

BHARAT HEAVY ELECTRICALS LIMITED. BHOPAL

ANNEXURE TO INDENT-CUM-ENQUIRY 2410634064 DTD.
 DESCRIPTION OF EQUIPMENT : ONLINE INSULATING OIL DRYING SYSTEM FOR
 POWERGRID TRANSFORMERS AND REACTORS
 WORK ORDER NO. AS per enclosed Annexure - A
 CUSTOMER M/S POWERGRID
 LOAN No. As per enclosed Annexure - A

SPECIFICATION FOR ONLINE INSULATING OIL DRYING SYSTEM

1. GENERAL :-

The equipment offered shall be suitable for online moisture removal from transformer oil, required for oil filled transformers/reactors. In addition to provision of air cell in conservators for sealing of the oil system against the atmosphere, each transformer/reactor shall be provided with an on line insulating oil drying system of adequate rating with proven field performance.

The equipment shall be provided along with all associated fittings and control equipments. The bidder shall furnish full details of the system offered. All items for complete system shall be listed out in bill of material for supply. Details of the system required are indicated as below:

2. TECHNICAL FEATURES :-

- A. The system shall be designed for very slow removal of moisture that may enter the oil system or generated during cellulose decomposition. Calculation to prove the adequacy of sizing of the on line insulating oil drying system shall be submitted for approval of purchaser.
- B. For the interpretation of DGA samples, it must be recognized that this drying system absorbs a small percentage of the DGA gas and may disturb the true equilibrium of the moisture in the oil. The bidder shall furnish necessary guide line for DGA interpretation in the manual. Original pamphlets and details of maintenance required for the online drying system shall be included in the manual.

3. OTHER DETAILS

- a. **Scheme and electrical connection:** Complete schematic showing the connections of power supply to the unit, terminal marking and wiring termination of alarm contacts shall be furnished alongwith offer. Further, type and size of terminals used in unit shall also be furnished to select suitable cable lugs.
- b. **Mounting details** – Outline and fixing detail drawings for unit to be furnished alongwith offer, so as to enable us to provide suitable mounting arrangement. Conduit thread size for cable entry should also be furnished alongwith offer.

REV	DATE	ALT CKD	REV-	DATE	ALT- CKD-	REV 00	NAME	SIGN	DATE
						PREP	N.K.JAIMAN		24/10/2014
						CKD	S.K.MAHAJAN		24/10/2014

DWITCB/TRE/010

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- c. The bidder should submit the following along with the technical offer.
- i) Compliance checklist as per enclosed Annexure-B duly filled up and signed.
 - ii) 2 sets of descriptive leaflet clearly mentioning the model name of the equipment being offered, catalogue and technical literature of the model.
 - iii) List of the total items in the scope of supply.

4. INSTALLATION AND COMMISSIONING

Installation & commissioning of the system shall also be in the scope of supply of bidder, at each of the project sites mentioned in the Annexure- A. The bidder shall install & commission the equipments in all the Transformers and provide training for operation and maintenance to our ultimate customer at site on intimation of BHEL and obtain certificate from the customer for the same. Bidder shall quote the charges for the same, if any, in the offer separately.

5. INSPECTION & DESPATCH

- 5.1 Three sets of inspection, routine, acceptance and calibration test reports, operation and maintenance manual, descriptive catalogue/ leaflets shall be sent alongwith dispatch document. One set shall be supplied alongwith the equipment.
- 5.2 The supplier shall furnish a list of all fittings and components in the dispatch details giving description and quantity of each item (Quantity of each item shall be mentioned). All items shall be properly packed in wooden boxes so as to avoid scratches/damage in transit.

NOTE : Bidder To Submit The Duly Filled Checklist (Annexure-B) along with Other Bidding Documents.

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Annexure - B
Compliance Check List

	Compliance to Requirement	Yes/No	Deviation if any
1.	GENERAL		
2.	TECHNICAL FEATURES		
3.	OTHER DETAILS		
4.	INSTALLATION AND COMMISSIONING		
5.	INSPECTION & DESPATCH		
6.	Acceptance of Commercial Conditions as per spec.		
7.	Separate Price bid in sealed cover (Marked as Enquiry no. & Price Bid)		