



BHARAT HEAVY ELECTRICALS LIMITED
HEEP: HARDWAR-249 403 (Uttarakhand)
Phone: 01334-28-1644, E-mail : v_singh@bhel.in

Due Date: 09.05.2019

Ref: PPX/EM/EOI/19-20/Differential Pressure Regulators

Notice: Inviting Expression of Interest for supply of 'Differential Pressure Regulators'

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 manufacturers/suppliers having capability to supply 'Differential pressure regulators (DPR)' used to regulate seal oil pressure in the seal oil system of Large Size Turbo Generators (>250 MW). DPR is used for regulating seal oil pressure applied to shaft seals in relation to gas pressure in generator, keeping a constant differential pressure between seal oil and gas under all regimes of operation. The differential pressure shall be designed such that increase of gas pressure on the actuator shall lead to open the valve further so as to increase the oil pressure corresponding to the gas pressure. Further, the setting of differential pressure can be adjusted with the help of spring compression.

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.

Following documents are required to be submitted along with the technical offer:

1. Details/ Documents in support of Pre-Qualification Requirement (**Annexure-1**)
2. Company Profile.
3. Details such as technical features, experience details, product catalogue, reference list or any other relevant information.

Only Technical BID along with documents mentioned above should be sent & the envelope containing the offer shall be duly sealed and super scribed as **"Technical Offer for (Differential Pressure Regulators); Reference No. PPX/EM/EOI/19-20/DPR, SUBMITTED BY (Name of company)"**

The last date for submission of Technical offers is 09.05.2019.

- Last date for downloading tender documents shall be **08.05.2019** till 17:00 Hrs (IST).
- The Technical Offers complete in all respect must be addressed to "Tender Cell, HEEP, BHEL, Haridwar - 249403" **and should reach before 13:45 Hrs (IST) on 09.05.2019.**
- 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.
- Amendments / Corrigendum, if any, will be hosted on our website only.

Virendra Singh
Dy. Manager (PPX/EM)
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Due Date: 09.05.2019

ANNEXURE-I

09.05.18

Mandatory Pre-Qualification requirements for Differential Pressure Regulator as per specification TG60662; Material Code- W90414905474

- 1.0 The DPR is used in the Seal oil skid for hydrogen cooled generators. DPR is utilized for regulating the seal oil pressure being supplied to shaft seals in relation to gas pressure in generator, keeping a constant differential pressure between seal oil and gas under all regimes of operation. It should be of very reliable and proven design to maintain the required seal parameters under all conditions, so that hydrogen gas cannot escape.
- 2.0 The vendor should be a regular manufacturer or authorized dealer of such Differential pressure regulator with following requirements –

Sl No.	Parameter	Value
(i)	Application fluid	Turbine oil grade ISO VG46
(ii)	Nominal size	At least NB65
(iii)	Nominal pressure	16 bar (minimum)
(iv)	Flow coefficient Kvs	50 Kvs (minimum)
(v)	Differential pressure range	0-3 bar (minimum)

- 3.0 In support of above, vendor shall furnish technical details in below mentioned format for the P.O executed in past 5 years with at least 15nos. total quantity of DPR in that period.

S. No.	Brief technical details	Application	Name & address of customer	Year of supply
	- Application fluid - Nominal pressure - Nominal Temperature - Flow coefficient Kvs - Differential pressure range - Material of body/flanges/inside parts	Turbine oil grade ISO VG46		

- 4.0 Vendor to furnish the test certificate for DPR as per DIN EN 12266/ANSI ISA 75.19.01/ANSI FCI 70-2 /EN 60534 for any one of the PO submitted against clause 3.
- 5.0 Acceptance certificate is required from one of the vendor's customer of DPR supplied to them (Original Certificate or through e-mail directly from the customer). Acceptance certificate should contain information like item details and its application.
- 6.0 BHEL reserves the right to verify information submitted by vendor. In case the information is found to be false / incorrect, the offer shall be rejected.
- 7.0 Vendors to confirm specific compliance to above clauses 2.0, 3.0 and 4.0, else offer will not be considered.