



BHARAT HEAVY ELECTRICALS LIMITED
HEEP: HARDWAR-249 403 (UA)
Phone : 01334 – 28 5203/5479
E-mail : agoyal@bhel.in

Due Date: 15.06.2020

Ref: PPX/EM/EOI/20-21/Epoxy Glass Fabric Tape

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 Epoxy Glass Fabric Tape used as an Inter –turn insulation of rotor coil of large size turbo generator**

The specification of these items may be obtained from BHEL after submission of Ink Signed Non-Disclosure Agreement (Annexure-2). The Non-Disclosure Agreement is to be submitted to the following person (s) for obtaining Specifications:

Contact Person 1:

Mr Ankur Goyal
Designation: Dy. Manager (PPX/EM)
Email ID: agoyal@bhel.in
Tel: +91 1334 28 5203

Contact Person 2:

Mr Ashim Dalui
Designation: Engineer (PPX/EM)
Email ID: ashim.dalui@bhel.in
Tel: +91 1334 28 5203

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 (**Annexure-2**)
3. Company registration certificates (PAN card/D&B/ROC/CBEC etc)
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.
9. Details such as technical features, experience details, product catalogues, reference lists or any other relevant information.
10. List of equipment manufactured in-house.
11. List of Bought out items along with vendor's list equipment with experience details with respect to size rating and year of operations.

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/20-21/ Epoxy Glass Fabric Tape, SUBMITTED BY (Name of company)"**



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The last date for submission of Technical offers is 15.06.2020.

- The Technical Offers complete in all respect must be addressed to “Shri B.K Roy, AGM (PPX/EM)” **and should reach before 13:45 Hrs (IST) on 15.06.2020.** Tenders will be opened on the same day at 14:00 Hrs (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.
- 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

(Anil Kumar)
DGM (PPX-EMI)



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ANNEXURE-1

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Date: 03.03.2020

PRE-QUALIFICATION REQUIREMENTS (TECHNICAL) FOR EOI OF EPOXY GLASS FABRIC TAPE

- ITEM DESCRIPTION:** Epoxy Glass Fabric with adhesive layer on one side is single layered fibre glass fabric impregnated with Epoxy resin. Material is used as an inter-turn insulation of rotor coils of Turbo-generator. It must be free from foreign ingredient, creases, cracks, streaks, waviness, blisters, pores and separable compounds.
- EXPERIENCE:** The vendor should have manufactured and supplied Epoxy Glass Fabric Tape for Turbo-generators to reputed power plant equipment manufacturers world-wide during the last 7 years. The supplied material should have following properties:

Sl No	Materials	Requirement
1	Glass Fabric	It must be Plain woven with 12 warp & weft per 10 mm with coupling agent suitable for epoxy resin & total alkali content of $\leq 1\%$
2	Impregnant	It must be Epoxy resin in solidified state which has a Glass Transition Temperature of $\geq 150^{\circ}\text{C}$ as per DIN 53462 and corresponds to a limit temperature (as per DIN EN 60216-1) of $\geq 155^{\circ}\text{C}$.
3	Adhesive	It is solid and dry at Room Temperature, liquefies when heated at 100°C and further cures under the effect of temperature at 130°C for 15 hrs.

Sl No	Test Parameter	Specified value
1	Thickness with adhesive layer	≤ 0.23 mm
2	Thickness without adhesive layer	Average Value (0.18 to 0.20 mm) & Individual Value (0.17 to 0.21 mm)
3	Width Tolerance	$+0.0/-0.2$ mm
4	Tensile strength	≥ 30 N/mm
5	Total Substance	280 ± 25 g/m ²
6	Glass Fabric Content	165 ± 5 g/m ²
7	Impregnant	85 ± 10 g/m ²
8	Adhesive Layer	30 ± 10 g/m ²
9	BDV	≥ 1.5 kV
11	Shelf Life	The properties must remain undeteriorated even after 2 years of storage at temp $\leq 12^{\circ}\text{C}$.

In support of which, vendor to submit the following documents: -

- Vendor should have manufactured and supplied the above material against at least 3 Purchase Orders in last 7 years from the date of enquiry. Vendor to furnish copies of Purchase Orders of the same.
 - Vendor to furnish Test Certificates (for dimensional, mechanical and electrical test, etc.) for the Purchase Orders furnished against Clause a).
 - End User Certificate: Vendor to furnish at least one Certificate from End User or Generator Manufacturer certifying that the Epoxy Glass Fabric Tape supplied by the vendor has been successfully used as an inter-turn insulation of rotor coils of Turbo-generator and the said Turbo-generator has been in operation for at least 1 year. The End User Certificate should be pertaining to any one of the above Purchase Orders.
- MANUFACTURING FACILITY:** The Vendor to confirm that they have all the in-house facilities for manufacturing this item.
 - TESTING FACILITIES:** The Vendor to confirm that they have all the in-house facilities for testing this item. If the vendor intends to outsource any testing activity, particulars of the same along with details of the laboratory to be furnished to BHEL.

Notes:

- 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.
- All the documents should be furnished in English language only. If the documents are not in English, then they must be accompanied by duly certified English translations of the same.