



DR. BHUBANESWAR BOROAAH CANCER INSTITUTE  
A GRANT-IN-AID INSTITUTE OF DEPARTMENT OF ANATOMIC ENERGY, GOVT. OF INDIA  
AND A UNIT OF TATA MEMORIAL CENTRE (MUMBAI)  
GOPINATH NAGAR, GUWAHATI- 781016  
ASSAM, INDIA

**Subject:** Corrigendum against 1.5 Tesla MRI Machine on buy back basis.  
**GeM Bid no:** GEM/2023/B/4051029

SR. No.	BBCI Tender Specifications	Request for amendment	Response of the committee
2	<b>MAGNET</b>		
b	At least 60 cm patient bore.	<b>REQUEST TO RETAIN THE POINT</b> Remarks: <i>The technical specification reads "At least 60 cm Bore" which allows 70 cms bore also to participate.</i>	No change in NIT At least 60 cm patient bore.
4	<b>GRADIENT SYSTEM</b>		
a	Actively shielded Gradient system		
b	<b>A gradient with minimum 33 mT/m per axis and slew rate of minimum 120 T/m/s per axis should be quoted.</b>	A gradient with minimum 30mT/m per axis and slew rate of minimum 100 T/m/s per axis should be quoted <b>Remarks:</b> <i>Gradient is responsible for Resolution and TE TR Timings .Siemens high performance gradient of produces same resolution ie 14 μm in all the 1.5 T MRI whether be it 30mT or 33 mT, and other resolution parameter like minimum slice thickness in 2D and 3D are better than our competition. Similarly TE and TR time are produced with gradient of 30 mT and slew rate of 100 T/m/s are similar to 33 mT/m and 125 T/m/s The net outcome of the MRI model with gradient 30mT/m and slew rate of 100 T/m/s are as follows and can be compared with any vendor gradient performance in terms of inplane resolution, min slice thickness and TE ,TR Timing 30 mT/m @ 100 T/m/sec per axis and in case of simultaneous gradient the gradient strength is 52 mT/m @ 173 T/m/sec effective Gradient Performance : Min TE - 2D GRE - 128 x 128</i>	No change in NIT A gradient with minimum 33 mT/m per axis and slew rate of minimum 120 T/m/s per axis should be quoted.
5	<b>RF SYSTEM</b>		
a	A fully digital solid state RF system capable of transmitting power of at least 19 μT or more RF field in bore. Specify the power of RF field achievable in bore.	A fully digital solid state RF of 10 KW or More should be quoted <b>Remark:</b> <i>RF is always define in terms of KW, no vendor defines the RF field produced by Transmitted RF in their datasheet. Therefore there is no authenticity to prove this field by any vendor except a letter from Head quarters, which is not practical.</i>	Accepted . A fully digital solid state RF system capable of transmitting power of at least 19 μT / 10 KW or more RF field in bore.
7	<b>COMPUTER SYSTEM /IMAGE PROCESSOR / OPERATOR CONSOLE</b>		
a.	Computer system should be latest in industry, fast and efficient having Ram of 12GB or more.		Computer system should be latest in industry, fast and efficient having Ram of 12 GB or more. All Softwares update & upgrade to be done free of cost during warranty & CMC Period. If any Hardware required to update or upgrade S/W, is to be replaced free of cost.



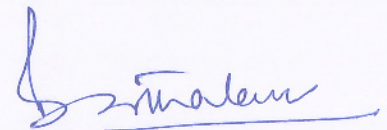
7. f.	Dedicated workstation server architecture based solution from OEM with 6 users and 3 concurrent licence for advanced application, 96 GB RAM , 3 TB Storage capacity / 3T Hard Disk, 20000 concurrent image rendering capacity.	Dedicated workstation server architecture based solution from OEM with 4 users 2 concurrent license for advance applications ,96 GB RAM,3TB Storage capacity . 16000 concurrent imaging rendering capacity <b>Remarks:</b> <i>Effective utilization of funds. With the amendment as requested, 4 Radiologist can view , report and print the images simultaneously , and only post processing which is very few in MRI, and mainly done by technician, still if Radioloigst wants to do themselves, 2 licenses are more than sufficient to fulfill the requirments. More liscenses will only increase the cost but without any clinical advantages.</i>	Dedicated workstation server architecture based solution from OEM with 4 users 2 concurrent license for advance applications ,96 GB RAM,3TB Storage capacity . 16000 concurrent imaging rendering capacity.
9 RF COIL SYSTEM			
d.	Body Imaging for the Z axis-max FOV in combination with spine along with Single or combination of anterior coils and should be of 16 channels or more. Pl specify the no of element/Channel.	Body Imaging for the Z-axis max FOV in combination with spine along with Single or combination of coils and should be of 12 Channels or more. Please specify no. of Element/Channel <b>Remark:</b> <i>GE has a 12 Channel Body Imaging in one FOV by Combination of Single Anterior Array Coil &amp; Spine Coil.</i>	Accepted . Body Imaging for the Z axis-max FOV in combination with spine along with Single or combination of anterior coils and should be of 12 channels or more.
e.	Dedicated breast coil / Breast imaging support along with the suitable application capable of performing simultaneous bilateral breast imaging. And should be of 8 channels or more.	Dedicated Breast Coil for Bilateral Breast Imaging & should be Biopsy Compatible OR e. Breast Imaging Support/ Positioner to be used with Body Coil for Bilateral Breast Imaging <b>Remarks:</b> <i>Clarification is needed whether Breast Imaging Support or Breast Coil is required.</i>	Dedicated breast coil along with the suitable application capable of performing simultaneous bilateral breast imaging. And should be of 8 channels or more.
f.	Flexible coil (Large) for imaging of large regions such as shoulder, hip and knee. And should be of 12 channels or more.Pl specify the no. of element/Channel.	Flexible coil(Large) for imaging of large regions such as shoulder ,hip and knee. And should be of 8 channel or more.Pl specify the number of element /channel. <b>Remark:</b> <i>Flexible coils are available in 4/8/16 channel config. In the tender the requirement is flex large 12 channel and flex small 8 channel, both the coil comes as package, Request you kindly make both the flex coil with similar element ie either 4 or 8 or 16 channel flex large and flex small</i>	Flexible coil (Large) for imaging of large regions such as shoulder, hip and knee. And should be of 16 channels or more.Pl specify the no. of element/Channel.
g.	Flexible coil (Small) for imaging of small regions such as wrist, elbow, and ankle. And should be of 8 channels or more.Pl specify the no of element/Channel.		Flexible coil (Small) for imaging of small regions such as wrist, elbow, and ankle. And should be of 16 channels or more.Pl specify the no of element/Channel.
j.	Wrist coil. Specify type and number of channels.	Suitable Coil for Wrist Imaging with Positioner <b>Remarks:</b> <i>Suitable Coil needs to be mentioned.</i>	wrist coil. Specify number of channels.



	(b) Automated workflow for brain, MSK like Smart exam / DOT engine/Airx	Automated Workflow for Brain, MSK should be offered. <b>Remark:</b> 'AIR-X' is GE Unique AI Automatic Slice Positioning Tool which is much superior & not Equivalent to 'SMART Exam' or 'DOT Engine'. Therefore, please delete names.	Read as- Automated Workflow for Brain, MSK should be offered.
	(k) The vendor should quote their latest and most advanced acousticsound reduction technique e.g. Quiet suite, Silenz, Comfort tone	The Vendor should quote their latest and most advanced acoustic sound reduction technique. <b>Remarks:</b> Silenz is Gradient Wave Modification technique which is not equivalent to Comfort Tone or Quiet Suite. Therefore, please delete names.	NO change in NIT. The vendor should quote their latest and most advanced acousticsound reduction technique e.g. Quiet suite, Silenz, Comfort tone
k	MRI compatible 5 para monitor along with accessories (Please specify the offered make & model)	Delete <b>Remark:</b> The specification already asks for Pulse Oximeter and 5 para monitor is very expensive in tune of 60 Lacs.	MRI compatible 3 para monitor along with accessories, such as ECG cable 1No., Spo2 Probe & BP cuff for adult & Pediatric patient (one each) (Please specify the offered make & model)
	US FDA approval of the equipment is mandatory. Please attach 510K certificate.	Also, the technical specifications clearly mention "FDA & CE Approval" since these are international regulatory norms for Technical & Clinical performance of the system especially in a medical equipment with live patient scanning. We request you retain this point.	The equipment should be FDA (please attach 510 (k) certificate)/CE/ICMED approved. And certificates should be submitted in technical bid.

**Commercial clarification:**

Sr. No	BBCI Tender Specification	Request for amendment	Response of the committee
1	Installation & commissioning schedule: Decommissioning & Dismantalling of the existing unit and installation, commissioning of the new unit and turnkey project should be completed within 180 days from the date of issue of Purchase order.	Installation & commissioning schedule: Decommissioning & Dismantalling of the existing unit and installation, commissioning of the new unit and turnkey project should be completed within 180 days from the date of issue of inland letter of credit.	Read as - Installation & commissioning schedule: Decommissioning & Dismantalling of the existing unit and installation, commissioning of the new unit and turnkey project should be completed within 180 days from the date of issue of inland letter of credit.
2	The supplier and / or its Indian agent will be required to maintain the equipment and all its bought out items (including software updates and various licenses) used for the functionality of the system in good working condition during the warranty / CMC period with 96% uptime guarantee.	The supplier and / or its Indian agent will be required to maintain the equipment and all its bought out items (including software updates and various licenses) used for the functionality of the system in good working condition during the warranty / CMC period with 95% uptime guarantee.	No change in NIT
3	Equipment shall be fully functional to be considered as the uptime. In case of partial functionality, the proportion of functionality shall be determined and downtime shall be adjusted by such proportion (i.e. if the equipment is 70% functional, 30% downtime shall be applicable). In cases where it is not possible to definitely determine the proportion of functionality, the downtime shall be considered as 100%. Essential period to shut down the equipment entirely or partially during warranty/CMC period shall also be included in the downtime while calculating the guaranteed uptime i.e. all features as per specifications in purchase order should be functional for uptime.	If the equipment available for patient scanning (i.e. hospital is using the equipment for patient scanning) It will be considered as uptime.	No change in NIT
4	The penalty applicable for downtime shall be calculated on an hourly basis and will be at the rate of 0.004% per hour (0.1% per day) of the total cost of the equipment (excluding works), during and up to the period of warranty/ CMC. There shall be a permissible down time of 360 hours per year, beyond which the down time penalty will be applicable.	The penalty applicable for downtime shall be calculated on an hourly basis and will be in the form of extension of warranty/CAMC by double the additional downtime.	No change in NIT



Director  
Dr. B. Borooah Cancer Institute  
Guwahati-16