization letter is not acceptable
7. Any corrections / amendments shall be properly & fully authenticated with signature. No overwriting is acceptable.

8. Compliance of technical/ commercial terms and conditions as per Annexure-3
9. Part-I will be opened on the date and time specified in the tender notice in the presence of those vendors who wish to attend.
10. Part-II (Price Bids) along with supplementary price bids, if necessary, will be opened at a later date of only those bidders who successfully qualify the PQR requirements, their techno commercial bid has been found acceptable and have submitted tender fees or valid certificate towards exemption of tender fee, applicable for Micro and small Enterprises.
11. Vendor to quote best possible deliveries in the offer. Offers of those vendors may not be considered if it is not found suitable to BHEL requirement.
12. Currency exchange rate will be applicable on the date of opening of Part-I for evaluation purpose.
13. Depending upon the delivery suitability, BHEL reserves the right to split order on more than one vendor.
14. Evaluation of Bid: - The bid shall be evaluated
  - a. Cost to BHEL basis. ( Basic Cost + Insurance + Transportation + Duty )
  - b. The loading, if any, on account of LD penalty, payment terms or any other cost determined at later stage, which shall be communicated to the vendor.
15. Tenders when finalized shall be in the name of the bidder only and change of name during tender evaluation (without certificate from registrar of company) and after submission of the tender is liable to make the offer ineligible for participation.
16. All test certificates / Guarantee certificates to be submitted in TRIPLICATE along with dispatch documents.
17. BHEL reserves the right to open the price bid (part-II) along with the opening of techno-commercial offer at its option and in that case vendor will be informed accordingly.
18. BHEL reserves the right to go for reverse auction. Vendors are requested to give their best price. In case of failure of reverse auction the paper bid shall be processed. Bidder should clearly indicate their acceptance for reverse auctioning in Annexure-3. The bids of those vendors who do not agree for reverse auction may not be considered. The Terms & Condition for Reverse Auctioning are given below.
19. Total weight -- /Gross / Net in Kg. & also package size essentially should be indicated if not exact then approximate.
20. BHEL will evaluate the technical bids against essential criteria/requirements. BHEL may seek clarifications, if required, from the qualified bidders only. These clarifications will be communicated to the eligible vendors. The offers of those bidders, who are unable to respond in specified time frame, are likely to be ignored.
21. SETTLEMENT OF DISPUTES
  - Indigenous Vendors: In all cases of dispute the matter shall be referred for arbitration to any arbitrator to be appointed by the Executive Director or any officer who is the administrative head of Bharat Heavy Electricals Ltd., at Haridwar. The venue of arbitration shall invariably be Ranipur Haridwar. The award of the arbitrator shall be final and binding on both the parties. The arbitrator shall have the power to extend, from time to time, the time for making his award with the consent of the parties.
  - Foreign Vendors: In the event of any dispute or difference arising between the parties to this contract regarding execution of same or their respective rights and liabilities there under, the same shall except as otherwise expressly provided therein, be referred to the arbitration of the two arbitrators, one to be appointed by each party; or in the case of the said arbitrators not agreeing then an umpire to be appointed by the two arbitrators in writing before entering on that reference and provisions of the Indian Arbitration Act ,1940 or any statutory notification, or re-enactment therefore and rules framed there under from time to time shall apply to such arbitration . If the two arbitrators do not agree on the appointment of umpire, the nomination of the umpire shall be done by the International Chamber of Commerce, Paris(France).The decision of arbitrators, or in case of their not agreeing, that of the said umpire shall be binding both on seller and purchaser. The venue of the arbitration invariably be New Delhi.
22. JURISDICTION

All question, dispute or differences arising under, out of or in connection with the purchase order shall be subject to the exclusive jurisdiction of Haridwar courts.
23. OVER RIDING CLAUSE

All stipulations made in any correspondence other than those exchanged in regards to “instruction” in our tender documents / enquiry for submission of your offer, if at all shall be void to the extent they are repugnant to the conditions contained herein above and in the purchase order.
24. FINALITY OF MANAGEMENT DECISION

At all places in the preceding clauses BHEL Management’s decision shall be final.

#### 4.0 GENERAL INSTRUCTIONS

##### **PART-I (EMD &/or Tender fees (or exemption certificate), PQR, SRF & Technical clarification in envelope - I) shall comprise of following documents:**

- a. EMD & Tender fees or exemption certificate (to be provided in separate envelope).
- b. Annexure-2 for Pre-qualification requirement. Point wise reply to all the points mentioned in Pre- Qualifying Requirement specified in the tender. Relevant documents as requested in Pre-Qualifying Requirement must be attached.
- c. Vendor Registration Form (SRF)  
(Kindly follow the link and follow instructions: <http://supplier.bhel.in/>)  
The SRF duly filled up will be assessed for manufacturing capability quality systems being followed, organizational soundness and financial worthiness. The same shall be submitted with Part-I by un-registered vendor only with BHEL, HEEP, Haridwar or the proof of submission through online portal. BHEL registered vendors (registered with permanent code M, N, S) need not to submit SRF.  
**For vendors registered with T code, SRF is to be submitted essentially along with the offer.**
- d. Non-disclosure agreement as per Annexure 6. The agreement shall be duly stamped & signed.
- e. Complete technical offer.
- f. Annexure-3 for compliance of technical/ commercial terms and conditions.
- g. Complete technical offer as per specification, drawings, technical requirement along with un-priced bid indicating CIF rate, separate Lloyd's/BV/TUV inspection charges (for Foreign vendors) and delivery schedule.
- h. Validity of offer to be indicated.
- i. Deviation with reference to specification/drawing, if any, should be clearly indicated on a separate sheet.
- j. Copy of price Bid (without prices).
- k. Any additional documents.

##### **PART –II (Price Bid)**

- a. Price bid with prices to be submitted as part-II of the tender.
- b. If price bid is not submitted along with Part-I bid, the offer will be rejected out rightly.
- c. In case of foreign vendors, prices to be quoted on CIF basis separately. In case of CIF, Loading port must be mentioned. However, for air shipment the rates to be quoted on CPT destination port basis. And air freight charges to be indicated separately in price bid. Further non-availability of flight will not be accepted for rescheduling the delivery or waiver of penalties on account of delayed delivery.
- d. In case of Indigenous vendor, prices must be quoted on FOR-Destination-CPS-HEEP-BHEL basis. However, the insurance will be arranged by BHEL. Vendor can dispatch good through any Indian Bank Association approved transporters having their branch at Haridwar / destination. For the convenience name and address of transporters approved by IBA and BHEL are posted at website [www.bhelhwr.co.in](http://www.bhelhwr.co.in). Further, non-availability of BHEL approved transporter will not be accepted for rescheduling of delivery or waiver of penalties.
- e. In case of foreign vendors, third party (Lloyd's/BV/TUV) inspection charges to be quoted separately as third party inspection (Lloyd's/BV/TUV) is in vendor's scope. For Indian vendors, inspection shall be by TUV/ BHEL nominated inspection agency. Prices shall be loaded by 0.18% on account of TUV/ BHEL nominated inspection agency inspection charges. Third Party inspection shall be in BHEL scope.
- f. Prices should remain firm till the execution of the order. However, in case vendor prefers to maintain their own PVC formula, they can do so. Vendors must give upper & lower cap. However, lower cap has to be either equal or more in percentage point than the upper cap from base prices. This is **must** for evaluation purpose. **Upper price limit** will be considered for evaluation purpose.
- g. Insurance during transportation shall be taken care of by BHEL.
- h. Applicable sales Tax, Excise duty, service tax, educational cess and any other statutory levy should be indicated separately and clearly in the quotation.
- i. **Prices are to be written in both Figures & Words. In case of any difference between the two, If there is a discrepancy between words and figures, the amount in words shall prevail for evaluation and establishing L1 status..**
- j. **LD Penalty shall be applicable at the rate of ½% (half percent) per week or part thereof subject to a maximum of 10% of the value of delayed portion of the order. In case of any variation in LD penalty acceptance, your prices shall be loaded to the extent LD penalty not accepted by you. If**

- k. Payment term shall be “100% payment against dispatch documents, through irrevocable LC (for foreign vendors) with bank charges as either side’ and 100% after receipt and acceptance of material (for indigenous vendors)”. **BHEL as a rule do not agree to release advance payment.**
- l. Irrevocable LC is opened for one quarter (3 months) & is established 30 days prior to delivery schedule. The charges of establishing the LC are on either side i.e. charges in India to be borne by BHEL and charges outside of India to be borne by vendor. If any vendor insists for LC for more than one quarter, vendor has to essentially bear all charges (Within & Outside India) for the period exceeding one quarter.
- m. **BHEL does not open confirmed LC even if vendor agrees to bear the confirmation charges.**
- n. **The comparison between foreign and indigenous bids shall be done based on the Total Landed cost at Destination basis.**

**Note:**

After tender opening (Part-I), if it is found that:

- The bidder has not submitted the requisite Tender Fee and EMD (If applicable)
- The bidder has claimed to be an MSE vendor but no supporting documents have been submitted in this regard.

In both the above cases the offer of the bidder shall be straightaway rejected and no correspondence from the bidder in this regard shall be entertained.

However, offer of the bidder shall be treated as per the guideline in case the bidder has claimed to be an MSE vendor and submitted requisite MSE documents.

BHEL reserves the rights to place order for tendered quantity on more than one vendor

**Superscription on envelopes:**

The following shall be super scribed on the envelopes:

**PART-I**

1. TENDER NO. AND ITEMS DESCRIPTION
2. DUE DATE FOR OPENING.
3. TENDER FEE, EMD (IF APPLICABLE) OR MSE CERTIFICATE TOWARDS EXEMPTION OF EMD & TENDER FEE
4. PRE- QUALIFYING REQUIREMENT (PQR)
5. SUPPLIER REGISTRATION FORM (SRF)
6. TECHNO-COMMERCIAL BID.

**PART- II**

1. TENDER NO. AND ITEMS DESCRIPTION
2. DUE DATE FOR OPENING OF PART-I
3. PRICE BID

The part-I & part-II shall be individually sealed and super scribed as indicated above and shall be enclosed further in the envelop duly sealed and super scribed as :

“TENDER FOR (ITEM NAME) AGAINST TENDER NO.----- DUE ON -----  
---CONTAINING PART-I & PART-II OF THIS OFFER.” Vendor’s full name and address should be clearly mentioned on the envelope and shall be addressed to:

To,  
Head of Materials Management,  
Heavy Electrical Equipment Plant,  
BHEL,  
Hardwar- 249403

Envelopes not marked as above are liable to be ignored and will not be opened.

**IN CASE YOU ARE NOT MAKING AN OFFER AGAINST THIS ENQUIRY, THEN PLEASE ARRANGE TO SEND A LETTER OF REGRET IF YOU HAVE COLLECTED THE TENDER DOCUMENTS FROM BHEL.**

## **TERMS AND CONDITIONS OF REVERSE AUCTIONING**

Against this enquiry for the subject item /system with detailed scope of supply as per enquiry specifications, BHEL may resort to “REVERSE AUCTION PROCEDURE” i.e., ON LINE BIDDING ON INTERNET.

- For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
- BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on-line bidding on internet.
- BHEL will inform the vendor in writing in case of reverse auction, the details of Service Provider to enable them to contact & get trained.
- Business rules like event date, time, start price, bid decrement, extensions etc. also will be communicated through service provider for compliance.
- Vendors have to fax the Compliance form in the prescribed format (provided by Service provider) before start of Reverse auction. Without this, the vendor will not be eligible to participate in the event.
- BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at “Total Cost to BHEL” like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the vendor to enable them to fill-in the price and keep it ready for keying in during the Auction.
- Reverse auction will be conducted on scheduled date & time.
- At the end of Reverse Auction event, the lowest bidder value will be known on the network.
- The lowest bidder has to Fax the duly signed Filled-in prescribed format as provided on case-to-case basis to BHEL through Service provider within 24 hours of Auction without fail.
- Any variation between the on-line bid value and the signed document will be considered as sabotaging the tender process and will invite disqualification of vendor to conduct business with BHEL as per prevailing procedure.
- In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL’s standard practice.

**Annexure- 1**

<b>Sl. No.</b>	<b>Tender No.</b>	<b>Description of Item</b>	<b>Delivery Required</b>	<b>Qty. (No.)</b>
1	T/6410/2015/4094Q/1	HW7799920904 HYDRO TESTING PUMP SET AS PER TECHNICAL SPECIFICATION STT0078	20.03.2016	02

- **Vendor should quote best possible delivery dates.**
- **Early delivery is also acceptable.**

## Annexure – 2


### **Special Instructions:**

1. Test Certificate as per technical specification STT0078 is required.
2. Warrantee/Guarantee certificate per technical specification STT0078 is required.
3. Supplier to furnish point wise reply to each & every point of Technical specification STT-0078(copy attached) along with the offer.
4. Supplier to carryout commissioning of PUMP at BHEL, Haridwar.
5. Suppliers to quote their offer according to technical requirement cum scope of supply as per Technical specification STT-00778. Offers not in line with the technical requirement cum scope of supply as per Technical specification STT-00778 are liable for rejection.

**Against vendor's replies, BHEL reserves the right to ask for more information/ documents/ clarifications. Vendor's offer shall not be considered if vendor fails to furnish the document / information / clarifications as mentioned above or doesn't meet the acceptance criteria.**

## Annexure-2

<b><u>PRE-QUALIFYING REQUIREMENT (PQR) FOR INDENT NO: 20154094</u></b>		
Sl. No.	<u>Requirement</u>	Vendor's Response
1	<p>Only those vendors (<b>Original Equipment Manufactures - OEMs / Authorized suppliers of OEMs</b>) who have supplied at least one one no. HYDRO TESTING PUMP SET, working pressure 700 Kg/cm<sup>2</sup> or more &amp; flow rate 50 LPM or more. In last 10 years are only eligible to quote.</p> <p>Such machine should be working satisfactorily for at least one year after its installation.</p> <p>The vendor should submit along with the offer, one performance certificate from a customer on customer's letter head bearing name &amp; designation of issuer of certificate to whom such machine is supplied and which is meeting the above criteria.</p>	
	The vendor should submit following information regarding company where refered HYDRO TESTING PUMP SET has been installed.	
1.1	Name & Address of the customer / company.	
1.2	Date of installation of HYDRO TESTING PUMP SET	
1.3	Authorized Supplier should submit copy of authorization certificate from OEMs for supply of HYDRO TESTING PUMP SET and confirmation to take guarantee obligation as per specification.	
1.4	BHEL reserves the right to verify the information provided by vendor. In case the information is found to be false /incorrect, the offer shall be rejected.	

Date of issue SIGN & DATE		<b>उत्पाद क्रय विनिर्देश</b> <b>PRODUCT PURCHASE SPECIFICATION</b> <b>(TURBINE TECHNOLOGY)</b>	<b>STT0078</b>

**HYDRO TESTING PUMP SET**

**1.0 PURPOSE :**

Heavy duty electrically operated high pressure pump set is required for meeting requirements of hydraulic testing of Steam Turbine components using WATER as medium. - Vendor to note & confirm

**2.0 ARRANGEMENT OF WATER PUMP SET:**

The pump set must be completely independent unit in ready to use condition. This Pump set shall have following items. Vendor may recommend few alterations as per their recommended design to suit & justify required functionality for acceptance by BHEL. - Vendor to note & confirm

- 2.1. Triplex Plunger Pump reciprocating type, Horizontal type with motor. - Vendor to offer
- 2.2. Feed Pump to supply water to Triplex Plunger Pump from water inlet. - Vendor to offer
- 2.3. Pressure Gauge (Range 0 to 1000 Kg/Cm 2) with Isolation valve. - Vendor to offer
- 2.4. Pressure regulating cum by pass valve for stepless adjustment of Pressure from 0 to 1000 Kg/Cm 2 Maximum. - Vendor to offer.
- 2.5. Steel Pulsation Dampener on the delivery line for smooth discharge/ output during Continuous operation. - Vendor to offer.
- 2.6. Filter element at the inlet line of Triplex Plunger Pump. - Vendor to offer
- 2.7. Stop Valve at Pump Inlet. - Vendor to offer.
- 2.8. Inter-Connecting hose pipes [diameter & pressure rating to suit application and intermittent tube length shall suit the configuration]. - Vendor to offer.
- 2.9. Safety relief valve, stop valve, NRV etc to suit requirement. - Vendor to offer.
- 2.10. Water line will be around at 2 bar and the water tank will be located at about 3 meter height from shop floor level. Inlet hose size shall be 1 inch dia. - Vendor to offer.

**3.0 PLUNGER PUMP SPECIFICATIONS (refer 2.1):**

- 3.1. Working Principle: High Pressure Triplex Reciprocating, Horizontal type. - Vendor to confirm
- 3.2. Suitable for Testing Pressure : 700 kg/cm 2 or more. - Vendor to confirm
- 3.3. Discharge Capacity : 50 Lits./Min. or more. - Vendor to confirm
- 3.4. Type : Horizontal. - Vendor to confirm
- 3.5. Number of Stages. - Vendor to specify
- 3.6. Speed. - Vendor to specify
- 3.7. Material: Detail of material for Pump body, Plunger, Valves, Piston, seals etc to be provided by the vendor. - Vendor to specify


**4.0 ELECTRIC MOTOR SPECIFICATION for PLUNGER PUMP (refer 2.1):**

- 4.1 The Triplex Plunger Pump shall have independent on/off facility with motor of suitable rating, Star-Delta Starter and Reduction Gear Box (for plunger pump) and with all the required accessories. - Vendor to confirm
- 4.2 Motor Type: TEFC, Electric Motor. - Vendor to confirm
- 4.3 Motor Rating: HP/KW & RPM to achieve required flow and pressure. - Vendor to specify
- 4.4 Input power: 415 ±10% V, 50 ±2%Hz, 3 Phase AC, 3 Wire System. - Vendor to confirm
- 4.5 Motor Make: ABB/ SIEMENS/ CROMPTON/ GE/ BALDOR. - Vendor to specify

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 रक्षित और गोपनीय  
 इस दस्तावेज़ में...




SIGN & DATE

INVENTORY NO.




PRODUCTION(TUM)		OM PRAKASH	अनुमोदक	TRANSLATED BY	नाम	SIGNATURE & DATE
WEX MECH-MAIN		ANKUR KUMAR	निर्माक	WORKED BY	DILIP KUMAR	
WEX ELEC-MAIN		P C SINHA	सम्यक्	CHECKED BY	SWAPAN SARKAR	
AGREED DEPT.		NAME	DATE & SIGNATURE	पर्यवेक्षणकर्ता	SUPERVISED BY	Gr. NO.
REV. NO - 00				स्वीकृति	APPROVED : M. K. TOLIA	9
DI - 10.10.15				निर्माण	PREPARED : TTX	दिनांक
CHANGE ADVICE NO.				जारी	ISSUED : TSX	DATE : 10.10.15




4

Date of issue SIGN & DATE		<p style="text-align: center;"><b>उत्पाद क्रय विनिर्देश</b></p> <p style="text-align: center;"><b>PRODUCT PURCHASE SPECIFICATION</b> (TURBINE TECHNOLOGY)</p>	<p style="text-align: center;"><b>STT0078</b></p>	
Suppliers INVENTORY	Date of issue SIGN & DATE		<p style="text-align: center;">Page 2 of 5</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);"> <b>COPYRIGHT AND CONFIDENTIAL</b>            The information on this document is the property of Bharat Heavy Electricals Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company.         </p>			<p><b>5.0 ELECTRICAL PANEL COMPONENTS:</b></p> <p><b>5.1.</b> All the switchgear items should of Siemens/ABB/Telemecanique/Schneider/ L&amp;T/BCH make only. - Vendor to confirm.</p> <p><b>5.2.</b> The control supply voltage should be of 110V ac. - Vendor to confirm.</p> <p><b>5.3.</b> The electrical panel should have sufficient space for maintenance and further modification. - Vendor to Confirm.</p> <p><b>5.4.</b> 30 Amp, 3ph MCB Plug socket set should be mounted on the panel. - Vendor to confirm.</p> <p><b>5.5.</b> Each power supply sub-section should have two tier protection: 1st tier: Fuses, Second tier: MCB/MPCB - Vendor to confirm.</p> <p><b>5.6.</b> The electrical panel should have kWh meter. - Vendor to confirm.</p> <p><b>6.0 FEED PUMP SPECIFICATIONS (refer 2.2):</b></p> <p><b>6.1.</b> Suitable Feed Pump to supply water to Triplex Plunger Pump from water inlet. - Vendor to confirm.</p> <p><b>6.2.</b> Feed pumps shall have independent on/off facility with Motor of suitable rating, Star-Delta Starter and with all the required accessories. - Vendor to confirm.</p> <p><b>6.3.</b> Motor Rating: Vendor to specify the offered HP/KW &amp; RPM to achieve required flow and pressure. - Vendor to Confirm.</p> <p><b>6.4.</b> Input power: 415 ±10% V, 50 ±2%Hz, 3 Phase AC, 3 Wire System. - Vendor to confirm.</p> <p><b>6.5.</b> Motor Make: ABB/ SIEMENS/ CROMPTON/ GE/ BALDOR - Vendor to confirm.</p> <p><b>7.0 PRESSURE GAUGE (refer 2.3):</b></p> <p><b>7.1.</b> Pressure Gauge 0 to 1000 kg/cm 2 in required quantity to be properly fitted to gauge outlet pressure. - Vendor to confirm.</p> <p><b>7.2.</b> The gauge dial size shall be min 150 mm &amp; accuracy should be specified. - Vendor to confirm.</p> <p><b>7.3.</b> Make &amp; Type: Vendor to provide the make of pressure gauge and the dial fixing shall be of BEZEL RING type with three screws. The gauges offered shall be glycerine filled. - Vendor to Confirm.</p> <p><b>7.4.</b> End Connections: The connector end shall have M20 x 1.5mm male thread and the gauge fixing shall be of bottom entry type. - Vendor to confirm.</p> <p><b>7.5.</b> Additional Pressure Gauges 0 to 1000 kg/cm 2: 2 Nos., as loose items. - Vendor to confirm.</p> <p><b>8.0 OTHER REQUIREMENT (refer 2.2):</b></p> <p><b>8.1.</b> BHEL will provide input power supply (415 ±10% V, 50 ±2%Hz, 3 Phase AC, 3 Wire System) at one point only and the supplier has to take care of all other electrical cabling upto 10 meter and within the pump set. - Vendor to confirm.</p> <p><b>8.2.</b> All electrical motors, limit switches etc, on the machine shall be wired using PVC sheathed copper cable, running in conduits and converging to common terminal block. - Vendor to confirm.</p> <p><b>8.3.</b> All components/devices/terminals are identified with numbered ferrules Make &amp; Type. - Vendor to Confirm.</p> <p><b>8.4.</b> IP54 protection for all electrics. - Vendor to confirm.</p> <p><b>8.5.</b> Flooded crank with splash lubrication system for long life and independent front inspection cover for easy replacement of 'V' seals and plungers. Cross head anti-chamber for salvage of excess lubricant oil. - Vendor to confirm.</p> <p><b>8.6.</b> First filling of oil is in the vendor scope. Detail of the oil to be provided by the vendor. - Vendor to confirm &amp; specify.</p> <p><b>8.7.</b> Supplier to furnish details of coupling used between pump and motor. - Vendor to confirm.</p> <p><b>8.8.</b> All the pipes, cables etc. should be well supported and protected. - Vendor to confirm.</p> <p><b>8.9.</b> All the rotating/ Moving parts should be statically &amp; dynamically balanced to avoid undue vibrations and suitably guarded. - Vendor to confirm.</p> <p><b>8.10.</b> BHEL will provide water inlet point at one point with end connection 1 Inch and the supplier has to take care of all other pipe connections up approx. 10 meter to and within the pump set. - Vendor to confirm.</p>	
			<p style="writing-mode: vertical-rl; transform: rotate(180deg);"> <b>स्वतन्त्रतापूर्वक रूप से</b>            यह सूचना इस दस्तावेज़ में प्रस्तुत की गई है, जो कि स्वतन्त्रतापूर्वक रूप से तैयार की गई है और इसमें किसी भी प्रकार की गारंटी नहीं दी जाती है।         </p>	
Date of issue SIGN & DATE	<p><b>निर्माणकर्ता</b> WORKED BY</p> <p><b>जांचकर्ता</b> CHECKED BY</p>			<p>DILIP KUMAR</p> <p>SWAPAN SARKAR</p> <p>10.10.15</p> <p>10.10.15</p>

भारत विद्युत निगम लि. SIGN & DATE		<b>उत्पाद क्रय विनिर्देश</b> <b>PRODUCT PURCHASE SPECIFICATION</b> <b>(TURBINE TECHNOLOGY)</b>		<b>STT0078</b> Page 3 of 5	
SUPERSEDES INVENTORY NO.	<p><b>9.0 SPARE:</b>          Item wise prices are to be quoted. The items used on the pump set, to be supplied, should be offered. If there is fixed/recommended life of any part of pump set, same should be mentioned in the offer. - Vendor to confirm &amp; Specify</p> <p><b>9.1. Mechanical spares (as listed below):</b>  <b>A. Component of Pump Head: 04 nos of each type. - Vendor to confirm.</b>  <b>A.1. Seat</b>  <b>A.2. Disc</b>  <b>A.3. Coil Spring</b>  <b>A.4. Back Up Ring</b>  <b>A.5. O-Ring</b>  <b>B. Component of Unloader: 04 nos of each type. - Vendor to confirm.</b>  <b>B.1. Piston Regulating</b>  <b>B.2. Seat</b>  <b>B.3. Regulating Rod</b>  <b>B.4. O-Ring</b>  <b>C. Component of Plunger Kit: 04 nos of each type - Vendor to confirm.</b>  <b>C.1. Pressure Ring</b>  <b>C.2. Support Ring</b>  <b>C.3. O-Ring</b>  <b>C.4. Seal</b>  <b>D. Component of Gear End: 04 nos of each type. - Vendor to confirm.</b>  <b>D.1. Wiper</b>  <b>D.2. Seal Ring</b>  <b>D.3. O-Ring</b>  <b>D.4. Radial Shaft Seal</b></p> <p><b>9.2. Electrical Spares (02 nos of each type as listed below): - Vendor to confirm.</b>  <b>A. Contactors.</b>  <b>B. Relays (including over load relays)</b>  <b>C. Timer.</b>  <b>D. Push buttons.</b>  <b>E. Indication lights.</b>  <b>F. Pressure switches</b>  <b>G. kWH meter.</b>  <b>H. Main switch.</b>  <b>I. Selector switch.</b>  <b>J. Fuses.</b>  <b>K. MCB &amp; MPCB.</b></p>				
COPYRIGHT AND CONFIDENTIAL. The information on this document is the property of Bharat Heavy Electricals Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company.					
स्वामित्व और गोपनीय इस दस्तावेज में दी गई सूचना भारत भारी विद्युत निगम लि. की संपत्ति है। इस सूचना को किसी भी रूप में सीधे या अप्रत्यक्ष रूप से किसी भी प्रकार से उपयोग करना या प्रसारित करना, जो इस कंपनी के हित में हानिकारक हो, उसे निषेधित है।					
भारत विद्युत निगम लि. SIGN & DATE					
भंडार संख्या INVENTORY NO.	REV. NO.: 00		निर्माणांककृत WORKED BY	DILIP KUMAR	 10.10.15
			जांचकर्ता CHECKED BY	SWAPAN SARKAR	 10.10.15

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SIGN & DATE SIGNATURE		<b>उत्पाद क्रय विनिर्देश</b> <b>PRODUCT PURCHASE SPECIFICATION</b> <b>(TURBINE TECHNOLOGY)</b>		<b>STT0078</b>
SUPPLIER'S RNSI SITE/RY	भारतीय नदी परियोजना भारतीय नदी परियोजना	<b>10.0 PRE DISPATCH INSPECTION:</b> The pump set shall be offered for inspection by BHEL Engineers at supplier's works before dispatch. Maximum test pressure of the pump unit shall be demonstrated by a suitable specimen test body by the supplier at Supplier's works. PDI shall include following activity: 1. Verification of specified specifications & supplies. 2. Demonstration of functioning of the set and achievability of required pressure at outlet of the set. 3. Continuous trouble-free operation of pump set shall be demonstrated for 04 Hrs. The following documents have to be submitted to BHEL team at the time of pre dispatch inspection: a) Hydro-pump test certificate b) Hydro-pump guarantee certificate c) Test Certificate for electric motors d) Test Certificate for gear box. e) Guarantee certificate for gear box. - Vendor to confirm.		Page 4 of 5
<b>COPYRIGHT AND CONFIDENTIAL</b> The information on this document is the property of Bharat Heavy Electrical Limited. It must not be used directly or indirectly, in any way detrimental to the interest of the company.				
भारतीय नदी परियोजना भारतीय नदी परियोजना	भारतीय नदी परियोजना भारतीय नदी परियोजना	<b>11.0 FOUNDATION DESIGN:</b> Foundation design drawing to grout and install the pump set at location provided by BHEL shall be provided by vendor after ordering and at least one month before dispatch of the set. The foundation/civil work shall be carried out by BHEL All foundation parts to be supplied by vendor. - Vendor to confirm.		
भारतीय नदी परियोजना भारतीय नदी परियोजना	भारतीय नदी परियोजना भारतीय नदी परियोजना	<b>12.0 COMMISSIONING:</b> The supplier shall depute their representative for commissioning and performance <u>prove-out</u> of the equipment at BHEL works. Commissioning shall include following activities: 1. Installation of the set on the foundation prepared by BHEL as per supplier's design. 2. Electrical & water connections of the set from input/inlet points provided by BHEL. 3. Verification of specified specifications & supplies. 4. Demonstration of functioning of the set and achievability of required pressure at outlet of the set. 5. Continuous trouble free operation of pump set shall be demonstrated for 24 hrs. 7. Training to BHEL staff in operation and electrical/mechanical maintenance of the set and its peripherals. Acceptance of the supplied set shall be subject to successful commissioning as above. - Vendor to confirm.		
भारतीय नदी परियोजना भारतीय नदी परियोजना	भारतीय नदी परियोजना भारतीय नदी परियोजना	<b>13.0 DOCUMENTATION:</b> <b>13.1.</b> Three Hard copies of Operation and Maintenance Manual along with details on bought-out items, Assembly and sub-assembly drawings, specifications and make of electrical elements, etc., to be supplied along with the supply of pump set. The O&M Manual should contain the following: <b>13.1.1.</b> General arrangement Drawing of the Pump <b>13.1.2.</b> Sub-Assembly Drawings such as gear box, control valve etc for sub-systems for maintenance purpose. <b>13.1.3.</b> Electrical Wiring Drawings. <b>13.1.4.</b> Catalogues of all bought out items. <b>13.1.5.</b> Hydro-pump test certificate <b>13.1.6.</b> Hydro-pump guarantee certificate <b>13.1.7.</b> Test Certificate for electric motor <b>13.1.8.</b> Test Certificate for gear box <b>13.1.9.</b> Guarantee certificate for gear box <b>13.1.10.</b> Test certificates for all materials specified <b>13.1.11.</b> Calibration certificate of pressure gauge. <b>13.2.</b> One set all the above documents in CD - Vendor to confirm all above points of 13.0.		
भारतीय नदी परियोजना भारतीय नदी परियोजना	भारतीय नदी परियोजना भारतीय नदी परियोजना	<b>13.1.10.</b> Test certificates for all materials specified <b>13.1.11.</b> Calibration certificate of pressure gauge. <b>13.2.</b> One set all the above documents in CD - Vendor to confirm all above points of 13.0.		
SIGN & DATE SIGNATURE		REV. NO.: 00		
INVENTORY NO.		निर्माणकर्ता WORKED BY	DILIP KUMAR	 10.10.15
		जांचकर्ता CHECKED BY	SWAPAN SARKAR	 10.10.15

SUPERSEDES INVENTORY (अवकाशित इन्वेंटरी)		<h2 style="text-align: center;">उत्पाद क्रय विनिर्देश</h2> <h3 style="text-align: center;">PRODUCT PURCHASE SPECIFICATION (TURBINE TECHNOLOGY)</h3>	<b>STT0078</b>		
SIGN & DATE (हस्ताक्षर और तिथि)			Page 5 of 5		
<b>COPYRIGHT AND CONFIDENTIAL</b> The information in this document is the property of Bharat Heavy Electricals Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company.			<p><b>14.0 WARRANTY:</b>          Vendor shall provide a warranty for a period of <u>12 months</u> from the date of Commissioning/Acceptance of the equipment.          - Vendor to confirm.</p> <p><b>15.0 GENERAL:</b>  <b>15.1.</b> The offer shall contain clear Technical details for all the clauses of this specification. The offer will be liable for rejection, without offer details.  <b>15.2.</b> The offer shall contain a detailed General Arrangement Drawing of offered pump set and its peripherals with names and description of different parts in the Bill of material.  <b>15.3.</b> Space in between different parts of the pump set should be sufficient to maintain and service them as and when required.  <b>15.4</b> Chart/requirements of routine/periodic maintenance should be informed.          - Vendor to confirm all above points of 15.0.</p>		
<b>स्वाधिकार एवं गोपनीय</b> इस दस्तावेज़ में दी गई जानकारी भारत भारी बिजली लिमिटेड की संपत्ति है। इस दस्तावेज़ को बिना लिखित अनुमति के किसी भी तृतीय पक्ष को देना या प्रसारित करना वर्जित है।					
SIGN & DATE (हस्ताक्षर और तिथि)		REV. NO.: 00	निर्माकता WORKED BY	DILIP KUMAR	 10.10.15
INVENTORY NO. (इन्वेंटरी नंबर)			जांचकर्ता CHECKED BY	SWAPAN SARKAR	 10.10.15

**ANNEXURE- 3**

**COMPLIANCE SHEET FOR TECHNICAL/COMMERCIAL TERMS AND CONDITIONS FOR THREE PART TENDER**

**PLEASE FILL THIS ANNEXURE & ATTACH WITH YOUR TECHNO-COMMERCIAL BID.**

You are requested to kindly confirm /clarify the following:-

<b>S.No.</b>	<b>Description</b>	<b>Your Confirmation</b>
1.	Vendor to confirm that they meet each & every clause of our Specifications/Drawings.	
2.	If “No” to serial number 1, vendor to specify each deviated clause & submit in a separate sheet.	
3.	Vendor to list out on a separate sheet any activity which is outsourced. Please furnish details of out sourced vendor.	
4.	Validity: confirm that validity of the offer shall be 90 days from the date of tender opening	
5.	Confirm that un-priced part of price bid is enclosed with technical Commercial offer.	
6.	Confirm that prices have been quoted on CIF basis (For Foreign vendors)	
7.	Confirm that Loading Port has been mentioned.	
8.	Confirm that prices have been quoted on FOR BHEL Haridwar basis. (For Indigenous vendor)	
9.	Confirm that prices shall be firm and fixed throughout delivery period.	
10.	<b><i>Confirm that the payment term shall be “100% payment after receipt and Final acceptance of supplied material as per clause 12.0 of Technical specification STT0078”.</i></b>	
11.	LD Penalty shall be applicable at the rate of ½ % (half percent) per week or part thereof subject to a maximum of 10% of the value of unexecuted portion of the order. In case of any variation in LD penalty, your prices shall be loaded to the extend LD penalty not accepted by you.	
12.	Confirm that all test certificates / Guarantee certificates to be submitted as per BHEL specification. in TRIPLICATE along with dispatch documents	
13.	Right of acceptance – BHEL reserves the right to reject any or all quotations without assigning any reasons thereof. BHEL also reserves the right to increase or decrease the tendered quantities. Vendors should be prepared to accept order for reduced quantities without any extra charges. Vendor should also be prepared for giving discount in case of increase in quantity.	
14.	Confirm specifically that material shall be supplied as per tender documents.	
15.	No grace period in delivery is acceptable. Please quote delivery accordingly.	
16.	Ink signed order acceptance shall be furnished within 15 days of order placement.	
17.	Confirm if there is Indian agency commission included in your price.	
18.	Kindly confirm ‘Testing & Certification as per ordering drawing’.	
19.	Please confirm your acceptance for Reverse Auctioning of these items.	
20.	In case of PO (if any), Invoices against goods and services have to be submitted immediately after supply of goods and services but not later than 30 days from the invoice date. In case of any delay, consequential losses like loss of input credit and non-availability of concessional forms etc., shall be to the vendor’s account (For Indigenous vendor). Kindly confirm.	
21.	‘In case of delays in supplies / defective supplies or nonfulfillment of any other terms and conditions given in Purchase Order the purchaser may cancel the Purchase Order in full or part thereof, and may also make the purchase of such material from elsewhere / alternative source at the risk and cost of the supplier.’ Kindly confirm.	