

HSCC/PUR/CNCI/Kolkata/Medical Equipment/02/A dt. 13.07.2018**Procurement of Medical Equipment CNCI 2nd Campus**

All bidders are requested to note the following:

Item no. 01- High-Energy Linear Accelerator With IGRT/IMRT/SRS/SRT Facility and Site-Modification

Tender Specifications	May Please be Read As
Point 3.3.1: The electron beam size is defined by the inside dimensions of the electron beam applicators projected geometrically to a plane surface at 100 cm SSD. A range of field sizes from 4 x 4 cm to 25 x 25 cm is required. A method to obtain irregular field shapes shall be provided.	Point 3.3.1: The electron beam size is defined by the inside dimensions of the electron beam applicators projected geometrically to a plane surface at 100 cm SSD. A minimum of five electron beam applicators having range of field sizes from 6 x 6 cm ² to 25 x 25 cm ² is required. A method to obtain irregular field shapes shall be provided.
Point 6.1.4: Resolution and accuracy of analog readout shall be 1 ⁰ and ± 1 ⁰ or Better.	Point 6.1.4: Resolution and accuracy of readout shall be 1 ⁰ and ± 1 ⁰ or Better.
Point 6.5.11: Mechanical isocentre accuracy for couch rotation shall not 1 mm radius sphere	Point 6.5.11: Mechanical isocentre accuracy for couch rotation shall not exceed 1 mm radius sphere
General Requirements clause 1.4: 2 nos of TPS server with 128 GB or more RAM memory with Five treatment planning workstations with calculation licenses for 3D conformal planning and IMRT and VMAT planning capability and additional Five workstations for enabling contouring and virtual simulation with individual licenses should be provided. There shall be at least 10 TB storage for plan storage in addition to OIS storage. Vendor should provide the each unit price of both TPS and workstations offered	General Requirements clause 1.4: 2 no. of TPS server with 128 GB or more RAM memory with four treatment planning workstations with calculation licenses for 3D conformal planning and IMRT and VMAT planning capability and additional Five workstations for enabling contouring and virtual simulation with individual licenses should be provided. There shall be at least 10 TB storage for plan storage in addition to OIS storage.
point no. 11.1.3: UPS of suitable rating with voltage regulation and spike protection for 60 minutes back up for whole linear accelerator systems (including associated TPS, server etc.) should be provided.	point no. 11.1.3: UPS of suitable rating with voltage regulation and spike protection for 30 minutes back up for whole linear accelerator systems (including associated TPS, server etc.) should be provided.
Please note for turnkey work	<ol style="list-style-type: none"> 1. All drawings provided are AERB approved drawings. 2. Power cable will be provided to the entry of the TPS room to the supplier. 3. No. of chair required in TPS and Control room as mentioned in tender. 4. Specified AC Tonnage is 30 for whole area.

Item No. 2 - WIDE BORE 4D CT – SIMULATOR

Tender Specifications	May Please be Read As
5.7 The table should have total free floating facility	5.7 The table should have free floating facility
6.10: Prospective and Retrospective respiratory compensated/gated CT to generate 4D datasets must be compatible with all commercially available hardware and software for motion management to localize the tumor in motion. Specify the details. Required software and hardware to generate/acquire 4D CT imaging should be provided. All the necessary interfaces to connect the CT with 4D gating devices of commercially available vendors should be provided	6.10: Prospective and Retrospective respiratory compensated/gated CT to generate 4D datasets must be compatible with all commercially available hardware and software for motion management to localize the tumor in motion. Specify the details. Required software to generate/acquire 4D CT imaging should be provided. All the necessary interfaces to connect the CT with 4D gating devices of commercially available vendors should be provided.
10.4 CT number accuracy must be better than +4HU for water and +10 HU for air. All necessary phantoms to check the spatial resolution of the scanner should be provided. A phantom to check the electron density to HU relationship for different body tissues must be provided.	10.4 CT number accuracy must be better than +4HU for water and +10 HU for air. All necessary phantoms to check the CT numbers, spatial resolution etc of the scanner should be provided.
12.1 The CT-Simulator laser systems should have at least three computer controlled moving lasers for marking the isocentre without moving the table top. Following the isocentre localization in the CT-Simulation workstation, the isocentre coordinate will be sent directly to the computer system that is controlling the movements of the lasers. This computer in turn should drive all the lasers, so that without moving table, the laser point to the isocentre. The laser must be GREEN LASER system. Complete quality assurance tools must be provided.	The CT-Simulator laser systems should have at least three computer controlled moving lasers with dual diode for marking the isocentre without moving the table top. Following the isocentre localization in the CT-Simulation workstation, the isocentre coordinate will be sent directly to the computer system that is controlling the movements of the lasers. This computer in turn should drive all the lasers, so that without moving table, the laser point to the isocentre. The laser must be GREEN LASER system. Complete quality assurance tools must be provided. Brochure must be provided.
13.7 Three CT simulation workstation from same manufacturer with all licenses of software must be provided in addition to the CT workstation.	13.7 A client server based advanced Three CT simulation workstation with three concurrent licenses in addition to CT workstation must be provided in addition to the CT workstation
19.9 Stand-alone Room Dehumidifiers of adequate capacity for both LINAC room, Console Room and TPS Room to be provided to ensure condensation free atmosphere for the high value equipment.	19.9 Stand-alone Room Dehumidifiers of adequate capacity for CT Simulation room and control consol to be provided to ensure condensation free atmosphere for the high value equipment.
21.1 Equipment standard and safety should comply with the national regulatory AERB guidelines and offered model should have AERB type approval and NOC.	21.1 Equipment standard and safety should comply with the national regulatory AERB guidelines and offered model should have AERB type approval or NOC.
<p>Trunkey work for 4D CT Simulator</p> <p>AIR CONDITIONING WORKs: (10 TR HVAC)</p> <p>1. The area marked for Site Modification work needs to be air-conditioned. Package Air Conditioners may be used according to room requirement and suitability. Humidity control should be provided to effectively eliminate moisture condensation on the equipment. The Air conditioning system should be designed with standby unit(s) to provide uniform air-conditioning 24 x 7.</p>	<p>AIR CONDITIONING WORKs: (10 TR HVAC)</p> <p>1. The area marked for Site Modification work needs to be air-conditioned. Split Air Conditioners may be used according to room requirement and suitability. Humidity control should be provided to effectively eliminate moisture condensation on the equipment. The Air conditioning system should be designed with standby unit(s) to provide uniform air-conditioning 24 x 7. AC Shall be designed as per Area available at site.</p>

Item no. 03 PET – CT (POSITRONEMISSION TOMOGRAPHY CTSCAN)

Tender Specifications	May Please be Read As
2 (vii). The transverse field of view should be ≥ 70 cm	2 (vii). The transverse field of view should be ≥ 65 cm
3. CT Specifications 3.i) Multi detector CT having capability of 128 transverse cross-sectional slices simultaneously in one rotation.	3. CT Specifications 3.i) Multi detector CT having capability of 128 transverse cross-sectional slices simultaneously in one rotation with 64 physical rows of detector. Detector coverage should be at least 38 mm or higher
4. Patient Bed: i. Precision bed having low attenuation pallet and minimum sag of the patient table top. ii. A separate flat table top should be provided for radiotherapy treatment planning.	4. Patient Bed: i. Precision bed having low attenuation pallet and minimum sag of the patient table top. ii. An indexed separate low attenuation flat table top compatible with Linear Accelerator patient table should be provided for radiotherapy planning.
4. Patient Bed: iii. It should be able to bear 200 kg or more patient weight.	4. Patient Bed: iii. It should be able to bear 195 kg or more patient weight.
5. Data Acquisition Workstation and Software: i. One high performance multi-tasking Acquisition Workstation independent of main processing unit. The workstation should have a minimum 2TB SSD storage, high processor speed, and high resolution (1024 x 1024 or more) antiglare flat panel Dual LCD monitor of minimum 19” size. The workstation should be of latest specifications at the time of shipment.	Data Acquisition Workstation and Software: i. One high performance multi-tasking Acquisition Workstation independent of main processing unit. The workstation should have a minimum 2TB HDD storage, high processor speed, and high resolution (1024 x 1024 or more) antiglare flat panel Dual LCD monitor of minimum 19” size. The workstation should be of latest specifications at the time of shipment”.
5. xiv) Reconstruction time: At least 40 frames/sec.If other, please specify.	5. xiv) Reconstruction time: 25 frames/sec.
xvi. Advanced 3-D Volume rendering with 3-D fusion, Model based 3-D scatter correction, virtual endoscopy & bronchoscopy xix. Scatter Correction: Scatter correction must be provided based on scan of the actual patient whose scan is being corrected and processed automatically.	XVI. Advanced 3-D Volume rendering with 3-D fusion, Model based 3-D scatter correction, virtual endoscopy & bronchoscopy XIX. Deleted
6. Processing Workstation and Clinical Application Software: i. TWO high performance multi tasking post processing workstations having minimum 32 GB RAM, 3 GHz processor speed, minimum 1 GB graphic card, 2 TB or more SSD (if less, another SDD may be included) logically divided into 3-4 partitions, Optical Mouse, Key- board and high resolution anti-glare flat panel dual view LED monitor of ≥ 21” size with minimum resolution of 1280 x 1024. It should also have CD and DVD combo drive with writer facility. It should have both, serial and USB ports. The graphical user inter-face (GUI) should be identical to that of the acquisition unit. The computer workstation should be of latest specifications at the time of shipment.	6. Processing Workstation and Clinical Application Software: TWO high performance multi tasking post processing workstations having minimum 32 GB RAM, 2.5 GHz processor speed, minimum 500MB graphic card, 900 GB or more HDD logically divided into 3-4 partitions, Optical Mouse, Key-board and high resolution anti- glare flat panel dual view LCD monitor of ≥ 19” size with minimum resolution of 1280 x 1024. It should also have CD and DVD combo drive with writer facility. It should have both, serial and USB ports. The graphical user inter-face (GUI) should be identical to that of the acquisition unit. The computer workstation should be of latest specifications at the time of shipment.
vi. 4-D TOF or better, respiratory gating software and hardware for PET/CT acquisition and processing should be a standard feature	Respiratory Compensated/ gated PET/CT to generate 4D datasets must be compatible with all commercial available hardware and software for motion management to localize the tumour in motion. Specify the details. Required software to generate/ acquire 4D CT imaging should be provided. All the necessary

	interface to connect the CT with 4D gating devices of commercial available vendors should be provided.
7 xxvi. One Decontamination kit (Biodex, Capintec)	One Decontamination kit (Biodex, Capintec or equivalent)
	Added: The PET CT laser system for virtual simulation should have at least three computer controlled moving laser with dual diode for marking the isocentre without moving the table top . Following the isocentre localization in the CT- Simulator workstation, the isocentre coordinate will sent directly to the computer system that is controlling the movements of the laser. The computer in turn should drive all the lasers, so that without moving table, the laser must be GREEN LASER system. Computer quality assurance tools must be provided. Borchuer must be provided.
	Added: The vendor should provide 100 mCi FDG packet delivered to CNCI Kolkata (doorstep calibrated) -200 doses/year valid for first 2 years. Cost will be included in determining L1. Price to be quoted separately.

All bidders are requested to note the following:

Delivery Schedule for High Energy Linear Accelerator with IGRT/ IMRT/SRS/SRT Facility:

A.) For Imported goods directly from foreign through LC:

i. High Energy Linear Accelerator with IGRT/ IMRT/SRS/SRT Facility: Within **120 days** from date of opening of the final Letter of Credit. The date of delivery will be the date of Bill of Lading / Airway Bill.

ii. Installation & commissioning period within **90 days** from receipt of the stores/ goods delivery at site or **90 days** from handing over the site or instruction for installation, whichever is later.

B.) For Indigenous goods or for imported goods if supplied from India:

i. High Energy Linear Accelerator with IGRT/ IMRT/SRS/SRT Facility: Within **120 days** from date of Notification of award to delivery at consignee site. the date of delivery will be the date of delivery at consignee site.

ii. Installation & commissioning period within **90 days** from receipt of the stores/ goods delivery at site or **90 days** from handing over the site or instruction for installation, whichever is later.

C. 98% uptime warranty may please be read as **95%** anywhere mentioned in tender documents.

D. Bidder consider the pre delivery Third party inspection cost in there price schedule

All other terms and conditions of the tender enquiry document shall remain unchanged. Prospective bidders are advised to regularly visit HSCC website/ CPP as corrigendum /amendments etc. if any, will be notified on this portal only, no separate advertisement will published in the newspapers.

Sr. CGM-I, HSCC (I) Ltd
For & on behalf of Director CNCI, Kolkata