**GOVERNMENT OF ASSAM**
**ASSAM HEALTH INFRASTRUCTURE DEVELOPMENT AND MANAGEMENT SOCIETY**
**4th Floor, Nayantara Supermarket, Sixmile, Guwahati-781022**

**No. 639908/128** **Dated: Guwahati the** ↓

## Amendment-I

In reference to the RFB No. IN-AHIDMS-515195-GO-RFB, invited for Procurement of Procurement of of Proton Beam Therapy Unit at Guwahati, Assam including Supply, Installation, Testing and Commissioning, certain amendments enclosed as Annexure-I, have been incorporated in the RFB document. Further, replies to the bidder's queries are enclosed in Annexure-II. Bidders are requested to take the note of these Annexure-I & Annexure-II prior to the submission of bid/ proposal.

**Sd/-**
Dr. Siddharth Singh, IAS
Commissioner & Secretary to the Govt. of Assam,
MERD. cum Project Director, AHIDMS

**Amendment No. I (Annexure I)**

**RFP No:** IN-AHIDMS-515195-GO-RFB
**Consulting Services for:** Procurement of Proton Beam Therapy Unit At Guwahati Including Supply Installation, Testing And Commissioning (SITC)

| Sl No. | Clause Reference | Existing( As per RFP ) | Modified |
|---|---|---|---|
| 01 | ITB 22.1 Submission of Bids and other places of the RFB | Deadline for the Submission of Proposals<br>The Proposals must be received at the address below no later than:<br>Date: 22.01.2026<br>Time: 13:00 Hrs, IST | Deadline for the Submission of Proposals<br>The Proposals must be received at the address below no later than:<br>Date: 06.02.2026<br>Time: 13:00 Hrs, IST |
| 02 | ITB 25.1 Submission of Bids and other places of the RFB | The Bid opening shall take place at:<br>Address: Nayantara Super Market, Sixmile, Khanapara<br>Floor/Room number: 4th Floor<br>City: Guwahati<br>Country: : India<br>Date: 16.12.2025<br>Time: 1730 hrs IST (Indian Standard Time) to 1900 hrs. IST<br>The electronic Bid opening procedures shall be: as per the procedure stipulated in www.assamtenders.gov.in | The Bid opening shall take place at:<br>Address: Nayantara Super Market, Sixmile, Khanapara<br>Floor/Room number: 4th Floor<br>City: Guwahati<br>Country: : India<br>Date: 06.02.2026<br>Time: 14:00 Hrs, IST<br>The electronic Bid opening procedures shall be: as per the procedure stipulated in www.assamtenders.gov.in |
| **03** | **Section VII – Schedule of Requirements/Technical Specification/ Section II/1.18** | All upgrades and updates should be free of cost for initial 7 years from date of first patient treated | All updates should be free of cost for initial 7 years from date of first patient treated |
| **04** | **Section VII - Schedule of Requirements / 3 Technical Specifications / Section I/ 4.4** | Isocentric rotation accuracy should be: <1.0 mm. | Isocentric accuracy should be 1mm or lesser, Rotation Accuracy should be 1 degree or lesser |
| **05** | **Section VIl - Schedule of Requirements / 3 Technical Specifications / Section I / 7.2.2** | Cut off the power to the room and equipment a person is working (level two emergency). The beam must not leave the accelerator or be diverted to the beam dump within 10 psec after this button is pushed. The room light must not go out in this mode | Cut off the power to the room and equipment a person is working (level two emergency). The beam must not leave the accelerator or be diverted to the beam dump within 10 msec after this button is pushed. The room light must not go out in this mode |

| | | | |
|---|---|---|---|
| **06** | **Section VIl - Schedule of Requirements / 3 Technical Specifications / Section I / 7.2.3** | Divert or turn off the beam within 10 psec to the beam dump after the button is pushed (level three emergencies). | Divert or turn off the beam within 10 msec to the beam dump after the button is pushed (level three emergencies). |
| **07** | **Section VIl - Schedule of Requirements / 3 Technical Specifications / Section I / 7.3** | Door Interlocks: There shall be at least two electronics switches located on the door or door jamb. These switches shall function as the level three emergency button and thus stops the radiation exposure within 10 psec when the door was opened by more than 3 inches. Closing of door shall not cause the radiation to be resumed. The radiation shall resume only when door is closed and the operator initiates the exposure, assuming that all the other interlocks are properly set. | Door Interlocks: There shall be at least two electronics switches located on the door or door jamb. These switches shall function as the level three emergency button and thus stops the radiation exposure within 10 msec when the door was opened by more than 3 inches. Closing of door shall not cause the radiation to be resumed. The radiation shall resume only when door is closed and the operator initiates the exposure, assuming that all the other interlocks are properly set. |
| **08** | **Section VII - Schedule of Requirements / 3 Technical Specifications/ Section I / 8.1** | Timeline: The construction work for the bunker should be started only after getting all regulatory approval. The Bunker should not take more than 12 months. The equipment will be shipped at site only after completion of the bunker. The time for installation should not be more than 14 months. | Deleted |
| **09** | **Section VII – Schedule of Requirements/Technical Specification/ Section I /8.2 and any other places of the RFB** | Facility availability: >95% of the time during warranty period and >90% during CMC period, with clinical beam available for treatment or quality assurance between 6:00 AM and 10:00 PM, Monday through Saturday. | Facility availability: >95% of the time during warranty period and >95% during CMC period, with clinical beam available for treatment or quality assurance between 6:00 AM and 10:00 PM, Monday through Saturday. |
| **10** | **Section VII – Schedule of Requirements/Technical Specification/ Section I/ 9.1** | Training: Training for the staff should happen in an abroad advanced institute of excellence which is attached to teaching center for at least 5 years and treating more than 20 patients per day. The institute should provide opportunity to the trainee hands on experience and comprehensive involvement in all relevant areas of work. The Offsite training should be completed at least three months prior to commissioning. Off Site (Abroad) (Six Months On-site training (Own site): Continued till commissioning Offsite and onsite training are essential to get the AERB approval and clinical commissioning | Training:<br><br>Training: Training for the staff should happen in an abroad advanced institute of excellence which is attached to teaching center for at least 5 years and treating more than 20 patients per day. The institute should provide opportunity to the trainee hands on experience and comprehensive involvement in all relevant areas of work. The Offsite training should be completed at least three months prior to commissioning. Off Site (Abroad) training of Six weeks and On-site training (Own |

| | | | |
|---|---|---|---|
| | | the proton therapy system. (Four Physicists, Two Radiation Oncologists and four radiation Technologists) Training should happen at a facility which is undergoing commissioning similar model anywhere in the world outside India. The cost of training ( all inclusive) should be born by the OEM. | site) of Six month:<br>Continued till commissioning Offsite and onsite training are essential to get the AERB approval and clinical commissioning the proton therapy system. Four Physicists, Two Radiation Oncologists and four radiation Technologists nominated by the government/purchaser should receive the training in the similar model anywhere in the world outside India. The cost of six weeks of above mentioned professionals training ( all inclusive) should be borne by the OEM. The training for the Medical Physicists includes:<br>Dosimetry equipment, Proton Therapy equipment; Treatment Planning System – beam data modeling, clinical validations, treatment planning, Quality Assurance, and clinical routine workflow observation.<br>Hence the quoted training needs to be included in the above categories phase wise as per institute timeline.<br><br>**Offsite trainings (Six weeks) :**<br>Commissioning training/observation needs to be carried out at the facility going to be start for commissioning work.<br>Treatment Planning System trainings, site clinical workflow observation.<br><br>**Onsite trainings (Six Months) :**<br>The Oncology Information System (OIS) trainings needs to be included for its site specific protocols design, configuration, validation for the designed execution of routine clinical workflow.<br>The TPS beam data modelling, configuration and validation training needs to be added. |

| | | | |
|---|---|---|---|
| **11** | **Section VII – Schedule of Requirements/Technical Specification/Section I/ 10.3** | All necessary cabling like LAN, DICOM & PACS for data interface between TPS and proton therapy system; CTSIMULATOR & proton therapy system should be provided with adequate number of terminals. & Rodent protection. | Deleted |
| **12** | **Section VII - Schedule of Requirements / 3 Technical Specifications/ Section 8.7** | 2D-Array Patient-specific dosimetry QA system: Vendor should provide ONE 2D Array detectors with suitable phantom for patient-specific dose verification of proton beam. Two-dimensional arrays of ionization chambers are required to verify scanned proton beam delivery in two dimensions and can also serve for patient specific QA measurements. The panel of detectors based 1405 or more vented ionization chambers arranged in a 27x27 cm matrix with resolution of < 5mm with calibration certificate. The bias voltage applied to all ionization chambers is 1000 V to minimize ion recombination. This detector should be possible to accommodate with suitable phantom during the commissioning as well as patient QA. The suitable dosimetry software system for patient dose verification also should be provided. | 2D-Array Patient-specific dosimetry QA system: Vendor should provide ONE 2D Array detectors with suitable phantom for patient-specific dose verification of proton beam. Two-dimensional arrays of ionization chambers are required to verify scanned proton beam delivery in two dimensions and can also serve for patient specific QA measurements. The panel of detectors based 1405 or more vented ionization chambers arranged in a 27x27 cm matrix with resolution of **< 10mm** with calibration certificate. The bias voltage applied to all ionization chambers is 1000 V to minimize ion recombination. This detector should be possible to accommodate with suitable phantom during the commissioning as well as patient QA. The suitable dosimetry software system for patient dose verification also should be provided. |
| **13** | **Section VII - Schedule of Requirements / 3 Technical Specifications/ Section II/1.13** | The offer should include a total of at least 8 workstations for treatment planning and 8 contouring workstations. | The offer should include a total of at least 3 workstations for treatment planning with all quoted licenses (means each TPS contains fully loaded licenses and can work independently) and 3 contouring workstations (With all Licences). |
| **14** | **Schedule of Requirement/List of Goods & delivery Schedule & in all other places in the RFB** | Latest Delivery Date :<br>Within 3 months from the date of intimation to supply whole of the goods | Latest Delivery Date :<br>Within 6 months from the date of intimation to supply whole of the goods |
| **15** | **Section VII – Schedule of Requirements/Technical Specification** | 5. Image Guidance system specifications: Image guidance system: The image guidance system for patient setup and alignment should consist of either 2D planar stereotactic orthogonal x-ray system and 3D cone beam computed | 5. Image Guidance system specifications: Image guidance system: The image guidance system for patient setup and alignment should consist of either 2D planar stereotactic orthogonal or oblique x-ray system and 3D cone beam |

| | | | |
|---|---|---|---|
| | | tomography (CBCT) imaging or in-room CT imaging. The system should have capability of high quality imaging in a less time with lower radiation dose.<br>5.1. Stereoscopic orthogonal 2D-x-ray KV image guidance system: vendor should provide a orthogonal KV-based planar x-ray imaging for offline verification and stereoscopic image guidance system for real-time verification with following technical specification. | computed tomography (CBCT) imaging or in-room CT imaging. The system should have capability of high quality imaging in a less time with lower radiation dose.<br>5.1. Stereoscopic orthogonal or oblique 2D-x-ray KV image guidance system: vendor should provide a orthogonal or oblique KV-based planar x-ray imaging for offline verification and stereoscopic image guidance system for real-time verification with following technical specification. |

***e-signed***
Dr. Siddharth Singh, IAS
Commissioner & Secretary to the Govt. of Assam,
MERD. cum Project Director, AHIDMS

**Amendment No. I ( Annexure II- Replies to Bidder's Query)**

**RFP No:** IN-AHIDMS-515195-GO-RFB

**Consulting Services for:** Procurement of Proton Beam Therapy Unit At Guwahati Including Supply Installation, Testing and Commissioning.

| Sr. No. | Clause No. | Pg. No. | Original Clause | Clarification / Suggestion by the Participants | AHIDMS Response |
|---|---|---|---|---|---|
| 1 | **Specific Procurement Notice Template / Clause 4** | 03 | Bids will be evaluated in accordance with the evaluation process set out in the bidding documents. The following weightings shall apply for Rated Criteria (including technical and non-price factors): 10% and for Bid cost: 90% | We see that in most tenders the repartition of points is 60-80% technical and 20-40% price in order to adequately account for the technical quality of the equipment tendered. Can the authority adjust its evaluation to those standard repartitions? | RFB provision shall prevail. |
| 2 | **Specific Procurement Notice Template / point 9** | 04 | All Bids must be accompanied by a "Bid Security" of INR 8,00,00,000.00. (USD 919,540.00) Bid security will have to be in any one of the forms as specified below and shall have to be valid for days beyond the validity of the bid. Procedure for submission of bid security is described in Para 9. | - The amount of the Bid Security is surprisingly high and clearly above industry standard for such projects in India. The last public tender in India successfully executed for such type of equipment (with a way larger scope) was coming with an 'earnest money deposit' of 'Rs.25 Lakhs' (INR 25,00,000.00) — the bid security of INR 8,00,00,000.00 as requested is 32 times that amount and therefore seems excessive. Could you kindly confirm that this bid bond requirement can be reduced to INR 80,00,000.00 (91,954 USD) instead of 10 times the amount?<br>- Could you further kindly confirm that such amount can also be guaranteed through a corporate guarantee issued by the bidders mother company?<br>- Can you please indicate the validity time of the Bid Bond? | RFB provision shall prevail. |
| 3 | **ITB 14.5** | 24 | Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account, unless | - We understand that the Equipment price must be a fixed price, but can the price of the CMC be indexed annually during the course of the Contract? | No deviation in the RFB condition related to CMC price. Bidder may quote as per their pricing mechanism |

| | | | | | |
|---|---|---|---|---|---|
| | | | otherwise specified in the BDS. A Bid submitted with an adjustable price quotation shall be treated as nonresponsive and shall be rejected, pursuant to ITB 31. However, if in accordance with the BDS, prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract, a Bid submitted with a fixed price quotation shall not be rejected, but the price adjustment shall be treated as zero. | | |
| R4 | **Section III/Technical Part/ Qualification Criteria 3** | 62 | The minimum average annual financial turnover of the bidder during the last three years (calculated as total certified payments received for contracts in progress or completed within the last 3 financial years such certificates should be issued by the registered accountant in the Bidder's country), should be at least:<br>Currency Amount INR 400 crore USD 45 million EURO 39 million GBP 34 million Any other foreign currency Equivalent of INR amount shown above, converted to INR as per the provision mentioned in ITB/BDS 36.1 | - The bidding entity is, amongst other things, required to demonstrate to have 39 MEUR of average annual financial turnover, as well as be an Original Equipment Manufacturer. Our wholly owned Indian entity (Local Company) does neither have such financial turnover, nor is it Original Equipment manufacturer. Local Company is, however, a wholly owned subsidiary of the Original Equipment manufacturer (Mother Company), incorporated over a decade ago for conducting Mother Company's business in India. Local Company has successfully carried out several Proton Therapy projects in India so far and has also sold such system in India. Actually, Local Company possesses all the credentials required in India, such as registrations, permits and the like. It further possesses all the know-how required to carry out the sale, installation and maintenance of Mother Company's Proton Therapy Systems. Further, it is fully backed up by the know-how and financial strength of the Mother Company. Due to several structural reasons specific to Proton Therapy projects, including the Tender, such as notably installation time, the Mother Company cannot fully execute the Tender itself— for that very reason, the Local Company was created over a decade ago and has successfully been in the | RFB provision shall prevail. Joint venture (JV) is allowed in this RFB for combining strength of two parties to participate in the bid. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | business of selling, installing and maintaining Proton Therapy Systems ever since (to the full satisfaction of our Indian customers, as demonstrated by a new contract signed in 2025 by the Local Entity with one of its existing customers). To our knowledge today, no original equipment manufacturer for the type of equipment tendered here exist in India, such structural considerations should apply to all potential tenderers. In short, kindly note that the Local Company is the only entity that can fully fulfill all operational obligations as required under the Tender itself, contrary to the Mother Company. Therefore, could you kindly confirm that our Local Entity may consider being fully benefited from its Mother Company's financial and technical credentials for the purpose of meeting the tender's qualification criteria, in order to enable our bid?<br><br>- The BDS in its section regarding ITB 17.2 (b) requires the bidder to carry out all after sales services. This is in contradiction to the BDS regarding ITB 17.2 (a) requiring OEMs to be the bidder, as international OEM bidders (to our knowledge, there are no potential Indian OEM bidders) cannot do service in India themselves. Could you therefore confirm that ITB 17.2 (a) shall prevail over the respective section of the BDS? | OEM in case of single entity bidder ; either OEM or JV partner, in case of JV bidding, has to provide after sales service |
| 5 | **Section IV – Bidding Forms / Table of Forms** | 69 | Functional Guarantees, Manufacturer's Authorization, Form of Bid Security (Bid Bond), and Form of Bid-Securing Declaration. | There are five (5) forms listed in the Table of Forms that do not show up in the bid document. Can you please confirm these forms were removed on purpose, and we do not need to provide them?<br>• Functional Guarantees<br>• Manufacturer's Authorization<br>• Form of Bid Security (Bid Bond) | • Manufacturer's Authorization<br>• Form of Bid Security (Bid Bond)<br>• Form of Bid-Securing Declaration<br>These forms are not applicable.<br><br>No specific form is stipulated for Functional Guarantees. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | • Form of Bid-Securing Declaration<br>• Price Schedule: Goods Manufactured Outside the Purchaser's Country, already imported | Price Schedule: Goods Manufactured Outside the Purchaser's Country, already imported is available in Financial Bid format. |
| 6 | **Price and Compensation Schedule – Related Services/ Clause 1** | 86 | Integrated building design for civil construction, including Good For Construction (GFC) drawing, Electrical, Mechanical, Plumbing drawing, Interior drawing, Bill of Quantity etc. | Please confirm that the bidder needs only to provide detailed instructions on the equipment building requirements as outlined in an Interface Building Document (IBD) that includes all the necessary information for the authority's architect to make the general layout and later on detailed drawings by/for the construction company.<br>Could you also confirm that the building is excluded from the scope of this tender at the condition that the Bidder supports and trains the authority's architect and construction company during the tender, design and construction phase of the infrastructure?<br>On December 16", it was stated that the building items will be excluded from the Proton Therapy Equipment vendor requirements. As a conclusion, all items in categories such as CCTV, Radioprotection, Treatment Safety System (TSS), UPS, HVAC, and 2-way audio communication should be removed from the requirements. Can you please confirm this will be updated in the final version of the Tender document and redistributed in a clear version? | Construction of building to house the proton therapy unit is excluded from the scope of this tender. However, other provisions related to concurrent supervision, monitoring etc. and providing Integrated building design for civil construction, including Good for Construction (GFC) drawing, Electrical, Mechanical, Plumbing drawing, Interior drawing, Bill of Quantity etc. shall prevail. |
| 7 | **Section VII - Schedule of Requirements / 3 Technical Specifications / Section I** | 100-102 | Technical specifications for Proton Therapy System | As indicated in a standard Interface Building Document (IBD), please confirm that the hereunder items are not to be provided and installed by the bidder:<br>o Question 7.1: the audio and visual<br>o Question 7.2: emergency buttons with cabling (following IBD specifications)<br>o Question 7.3: door interlocks (following IBD specifications) | RFB provision shall prevail. Bidder has to comply all the requirement mentioned in these provisions. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | o Question 7.4: radiation monitoring<br>o Question 10.3: cabling between CT-sim and PT system<br>o Question 10.4: cabling for phone (including phones), LAN...., earthing, conduits, light switches and power plugs<br>o Question 12.6: warning lights and symbols | |
| 8 | **List of Goods and Delivery Schedule** | 95 | Latest Delivery Date Within 3 months from the date of intimation to supply whole of the goods | The delivery dates do not match the industry standard for proton therapy equipment. Can you confirm that the start of installation will occur 24 months following contract signature, which corresponds to the time to complete the building design, obtain permits/authorization and construct the infrastructure? Completion of the building is a necessary condition to start the installation of the equipment. | Bidder shall be intimated to supply all the goods after completion of the building to house the goods.<br><br>Please refer to Sl no, 14 of Amendment No. I (Annexure I) |
| 9 | **Section VII - Schedule of Requirements / 3 Technical Specifications / Section I/ 4.4** | 99 | Isocentric rotation accuracy should be: <1.0 mm. | rotation accuracy in mm should be replaced by <1.0 degree? | Please refer to Sl. No, 4 of Amendment No. I (Annexure I) |
| 10 | **Section VIl - Schedule of Requirements / 3 Technical Specifications / Section I / 7.2.2 & 7.2.3 & 7.3** | 100 | Cut off the power<br>Divert or turn off the beam<br>Door Interlocks<br>within 10 psec | You specify a time in picoseconds that is not reachable. Can you confirm that you meant “10 msec” rather than “10 psec”? | Please refer to Sl. No. 5 of Amendment No. I (Annexure I) |
| 11 | **Section VII - Schedule of Requirements / 3 Technical Specifications** | 101 | Timeline: The construction work for the bunker should be started only after getting all regulatory approval. The Bunker should not take more than 12 months. The equipment will be shipped at site only after completion of the | The time for the bunker to be constructed is handled by the Customer’s Construction and Design Team. The duration of the bunker construction is not under the equipment bidder control. Please remove it from this tender. | Please refer to Sl. No. 8 of Amendment No. I (Annexure I) |

| | | | | | |
|---|---|---|---|---|---|
| | **/ Section I / 8.1** | | bunker. The time for installation should not be more than 14 months. | | |
| 12 | **Section VII – Schedule of Requirements /Technical Specification/ Section I /8.2** | 101 | Facility availability: >95% of the time during warranty period and >90% during CMC period, with clinical beam available for treatment or quality assurance between 6:00 AM and 10:00 PM, Monday through Saturday. | - Can you confirm that the uptime is only applicable for the proton therapy equipment? If you refer to the whole facility, including infrastructure, it is not under the responsibility of the equipment bidder. Please remove or clarify that sentence, limiting it to the proton equipment.<br>- As far as we refer to 6 days of clinical operations per week, the standard is 5 days per week to enable the equipment supplier to perform maintenance tasks during the weekend. This is how the bidder can guarantee the uptime of the system during 5 days, Monday to Friday. Can you please confirm this is acceptable? | Please refer to Sl. No. 9 of Amendment No. I (Annexure I) |
| 13 | **Section VII – Schedule of Requirements /Technical Specification/ Section I/ 9.1** | 102 | Training: Training for the staff should happen in an abroad advanced institute of excellence which is attached to teaching center for at least 5 years and treating more than 20 patients per day. The institute should provide opportunity to the trainee hands on experience and comprehensive involvement in all relevant areas of work. The Offsite training should be completed at least three months prior to commissioning. Off Site (Abroad) (Six Months On-site training (Own site): Continued till commissioning Offsite and onsite training are essential to get the AERB approval and clinical commissioning the proton therapy system. (Four Physicists, Two Radiation Oncologists and four radiation Technologists) Training should happen at a facility which is undergoing commissioning similar model anywhere in the world outside India. The cost of training ( all inclusive) should be born by the OEM. | - We agree to perform the training within a duration of 6 months. and should be finished before the acceptance of the proton system starts in ASSAM.<br>- The authority has listed 10 persons to receive the training.<br>- We propose to split a total training effort of 24 person* weeks (which amounts to a total of 6 months) as follows, between the different profiles: o Three weeks for each of the four physicists,<br>o Two weeks for each of the two radiation oncologists and<br>o Two weeks for each of the four radiation technologists o Total = 24 person*weeks - The Bidder will include the costs of the Training time for the above volume and listed profiles in its price. - However, the salary, travel costs, local accommodations, per diem of the participants shall be borne by the Authority. | Please refer to Sl. No. 10 of Amendment No. I (Annexure I) |

| | | | | | |
|---|---|---|---|---|---|
| 14 | **Section VII – Schedule of Requirements /Technical Specification/ Section I /9.2** | 102 | The vendor should provide three personnel duly familiar with the quoted model for carrying out the commissioning of the Proton machine. | - As discussed during the prebid meeting, there are two commissioning during such a proton project :<br>o The nonclinical commissioning phase is the one that happens at the end of the installation during which the Bidder demonstrates to the Authority that the installed system meets all the technical specifications listed in the acceptance test protocol (ATP) document. The bidder will monopolize the necessary human resources and tools required to pass the ATP successfully. This will be done in the presence of the Authority medical physicists who will witness these tests. This phase is under the responsibility of the equipment supplier.<br>o The clinical commissioning phase starts the day after ATP have successfully been passed. The physicist medical team of the Authority will acquire all beam data that is necessary to create the Beam Model by the TPS vendor selected by the Authority. With the dosimetry equipment, the medical team of the Authority will verify that the dose planned by the TPS is delivered to a phantom. When such delivery is done within the tolerances, the treatment of the first patient can be scheduled. By law, this phase is under the responsibility of the end-user.<br>- The Bidder will offer, as an option, the assistance of an Application Specialist who will support the medical physicists team in performing the clinical commissioning phase until the first patient. Such support will be detailed in the Bidder's offer in terms of manpower.<br>- Please confirm your understanding that clinical commissioning is the responsibility of the Authority and the Authority would like to have the option to request the assistance of an Application Specialist of the equipment supplier during that phase. | It is clarified that bidder will provide hand holding & technical support the client's technical & clinical team to successfully provide safe radiation doses to the first selected patient and as such RFB provision shall prevail. |

| | | | | | |
|---|---|---|---|---|---|
| 15 | **Section VII – Schedule of Requirements /Technical Specification/ Section I/ 10.3** | 102 | All necessary cabling like LAN, DICOM & PACS for data interface between TPS and proton therapy system; CTSIMULATOR & proton therapy system should be provided with adequate number of terminals. & Rodent protection. | - The items in the list are the responsibility of the Design and Build Team and not the proton therapy vendor.<br>- Such equipment will be provided by the construction company. Please remove it from the Equipment vendor tender. | Please refer to Sl. No. 11 of Amendment No. I (Annexure I) |
| 16 | **Section VII – Schedule of Requirements /Technical Specification/ Section II / 1.1** | 103 | The proton treatment planning system (PTPS) is required for treatment planning purpose for delivering proton beam treatment with pencil beam scanning (PBS) technology based multi room proton therapy delivery system with dedicated nozzle for PBS delivery and capable for planning of delivering intensity modulated proton therapy (IMPT) and ARC therapy, SRS/SBRT, 4D Radiotherapy and adaptive radiotherapy. | - OIS/TPS software developments are happening very frequently. TPS/OIS should ideally be purchased upon the start of the installation (more or less two years after equipment purchase). This purchase should be concluded between the Authority and the selected software provider. As such, we would advise the Authority to descope TPS/OIS from the equipment bid. Could you please confirm that TPS/OIS will be descoped from the tender?<br>- If not, it will be difficult (and risky for the Authority) for Bidder to select which of the validated software providers (Varian, Elekta, RaySearch, etc.) should be included in the bid. Bidder has an open vendor TPS/OIS approach, and the choice of software provider is always made by the end-user. It is usually recommended to select the same software that is currently used with the linacs in the radiotherapy department. If it is the case, the authority should give instructions to the Bidder. The Tender does not specify any specific provider for TPS/OIS. Without this information, the Bidder can only consult the different TPS/OIS vendors and request their proposals. One of them will be selected by the Bidder and proposed to the Authority. Other offers could be added as Appendices if the Authority requests it. Note that Bidder will limit its offer to the delivery, installation and warranty period offered by the selected TPS/OIS vendor (pass through to the | RFB provision shall prevail. Bidder must provide latest version of the compatible TPS already being used with their earlier installation having features as stipulated in the RFB. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | Authority). No service commitments beyond the warranty time provided by the software providers can be offered by Bidder. The Authority will have to contract directly with the selected TPS/OIS providers to extend their standard warranty. | |
| 17 | **Section VII – Schedule of Requirements /Technical Specification/ Section II/1.18** | 104 | All upgrades and updates should be free of cost for initial 7 years from date of first patient treated | - Not possible as the list of upgrades (who provide new features to the system, like _____ who will become commercially available is unknown today and hence, cannot be budgeted.<br>- Updates will be included in the CMC.<br>- Please confirm your understanding of this important differentiation between "Upgrades" and "Updates". | Equipment should be of latest upgraded version at the time of delivery.<br>Please refer to Sl. No. 3 of Amendment No. I (Annexure I) |
| 18 | **Section VII – Scheduled of Requirment/ 5. Inspection and Tests** | 128 | The inspection and testing shall be followed as per regulatory norms as specified by the Atomic Energy Regulatory Board and other agencies pertaining to electrical safety etc; and as mentioned in the Technical Specification section. | Can the bidder submit Acceptance Test Protocols in its Bid response, which shall be considered to comprehensively describe all such tests to be conducted? | It is the responsibility of the bidder to comply with all regulatory norms during the commissioning using their acceptance test protocol . Therefore, RFP provisions shall prevail. |
| 19 | **Section IX – Special conditions of contract** | 156-166 | Terms of Payment (System)<br>Terms of Payment (Installation)<br>Terms of Payment (CMC)<br>Performance Security<br>Liquidated Damages for delay Liquidated Damages during CMC<br>Warranty conditions | In reviewing the Special Conditions of the Contract (SCC), specifically Sections 13.1, 16.1, 18.1, 18.4, 27.1, 28.3, 28.5, and 28.6, we have identified key conditions that are clearly out of industry standards. These include terms of payment for the system, installation, and CMC, performance security, liquidated damages for delay and during CMC, and warranty conditions. For example, the SCC specifies system payment terms as 20% on order, 0% one year after, 10% upon shipment, and 70% upon acceptance, whereas industry standards are 25–35% on order, 25–35% one year after, 25–35% upon shipment, and 5–15% upon acceptance. For installation, the SCC sets 10% on order, 0% one year after, 20% upon shipment/documents, and 70% upon acceptance, compared to industry standards of 25–35% on order, 25–35% one year after, 25–35% | RFP provisions shall prevail |

| | | | | | |
|---|---|---|---|---|---|
| | | | | upon shipment, and 5–15% upon acceptance. Performance security under the SCC is yearly after service at 15% of total contract value, while industry standards are 5% of equipment contract value. Liquidated damages in the SCC are 0.5% per week from order until the end of CMC, while industry standards are 0.05% per week from shipment until acceptance. Warranty conditions under SCC require repair within 24 hours, compared to industry standards to start repair within 24 hours.<br><br>Could the Authority come back with a revised proposal corresponding to industry standards? If the terms remain as such, it is most likely that we will not be able to bid. Kindly note that this list of questions is non-exhaustive and may be extended by us at a later moment, as we have several additional minor points related to the contract that we assume will be discussed during negotiations following the award of the bid | |
| 20 | **Section VII – Schedule of Requirements /Technical Specification** | 97 | System Overview: Bids are invited for the supply of state-of the-art (at the time of supply) pencil beam scanning technology based Compact Gantry suitable to treat patients with lying down position Proton Therapy System ( scalable to two gantries with beam match feasibility) capable of Image-Guided, Intensity Modulated Proton Therapy (IGIMPT). The Proton therapy system must have the latest technology and should be fully computer controlled. The proton therapy system includes particle accelerator, proton treatment gantry rooms, in- room imaging system, treatment planning system, oncology information system, dosimetry and quality assurance equipment, patient positioning and immobilization devices. The | 1)Treatment room sizes will vary from vendor to vendor. 2)Buyer may share details of existing PACS systems to access the integration with the proton therapy system. 3)Buyer may share preferred PACS systems | RFB provision shall prevail. Additionally, the specification and physical visit to PACS will be made available on request. |

| | | | | | |
|---|---|---|---|---|---|
| | | | proton therapy system should be capable of integrating with standard computer networking and PACS systems available in the market and Institute. | | |
| 21 | **Section VII - Schedule of Requirements / 3 Technical Specifications / Section I /7.1** | 100 | 7.1. Patient Monitoring and communication system: Each treatment room must have patient viewing and communication equipment (audio-visual). This will consist of a minimum of 4 night vision cameras mounted (preferable one zoom, pan and wide angle) so that at least one camera is capable of meaningful observation of the patient at any gantry or table position. Two-way audio communication should be provided. | Preferred makes and technical specifications of the AV systems may be shared. | AV systems of reputed makes which is already installed and well-functioning with the past supply should be offered. |
| 22 | **Section VII - Schedule of Requirements / 3 Technical Specifications / Section I/7.4** | 101 | 7.4. Radiation Monitoring & Warning As per AERB : All appropriate and regulatory required proton, photon and neutron (Highest energy producing) monitoring equipment, warning signs and access control should be provided for appropriate areas of the facility. A red and white light shall be located above the treatment room door. The white light shall be turned on whenever the accelerator power is turned on without the beam in the accelerator and beam lines. The red light at the entrance of each treatment room shall be flashing during the delivery of the beam to that treatment room. The control console shall be equipped with an indicator indicating that the accelerator's main power is on. It shall also be equipped with an indicator indicating that the beam is being delivered to that room and that high radiation exposure exists during the beam-on mode. Minimum 3 nos. each (for photon & neutron) should be provided and as per the existing AERB rules | Existing AERB guidelines/standards may be shared. | As per safety standard of national authorities, specified by the competent authority from time to time. Bidder should undertake due diligence for latest guidelines/regulation. |

| | | | | | |
|---|---|---|---|---|---|
| 23 | **Section VII - Schedule of Requirements / 3 Technical Specifications / Section I/7.7** | 101 | 7.7. National Regulation compliance: All safety features shall meet the Indian national regulatory requirement in additional to the international regulatory requirements. The vendor should provide last-man-out switch safety mechanism and should fulfill all other necessary national safety compliance. | Buyer may share specifics of the regulatory guidelines to be followed by bidder. | The Bidder must avail NOC/Type Approval from AERB. |
| 24 | **Section VII - Schedule of Requirements / 3 Technical Specifications / Section I /8. 0** | 101 | 8.1. Timeline: The construction work for the bunker should be started only after getting all regulatory approval. The Bunker should not take more than 12 months. The equipment will be shipped at site only after completion of the bunker. The time for installation should not be more than 14 months. | Buyer may provide the timelines for getting regulatory approvals and the list of regulatory approvals to be taken before permission is granted for construction of bunker. Can the equipment be shipped during the construction of bunker. | Please refer to Sl no. 8 of Amendment No. I (Annexure I) |
| 25 | **Section VII - Schedule of Requirements / 3 Technical Specifications / Section I/10.5** | 102 | 10.5. The PROTON facility should be DICOM connected with all existing radiation facility and multimodality Imaging facility including CT, PET and MRI etc. | Buyer may provide detailed as build drawings of the existing radiation facilities to access the connectivity for DICOM | Interface to be provided as per technical Specification after Site inspection. |
| 26 | | | | Turnkey Project/Structure for the Tender We strongly recommend that project is developed on a full turnkey basis and not as separate equipment and building procurements. On the basis that the Authority is seeking to provide equipment and services at a single site, we would ordinarily expect that the procurement would involve both construction of the facility and the equipment in order that the contracting party takes the risk of the delivery of the whole project (and not the equipment and building separately) and by which the equipment procurement would be 'nested' within the wider a wider full project procurement. This approach eliminates the building interface risk which otherwise sits with the Contracting Authority | RFB provision shall prevail. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | (including risks of delays to either or both of the supply of equipment or building readiness, requirements for changes to specifications and day-to-day interactions between the Equipment supplier and the Building Contractor). These risks are often contractually complex on the basis that they are between unrelated equipment supplier and building contractor parties (and require a sophisticated contractual co-operation model). We consider that this 'building interface' is fundamental and is often most complex element of Proton Beam Projects: particularly, but not only, in the context of building design and radiation shielding requirements. Please can the Contracting Authority confirm that it is prepared to adopt a turnkey structure or accept alternative bids that propose a turnkey structure? Where the Contracting Authority is not prepared to adopt or consider the turnkey approach, please can it kindly: 1. indicate why not; and 2. advise how it proposes to manage the interface risk between the separate equipment and the building procurements? Where it progresses with separate equipment and building procurements, we recommend that the Contracting Authority requires each bidder to address how it proposes to manage the building interface risk. | |
| 27 | **ITB 4.1** | 51 | JV | Corporate Structure of the Team/Bidding Entity. It is not clear why the Contracting Authority has stipulated particular and limited corporate structures for this tender project: there are a number of ways that the organization(s) delivering the project can be structured and organized for a project with an output specification of this nature. We recommend that these limitations are lifted to promote competition and widen choice for the Contracting Authority and we should be grateful for | RFP provision shall prevail. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | the Contracting Authority's confirmation on the same. For example, the structure requirements can be amended to allow the Authority to receive bids from a lead contactor bidder company, a consortium or a joint venture entity, whilst at the same time permitting the bidder entity to subcontract with approved subcontractors (whose expertise can be used for the benefit of the project). Such an approach would mean that that the Contracting Authority does not suffer any detriment (irrespective of the number of parties in its supply chain) and the Contracting Authority will at all times deal with a single entity. One such approach would be to have a lead contractor or special purpose vehicle that subcontracts with a subcontractor supply chain that can (between them) deliver: equipment, equipment operation and maintenance services, radiation shielding and building interface advice, clinical support, and training services amongst other things. Equally, there is no apparent reason that the counterpart entity needs to be an OEM or that there is a requirement for the OEM to have a substantial membership/shareholding in the bidder contracting entity. Please can the Contracting Authority confirm that it will accept a structure by which the contracting entity takes full responsibility and liability for the OEM supply and services commitments under the project vis-a-vis the Contracting Authority (noting that the OEM will be part of the contracting entity subcontract supply chain), and through which the contracting entity will be able to provide full security to the Contracting Authority for the whole project including security for the equipment supply, installation and service provision. This, we suggest, is a typical structure used for healthcare equipment projects (and other | |

| | | | | | |
|---|---|---|---|---|---|
| | | | | social infrastructure) worldwide. As per Section -1, ITB(pages 7-8),point 4 Eligible bidders its mentioned that the JV partners can nominate a representative who shall have the authority to conduct all business on behalf of any or all the members of the JV.Also it is mentioned that there is no limit on the number of members in the JV.However during the pre bid it was mentioned that equipment supplier has to be the lead bidder and the max number of members allowed in the JV is two.Pls clarify this as in our case the leader will be _____ which meets the financial eligibility criteria with as Knowledge Partner and Equipment Supplier respectively. As required in point 17,Pronova being the OEM of the equipment will provide the Manufacturers Authorisation Certificate to Swan Corp Ltd in the format in Section IV to demonstrate that Swan Corp Ltd is duly authorized to sell the equipment in India. As per Section III,Evaluation and Qualification Criteria(Pages 53-54),its mentioned in point (a) that for a joint venture the requirement of Rs 400 cr shall be met by the lead member and other member must fulfill 25% of the above requirement. We request you to review this criteria as we understand the bidder which could be a JV (as per Section -1 of the ITB) should meet the requirement of Rs 400 cr and the requirement of 25% ie Rs 100 cr should be met by the rest of the members of the JV/Consortium. The requirement of Rs 400 Cr can be jointly met by the members of the JV. | |
| 28 | **Section VII - Schedule of Requirements / 3 Technical Specifications** | 104 | All upgrades and updates should be free of cost for initial 7 years from date of first patient treated | 1. Bidders cannot commit to 'free upgrades' for the next seven years, on the basis that this is too unpredictable and cannot be costed in the financial offer at this stage. We will, of course, be able engage with the Contracting Authority to identify and agree | Please refer to Sl. No. 3 of Amendment No. I (Annexure I) |

| | | | | | |
|---|---|---|---|---|---|
| | **/ Section II / 1.18** | | | possible improvements and upgrades to the Equipment over time where these are appropriately costed and such improvements/upgrades can be paid for separately on a 'case-by-case' basis. 2. Please check at point the points 7.2.2-7.2.3, and 7.3 the requirements for a beam dump or beam shut-down in 10 pico-seconds. Is it correct the timescale required? | |
| 29 | **Section II, BDS - ITB 40.1** | 45 | Evaluation of combined Technical and Financial Parts | 1) Evaluation Criteria Weighting (Section II, BDS - ITB 40.1) Reference: 1. Section II – Bid Data Sheet (BDS), ITB 40.1: "The weight to be given for Part B i.e. Rated Criteria... is 10%." and "The weight to be given for cost is: 90%." 2. Section III – Evaluation and Qualification Criteria: Combined Evaluation formula. We respectfully request a reconsideration of the evaluation weighting specified in ITB 40.1, currently set at 90% for Price and only 10% for Technical Quality. A Proton Beam Therapy (PBT) project represents an exceptionally high level of technological complexity and requires rigorous integration between the equipment and the civil infrastructure (Turnkey execution). Prioritizing price so heavily (90%) disproportionately favors the 'Lowest Bidder' rather than the 'Most Advantageous Bidder' in terms of clinical performance and operational reliability. 2) Request for Amendment regarding Technical Qualification Criteria (Section III, Part A) and Bid Evaluation Process (ITB 32.4) Reference: 1. Section II – Bid Data Sheet (BDS), ITB 32.4: "Part A is the mandatory criteria... which must be fulfilled... to be considered for financial opening... else bidder will be treated as non-responsive." 2. Section III – Evaluation and Qualification Criteria, Part A, Clause 1(f): "Complete Technical Conformity of the Technical Specification..." 3. Section II – Bid Data Sheet (BDS), ITB 33.1: "Notification... that their | RFB provision shall prevail. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | Financial Part of Bid shall not be opened" for nonresponsive bids. We respectfully submit that the requirement for 'Complete Technical Conformity' as a mandatory 'Pass/Fail' criterion under Part A is excessively restrictive for a hightechnology project like this. Currently, ITB 32.4 and Section III, Part A (f) imply that a single deviation from the Technical Specifications—regardless of its materiality or impact on clinical performance—will result in the bid being declared 'non-responsive,' thereby preventing the opening of the Financial Part. Given the complex and customizable nature of Proton Beam Therapy systems, we request that the Authority amends these clauses to allow for 'Substantial Responsiveness' in Part A, permitting minor technical deviations that do not materially affect the system's performance. We propose that such deviations be evaluated or loaded during the Technical Scoring (Part B) or clarified, rather than leading to immediate disqualification. This amendment ensures that the Authority is not deprived of a potentially 'Most Advantageous Bid' (commercially) due to a minor technical non-conformity." 6) All Government tenders in India mentions compulsory compliance regarding the guidelines issued by the Government of India order "Public Procurement No.1 issued vide OM F.No.6/18/2019-PPD dated 23.07.2020 regarding "Restriction under rule 144 (xi) in the GFRs 2017 of Govt of India is applicable as per Para 11 of the order in case of works contracts ,including turnkey contracts ,contractors shall not be allowed to sub contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority. A bidder is permitted to procure raw | Government of India order "Public Procurement No.1 issued vide OM F.No.6/18/2019-PPD dated 23.07.2020 regarding "Restriction under rule 144 (xi) in the GFRs 2017 of Govt of India is NOT applicable for this procurement under World Bank financed Project |

| | | | | | |
|---|---|---|---|---|---|
| | | | | materials,components,sub assemblies etc from the vendors from countries which shares a land border with India. Such vendors shall not be required to be registered with the Competent Authority, as it is not regarded as Sub Contracting. However in case the bidder has proposed to supply finished goods procured directly/indirectly from the vendors from the countries sharing land border with India,such vendor will be required to be registered with the Competent Authority. May please confirm if this clause is applicable in this tender. | |
| 30 | **Section VII - Schedule of Requirements / 3 Technical Specifications** | 97 | Bids are invited for the supply of state-of the-art (at the time of supply) pencil beam scanning technology based Compact Gantry suitable to treat patients with lying down position Proton Therapy System ( scalable to two gantries with beam match feasibility) capable of Image-Guided, Intensity Modulated Proton Therapy (IG-IMPT). | Gantry less systems should also be included in the tender. P-Cure eliminates the large rotating gantry that traditional proton systems. Gantry-less systems dramatically reduce room size and shielding requirements — reportedly about five times smaller than a gantry room and needing roughly 50 % less shielding. Pencil beam scanning technology based Compact Gantry / Gantry-less | RFB provision shall prevail. |
| 31 | **Section VII - Schedule of Requirements / 3 Technical Specifications** | 97 | Bids are invited for the supply of state-of the-art (at the time of supply) pencil beam scanning technology based Compact Gantry suitable to treat patients with lying down position Proton Therapy System ( scalable to two gantries with beam match feasibility) capable of Image-Guided, Intensity Modulated Proton Therapy (IG-IMPT). | Patient positioning should be included : Seated & supine treatment: P-Cure can treat patients in either seated or traditional supine positions, which is uncommon for conventional gantry-based systems. This may improve patient comfort and reduce organ motion in certain cases. | RFB provision shall prevail. |
| 32 | **Section VII - Schedule of Requirements / 3 Technical Specifications / Section I/5.5** | 100 | Vendor must provide base plate for keeping the 3 D water Phantom for measurement. | The base plate must be optional | RFB provision shall prevail. |
| 33 | **Section VII - Schedule of** | 121 | The vendor must supply one Multi- layer ion chamber device complete with its software to | Must be changed as “measurements in the range at least 300 mm in water equivalent thickness (WET)” | RFB provision shall prevail. |

| | | | | | |
|---|---|---|---|---|---|
| | **Requirements / 3 Technical Specifications / Section IV/8.1** | | allow fast and high resolution measurement of Spread Out Brag Peaks (SOBP) and Pristine Brag Peaks (IDD/ range) measurements in the range 2-335 mm in water equivalent thickness (WET). | | |
| 34 | **Section VII - Schedule of Requirements / 3 Technical Specifications / Section IV/8.7** | 123 | The panel of detectors based 1405 or more vented ionization chambers arranged in a 27x27 cm matrix with resolution of < 5mm with calibration certificate. | The panel of detectors based 1405 or more vented ionization chambers arranged in a 27x27 cm matrix with resolution of < 10 mm with calibration certificate. | The panel of detectors based 1405 or more vented ionization chambers arranged in a 27x27 cm matrix with resolution of < 10 mm with calibration certificate. |
| 35 | **Section VII - Schedule of Requirements / 3 Technical Specifications / Section IV/8.6** | 123 | Log based file analysis complete software and hardware set may be provided for PSQA. | May be made as an optional: "PTW does not have software in their product portfolio" | RFB provision shall prevail. |
| 36 | **Section VII - Schedule of Requirements / 3 Technical Specifications / Section IV/9.0** | 123 | Anthropomorphic Phantom for End-to End Testing: The vendor should provide one anthropomorphic head phantom and one anthropomorphic pelvic phantom for commissioning and treatment planning system (TPS) verification of Proton Therapy system. | May be made as an optional: "PTW does not have software in their product portfolio" | RFB provision shall prevail. |
| 37 | **Section VII - Schedule of Requirements / 3 Technical Specifications / Section II/1.18** | 104 | All upgrades and updates should be free of cost for initial 7 years from date of first patient treated | All updates should be free of cost for initial 7 years from date of first patient treated, any upgrades Helium/Carbon should be able to fit in the current system. | Please refer to Sl. No. 3 of Amendment No. I (Annexure I) |
| 38 | **Section VII - Schedule of Requirements** | 101 | Timeline: The construction work for the bunker should be started only after getting all regulatory approval. The Bunker should not take | Timeline: The construction work for the bunker should be started only after getting all regulatory approval. The Bunker should not take more than 12 | Please refer to Sl. No. 8 of Amendment No. I (Annexure I) |

| | | | | | |
|---|---|---|---|---|---|
| | **/ 3 Technical Specifications / Section II/8.1** | | more than 12 months. The equipment will be shipped at site only after completion of the bunker. The time for installation should not be more than 14 months. | months. The equipment will be shipped at site only after completion of the bunker. The time for installation should not be more than 14 months after the completion of bunker. | |
| 39 | **Section VII - Schedule of Requirements / 3 Technical Specifications / Section II/1.13** | 104 | The offer should include a total of at least 8 workstations for treatment planning and 8 contouring workstations. | The offer should include a total of at least 2 workstations for treatment planning and 2 contouring workstations, this will help to reduce the cost | Please refer to Sl. No. 13 of Amendment No. I (Annexure I) |
| 40 | **Section VII - Schedule of Requirements / 3 Technical Specifications / Section III/3** | 119 | Five dedicated workstations with 24 inch LED monitors for routine import and scheduling purposes has to be provided. | This is a repetitive ask, already raised in point number 3 | RFB provision shall prevail. |
| 41 | **Section VII - Schedule of Requirements / 3 Technical Specifications / Section I/8.2** | 101 | Facility availability: >95% of the time during warranty period and >90% during CMC period, with clinical beam available for treatment or quality assurance between 6:00 AM and 10:00 PM, Monday through Saturday. Specific time required for preventive maintenance that should be mentioned. The preventive maintenance if any should be scheduled in the holidays after prior written approval from the department. In case the facility downtime exceeds 5% during warranty period and 10% during CMC period, there will be a penalty of 0.05 % of contract value per hour with maximum penalty of 15% of overall contract value . It has to be ensured that vendor must stock all the required spare parts to maintain the uptime. A dedicated space for the storing must be created by the vendor and should be reflected in the turnkey. Bidding Vendor to | Facility availability: >95% of the time during warranty period and >90% during CMC period, with clinical beam available for treatment or quality assurance between 6:00 AM and 10:00 PM, Monday through Saturday. Specific time required for preventive maintenance that should be mentioned. The preventive maintenance if any should be scheduled in the holidays after prior written approval from the department. In case the facility downtime exceeds 5% during the warranty period and 10% during CMC period, there will be a penalty of extending the warranty / CMC with equal number of days. It has to be ensured that vendor must stock all the required spare parts to maintain the uptime. A dedicated space for the storing must be created by the vendor and should be reflected in the turnkey. Bidding Vendor to mention Downtime policy to the extend downtime is permissible under this provision. | Please refer to Sl. No. 9 of Amendment No. I (Annexure I) |

| | | | | | |
|---|---|---|---|---|---|
| | | | mention Downtime policy to the extend downtime is permissible under this provision. | | |
| 42 | **Section VII – Schedule of Requirements /Technical Specification** | 97 | System Overview: Bids are invited for the supply of state-of the-art (at the time of supply) pencil beam scanning technology based Compact Gantry suitable to treat patients with lying down position Proton Therapy System ( scalable to two gantries with beam match feasibility) capable of Image-Guided, Intensity Modulated Proton Therapy (IGIMPT). The Proton therapy system must have the latest technology and should be fully computer controlled. The proton therapy system includes particle accelerator, proton treatment gantry rooms, in- room imaging system, treatment planning system, oncology information system, dosimetry and quality assurance equipment, patient positioning and immobilization devices. The proton therapy system should be capable of integrating with standard computer networking and PACS systems available in the market and Institute. | The tender should accept Floor- mounted Superconducting Synchrocyclotron and treat patients in either supine (lying) or upright/seated solutions. Tender should supports multi-room scaling (S250mx) using independent accelerators per room; that design delivers 24/7 beam availability without a single shared beamline. Tender should support integrated diagnostic-quality CT for upright image-guided and adaptive proton therapy. The proton therapy system shall employ a compact accelerator design that minimizes energy degradation losses and secondary radiation, resulting in improved beam efficiency and reduced shielding requirements. The proton therapy system shall be designed to minimize civil construction complexity, shielding volume, and building footprint by avoiding large rotating gantries and oversized accelerator vaults, thereby enabling faster installation and lower total project cost. The system shall support patient positioning solutions that improve accessibility for non-ambulatory, elderly, pediatric, or special-needs patients. | The gantry design must be compatible to treat patients in supine (lying) position.<br><br>Multi-room scaling for the future can be a administrative decision.<br><br>Maximum beam availability for the clinical treatments is desirable. |
| 43 | **Section VII – Schedule of Requirements /Technical Specification** | 97 | 1.1 Beam Energy: The energy range necessary to treat from body surface up to 32g/cm2 over the clinical range of field sizes. The beam energy should be in the range of 70-250 MeV at nozzle exit (please specify). | Option No. 1.1 may be clarified or re-phrased to allow systems capable of achieving the required maximum clinical treatment range of 32 $g/cm^2$, or alternatively specify maximum beam energy as ≥ 230 MeV, so that clinically equivalent systems are not excluded.<br>Need to rephrase as Minimum Range (0 g/cm2,Maximum Range (32.2g/cm2) – with nozzle cover plate and The proton therapy system shall provide a clinical water-equivalent range of up to ~32 $g/cm^2$ without the use of a range shifter. | The beam energy should be in the range of 70-250 MeV at nozzle exit. However clinical beam energy upto 32cm or more water equivalent thickness can be acceptable. |

| | | | | | |
|---|---|---|---|---|---|
| 44 | **Section VII – Schedule of Requirements /Technical Specification** | 97 | 1.6 Maximum treatment field size: 20 x 24 cm2 or more (please specify). | Option No. 1.6 may be clarified to allow a minimum treatment field size of 20 cm × 20 cm, which fully meets the clinical intent of the specification.<br>The proton therapy system shall provide pencil beam scanning with spot sizes ≤ ~3 mm sigma (or vendor's specified value) across the clinical energy range. | In case offer is less than requirement, sufficient clinical treatment evidence should be provided |
| 45 | **Section VII – Schedule of Requirements /Technical Specification** | 98 | The monitor unit accuracy should be as follows;<br>1.11.1. Minimum no. of monitor units per spot: 0.01MU. If not, specify | Option No. 1.11.1 may be clarified to allow a minimum MU per spot of 0.25 MU, as this fully satisfies the underlying clinical and safety objectives.<br>To allow MU proportionality factor within ±2%, consistent with accepted clinical practice. The proton therapy system shall maintain monitor unit (MU) proportionality within ±2% across the full clinical dose range, consistent with accepted clinical and QA practice.<br>The system shall provide stable, linear dose delivery per spot and per layer suitable for PBS-IMPT treatments. | RFB provision shall prevail. |
| 46 | **Section VII – Schedule of Requirements /Technical Specification** | 98 | 1.14. Dose uniformity: +/-2% over treatment volume. | Option No. 1.14 may be clarified to allow dose uniformity within ±3%, which fully preserves the clinical intent of the specification. | RFB provision shall prevail. |
| 47 | **Section VII – Schedule of Requirements /Technical Specification** | 98 | 1.15. Average Effective (source-to axis distance) SAD: > 2 m. If not, specify. | Option No. 1.15 may be clarified to allow an effective SAD of ≥ 1.9 meters, ensuring inclusion of clinically equivalent system designs. | RFB provision shall prevail. |
| 48 | **Section VII – Schedule of Requirements /Technical Specification** | 98 | 1.18. Agreement between planned and delivered dose for IMPT: >95% of evaluated points in the central 80% of the field should fulfill the gamma criteria of 3%/2mm. | Option No. 1.18 may be clarified to allow > 90% gamma passing rate using 3% / 3 mm criteria, which is clinically equivalent and widely accepted. | As per AAPM TG 185<br>The field passing criteria within agreement of ;<br>For homogeneous fields – 2%/2mm with 98%.<br>For inhomogeneous fields – 3%/3mm, with 95%. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | For end-to-end verification, the minimum criteria of 3%/3mm, with 95%. |
| 49 | **Section VII – Schedule of Requirements /Technical Specification** | 98 | 2.3. The life expectancy of the primary hardware components of the accelerator(s) should be of 30 years or greater. | Option No. 2.3 may be clarified to specify a minimum system life expectancy of ≥ 20 years, consistent with global industry norms. | RFB Provision shall prevail |
| 49 | **Section VII – Schedule of Requirements /Technical Specification** | 99 | 4.1. The patient positioning system must be compatible with standard radiotherapy immobilization devices and the ancillary imaging equipment. (Please specify) | Option No. 4.1 may be clarified to include "standard or clinically equivalent radiotherapy immobilization devices." | RFB Provision shall prevail |
| 50 | **Section VII – Schedule of Requirements /Technical Specification** | 99 | 4.2. Specify maximum and minimum of the treatment table x, y, z movements. ( Minimum X=50cm. Y= 100cm & Z=40cm) | Option No. 4.2 may be clarified to allow vendors to specify their respective range of motion, rather than prescribing fixed numerical values. | The treatment table translation position volume (in X, Y and Z directions) must fulfill clinical needs for all treatment sites. |
| 51 | **Section VII – Schedule of Requirements /Technical Specification** | 99 | 4.9. The patient positioning system shall be capable and compatible in accommodating anesthesia equipment and should have mechanisms for attaching IV poles, cardiac monitors, CO2 monitors, etc. The system should permit placement of a patient on a treatment table and induction of anesthesia in a separate induction room; movement from the induction room to the treatment room; docking with the treatment unit; imaging for alignment; and treatment, all without moving the patient from the table. The patient positioning system should be compatible with latest motion management system available in the market. | Option No. 4.9 may be clarified to allow vendors to describe anesthesia capability and workflow, rather than prescribing a single design approach. | RFB Provision shall prevail. |
| 52 | **Section VII – Schedule of** | 100 | 7.2. Emergency Buttons: There will be a three level of power off emergency buttons. They must | Option No. 7.2 may be simplified to require vendors to describe emergency buttons that inhibit beam | RFB provision shall prevail subject to national regulatory authority requirements. |

| | | | | | |
|---|---|---|---|---|---|
| | **Requirements /Technical Specification** | | be clearly marked and must be distinguishable from each other both in shapes and colors. | delivery, including number, location, function, and shutoff response, rather than prescribing fixed design criteria. | |
| 53 | **Section VII – Schedule of Requirements /Technical Specification** | 101 | 7.3. Door Interlocks: There shall be at least two electronics switches located on the door or door jamb. These switches shall function as the level three emergency button and thus stops the radiation exposure within 10 psec when the door was opened by more than 3 inches. Closing of door shall not cause the radiation to be resumed. The radiation shall resume only when door is closed and the operator initiates the exposure, assuming that all the other interlocks are properly set. | Option No. 7.3 may be simplified to require vendors to describe door interlock systems that inhibit beam delivery, including number, location, function, and response time, allowing functionally equivalent safety designs. | RFB provision shall prevail subject to national regulatory authority requirements. |
| 54 | **Section VII – Schedule of Requirements /Technical Specification** | 101 | 8.2. Facility availability: >95% of the time during warranty period and >90% during CMC period, with clinical beam available for treatment or quality assurance between 6:00 AM and 10:00 PM, Monday through Saturday. Specific time required for preventive maintenance that should be mentioned. The preventive maintenance if any should be scheduled in the holidays after prior written approval from the department. In case the facility downtime exceeds 5% during warranty period and 10% during CMC period, there will be a penalty of 0.05 % of contract value per hour with maximum penalty of 15% of overall contract value . It has to be ensured that vendor must stock all the required spare parts to maintain the uptime. A dedicated space for the storing must be created by the vendor and should be reflected in the turnkey. Bidding Vendor to mention Downtime policy to the extend downtime is permissible under this provision. | Option No. 8.2 may be clarified to state a minimum required uptime percentage, and allow vendors to submit a proposal for downtime penalties for excessive or prolonged | Please refer to Sl. No. 9 of Amendment No. I (Annexure I) |

| | | | | | |
|---|---|---|---|---|---|
| 55 | **Section VII – Schedule of Requirements /Technical Specification** | 102 | 12.2 Should comply with the national regulatory AERB guidelines | Option No. 12.2 may be clarified by adding "or vendor commitment to comply prior to commissioning." | RFB Provision shall prevail |
| 56 | **Section VII – Schedule of Requirements /Technical Specification** | 102 | 12.3 The offered Proton Therapy System model should have AERB type approval/ NOC. | Option No. 12.3 may be clarified to include "or vendor commitment to obtain AERB type approval / NOC prior to commissioning. | The Bidder must avail NOC/Type Approval from AERB. |
| 57 | **Section VII – Schedule of Requirements /Technical Specification** | 104 | 1.13. The offer should include a total of at least 8 workstations for treatment planning and 8 countouring workstations. | will you confirm the numbers for ONE SYSTEM? (8 is currently mentioned, it is double what we currently deliver in standard single room configuration) | Please refer to Sl no, 13 of Amendment No. I (Annexure I) |
| 58 | **Section VII – Schedule of Requirements /Technical Specification** | 111 | 3. OIS should be able to review the CBCT and stereoscopic portal images offline. Five licenses have to be provided with 5 dedicated workstations. Minimum graphics card of 2 GB require. All workstations should have a 24 inch LED monitor as well. | OIS number of licenses for ONE SYSTEM | Please refer to Sl no, 13 of Amendment No. I (Annexure I). 3 TPS & 3 Contouring workstations with fully loaded independent licence. It is mentioning about Number of workstations and licences (There is no concessions on it) |
| 59 | **Section VII – Schedule of Requirements /Technical Specification** | 124 | 2. Vendor should provide the universal couch top (two numbers) for CT machine with Indexer compatible with proton therapy machine treatment table. | please clarify that couch top for CT means the overlay couch to be installed on the top of the CT positioner . The immobilization devices (like mask) will be attached to the overlay thanks to the compatible indexation system. It would be helpful to know which brand will be the CT to be sure the overlay couch we are going to offer is compatible with the brand. Confirm the quantity that you mentioned equal to 2 overlay couches for the CT. Note that the _____ we will propose is already equipped with a treatment couch. Both indexations systems (CT and PT) will be identical . | Vendors are advised to quote for standard compatible equipment. |
| 60 | **Section VII – Schedule of Requirements** | 99 | 4.9. The patient positioning system shall be capable and compatible in accommodating anesthesia equipment and should have | Please not that such system was developed by a _____ company in the past which is now bankrupted. Such system is not used in referenced | Accepted |

| | | | | | |
|---|---|---|---|---|---|
| | **/Technical Specification** | | mechanisms for attaching IV poles, cardiac monitors, CO2 monitors, etc. The system should permit placement of a patient on a treatment table and induction of anesthesia in a separate induction room; movement from the induction room to the treatment room; docking with the treatment unit; imaging for alignment; and treatment, all without moving the patient from the table. | treatment centers. _____ does not supply it. We recommend that you accept a manual transfer of the pediatric patient from a standard trolley to the PT treatment couch. That also reduces all interface problems between the transfer trolley and the PT couch. | |
| 61 | **Section VII – Schedule of Requirements /Technical Specification** | 99 | 5. Image Guidance system specifications: Image guidance system: The image guidance system for patient setup and alignment should consist of either 2D planar stereotactic orthogonal x-ray system and 3D cone beam computed tomography (CBCT) imaging or in-room CT imaging. The system should have capability of high quality imaging in a less time with lower radiation dose.<br>5.1. Stereoscopic orthogonal 2D-x-ray KV image guidance system: vendor should provide a orthogonal KV-based planar x-ray imaging for offline verification and stereoscopic image guidance system for real-time verification with following technical specification. | X-Ray System: please accept also oblique System. Orthogonal or oblique System. | Can be accepted. Please refer to Sl no, 15 of Amendment No. I (Annexure I). |
| 62 | **Section VII – Schedule of Requirements /Technical Specification** | 103 | 1.9. The PTPS should be a redundant system with duplicated hardware installed in two separated server rooms. If hardware in one server room is not working because of fatal failure, the duplicated hardware should be in operation within a pre-defined number of hours. | If yes, confirm that only one set will be installed. The other set remains in boxes. Considering the speed at which IT hardware evolves, we do not recommend such approach. Let us know your final decision. | This is server hardware for the redundancy, no concessions can be given. Both the hardware (server) has to be installed and working simultaneously. |
| 63 | **Technical Evaluation (ITB 32.4) (PART B)** | 64 | Technical Factor: Maximum Warranty Offered by the bidder beyond the minimum warranty stipulated in the RFB<br>Score:<br>20 points for 24 months<br>40 points for 36 months | if the offered warranty is 24 months as requested in the RFB p88 (pricing sheet), is the evaluation equals to 20 points? | Yes, 20 points for 24 months of warranty. |

| | | | | | |
|---|---|---|---|---|---|
| | | | 60 points for 48 months<br>100 points for 60 months and above<br>Weightage: 50% | | |

***e-signed***
Dr. Siddharth Singh, IAS
Commissioner & Secretary to the Govt. of Assam,
MERD. cum Project Director, AHIDMS