



BHARAT HEAVY ELECTRICALS LIMITED
HEEP: HARDWAR-249 403 (UA)
Fax: 01334-226462, Phone: 284080
E-mail: lalit@bhelhwr.co.in

Due Date: 13/08/2015

Ref: PPX/EM/EOI/15-16/Water Box

Notice Inviting Expression of Interest for empanelment of New Vendors

The Heavy Electrical Equipment Plant (HEEP) located in Haridwar, is one of the major manufacturing plants of BHEL. The core business of HEEP includes design and manufacture of large steam and gas turbines, turbo generators, hydro turbines and generators and so on. **We are looking for reputed Vendors having capability to supply high conductivity copper forgings in material grade. The specification of these items may be obtained from BHEL after submission of Ink Signed Non-Disclosure Agreement. The Non-Disclosure Agreement is to be submitted to the following person (s) for obtaining Specifications:**

Contact Person 1:

Mr. Anand Kumar
Designation: Sr. Manager (PPX/EM)
Email ID: anandkr@bhelhwr.co.in
Tel: +91 1334 28 4585

Contact Person 2:

Mr. Lalit Vishwakarma
Designation: Engineer (PPX/EM)
Email ID: lalit@bhelhwr.co.in
Tel: +91 1334 28 4080

The offers received will be technically evaluated by BHEL & successful short listed parties will be asked to submit their detailed Techno-Commercial offers through formal NIT/Enquiry, for our future requirements. Vendors shall confirm that there is no deviation with respect to BHEL Specifications. However, deviations, if any, are to be listed as a separate attachment. The offers that do not meet the substantial requirements of our specifications are liable to be ignored. **Following documents are to be necessarily filled and submitted along with the technical offer:**

1. Details/ Documents in support of Pre-Qualification Requirement (**Annexure-1**)
2. Non-Disclosure Agreement
3. Supplier/Vendor Registration Form. (Indigenous / Foreign as applicable)
4. Quality control documents / procedure.
5. Details of Manufacturing Facility
6. Company Profile.
7. Financial report of the company.
8. Past experience along with documentary proof.

Only Technical BID along with the documents mentioned above should be sent & the envelope containing the offer shall be duly sealed and super scribed as **"Technical Offer for (ITEM NAME) AGAINST Reference No. PPX/EM/EOI/15-16/Water Box, SUBMITTED BY (Name of company)"**

The last date for submission of Technical offers is 13.08.2015.

- This notification shall be published in National Dailies (Name with date of publication will be mentioned on BHEL Haridwar portal). Last date for downloading tender documents shall be **12.08.2015** till 1700 Hrs (IST). The Technical Offers complete in all respect must be addressed to "Shri M K Sardana, AGM (PPX/EM)" **and should reach before 1345 Hrs (IST) on 13.08.2015**. Tenders will be opened on the same day at 1400Hrs (IST) in the Tender Room.
- Late offers will not be considered in any case. BHEL will not be responsible for any type of postal delay / incomplete information from vendor.
- EMD & Tender fee are not applicable.



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- The Quotation should be from the Principle / Original Manufacturer, falling which the Quotation is likely to be ignored. In case the quotation is submitted through agent, the quotation must accompany original authorization letter from Principle / Original Manufacturer.
- Amendments / Corrigendum, if any, will be hosted on our website only.
- For any further clarifications, feel free to contact the undersigned or log on to www.bhel.com or www.bhelhwr.co.in or www.tenders.gov.in

(ANAND KUMAR)
Sr. MANAGER (PPX-EMI)



Due Date: 13/08/2015

PRE-QUALIFICATION REQUIREMENTS FOR WATER BOXES

Introduction : Water Boxes are high conductivity copper forgings deoxidized, annealed and precision machined used for water flow between stator winding bar hollow conductors to PTFE hoses in Stator Winding of Large Size Turbogenerators (≥ 500 MW). Precision machining is required for matching of top and bottom water boxes and ensuring a leak-proof joint.

1. EXPERIENCE:

- 1.1. The vendor should have the experience of manufacturing and supplying HIGH CONDUCTIVITY COPPER FORGINGS DEOXIDIZED, ANNEALED AND PRECISION MACHINED of material grade ETP having UTS of $200-250 \text{ N/mm}^2$ for large size Turbo-generators (rating ≥ 500 MW) to reputed power equipment manufacturers world-wide for at least last 3 years. Vendor to furnish copies of Purchase Orders executed for above forgings. Also vendor to provide documentary evidence of the acceptance of material like Acceptance Certificate or letter from customer.
- 1.2. Vendor to give annual production capacity and output in MT for the last 3 years along with customer-wise break-up for Copper forgings.

2. **MANUFACTURING FACILITIES:** The vendor should have facilities for manufacturing high conductivity copper forgings and their machining. Vendor to furnish details and technical specifications of the manufacturing facilities available at their works along with photographs.

3. **MANUFACTURING PLAN:** Vendor to provide detailed Manufacturing Plan of forgings giving particulars of the manufacturing processes including heat-treatment cycle.

4. TESTING FACILITIES:

- 4.1. The vendor should have facilities for carrying out the following tests and provide details (including make and year of manufacture) of test equipment available at their works:
 - a) Chemical Composition including phosphorous content (if using Phosphorous for deoxidation)
 - b) Mechanical Testing
 - c) Electrical Conductivity
 - d) Dimensional measurement & straightness checking
 - e) Leak-tightness test using hydrogen at a differential pressure of 10 bar
 - f) Hydrogen Embrittlement test

The testing facilities should be duly calibrated against measurement standards traceable to national or international measurement standards.



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- 4.2. The vendor should have facilities and qualified personnel for carrying out Non-Destructive Tests such as X-ray and Dye Penetrant testing and should provide details of the same.
5. The vendor should furnish copies of Test Certificates of previously supplied material.
6. The vendor shall source the raw material (CC rods) from reputed suppliers and shall furnish details of the same to BHEL along with Mill Test Certificate.
7. If the vendor plans to outsource any activity/testing, particulars of the same along with details of the sub-vendor/laboratory to be furnished to BHEL.
8. BHEL reserves the right to verify the information submitted by the vendor. In case the information is found to be false or incorrect, the offer shall be rejected.
9. These pre-qualification requirements are not applicable for registered vendors of BHEL for this item.