



# DR. BHUBANESWAR BOROOAH CANCER INSTITUTE

## PROCUREMENT DEPARTMENT

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ITEM DESCRIPTION : CORRIGENDUM FOR "FLAT PANEL DUAL DETECTOR 80KW X-RAY UNIT"  
GEM BID NO : GEM/2024/B/5001694

Sr. No	Seller Query/Representation	Response
1.	Pt. no. 7 (L) and point no. 7 (T) of the product specification document needs clarification. We think there is typo error.	Pt. No. 7 (L) under heading " <b>Operating Station and Console</b> " "The console should also have the functionality/tool to correct radiographic magnification on the image." Pt. No. 7 (T) under heading " <b>Operating Station and Console</b> " Grid removable software / Scatter Radiation software to be provided for removal of scatter Radiation in the image.
2.	Point no. 2 HIGH FREQUENCY GENERATOR you Asked for: Microprocessor controlled high frequency X-Ray generator should be of latest technology with constant output with low ripple frequency. our submission is kindly amend it: Microprocessor controlled high frequency X-Ray generator should be of latest technology with constant output with low ripple frequency and frequency of Generator should be 250 KHz or more for less scattered radiation leakage.	Point no. 2 <b>HIGH FREQUENCY GENERATOR</b> Microprocessor controlled high frequency X-Ray generator should be of at least 100 KHz or more and of latest technology with constant output with low ripple frequency. Please specify the frequency of Generator.
3.	Point No. 11 (i) you asked for: The DR system offered should have the BIS certificate (or equivalent/better) and USFDA and European CE approved. Our submission is kindly amend it: The DR system offered should have the BIS certificate (or equivalent/better)/USFDA/European CE approved and CDSCO approved. This is not fulfilling PPP MII Order 2017.	Point No. 11 (i) The DR System offered should preferably have BIS certificate (or equivalent/ better) and US FDA and European CE from notified body approved. And System should have valid type approval by AERB (NOC not acceptable).
4.	Tender Requirement: Manufacturer should be ISO (9001, 13485, 27001) certified for quality standard, kindly amend it Manufacturer should be ISO (9001, 13485) certified and CDSCO approved.	No change.
5.	Tender Requirement: The Unit should have Touch Panel display unit of minimum of 12" size mounted on the tube side to display the image preview, patient demographics, Examination details, Positioning details such as SID, angle of tube etc. Kindly amend it The Unit should have Touch Panel display unit of minimum of 10" size mounted on the tube side to display Positioning details such as SID, angle of tube.	Point 4 (h) The Unit should have Touch Panel display unit of minimum of 8" or more size mounted on the tube side to display the image preview, patient demographics, Examination details, Positioning details such as SID, angle of tube etc. should preferably have the capability to change Exposure Parameter and positioning from the touch screen without going to the console.
6.	Kindly mention Generator Frequency up to 200KHz or more. Generator capacity must be more than 80K W.	Already implied in the Point 2 of corrigendum.

7.	Table: Table should support patient weight of at least 250kg, amend it to 300kg or more.	Point: 5 (d) No change. Already implied in the tender specification.
8.	Added para; Material used in vertical Bucky column stand and Tube stand should be rust free and aluminum extrusion of superior quality	New Added point: 6 (j) Material used in vertical Bucky column stand and Tube stand should be rust free and of superior quality.
9.	We would like to share that the asked specifications are precisely related to a particular company & it does not allow other participants/manufacturers to bid for this tender. Therefore, we humbly request to generalize the specification so that we can participate in the tender.	No clarity on point details of the technical specification.
10.	ASKED: I. Fixed Flat Panel Detector (One on wall stand and the other on the table): The detector should be able to do all routine Radiography examination. It should have the following features. The flat panel detector should be of proven technology with amorphous silicon photodiode and CsI scintillator on the x-ray side to from the image. OFFER: Please amend it as, the detector should be able to do all routine Radiography examination. It should have the following features. The flat panel detector should be of proven technology with amorphous silicon photodiode and CsI scintillator on the table side to from the image.	No Change
11.	ASKED: b) The detector should have non tiled CsI scintillator on the tube side and amorphous silicon photo diode array behind it. OFFER: Please amend it as, The detector should have non tiled CsI scintillator on the table side and amorphous silicon photo diode array behind it.	No Change
12.	ASKED: h) DQE at 0.0lp/mm should be at least 75% OR MORE. OFFER: Please amend it as, DQE at 0.0lp/mm should be at least 66% or more for open & healthy participation.	No change.
13.	ASKED: 3. X-Ray Tube & Collimator e. Collimator must be automatic with manual over-ride facility. OFFER: Please amend it as, Collimator must be automatic type should be provided.	No change.
14.	ASKED: i. Blade control must be 4way motorized type with individual blade control OFFER; Please amend it as, two pair of shutter with motorized control should be provided.	Point: 3(i) Blade control may preferably be 4 way motorized type with individual blade control.
15.	ASKED: 4. Ceiling suspended 3D Column stand with display and auto positioning h. The Unit should have touch panel display unit of minimum of 12" size mounted on the tube side to display Positioning details such as SID, angle of tube etc. OFFER: Please amend it as, the Unit should have Touch Panel display unit of minimum of 8" size or more for open & wider participation.	Already changed in point 5.
16.	ASKED: i. Motorized trans lateral movement using remote/console control should be possible. OFFER: Motorized transverse movement should possible. Please delete remote and lateral as these features are very company specific.	Point 4 (i) No change.
17.	ASKED: 5. X-Ray Table point 1., and have provision to rotate from landscape to portrait function without removing the detector. OFFER: Since 17" x 17" detector should be asked which has same sides. Therefore, this feature is not applicable. We request delete this point for open & wider participation.	Point: 5 (a) May be read as: 6 Way Fixed Table which has motorized vertical Height adjustable and with four way floating table top fitted with Flat detector of size 43x43cms.



18.	ASKED: f. Table dimension should be W x L = 80 x 220 cm, Table height (Motorized adjustment) 55 to 90 cm. OFFER: Please generalize it as, Table dimension should be W x L = 80 x 220 cm, Table height (Motorized adjustment) 57 to 83 cm or more for open & wider participation.	Point 5 (f) Table dimension should be W x L = 80 x 220 cm, Table height (Motorized adjustment) 55 cm- 85cm ( $\pm 2$ cm).
19.	ASKED: g. The table top movement should be (minimum) longitudinal movement: $\pm 80$ cm, cross movement: $\pm 20$ cm or better. OFFER: Please generalize it as, The table top movement should be (minimum) longitudinal movement: $\pm 47.5$ cm or more, cross movement: $\pm 12.5$ cm or better for open & wider participation.	Point: 5 (g)  No change
20.	ASKED: h. It should have automatic grid sensing capability to avoid exposure with the wrong grid for patient safety. OFFER: Please amend it as, it should be grid removal capability to avoid exposure with the wrong grid for patient safety.	Point: 5 (h)  No change
21.	ASKED: 6. Vertical Bucky stand (wall Stand) d. It should have automatic grid sensing capability to avoid exposure with the wrong grid for patient safety. OFFER: Please amend it as, it should be grid removal capability to avoid exposure with the wrong grid for patient safety.	Point 6 (d)  No change
22.	ASKED: f. The detector holder must be possible to rotate by 45degree OFFER: Please delete the requirement as 17" x 17" size detector will be offered which has same sides. Therefore, rotation of 45° is not significant.	Point 6 (f) Same as point 17
23.	ASKED: g. The vertical travel range of the detector should be 1500 mm, minimum 400mm and maximum 1900 mm above floor (measured center to center). OFFER: Please amend it as, The vertical travel range of the detector 1600mm or less, minimum 380mm or less and maximum 1980mm or less from floor to centre of the fpd.	Point 6 (g) The vertical travel range of the detector should be 1500 mm or better, minimum 380mm or better and maximum 1900 mm or better above floor (measured center to center).
24.	ASKED: 7. Operating Station and Console f. X-ray parameters such as KVP, mA ,mAs , X-ray procedure and protocol, AEC, Grid type , focal spot etc. OFFER: Please remove the grid type selection from the touch panel.	Point 6 (g) Operating Station and Console f. X-ray parameters such as KVP, mA ,mAs , X-ray procedure and protocol, AEC, focal spot, preferably Grid type (grid sensing should be available in the screen to avoid wrong selection of grid), etc.
25.	ASKED: g. Console system should have Paediatric exposure management tool, weight dependent exposure setting should be possible. OFFER: Asked specification are company specific, please delete this feature for open & healthy participation	No Change.
26.	ASKED: o. It should get DICOM Fledged WYSIWYG DICOM worklist from HIS/RIS, store image through PACS network system and should support DICOM image print and DICOM MPPS (modality performed procedure step) function. OFFER: Please amend it as, It should get DICOM Fledged DICOM worklist from HIS/RIS, store image through PACS network system and should support DICOM image print and DICOM MPPS (modality performed procedure step) function.	Point 7 (o) It should get DICOM Fledged DICOM worklist from HIS/RIS, store image through PACS network system and should support DICOM image print and DICOM MPPS (modality performed procedure step) function.
27.	ASKED: p. System should have Smart features like Smart Align advanced sensing to give live feedback on the accuracy of tube to panel alignment during beside or out of bucky exams. Making alignment faster, easier and more precise. Smart Positioning with Live Vision camera stream with smart Overlays to project the image area onto the patient body. OFFER: We would like to share that the asked specifications are precisely related to a particular company & it does not allow other participants/manufacturers to bid for this tender. Therefore, we humbly request to delete the specification so that we can participate in the tender.	Point 7 (p) The system should have Smart features in terms of aligning and rotation of images for faster throughput. Making alignment faster, easier and more precise.



28.	ASKED: q. System should have catheter enhance processing software. OFFER: We would like to share that the asked specifications are precisely related to a particular company & it does not allow other participants/manufacturers to bid for this tender. Therefore, we humbly request to delete the specification so that we can participate in the tender.	Point 7 (q) System should have catheter enhance processing software (Optional).
29.	ASKED: 8. An image Viewing, Post-Processing and reporting Station and Documentation with the following features should be provided. e. The reporting workstation should have the capability to be connected to 5 concurrent web client (Preview display time <15 sec). The configuration of the main and additional work stations should be specified in the bid. OFFER: We would like to share that the asked specifications are precisely related to a particular company & it does not allow other participants/manufacturers to bid for this tender. Therefore, we humbly request to delete the specification so that we can participate in the tender.	Point 8 (e) The point is omitted.
30.	ASKED: 11. Standards, Safety and Training: i. The DR System offered should have the BIS certificate (or equivalent/better) and US FDA and European CE approved. OFFER: This standard specifies the general and safety requirements for all types of diagnostic medical X-ray equipment (and parts thereof) up to and including a capacity of 500mA, 150 kV operated directly on a single-phase supply or through a phase converter. Therefore, tender for Digital Flat Panel Dual Detector 800 mA X-Ray Unit, there is no need of BIS certification. Hence delete B.I.S. (Bureau of Indian Standards) for Mechanical & Electrical Safety. Please amend it as, the complete system should have US FDA & European CE certified.	Already mentioned in earlier point
31.	ASKED: iii. Manufacture should be ISO (9001, 13485, 27001) certified for quality Standards. OFFER: Please generalize it as, Manufacture should be ISO (9001, 13485) certified for quality Standards. Please delete ISO 27001 quality standard because system has inbuilt certified protection against virus.	No Change
32.	We request kindly add the following certification for better product quality and standard: • The company should be ISO-9001:2015 certified with manufacturing, design of Flat panel detectors & X-Ray Generators. The model of detector should be mentioned in it. • ICMED 13485 (Indian Certification for Medical Devices) – Based on the International Harmonized Standard of “Quality Management Systems for Medical Devices” plus additional requirements specified under the scheme. • Should have import/manufacturing license from Central licensing Authority or State licensing authority of CDSCO for Medical Devices and copy of valid license should be submitted. • Generator, Software & Flat panel detectors should be from the same manufacturer for consistent image quality & seamless connectivity. • The company should be ISO-9001:2015 certified with manufacturing, design of Flat panel detectors & X-Ray Generators. The model of detector should be mentioned in it.	No Change.
33.	To clarify regarding the non-golden/performance parameters whether it will be a part of final contract or not. Please confirm whether the equipment required is as per the original specifications mentioned in the bid or as per the uploaded catalogue specifications by the seller and order published through GeM which will includes Golden parameters & performance parameters as it affects the bid cost. (a) Whether the supply of goods shall be in accordance with the asked specifications in bid. or (b) It shall be as per order published on GeM which includes extra items, accessories etc.	Please consider the ATC as final requirement of Dr. BBICI.
34.	The table top movement should be minimum longitudinal movement +/- 80cm , cross movement +/- 20cm or better.  Request: The table top movement should be minimum longitudinal movement +/- 80cm , cross movement +/- 20cm or better	The table top movement should be minimum longitudinal movement +/- 80cm , cross movement +/- 20cm or better.

35.	Magnification on the image Request: Console should have a tool to correct radiographic magnification of the image.	Already discussed in point 1 of corrigendum.
36.	Grid removable software should be available Request: Scatter Radiation software to be provided for removal of scatter Radiation in the image without the need of physical grid	No Change
37.	It should have the Hard Disk capacity of min 2x 1TB or more and latest Solid state HDD if available to be provided Request: It should have the SSD 256GB + HDD 1TB or more	Point 7 (b) It should have the Hard Disk capacity of min 1TB or more and latest Solid state disk of minimum 256GB for OS if available to be provided.
38.	DQE at 0.1 lp / mm should be at least 75% or more. Request: "DQE at 0.1 lp / mm should be at least 65%".	No change
39.	Detector should have at least 3 AEC (Auto Exposure Control) chambers. Request: "Detector should have at least separate 3 field ION chambers".	No change
40.	Blade control must be 4 way motorized type with individual blade control. Request: "Blade control must be symmetric blades motorized type".	No change.
41.	6 way fixed table which has motorized vertical height adjustable and with four way floating table top fitted with flat detector of size 43 x 43 cms or more with specification as mentioned in point 1., and have provision to rotate from landscape to portrait function without removing the detector.  Request: "6 way fixed table which has motorized vertical height adjustable and with four way floating table top fitted with flat detector of size 43 x 43 cms or more with specification as mentioned in point 1".	Already mentioned in earlier point
42.	Table dimension should be W x L = 80 x 220 cm, table height (motorised adjustment) 55 to 90 cm.  Request: "Table dimension should be W x L = 80 x 220 cm, table height (motorised adjustment) 510 ~ 860 mm (350 mm)".	Already mentioned in earlier point
43.	The table top movement should be (minimum) longitudinal movement : $\pm 80$ cm, cross movement : $\pm 20$ cm or better.  Request: "The table top movement should be (minimum) longitudinal movement : 1,100 mm ( $\pm 550$ mm), cross movement : 300 mm ( $\pm 150$ mm)".	Already mentioned in earlier point
44.	It should have automatic grid sensing capability to avoid exposure with the wrong grid for patient safety.  Request: "It should have automatic detector sensing to avoid unwanted exposure with the wrong grid for patient safety".	No Change.
45.	It should have automatic grid sensing capability to avoid exposure with the wrong grid for patient safety.  Request: "It should have automatic detector sensing to avoid unwanted exposure with the wrong grid for patient safety".	Already mentioned in earlier point
46.	The vertical travel range of the detector should be 1500 mm, minimum 400 mm and maximum 1900 mm above floor (measured center to center).  Request: "The vertical travel range of the detector should be 1500 mm, minimum 283 mm and maximum 1849 mm above floor (measured center to center)".	Already mentioned in earlier point
47.	System should have smart features like Smart Align advanced sensing to give live feedback on the accuracy of tube-to-panel alignment during bedside or out-of-bucky exams. Making alignment faster, easier and more precise. Smart Positioning	Already mentioned in earlier point



	<p>with Live Vision camera stream with Smart Overlays to project the image area onto the patient's body.</p> <p>Request: "System should have smart features like making alignment faster, easier and more precise. Smart Positioning with Live Vision camera stream with Smart Overlays to project the image area onto the patient's body".</p>	
48.	<p>Auto planning of stitching using real time camera should be possible.</p> <p>Request: "Please erase / eliminate this point from the given proposed Technical Specifications".</p>	Already mentioned in earlier point
49.	<p>The DR System offered should have the BIS certificate (or equivalent/ better) and US FDA and European CE approved and system should have valid type approval by AERB (NOC not acceptable).</p> <p>Request: "The DR System offered should have the US FDA and European CE approved and system should have valid type approval by AERB (NOC not acceptable)".</p>	Already mentioned in earlier point
50.	<p>The related Principal / Manufacturer / Parent Company must be having registered office and service Centre in India.</p> <p>Request: "Kindly delete / remove the said point from the existing prescribed Technical Specifications".</p>	The related Principal subsidiary/ Manufacturer/ Parent Company must be having registered office and service Centre in India.
51.	<p>Latest PC Based workstation of reputed brands like DELL or HP with latest intel based i7 processor or higher and must have RAID 1 configuration to protect data.</p> <p>Request: Latest PC Based workstation of reputed brands like Dell or HP with latest intel based i7 processor or higher. I5 processor in place of i7 processor.</p>	<p>Point 7 (a) Latest PC Based workstation of reputed brands like DELL or HP with latest intel based i5 processor or higher and should preferably have RAID 1 configuration to protect data.</p>

**Add in Accessories:**

- i) 3 Nos. of Dehumidifiers of specification as per the requirements of the complete DR System should be supplied.
- ii) The DR image should be able to be viewed from the Hospital EMR. The system should be integrated with existing RIS.

**Scope of work:** Turnkey works for Digital X-Ray of Dr B.Borooah Cancer Institute, Gopinath Nagar, Guwahati-16.

CLIENT	VENDOR
<b>Roofing-</b> i. Roof treatment.:56.12sqm. ii. Gypsum false ceiling.:56.12 sqm <b>Tiles-</b> i. Wall tiles:86.39sqm. ii. Floor tiles:56.12sqm. <b>Door-</b> i. Single leaf flush door and chowkaths with 2mm lead with door closer and necessary fittings. Length: 1100.00mm ii. Double leaf flush door and chowkaths with 2 mm lead with door closer and necessary fittings. Length:1550.00mm. <b>Lead Glass frame-</b> <b>Signage-</b> i. Digital x-ray signs Room naming. <b>Patient changing area-</b> i. With curtain and curtain rod. Length:20.00Rm <b>Electrical-</b> i. Ceiling lights. ii. Machine room-10 pcs 15watts panel light. iii. Console room -8 pcs 15w panel light. iv. Electrical switches and sockets. v. Electrical DB box. vi. Panel-UPS panel –machine-electrical components and wires. <b>Furniture-</b> i. Customized Console table (with ply and sunmica). Area: 2.2 sqm. ii. Mid black revolving chair 4 no's. iii. Wall mounted cupboard (with ply and sunmica) in console room. Length:3.00 Rm, Height:0.70 Rm. iv. Wall mounted cupboard (with ply and sunmica) in machine room. Length:4.00Rm, Height:0.70 Rm. v. Almirah (with ply and sunmica)-1no's in machine room. Breath :1.20Rm, Height:2.0 Rm. vi. Customized Table (with ply and sunmica) for machine room. Area:2.2 sqm.	<b>Air conditioning systems-</b> i. Cassette A.C-3 ton-2nos in machine room. Make: Blue star/Mitsubhi /Hitachi/Voltas/L. G/Carrier. Minimum 3-star ii. Split A.c-1.5 ton-2nos. Make: Blue star/Mitsubhi /Hitachi/Voltas/L.G / Carrier. Minimum 3-star. iii. Air conditioning timer change over. <b>Electrical-</b> i. 3 phase AC automatic voltage stabilizer 120KVA (100KW) 3phase in,3 phase out Input Range (40-465)V Output range (400-415)V-01nos. ii. UPS:10KVA, in build isolation transformer, 3 phase in single phase out with half an hour backup. iii. Public address system. <b>Equipment's-</b> i. Dehumidifier-2 Nos <b>IT connections-</b> i. Emergency cables networking & Gadgets. ii. CCTV cameras. <b>Signage-</b> i. No admission. ii. Warning signs. iii. Hazardous signs. <b>Lead Glass-</b> i. Lead Glass 1200x600 2mm lead.

*B.L. 9/7/24*

**Chief Administrative Officer**  
Dr. B. Borooah Cancer Institute, Guwahati