

(2)

Spec No. - MED/20-21/04
DD: 03/06/20

	BHARAT HEAVY ELECTRICAL LIMITED		Enquiry No.:	
	UNIT'S ADDRESS: BHOPAL		Due Date:	
	CONTACT PERSON'S NAME/DESIGN./PHONE NO./E-MAIL (FROM PURCHASE DEPT.):		Supplier Qta. No.:	
			Date:	
SPECIFICATION CUM COMPLIANCE CERTIFICATE OF PORTABLE HIGH FREQUENCY X RAY UNIT				
NOTE:-				
1. Vendor must submit complete information against clause no. 14 (Qualifying Condition). The offer meeting this clause would only be processed.				
2. The "Offered" Column and where applicable, the "Deviations" & "Remarks" Column of this format shall be filled in by the Vendor and submitted along with the offer. Inadequate / incomplete, ambiguous, or unsustainable information against any of the clauses of the specifications/requirements shall be treated as non-compliance.				
3. The offer and all documents enclosed with offer should be in English language only.				
NAME & ADDRESS OF THE SUPPLIER :		NAME & ADDRESS OF THE INDIAN AGENT :		
TELEPHONE NOS.:		TELEPHONE NOS.:		
FAX NOS.:		FAX NOS.:		
E-MAIL ADDRESS :		E-MAIL ADDRESS :		
SCOPE: SUPPLY, DEMONSTRATION & COMMISSIONING OF PORTABLE HIGH FREQUENCY X RAY UNIT COMPLYING WITH SPECIFICATIONS AS BELOW				

SNO	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATIONS	REMARKS
1.0	PURPOSE & WORKPIECE MATERIAL				
1.1	Purpose: For taking portable x rays of patients in ICU and wards.	Vendor to note			
1.2	Quantity: 1 No.	Vendor to note			
2.0	SPECIFICATION: (Minimum requirements)				
2.1	The X ray unit should have Frequency of atleast 40 KHz	Vendor to confirm			
2.2	Minimum output of X Ray should be 3.5KW	Vendor to confirm			
2.3	KV range should be in the range of 40kv and 100kv or better.	Vendor to confirm			
2.4	Current range should be between 10mA and 80 mA or better.	Vendor to confirm			
2.5	Iodisation radiation should be between 1 mAs and 200 mAs or better	Vendor to confirm			
2.6	Exposure time should be between 14ms and 5sec or better.	Vendor to confirm			
2.7	7 Segment Digital Display with reading of mA and KV	Vendor to confirm			
2.8	Control to increase and decrease KV and mAs	Vendor to confirm			
2.9	Control panel should have on off switch, collimeter lamp on switch and exposure release switch.	Vendor to confirm			
2.10	Error indicator display panel should provide following error display facility 1. Earth fault error 2. kv error/ inverter error 3. filament error 4. tube head thermal error and any additional error (if any) can be displayed.	Vendor to confirm			
2.11	X ray tube should be stationary anode	Vendor to confirm			
2.12	Collimeter with manual/automatic working to be provided	Vendor to confirm			
2.13	The entire tube arm should be swiveled ± 90 degree (180degree) or more for taking side by x- ray without moving the machine.	Vendor to confirm			
2.14	Stable nylon wheel for easy mobility and steering.	Vendor to confirm			
2.15	The equipment should be ISO certified /European CE certified (any other kindly specified).	Vendor to confirm			डॉ. नम्रता डिंगरोचा / Dr. Namrata Dingrocha
2.16	The equipment shall be AERB approved.	Vendor to confirm			अपर महाप्रबंधक, प्रमुख (सर्जरी एवं रेडियोलॉजी) AGM, HEAD (Surgery & Radiology) कस्तूरबा चिकित्सालय, भेल भोपाल Kasturba Hospital, BHEL BHOPAL
2.17	The company should have local service centre in MP for attending service regards.	Vendor to confirm			
2.18	Preset programme for different type of x rays to be provided (eg. chest,skull,spine) APR.	Vendor to confirm			
3.0	ACCESSORIES:				
3.1	The power cable should be of atleast 5 meters length.	Vendor to confirm			
4.0	SPARES: (Optional - to be quoted separately)				

SNO	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATIONS	REMARKS
4.1	Complete list of spares for the equipment and accessories, along with specification / type / model, and name & address of the spare supplier shall be supplied along with the equipment. Unit Price of each spare should be offered. The spares will be ordered as per requirement. Note: The price of the spares will not be considered for the evaluation of the machine cost (L1 criteria).	Vendor to confirm			
4.2	All types of spares for equipment and accessories should be available for at least ten years after supply of the equipment. If equipment or control is likely to become obsolete during this period, the vendor should inform BHEL well in advance and provide drawings of parts / details of spares & suppliers to enable BHEL to procure these items.	Vendor to confirm			
	Recommended spares for 2 years trouble free operation of the machine and accessories are to be mentioned.	Vendor to confirm			
5.0	DOCUMENTATION : The following shall be supplied along with the system				
5.1	Instruction manual : 2 copies in hard form and 2 copies in soft form (in CDs)	Vendor to Confirm			
5.2	Maintenance manual along with circuit/block diagrams and schematics with troubleshooting instructions: 2 copies in hard form and 2 copies in soft form(in CDs)	Vendor to Confirm			
5.3	Test & Guarantee Certificate : One set	Vendor to Confirm			
6.0	SYSTEM INSPECTION:				
6.1	Inspection at suppliers works before dispatch.	Vendor to Confirm			
6.2	Arrangements should be made for demonstration of all features of system including accessories as per PO specification. All routine & operational tests for confirmation of Clauses 2.1 to 2.18 at supplier's works/any other test lab/calibration agency in presence of BHEL representatives before dispatch.	Vendor to Confirm			
6.3	Transportation, boarding & lodging upto supplier's works for inspection activities shall be in scope of BHEL.	Vendor to note			
7.0	INSTALLATION & COMMISSIONING				
7.1	Supplier have to take full responsibility for carrying out entire installation and commissioning of the equipment. Commissioning to be done in presence of technical expert from OEM.	Vendor to Confirm			
7.2	All operational tests deemed necessary for system acceptance and demonstration of all features shall form part of the commissioning activity.	Vendor to Confirm			
7.3	Commissioning tools, required for commissioning of the system within stipulated time, shall be brought by the supplier on returnable basis.	Vendor to confirm			
7.4	Schedule for delivery, installation and Commissioning shall be submitted along with the offer.	Vendor to furnish			
8.0	ACCEPTANCE CRITERIA:				
8.1	Successful demonstration of all the features as per the specification 2.1 to 2.18	Vendor to note			
9.0	TRAINING:				
9.1	Training to BHEL user and maintenance person should be provided at BHEL, Bhopal in the area of (a) Operation of the equipment (b) Trouble shooting for maintenance person.	Vendor to specify & confirm			
	AMBIENT CONDITIONS:				
10.0	Total System and all supplied items should work trouble free and efficiently under following operating conditions and should give specified accuracies. Supply: 230V 1 ϕ $\pm$ 10%, 50 Hz $\pm$ 3% Ambient Temperature = 10° to 40° C Relative Humidity = 85 % max. (Vendor to confirm that system is suitable for above and details of provisions on the system for the same are to be furnished by Vendor)	Vendor to confirm			
	PACKING:				
11.0	Air worthy/Sea worthy & rigid packing for all items of complete system, all Accessories and other supplied items to avoid any damage/loss in transit. When system is despatched in containers, all small loose items shall be suitably packed in boxes	Vendor to confirm			
12.0	GUARANTEE :				
12.1	24 months from the date of commissioning of the system.	Vendor to confirm			
13.0	GENERAL: The vendor should submit the following information along with offers:				
13.1	Equipment Model & make	Vendor to submit			
13.2	Total weight of the equipment	Vendor to submit			
13.3	Detailed catalogues , sketch/ photographs of the m/c and accessories/ attachments should be submitted with the offer.	Vendor to submit			
13.4	The maximum power load should be specified.				
14.0	QUALIFYING CONDITIONS :				

डॉ. जयसिंग डिगरोवा / Dr. Namrata Dingrova
अगर महाविद्यालय, प्रमुख (सिनेट) एड्स विभाग
AGM, HEAD (Surgeon & Radiology)
कस्तूरबा चिकित्सालय, गैलरी/मॉडल
Kasturba Hospital, BHEL BHOPAL

विशेष रिश यादव / VIVEK SINGH YADAV

संयोजक / Manager

SNO	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATIONS	REMARKS
14.1	The supplier should either be an Original Equipment Manufacturer(OEM) or an authorised dealer of the OEM for the offered equipment. Dealers have to submit along with the offer, a valid Certificate of Authorisation from OEM for quoting the system, alongwith declaration for support from OEM during erection & commissioning, after sales service & necessary spares.	Vendor to submit the documents			
14.2	Performance certificate for atleast one year satisfactory working from the customer for similar model supplied within last 5 years from the date of tender opening should be provided . The performance certificate date should be within one year from date of tender opening . The dealer or its OEM must have supplied and commissioned at least <u>one</u> equipments meeting specifications as per Clauses 2.1 to 2.18 in the past five years (on the date of opening of Tender) and these equipments should be working satisfactorily for more than one year after commissioning.	Vendor to submit the documents			
15.0	POINTWISE CONFIRMATION:				
15.1	Vendor should confirm/clarify pointwise (all the points) as per specification and provide original technical leaflet, technical details, photographs, scope of supply etc. at the first instance.	Vendor to confirm			