Tender document for procurement of
PET/CT Facility and establishment of High Dose 131-I Radioactive Iodine Isolation Ward
for Nuclear Medicine

AIIMS, Rishikesh

Ref. No. : 24/Nuclear Medicine/353/2018-Rish(Admn)

Publishing Date : 21-05-2018 at 9.00 AM
Pre-Bid Meeting : 06-06-2018 at 3.00 PM
Bid Submission Start Date : 11-06-2018 at 9.00 AM
Last Date of Bid Submission : 26-06-2018 at 3.00 PM
Bid Opening : 27-06-2018 at 3.30 PM

Tender documents may be downloaded from institute’s web site www.aiimsrishikesh.edu.in (for reference only) and CPPP site https://eprocure.gov.in/eprocure/app
PET/CT Facility and High Dose 131-I Radioactive Iodine Isolation Ward for Nuclear Medicine
AIIMS, Rishikesh, Virbhadra Marg, Rishikesh, Dehradun
Dated: 21-05-2018

1. E-tenders on turnkey basis in Two Bids (Technical & Financial) are invited on behalf of the Director, All India Institute of Medical Sciences, Rishikesh from interested and eligible manufacturer or their authorised distributors/dealers, for establishment of PET/CT Facility and High Dose 131-I Radioactive Iodine isolation ward for Nuclear Medicine at AIIMS Rishikesh.

2. Bids shall be submitted online only at CPPP website: https://eprocure.gov.in/eprocure/app.

3. The complete bidding process is online. Bidders should be possession of valid digital Signature Certificate (DSC) for online submission of bids. Prior to bidding DSC need to be registered on the website mentioned above. For any assistance for e-bidding process, if required, bidder may contact to the helpdesk at 0135-2462915.

4. Tenderer/Contractor/Bidders are advised to follow the instructions provided in the ‘Instructions to the Contractors/Tenderer/Bidders for the e-submission of the bids online through the Central Public Procurement Portal for e Procurement at https://eprocure.gov.in/eprocure/app’.

5. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

6. Hard Copy of earnest money deposit and tender fee etc. must be delivered to AIIMS, Rishikesh on or before last date/time of Bid Submission as mentioned above. The bid without EMD and tender fee will be summarily rejected. The scanned copy of the EMD and Tender fee should be attached in the technical bid.

7. The tender shall be submitted online in two part, viz., technical bid and financial bid. All the pages of bid being submitted must be signed and sequentially numbered by the bidder irrespective of nature of content of the documents before uploading.

   **The offers submitted by Telegram/Fax/email shall not be considered. No correspondence will be entertained in this matter.**

8. Any future clarification and/or corrigendum(s) shall be communicated through Administrative Officer on the AIIMS, Rishikesh website: www.aiimssrishikesh.edu.in. And other Central Government Procurement Websites (subject to its access of AIIMS Rishikesh). The bidders are required to regularly check the website to know about any/all such corrigendum(s) as only these bids, taking care of such corrigendum(s) shall be considered for finalisation of the tender.

9. Bidder should necessarily enclose a covering letter mentioning a summary of applied document with proper numbering. Secondly, bid should also attach a compliance sheet as per specification mentioning that they are complying to all specification or have any variation.

10. The pre bid conference would be held on **06-06-2018 at 03.00 PM** in the office of Tender Opening Room, AIIMS, Rishikesh. All firm’s representative who are attending the pre bid meeting, shall produce an authorization letter from their firm on the firm’s letter head. They are required to put their query in writing before the committee and submit the same in writing on its letter head.

11. All the duly filled/completed pages of the tender should be given serial /page number on each page and signed by the owner of the firm or his Authorized signatory. In case the tenders are signed by the Authorized signatory, a copy of the power of attorney/authorization may be enclosed along with tender. A copy of the terms & conditions shall be signed on each page and submitted with the technical bid as token of acceptance of terms & conditions. Tender with unsigned pages/incomplete/partial/part of tender if submitted will be rejected out rightly.
12. Any omission in filling the columns of Financial Bid form (Schedule of Rates) shall debar a tender from being considered. Rates should be filled up carefully by the tenderer. All corrections in this schedule must be duly attested by full signature of the tenderers. The corrections made by using fluid and overwriting will not be accepted and tender would be rejected.

13. (i) **Bid Security:** The bidder shall pay the respective amount of Bid Security (EMD) as mentioned in table-I along with the Technical Bid by way of demand draft/FD/TD/CD in favour of “AIIMS, Rishikesh” drawn on any Nationalized Bank/ Scheduled Bank and payable at Rishikesh and must be valid for (6) six month. Bids received without tender fees and Earnest Money deposit (EMD) shall stand rejected and thus shall not be considered for evaluation etc. at any stage. The original EMD will be put in cover-I containing with Technical bid.

   a) The Public Sector Undertaking of the Central/State Govt./MSEs/MSME/Registered with Central Purchase Organization are exempted from furnishing Earnest Money along with tender, subject to submission of its valid proof.

   b) The firms Registered with DGS & D/SSI and any approved source of Centre/States Govt. are not exempted from furnishing Earnest Money in so far as this institute is concerned.

   c) Earnest Money deposited with AIIMS, Rishikesh in connection with any other tender enquiry even if for same/similar material / Stores by the tenderer will not be considered against this tender.

(ii) EMD is required to protect the purchaser against the risk of Bidders conduct. The EMD will be forfeited if the bidder withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender or if it comes to the notice that the information/ documents furnished in its tender is incorrect or false.

14. The bid security (EMD) without interest shall be returned to the unsuccessful bidders after finalization of contract with successful bidder.

15. Bidders are not allowed to submit more than one bid for the same/similar tendered item else all his bids shall be cancelled thereby making him disqualified in addition to the forfeiture of the EMD.

16. The successful bidders have to execute a contract on Indian non judicial stamp paper of Rs.100/- (Rupees one hundred only) within twenty-one (21) days from the date of award of this tender in his favour and also required to furnish the Security Deposit @10% of contract value in the form of FD/BG/TD/CD for three months extra of the contract period from any Nationalised/Schedule bank duly pledged in favour of AIIMS, Rishikesh & payable at Rishikesh only. The EMD deposited by successful bidder may be adjusted towards Security Deposit as demanded above after its validation for the required period. If the successful bidder fails to furnish the full security deposit or difference amount between Security Deposit and EMD within 21 (twenty-one) days after the issue of Letter of Award of Work, his bid security (EMD) shall be forfeited and award of tender in suppliers favour automatically stands terminated at his cost & liability, unless time extension has been granted by AIIMS, Rishikesh.

17. The EMD/PBG shall be forfeited if successful bidder fails to supply the goods/equipment in stipulated time or fails to comply with any of the terms & conditions of the contract or fail to sign the contract.

18. The bid shall be valid and open for acceptance by the competent authority of AIIMS Rishikesh for a period of 180 (one hundred eighty) days from the published date of opening of the tenders and no request for any variation in quoted rates and / withdrawal of tender on any ground by bidders shall be entertained. The unilateral withdraw at any stage will cause forfeiture of EMD in addition to any remedy that the purchaser may have under the law.

19. To assist in the analysis, evaluation and computation of the bids, the Competent Authority, may ask bidders individually for clarification of their bids. The request for Clarification and the response shall be in writing but no change in the price or substance of the bid offered shall be permitted.

20. After evaluation, the work shall be awarded normally to the Agency fulfilling all the conditions of the contract and who has quoted the lowest rate as per financial bid after complying with the all the Acts / provisions stated / referred to for adherence in the tender.
21. The competent authority of AIIMS, Rishikesh reserves all rights to accept or reject any/ all tender(s) without assigning any reason. It can also impose/relax any administrative term and condition/specifications of the tender enquiry after due discussion in pre-bid conference. This will be communicated and shown over the website of the Institute. No representation will be considered after pre-bid meeting and **bidders may ensure its queries only in pre-bid meeting**. AIIMS, Rishikesh also reserves the right to reject any bid which in his opinion is non-responsive or violating any of the conditions/specifications without any liability to any loss whatsoever it may cause to the bidder in the process.

22. Tender must be submitted on the prescribed Tender Form otherwise tender will be cancelled straightway.

23. The tender form is not transferable.

24. Canvassing in any form is strictly prohibited and the tenderers who are found canvassing are liable to have their tenders rejected out rightly.

25. It is required by all concerned, namely the Bidders/Suppliers, as the case may be to observe highest standard of ethics during the procurement and execution of this Tender.

26. Installation at consignee’s site should be free of cost immediately on arrival of equipment at consignee’s site.

27. In case the quality of goods supplied are not in conformity with the standard given in tender and as per the samples supplied or the supplies are found defective at any stage these goods shall immediately will be taken back by the supplier and will be replaced with the tender quality goods, without any delay. The competent authority reserves all rights to reject the goods if the same are not found in accordance with the required description / specifications and liquidates damages shall be charged in addition to the cost of re-tender. The supplier is required to provide the demonstration of equipment at AIIMS premises to the AIIMS representatives for its evaluation as per the specification & desired functionality standard. However, a submission of videography displaying functionality as per tender specification may also be considered by the AIIMS, representative.

28. In case the bidder on whom the supply order has been placed, fails to make supplies within the delivery schedule and the purchaser has to resort risk purchase, the purchaser (AIIMS, Rishikesh) may recover from the tender the difference between the cost calculated on the basis of risk purchase price and that calculated on the basis of rates quoted by tenderer. In case of repeated failure in supplying the order goods the supply order may be cancelled and bid security deposit will be forfeited.

29. Where the specifications are as per tenderer’s range of products the tenderer’s offer should mention that the item meets all specifications as per the tender enquiry and if there are improvements/deviations the same should be brought out on separate Letter Head of the firm. It would be discretion of the competent authority of the institute to accept or reject such deviations which are not in accordance with our required specifications as given below the financial bid,

30. It must be mentioned clearly whether bidder is a manufacturer/sole distributor/ sole agent for the items for which he is quoting.

   a. **Manufacturer** must add a certificate that item(s) is manufactured by them as per range of products.

   b. **Sole Manufacturers** must add a certificate that they are the sole manufacturer of the Item for which they are quoting in this tender enquiry & item is /are their proprietary Item in India. The rate certificate is also required from the sole manufactures that the Rates quoted are the same as they quote to other State/Centre Govt./reputed Private Organisation and DGS&D rate for the similar item(s) and these are not higher than those quoted by them.
c. **Authorized agents** must add authority letter from their Manufacturer/Principals on the letter head of the manufacturer/principals signed by a competent person and comes in proforma given in attach must duly supported by a notarised affidavit on Indian Non Judicial Stamp Paper of Rs.10/- (Rupees ten only) that they are quoting Rates on behalf of them. The authorization letter must give/mention the purpose for which it is allowed. The validity period of the authorization letter must be mentioned in the authority letter otherwise tender will be liable to rejection.

31. The bidders should have furnished a copy of GST/S.T. /C.S.T./VAT registration number, the State / U.T. of registration and the date of such registration. Tenders not complying with this condition will be rejected.

32. **Turnover provisions:** - (i) The tenderers should submit along with the tender, a photo state copy of the last three years Annual Accounts with Audit certificate by Chartered Accountant, Income Tax returns and a copy of current valid income tax clearance certificate (IT CC), otherwise bidder will not be considered for administrative evaluation (in evaluation of Technical bid) and will be declared **disqualified** in technical evaluation.

   (ii) In case of bidder falls under Section 44AD/44ADA/44AE of Income Tax shall be required to submit turnover certificate verified by Chartered Accountant with his Registration number issued by Institute of Chartered Accountants of India.

   (iii) In case of supplier is an Indian Agent, the firm can submit copies of purchase orders issued in favour of firm (As the payment is made through LC directly to foreign manufacturer and equipment payment does not exist in the book of account of the supplier) in support to its turnover whatever amount is getting short.

   (iv) There will be relaxation on turnover on **case to case** basis for **Start-up firms** registered by Government of India under Start-ups scheme as per orders of Ministry of Commerce, Government of India.

33. **Sample/demonstration:** - In case, the item required prior submission of sample/ performing demonstration, tenderer will have to submit sample/perform demonstration of the equipment/item to the competent authority of the institute, the bidder will have to born all the expenses for the same. Non submission of sample/non performing demonstration will **disqualify** the bidder in the technical bidding process and financial bid of the bidder will not be opened.

34. The tenderer hereby guarantees that the equipment supplied to the Institute (purchaser) under the Contract shall be of the best quality/latest version and workmanship and new in all respects and shall be strictly in accordance with the specification and particulars contained/ mentioned in the Tender Document. The date of manufacturing of the equipment/goods supplied will not be more than 3 (Three months) old. The tenderer will have further guarantees that the said equipment would continue to conform to the description and quality aforesaid for a period of five (5) years guarantee period (As per MoH&FW guidelines), from the date of installation of the said equipment to the purchaser and notwithstanding the fact that the Purchaser (Inspector) may have inspected and/or approved the said equipment, if during the aforesaid period of five years the said equipment be discovered not to conform to the description and quality as required as per specification or not giving satisfactory performance or have deteriorated, the decision of the Purchaser in that behalf shall be final and binding on the tenderer and the Purchaser shall be entitled to call upon the tenderer to rectify the equipment or such portion thereof as is found to be defective by the purchaser within a reasonable period or such specified period as may be allowed by the purchaser in his discretion on an application made thereof by the tenderer and in such an event, the above mentioned warranty period shall apply to the equipment replaced from the date of replacement thereof. In case of failure of the tenderer to rectify or replace the equipment, within specified time, the purchaser shall be entitled to recover the cost with all expenses from the tenderer for such defective equipment.

35. Full description & specifications, make/brand and name of the manufacturing firm must be clearly mentioned in the tender, failing which, the tender will not be considered. The tenderer must also mention whether the goods are imported/indigenous. Descriptive literature /catalogues must be attached with the tender in original, failing which, tender may be disqualified.

36. **Force Majeure:** Any failure or omission to carryout of the provisions of this supply by the supplier shall not give right for any claim by supplier and purchaser to one against the other, if such failure or omission arise from an act of God which shall include all acts of natural calamities from civil strikes compliance with any statistics and or requisitions of the Government lockout and Strikes, riots, embargoes or from any political or other reasons beyond the suppliers control including war (whether declared or not) civil war or state of incarceration provided that notice...
of the occurrence of any event by either party to the other shall be within two weeks from the date of occurrence of such an event which could be attributed to force majeure. Any delay due to Force Majeure will not be attributable to the either of the parties.

37. The equipment installed should be up for 95% of the total warranty time. If the equipment is down for more than 5% suitable action shall be taken against the supplier including imposition of penalty as deemed fit.

38. If there is a close system the tenderer shall ensure and will have to submit an affidavit on Indian Non Judicial stamp paper of Rs.10/- along with technical bid that spare parts and consumables for these equipment’s/instruments/item will be available at reasonable fixed rates for next 10 (ten) years, such rates should not be more than the rates supplied to institutes of national importance.

39. The successful Bidder shall at all times agree to indemnify and keep indemnified the purchaser against all losses, damages which may arise in respect of action/inactions of such Bidder or breach of any term of this tender by such Bidder. All claims regarding indemnity shall survive the termination of the contract with such Bidder.

40. Incase the vendor fails to supply the spare parts or fails to provide the agreed maintenance during the prescribed period, as per the terms of contract, the purchaser is automatically entitled to procure the required parts and hire services from the market at the risk and cost of the vendor, such inability of bidder will entail forfeiture the security deposit. The purchaser also reserves the right to terminate the contract on immediate notice, if the vendor fails to comply with this clause for more than one instance.

41. Liquidated damage/demerge: - The time for the date of delivery/ dispatch stipulated in supply order shall be deemed to be the essence of the contract and if the supplier fails to deliver or dispatch any consignment within the period prescribed for such delivery or dispatch in the supply order, liquidated damages may be deducted from the bill @ 0.5% per week subject to maximum of 10% of the value of the delayed goods or services under the contract. The competent authority of the institute may also cancel the supply at the cost & liability of the supplier. In such a case, bid security of the supplier shall stand forfeited. The supply of equipment must be in single consignment, inclusive of all parts & accessories in adherence to the specification so as to make the equipment fully functional at the time of the installation. No installation repeat shall be signed in case of absence of any part as per the specification.

42. Legal Jurisdiction: -The Courts at Rishikesh/ Dehradun alone and no other Court will have the jurisdiction to try the matter, dispute or reference between the parties arising out of this tender/supply Order/contract.

Applicable Law:

43. The contract shall be governed by the laws and procedures established by Govt. of India, within the framework of applicable legislation and enactment made from time to time concerning such Commercial dealings / processing.

44. Any disputes are subject to exclusive jurisdiction of Competent Court and Forum in Rishikesh/Dehradun, Uttarakhand India only.

45. Except as otherwise provided under this Contract for immediate termination of the Contract, in the event of a disputes which may be arising out of the execution of the tender contract, the matter will be referred to the Deputy Director (Administration). Appeal against the decision of the DDA will lie to the Director, AIIMS Rishikesh and his decision shall be final and binding upon both the parties.

I/ We hereby accept the terms and Conditions given in the tender

(Signature & Stamp of the bidder)

Note- Please sign each page of document including terms & conditions & tender

(B) Financial terms and conditions
1. Rates are strictly required to be offered/quoted on the prescribed “Financial Bid format”. Financial bid submitted without prescribed format may not be considered and will be deemed improper subject to the condition that there is a requirement to mention other item which are not mentioned in the said format.

2. Rates quoted should be inclusive of all applicable taxes, packing, forwarding, postage and transportation charges at for AIIMS Rishikesh (Site of installation/Use). To sum up the rates should be quoted for complete work. Rates should be mentioned both in figures and in words. The offer should be typed or written in Ink Pen/ Ball Pen without any correction. Offers in pencil will be cancelled. Telegraphic/ Telex/ Fax offers will not be considered and cancelled straightway.

3. The supplier has to submit a notarised affidavit on Indian Non Judicial Stamp Paper of Rs.10/- that the bidder has not quoted the price higher than previously supplied to any government Institute/Organisation/reputed Private Organisation or DGS&D rate in recent past. Therefore, if at any stage it has been found that the supplier has quoted lower rates than those quoted in this tender; the Institute (the purchaser) would be given the benefit of lower rates by the Supplier and any excess payment if any, will become immediately payable to the AIIMS, Rishikesh. If such affidavit is not submitted, tender will be out rightly rejected. (Part of technical bid)

4. If the price of the contracted articles is/ are controlled by the Government, in no circumstances the payment will be higher than the controlled rate.

5. Tender will be regarded as constituting an offer open to acceptance in whole or in part at the discretion of the competent authority of the institute for a period of 180 days (6 months) valid from the date of opening of the tender by the committee.

6. The corrections made by using fluid and overwriting will not be accepted and tender would be rejected.

7. Tenderer shall have to provide complete warranty for all equipment’s for 5 (five) years & followed by CMC for 5 (five) years of the equipment’s and other items installed. Financial bid should be quoted accordingly. In this regard, the tenderer shall submit a notarised affidavit on Indian Non Judicial Stamp Paper of Rs.10/- that bidder will provide complete warranty for entire equipment’s installed for 5 (five) years & CMC for 5 (five) years of the entire items and equipment’s.

7. Tender Currencies:
   a. The bidder supplying indigenous goods or already imported goods shall quote only in Indian Rupees. Further, imported goods to be imported and supplied by the bidder are also required to be quoted in Indian Rupees.

   b. For imported goods, if supplied directly from abroad, prices shall be quoted in any freely convertible currency say US Dollar, Euro, GBP or Yen. As regards price(s) for allied services, if any, required with the goods, the same shall be quoted in Indian Rupees only, if such services are to be performed /undertaken in India.

   c. Tenders, where prices are quoted in any other way shall be treated as non -responsive and rejected.

8. Tender Prices: While filling up the columns of the Financial Bid, the following aspects should be noted for compliance:

   I- For domestic goods or goods of foreign origin located within India, the prices in the corresponding Financial Bid shall be entered separately in the following manner:

   a. The price of the goods, quoted ex-factory/ ex-showroom/ ex-warehouse/ off-the-shelf, as applicable, including all taxes and duties like sales tax, GST/CST/ VAT, CENVAT, Custom Duty, Excise Duty etc. already paid or payable on the components and raw material used in the manufacture or assembly of the goods quoted ex-factory etc. or on the previously imported goods of foreign origin quoted ex-showroom etc.;
b. Any sales tax or other taxes and any duties including excise duty, which will be payable on the goods in India if the contract is awarded;

c. Charges towards Packing & Forwarding, Inland Transportation, Insurance, Loading/Unloading and other local costs incidental to delivery of the goods to their final destination as specified in the List of Requirements and Financial Bid;

d. The price of Incidental Services, as mentioned in List of Requirements and Financial Bid;

e. The prices of Turnkey (if any), as mentioned in List of Requirements, Technical Specification and Financial Bid; and

f. The price of CMC after warranty period, as mentioned in List of Requirements, Technical Specification and Financial Bid.

II- For goods offered from abroad, the prices in the corresponding Financial Bid shall be entered separately in the following manner:

a. The price of goods quoted FOB port of shipment, as indicated in the List of Requirements and Financial Bid;

b. The price of goods quoted CIF port of entry in India as indicated in the List of Requirements and Financial Bid;

c. The price of goods quoted for delivery at AIIMS, Rishikesh as indicated in the List of Requirements, Financial Bid and Consignee List;

d. Wherever applicable, the amount of custom duty with CDEC applicable on CIF value on the goods to be imported;

e. The charges for Loading/Unloading, Inland transportation, Insurance and other local costs, Incidental cost to delivery of the goods from the port of entry in India to AIIMS, Rishikesh, as specified in the List of Requirements and Financial Bid;

f. The charges for Incidental Services, as in the List of Requirements and Financial Bid;

g. The prices of Turnkey (if any), as mentioned in List of Requirements, Technical Specification and Financial Bid; and

h. The price of annual CMC, after warranty period as mentioned in List of Requirements, Technical Specification and Financial Bid.

9. Additional information and instruction on Duties and Taxes: If the Bidder desires to ask for excise duty, sales tax/GST/CST / VAT/ CENVAT, Custom Duty, Service Tax, Works Contract Tax etc. to be paid extra, the same must be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such duties and taxes and no claim for the same will be entertained later.

10. Excise Duty:

a. If reimbursement of excise duty is intended as extra over the quoted prices, the supplier must specifically say so also indicating the rate, quantum and nature of the duty applicable. In the absence of any such stipulation it will be presumed that the prices quoted are full and final and no claim on account of excise duty will be entertained after the opening of tenders.

b. If a Bidder chooses to quote a price inclusive of excise duty and also desires to be reimbursed for variation, if any, in the excise duty during the time of supply, the Bidder must clearly mention the same and
also indicate the rate and quantum of excise duty included in its price. Failure to indicate all such details in clear terms may result in rejection of that tender.

c. Subject to sub clauses (i) & (ii) above, any change in excise duty upward/downward as a result of any statutory variation in excise duty taking place within contract terms shall be allowed to the extent of actual quantum of excise duty paid by the supplier. In case of downward revision in excise duty, the actual quantum of reduction of excise duty shall be reimbursed to the AIIMS Rishikesh by the supplier. All such adjustments shall include all reliefs, exemptions, rebates, concession etc. if any obtained by the supplier.

11. **Sales Tax:** - If a bidder asks for sales tax/GST/CST / VAT/CENVAT, Service Tax and Works Contract Tax to be paid extra, the rate and nature of sales tax applicable should be shown separately. The GST/CST / VAT/CENVAT, Service Tax and Works Contract Tax will be paid as per the rate at which it is liable to be assessed or has actually been assessed provided the transaction of sale is legally liable to sales tax/ GST/CST / VAT/CENVAT, Service Tax and Works Contract Tax and is payable as per the terms of the contract.

12. **Octroi Duty and Local Duties & Taxes:** - Normally, goods to be supplied to Government departments against Government contracts are exempted from levy of town duty, Octroi duty, terminal tax and other levies of local bodies. However, on some occasions, the local bodies (like town body, municipal body etc.) as per their regulations allow such exemptions only on production of certificate to this effect from the concerned Government department. Keeping this in view, the supplier shall ensure that the goods to be supplied by the supplier against the contract placed by the AIIMS, Rishikesh are exempted from levy of any such duty or tax and, wherever necessary, obtain the exemption certificate from the AIIMS, Rishikesh. However, if a local body still insists upon payment of such local duties and taxes, the same should be paid by the supplier to the local body to avoid delay in supplies and possible demurrage charges and obtain a receipt for the same. The supplier should forward the receipt obtained for such payment to the AIIMS, Rishikesh to enable the AIIMS, Rishikesh reimburse the supplier and take other necessary action in the matter.

13. **Customs Duty:** In respect of imported goods offered from abroad, the bidder shall specify the rate as well as the total amount of customs duty payable with Custom Duty Exemption Certificate, if applicable, on the quoted goods in the Financial Bid. The bidder shall also indicate the corresponding Indian Customs Tariff Number applicable for the goods.

   a. For transportation of imported goods offered from abroad, relevant instructions as incorporated shall be followed.

   b. For insurance of goods to be supplied, relevant instructions as provided shall be followed.

   c. Unless otherwise specifically indicated in this NIT document, the terms FCA, FOB, FAS, CIF, CIP etc. for imported goods offered from abroad, shall be governed by the rules & regulations prescribed in the current edition of INCOTERMS, published by the International Chamber of Commerce, Paris.

   d. The need for indication of all such price components by the bidders, as required in this clause is for the purpose of comparison of the tenders by the purchaser and will no way restrict the AIIMS, Rishikesh right to award the contract on the selected bidder on any of the terms offered.

14. **Indian Agent:** - If a foreign bidder has engaged an agent in India in connection with its bid, the foreign bidder, in addition to indicating Indian agent’s commission, if any, shall also furnish the following information:

   a. The complete name and address of the Indian Agent and its Permanent Account Number as allotted by the Indian Income Tax authority.

   b. The details of the services to be rendered by the agent for the subject requirement.

   c. Details of Service outlets in India, nearest to the AIIMS, Rishikesh to render services during Warranty and CMC period.

**Firm Price:**-
a. Unless otherwise specified in the NIT, prices quoted by the bidder shall remain firm and fixed during the currency of the contract and not subject to variation on any account.

b. However, as regards taxes and duties, if any, chargeable on the goods and payable, the conditions stipulated will apply.

15. **Conversion of tender currencies to Indian Rupees:** - In case the bid document permits the bidders to quote their prices in different currencies, all such quoted prices of the responsive bidders will be converted to a single currency viz., Indian Rupees for the purpose of equitable comparison and evaluation, as per the closing exchange rates established by the Reserve Bank of India for similar transactions, as on the date of ‘Opening Date of Financial Bid’.

16. **Payment terms:** - If the supplier supplied the requisite item within stipulated time and installation is pending on the part of AIIMS Rishikesh on various reasons, up to 90 per cent payment against supply can be made by the AIIMS Rishikesh on the case wise only, but will not be considered as precedence in all cases.

   **(A) Payment Term for Imported goods:** For imported goods payment shall be made in the following manner:

   a) On shipment: 75 % payment of the contract price shall be paid 60 days after presentation of shipping documents {goods shipped shall be paid through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the supplier in a bank in his country} and upon the submission of the following documents:

   i. Four copies of Supplier’s invoice showing contract number, goods description, quantity, unit price and total amount;
   ii. Original and four copies of the clean, on-board Bill of Lading/ Airway bill, marked freight prepaid and four copies of non-negotiable Bill of Lading/Airway bill.
   iii. Insurance Certificate;
   iv. Certificate of origin by the chamber of commerce of the concerned country;
   v. Certificate of country of origin;
   vi. Manufacturer’s / Supplier’s warranty certificate;
   vii. Manufacturer’s own factory inspection report.

   b) On Acceptance: 25 % payment would be made after satisfactory installation, commissioning, demonstration and training, if required on issuance of Inspection certificate by the AIIMS, Rishikesh.

   **B) PAYMENT TERMS FOR INLAND GOODS**

   (Seventy-five) 75% Payment of the contract price shall be paid on receipt of goods condition and upon the submission of the following documents: -

   (i) One Original and Four Copies of supplier’s invoice showing contract number, goods description, quantity, unit price and total amount.
   (ii) Final Acceptance as per Inspection report issued by faculty.
   (iii) Two copies of packing list identifying contents of each package.
   (iv) Inspection Certificate issued by the user concerned department.
   (v) Final Acceptance Certificate issued by the Institute

   **On Acceptance:** -

   (i) Balance Twenty-Five (25) % payment would be made against ‘Final Acceptance Certificate’ as per Para (B) (i) & (v) of goods to be issued by the consignee’s subject to recoveries, if any, either on account of non-rectification of defects/deficiencies not attended by the Supplier or otherwise.

17. **Guarantee / Warrantee Period:** The Tenderers must quote for 5 years’ comprehensive warranty (Including all Spares, Accessories software application, if any and Labour) from the date of completion of the satisfactory installation. The warranty charges shall not be quoted separately otherwise the offer shall be summarily rejected.
Also the bidders are requested to submit their quote (Rates) for subsequent 5 years Comprehensive Maintenance Contract (CMC) (Including All Spares, Accessories software application, if any and Labour). Failure to comply this condition will entail the rejection of the bids. The price comparison shall be taken into account on basic price and post warranty CMC.

18. **Custom Clearance**: For the Goods to be imported and supplied, the Institute will provide Custom Duty Exemption Certificate (CDEC) to successful bidder for availing concessional rate of duty as per prevailing Custom Tariff. In case, the bidder requires CDEC certificate, then the same should be specifically mentioned in the bid. The supplier is solely responsible for getting the material clearance from customs. Institute will provide all custom documents for custom clearance on the demand of supplier. The supplier undertakes to fully co-operate to avoid any fine, demurrage or other charges and shall indemnify AIIMS Rishikesh in case of any such failure. Transportation of goods up to AIIMS, Rishikesh and its successful installation and commissioning demonstration (and training, if required) is also the responsibility of the supplier. All charges/ expenses incurred in this process will be borne by the supplier and after submission of deposit slips of custom clearance and transportation charges will be reimbursed to the supplier if said provisions are to be shown separately in the financial bid.

19. **L1 Clause**: 

   **L1 will be decided on the basis of total cost of equipment in addition to CMC value of 5 years and turnkey cost, where applicable including all applicable taxes at time of financial bid evaluation of individual equipment. The rates should be quoted separately in .pdf form**

   **Note**: **In case of any dispute regarding award of tender, decision of AIIMS Administration would be final.**

   I / We hereby accept the terms and Conditions given in the tender

   ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   (Signature & Stamp of the bidder)

   **Note**: **Please sign each page of document including terms & conditions & tender**
**Establishment PET/CT Facility and High Dose 131-I Radioactive Iodine Isolation Ward for Department of Nuclear Medicine at AIIMS, Rishikesh**

**TECHNICAL BID**  
(In separate sealed Cover-I super scribed as “Technical Bid”)

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>1.</td>
<td>Name &amp; Address of the manufacturer and their authorised dealers/ distributors/Agency with phone number, email, name and telephone/mobile</td>
</tr>
<tr>
<td>2.</td>
<td>Specify your firm/company is a manufacturer/ authorised dealer/ distributor/ Agency</td>
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<tr>
<td>3.</td>
<td>Whether the signature on each page has been made by the of bidder or not.</td>
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<tr>
<td>4.</td>
<td>Name, Address &amp; designation of the authorized person (Sole proprietor/partner /Director)</td>
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<tr>
<td>5.</td>
<td>Have you previously executed such works for government/ reputed private organization? If yes, attach the relevant proof thereof.</td>
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<tr>
<td>6.</td>
<td>Please provide a notarised affidavit on Indian Non Judicial stamp paper of Rs. 10/- that you have not quoted the price higher than previously supplied to any government Institute/Organisation/reputed Private Organisation or DGS&amp;D rate in last one year. If you don’t fulfil this criteria, your tender will be out rightly rejected.</td>
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<tr>
<td>7.</td>
<td>Please attach copy of last three years’ of Income Tax Return</td>
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<tr>
<td>8. Turnover</td>
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</tr>
<tr>
<td>a.</td>
<td>Please attach balance sheet (duly certified by Chartered Accountant) for last three (3) years (Attach copy of average minimum turnover for three years should not be less than 25 crores duly certified by the Chartered Accountant)</td>
</tr>
<tr>
<td>b.</td>
<td>The bidder falls under Section 44AD/44ADA/44AE of Income Tax Act shall be required to submit turnover certificate verified by Chartered Accountant with his Registration number issued by Institute of Chartered Accountants of India.</td>
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<td>c.</td>
<td>Indian Agent can submit its copy of POs of LC cases, in support of its amount getting short in required turnover.</td>
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<tr>
<td>d.</td>
<td>Start-ups may submit its Start-up Registration for consideration (Relaxation in turnover can be considered as the case may be, subject to fulfilment of other conditions. However, it will not mandatory)</td>
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<tr>
<td>9.</td>
<td>PAN No. (Please attach copy)</td>
</tr>
<tr>
<td>10.</td>
<td>GST/VAT/Service Tax Registration Number. (Please attach copy)</td>
</tr>
<tr>
<td>11.</td>
<td>Acceptance of terms &amp; conditions attached (Yes/No). Please sign each page of terms and conditions as token of acceptance and submit as part of tender document with technical bid. Otherwise your tender will be rejected.</td>
</tr>
<tr>
<td>12.</td>
<td>Power of Attorney/authorization for signing the bid documents (Not required in case of sole-proprietorship.)</td>
</tr>
<tr>
<td>13.</td>
<td>Please submit a notarised affidavit on Indian Non judicial stamp paper of Rs. 10/- that no case is pending with the police against the Proprietor/firm/partner or the Company (Agency). Indicate any convictions in the past against the Company/firm/partner.</td>
</tr>
<tr>
<td>14.</td>
<td>Please declare that proprietor/firm/company has never been black listed/debarred by any organization. An oath certificate to this effect may be enclosed on Rs.10 notarised stamp paper.</td>
</tr>
<tr>
<td>15.</td>
<td>Please submit a notarised affidavit on Indian Non Judicial Stamp Paper of Rs.10/- that they will provide complete warranty for all equipment’s/items for 5 (five) years followed by CMC for further 5 (five) years of these equipment’s/items.</td>
</tr>
<tr>
<td>16.</td>
<td>Please furnished a notarised affidavit on Indian Non judicial stamp paper of Rs.10/- that they will supply spare parts for next 10 years at reasonable price by submission of suitable benchmarks.</td>
</tr>
<tr>
<td>17.</td>
<td>Please submit two performance certificate from your two different customers to whom you have supplied such type of equipment in previous 3 years</td>
</tr>
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</table>
**Undertaking**

1. I/We have read and understood the contents of the Tender and agree to abide by the terms and conditions of this Tender.

2. I/We shall supply the items of requisite quality and quantity at given rate in timely manner.

3. I/We also confirm that in the event of my/our tender being accepted, I/we hereby undertake to furnish within 15 days, Bank Guarantee/ Performance Security after the issue of Purchase Order, as applicable, in the format to be provided by AIIMS Rishikesh in addition to execution of a Contract as pre-condition for obtaining the supply orders.

4. I/We further undertake that none of the Proprietor/Partners/Directors of the firm was or is Proprietor or Partner or Director of any firm with whom the Government have banned /suspended business dealings. I/We further undertake to report to the AIIMS Rishikesh immediately after we are informed but in any case not later 15 days, if any firm in which Proprietor/Partners/Directors are Proprietor or Partner or Director of such a firm which is banned/suspended in future during the currency of the Contract with you.

5. I/We undertake that the information given in this tender are true and correct in all respect and I/We hold the responsibility for the same.

(Signature of the Bidder)

Name:

Designation with Seal of the Firm:
The following work of Establishment of complete PET/CT Facility on turnkey basis manufactured by Indian/International firms/agencies of repute are required.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Item</th>
<th>Quantity</th>
<th>EMD</th>
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<tbody>
<tr>
<td>1</td>
<td>Establishment of PET/CT Facility and High Dose 131-I Radioactive Iodine Isolation Ward for Nuclear Medicine</td>
<td>As per specifications</td>
<td>INR 40,00,000/-</td>
</tr>
</tbody>
</table>
MANUFACTURER’s / PRINCIPAL’s AUTHORIZATION FORM

(Clause 11 (c) of other terms and conditions of the tender)

To

The Administrative Officer,
All India Institute of Medical Sciences
Rishikesh

Dear Sir,

TENDER: ____________________________________________.

we, ____________________________, who are established and reputable manufacturers of
________________, having factories at _________________ and____________________, hereby authorize
Messrs. _______________________ (name and address of agents) to bid, negotiate and conclude the contract with
you against Tender No.__________________ for the above goods manufactured by us.

We hereby extend our full guarantee and warranty as per the conditions of tender contract for the goods
offered for supply against this tender by the above firm.

The authorization is valid up to _______________________

Yours faithfully,

(Name)
For and on behalf of Messrs. ______________
(Name of manufacturers)/Principal.
To

The Administrative Officer
All India Institute of Medical Sciences
Rishikesh,
Virbhadra Marg,
Rishikesh-249201

WHEREAS _____________________________ (Name and address of the supplier) (Hereinafter called “the supplier”) has undertaken, in pursuance of contract no________________________ dated _____________ to supply (description of goods and services) (herein after called “the contract”). AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognised by you for the sum specified therein as security for compliance with its obligations in accordance with the contract; AND WHEREAS we have agreed to give the supplier such a irrevocable bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you unconditionally, on behalf of the supplier, up to a total of. ________________________ (Amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of you to first demanding the said amount of guarantee from the supplier before raising the demand with us. You may directly raise the demand with us, without asking the supplier for the same.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall not be changed due to change in the constitution of the bank or the supplier.

This guarantee shall be valid up to 65 months from the date of satisfactory installation of the equipment i.e. up to -- --------- (indicate date).

(Signature with date of the authorized officer of the Bank)

Name and designation of the officer

Seal, name & address of the Bank and address of the Branch
Layout of PET/CT Facility for Nuclear Medicine Department
AIIMS, Rishikesh

### List of Other Equipment & Consumables to be supplied with the PET/CT Unit - 1

#### A Nomenclature of Standard Equipment

A high resolution state-of-the-art Positron Emission Tomography - Computed Tomography (PET-CT) Scanner integrated with 64 rows of solid state CT detectors, generating 128 slice per rotation with Time of Flight technology.

Quantity: 01 in Number. Introductory year should be latest.

#### B Primary Vendor shall be responsible for

- Supply, Installation & Commissioning (functional delivery) on Site Modification Basis (Turnkey).

- Site Preparation: Design, planning, interiors and furnishing on full turnkey, ‘onsite modification basis’, adhering to all the AERB prescribed safety guidelines and regulations.

- Vendor has to coordinate with AIIMS, Rishikesh for avoiding duplicity of work.

(* If any modification required in Identified Site for PET/CT installation, as per current / new AERB guidelines, shall be undertaken by the vendor*)

- AERB Registration and Site Approval: Vendor has to provide the drawings and support in getting the AERB approval.

- Area identified for PET-CT Installation will be provided along with this tender document (B-2 on Ground Floor)

- Any improved modifications or updated versions of the system should be included in the quotations.

#### C General

1. A latest technology DICOM ready state of the art whole body Positron Emission Tomography system with integrated spiral CT scanner having 64 rows of CT detectors generating 128-slices per rotation, designed for providing volume measurements of metabolic and physiological processes using positron emitters, as well as for producing accurate structural and anatomical fusion images and making attenuation maps for CT based attenuation correction.

2. The system should have capability for simultaneous data acquisition, image reconstruction technology, processing for analysis and fusion of PET with CT images.

   The acquisition, processing software and network module should be of latest version with fast acquisition speed & good temporal resolution for imaging.

3. The system should operate on 220 (± 10) V A/C, 50HZ or 440V (± 20) A/C 50HZ

4. Type approval certificate/ NOC from AERB, Mumbai for the quoted model must be attached with the technical bid or else the bid will be summarily rejected.

5. AERB Clearance: The vendor will render all the necessary help and provide the needed documents, site plan, equipment details and drawings to facilitate the AERB clearance.

   * If any additional modifications are required by AERB as per current or needed guideline, during the installation of equipment & before handing over the equipment, the vendor shall be responsible to fulfill the additional work as per the AERB recommendation.

6. For acceptance of the equipment, all the QA tests as per NEMA guidelines and to fulfill the AERB requirements, will be done and demonstrated by the company engineer(s) and all the
required phantoms will need to be arranged by the vendor and submit a detailed report in stipulated time frame. Periodic QC tests as per AERB regulations to renew the license will also be responsibility of the vendor. The company will also arrange such phantoms during periodical QA tests. No additional charges will be levied by the company for such QA tests during the lifetime of the machine.

7. Kindly separately quote all options not included in the standard configuration with prices. The vendor will have to deliver the latest state of the art model of the machine at the time of installation with all hardware and software available at that time at no extra cost.

8. PET data acquisition and CT image reconstruction should be concurrent process.

9. All the Application, Operating and Service manuals in duplicates should be provided by the vendor at the time of handing over the machine. At least one of these manual sets to be provided in computer readable format, preferably as Word for Windows format document.

D Gantry and Detector

1. Gantry should have an integrated PET and CT hardware

2. The patient gantry aperture size should be ≥ 70 cm and uniform for both, PET and CT

3. The PET scanner should employ non-hygroscopic high yield (>80%) and low decay time scintillation material like Lutetium based crystals for detecting 511 KeV gamma photons in coincidence, with TOF technology.

4. PET crystal thickness should be ≥ 20 mm (please specify in mm) to give system sensitivity of ≥7 cps/kBq standard(without TOF)

5. Ring diameter should be ≥ 80 cm

6. The transverse field of view should be ≥ 65 cm

7. The geometric axial field of view (FOV) as measured from the outer edges of the crystals must be ≥ 15 cm.

8. It must be capable of acquiring 45 or more transverse cross- sectional slices, simultaneously without undergoing any axial motion

9. The scanner must have a detection configuration of a continuous ring around the patient.

10. The scanner must have low power laser lines orthogonally mounted on the gantry for patient alignment and auto-contouring. The laser should be mounted in such a way that the patient can be positioned from either side of the gantry and the patient bed.

11. Efficient Gantry cooling system for continuous running of the machine

E Detector Performance(Please mention as per NEMA)

1. System sensitivity must be ≥ 5.5 cps/kBq at center

2. 3-D scatter fraction should be ≤ 40%

3. Peak NECR should be >105 Kcps, specify the activity concentration for the peak NECR

4. Image reconstruction—the system should have PSF reconstruction when required for better lesion profiling

5. Advanced TOF reconstruction algorithms for better lesion detectability

6. All specifications must comply with NEMA standards publication NU 2 2012 or latest performance measurements without altering instruments parameters. QC software to measure these parameters must be available in the system.

7. Additional feature that helps to enhance the NEMA spatial resolution values must be offered
as a standard part.

8. Axial & Transverse spatial resolution at 1 cm & 10 cm from the central axis of the gantry should be ≤ 6 mm FWHM.

9. Timing Resolution should be below ≤ 600 psec.

10. System energy resolution should be ≤ 12.0 %

11. System should be capable of reconstruction of the images at <60 sec/bed by using HD technology.

12. Attenuation correction should be CT based and protocol/algorithm for attenuation correction should be independent of Metal/mA/IV contrast related artefacts.

F  CT Specifications

1. Multi detector CT having capability of 128 transverse cross-sectional slices simultaneously in one rotation without undergoing any axial motion.

2. CT should have 64 physical rows of detectors with minimum 38mm width of detector.

3. Rotation time should be ≤ 0.5 sec
   Multiple pitch factor settings, variable between 0.5 to 1.5 or more and should be freely selectable by the user.

4. Low contrast detectability should be at least 4 mm @ 0.3% on 20 cm CATPHAN phantom.

5. High contrast resolution should be 15.0 Lp/cm or better.

6. Microprocessor controlled high frequency X-Ray generator with output of 70 kW or more,
   Tube Voltage range should be between 80 - 140 kV
   Anode heat storage capacity of 7.0 MHU or more
   Tube Current of 20-600 mA
   Automatic self testing system.

7. Controls located on each side of the gantry.

8. Adult and pediatric modes for filter and dose reduction devices.

G  Patient Bed

1. Precision bed with low attenuation pallet and minimum sag of the patient table top.

2. It should be able to bear 200 kg or more (please specify) patient weight.

3. The horizontal motion of the patient bed must be electrically motorized and computer controlled with an independent operator control option as well. Operator controls accessible from both sides of the patient must be provided for both horizontal and vertical movements.

4. Full body horizontal length should be ≥ 190 cm and cover whole body imaging (Head to Feet) in a single go.

5. A Digital readout of the horizontal and vertical position of the bed must exist and must be located near the aperture controls for the bed to provide ease in positioning.

6. A separate flat table top should be provided for radiotherapy treatment planning.

7. Low attenuation ergonomic head holder, pediatric pallet / restrain, knee-leg support and other accessory pallets.

## Data acquisition and Reconstruction Workstations

1. One high performance multi-tasking Acquisition Workstation independent of main processing unit. The workstation should have a minimum of 2 TB 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.

2. PET data acquisition and image reconstruction should be concurrent process, having high definition (HD), OSEM and Time-of-flight reconstruction algorithms as a standard features.

3. List mode PET data reconstruction should not take more than 90 sec/bed

4. Four high performance multi-tasking post processing workstations having minimum 16 GB RAM, 2.67 GHz processor speed, minimum 512 MB graphic card, 2 TB or more SSD (if less, another SSD may be included) logically divided into 3-4 partitions, Optical Mouse, Key-board and high resolution anti-glare flat panel dual view LCD 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.

5. Intercom with user programmable patient instruction system.

6. **Communications/Image transfer and networking**
   - Connectivity with other DICOM enabled modalities should be possible. This includes connectivity with existing institutional PACS, HIS and RIS.

7. Ethernet with TCP/IP protocols and DICOM-3 or latest networking of all possible equipments in the facility with their peripherals and 20 TB mini PACS.

8. Software for PET/CT/MRI/SPECT fusion.
   - PET DICOM 3 or higher version must be implemented; it should have the ability to import MR CT DICOM data.

9. Seamless connectivity to existing server to be established for exporting DICOM images and 4D gated images from PET CT to radiation therapy planning system. The institute has ELECTRA Linear accelerator system. It is the responsibility of the PET/CT vendor for the successful integration of 4D gated images with the Electra system for the transfer of the same to RT planning system. It is the responsibility of the vendor to give all necessary hardware and software for smooth integration of 4D gating of PET-CT with RT planning system and this should include license for PET/SUV based contouring software.

## Image Storage Server and Processors

1. Hardware to be high speed state of art processor with storage of 20 TB expandable to 40 TB with ≥8 GB RAM with automatic archival system with high speed volume rendering graphic cards. (Please specify the RAM).

2. The server should have either proprietary or reputed software capable of advanced 3D processing and high end application.

3. Archiving: Image archiving of >4TB capacity capable of maintaining database of patients and images. Automatic digital archiving of data/studies on CD, DVD (W and RW) along with compatible drives.

4. Latest antivirus software should be loaded in the server for its protection and for the protection of all clients system.
5. **Backup server facility should be available for retrieving the data when the main server crashes due to any reason.**

### Data Acquisition Software

1. **Acquisition Modes:** Acquisition in full 3-D mode must include Static, Whole Body, Dynamic and Gated (cardiac & respiratory) acquisition.

2. **Acquisition Protocols:** The acquisition program should support pre-programmed scan protocols with acquisition and reconstruction parameters and patient information with simple, dynamic editing of parameters. These parameters would include all information necessary to acquire data on the PET scanner (e.g., scan duration, patient information, bed motion), as well as information necessary for reconstruction. Same PET CT protocol should be used for Contrast CT in single acquisition.

3. **Whole Body Acquisition:** Multi bed acquisitions (e.g. for the purpose of whole body oncology studies) should advance the bed from one position to the next automatically.

4. **Dynamic frame Mode Acquisition:** The acquisition set-up software must support multi-frame acquisition of different (arbitrary) frame duration’s with no loss of data between frames. Alternatively, list mode acquisition may be available as standard feature.

5. **Reconstruction:** Image reconstruction should simultaneously start for the acquired image while acquisition is still in process.

6. **Time of Flight and HD must be available for image reconstruction**

7. **Fully 3-D Iterative reconstruction technique should be available as standard**

8. **Low dose iterative reconstruction algorithm should also be provided**

9. **Pixel Size:** The User should have the option to specify the pixel size for reconstruction. The reconstruction program should support reconstruction in image sizes of at least 128x128 or higher.

10. **Scatter Correction:** Scatter correction must be provided based on scan of the actual patient whose scan is being corrected and processed automatically.

### Clinical Application Software

1. Software for data collection, CT based attenuation correction, reconstruction of image for co-registration, Full 3-D prospective reconstruction with iterative scatter correction, advance 3-D Volume rendering with 3-D fusion, virtual endoscopy, Model based 3-D scatter correction, MIP, whole body acquisition & dynamic acquisition.

2. System management software for computerized calibration, quality control for all scanner performance parameters, diagnostics and administration of the patients’ records.

3. Processing workstation should have image comparison software for the baseline and follow-up studies.

4. Processing workstation should have viewing and processing software for dynamic acquisition data.

5. Provision to make DICOM/ PDF/ JPEG/ AVI/ MPEG digital output.

6. Latest advanced CT radiation dose reduction technology and software that should offer higher speed image reconstruction.

7. 4-D TOF or better or advanced respiratory gating software and hardware for PET/CT acquisition and processing should be a standard feature.

8. Specialised quantification software for Brain & Cardiac studies.
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<th>Requirement</th>
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<tr>
<td>9</td>
<td>Quantification of cerebral perfusion, cerebral blood flow and flow reserve.</td>
</tr>
<tr>
<td>10</td>
<td>System must have neuro quantification software for neurological applications (including assessment of dementia by measuring relative SUV (<em>SISCOM, SPM etc. provide detailed specification of the software quoted</em>).</td>
</tr>
<tr>
<td>11</td>
<td>Complete cardiac package with ECG gated studies (prospective and retrospective tagging) and ECG gated dose modulation.</td>
</tr>
<tr>
<td>12</td>
<td>Quantification of myocardial perfusion and flow reserve, comparison of PET and SPECT myocardial images on the same window.</td>
</tr>
<tr>
<td>13</td>
<td>Advanced CT applications software for coronary imaging, vessel analysis coronary tree extraction, calcium scoring for coronary arteries, one touch volume rendering of the whole heart, CT coronary and PET/ SPECT MPI cardiac fusion</td>
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<tr>
<td>14</td>
<td>Cardiac PET viability review application software.</td>
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<tr>
<td>15</td>
<td>Dedicated licensed latest version of Emory Cardiac Toolbox including optional software (3.05 suite / latest version)</td>
</tr>
<tr>
<td>16</td>
<td>Quantification of metabolic parameters for Oncology application, including SUV volume, SUV standardized for BMI, SUV peak, SUV –L, Glycotic index and latest software to calculate metabolic tumor volume (Threshold based, Gradient based, Iterative &amp; Region growing method etc.)</td>
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</tbody>
</table>
17. On site remote service diagnostic facility

18. Permanent site licence(s) for all software applications should be available in all 4 processing workstations

19. All future software upgrades including associated hardware during warranty period and CMC shall be free of cost.

**Peripheral and Hot Lab Accessories**

1. A 3 phase input/output UPS (approved make) with maintenance free batteries (Exide, Amaron, Base, Yuasa) for the complete system including CT gantry computer system, anesthesia delivery system, monitors and defibrillators with minimum 30 min. backup at full load should be provided.

2. **Latest dual head pressure injector**: Digitally controlled CT injection system with pedestal head mount, remote monitor, VRC and syringe heater, along with 200 sets of 200 ml disposable CT syringes with tubing and connector.

3. **Two single syringe pumps** (ASCOR / AITECS / Graseby / B Braun), with delivery rate form 0.1 ml/h to over 200 ml/h in 0.1 ml increments & capable of using 10ml, 20ml and 50ml syringes commonly available in local market.

4. Required Phantoms for CT & PET Quality Assurance and system calibration (ACR Phantom) and Quality control set as required.

5. ECG gating device & necessary electronics to enable gated cardiac acquisition with ECG printout facility.

6. **High resolution color laser Printer for color hardcopy** on paper with 5 sets of all cartridges per year during warranty and CMC period.

7. One laser dry view film maker with laser CT films of 14” x 17” size with 100 packets of Laser CT films (optional).

8. **Two dose calibrators** for PET radionuclides with compatible label/ticket printer.

9. One SS trolleys in injection room for placing a dose calibrator in it, with a mounted **L-bench with lead glass for handling PET radionuclides** (2 in number) for 18 FDG and 68 Gallium, and **One Dose drawing module** for F-18 FDG.

10. Two stainless steel side trolley in the PET/CT room.

11. One decay drum for PET radionuclides.

12. Three lead lined waste bins with minimum 12 mm lead for PET Radiopharmaceutical waste.

13. 40 Lead bricks and 8 lead corners for F-18 handling.

14. Four Tungsten syringe holders of two sizes (Two 2 ml and Two 5 ml).

15. **Two Digital Radiation Survey meter with beta and gamma windows** (Hitachi / Fluke / Rotem).

16. One **Digital μSv/hr range Contamination Monitor** (Hitachi / Fluke / Rotem).

17. One **Digital GM based Survey - cum - Contamination meter** (Hitachi / Fluke / Rotem).

18. Five **Digital Pocket Dosimeters** (Rad-60R by Rados Technology OR any other reputed brand).

19. Two digital area Zone monitors.

20. One decontamination kit.

21. **Two Syringe Needle destroyers**.

22. One side by side refrigerator of minimum 500 L capacity.

23. One electrical weighing machine for at least 200 kg.
24. One Crash Cart trolley.
25. One biphasic Defibrillator (Schiller or other reputed make).
26. One vital sign monitor (Schiller or other reputed make).
27. Two Glucometers with 50 packs of blood glucose test strips.
28. Two latest specifications PCs (preferably iOS) having licensed operating system and software, MS office & Antivirus software and along with two Laserjet printers for patient reports and data maintenance.
29. Four X-ray LCD illuminators for minimum 2 films view of 14” x 17” size.
30. One collapsible Wheel Chair with rubberized swivel wheels.
31. One Patient trolley with rubber foam mattress - 1 Number.
32. One dose drawing module for F-18 FDG.
33. A lead glass window: 100x 150 cm separating the scanner and console which should be sufficient to seal 511 KeV radiations optimally as per AERB guideline.

**M** Other Items
1. Dehumidifiers.

**N** Fume Hood for PET Radiopharmacy with sliding lead glass shield with HEPA filter (Germ free Radiopharmacy hood or equivalent) – 1 in no.

**O** FDG Supply: 200 doses of FDG/year, calibrated to 100 mCi delivery at our doorstep (For 2 years). Rates to be quoted separately

One ‘Automatic synthesis module’ (Self shielded type) along with required safety cabinet / hot cell for Gallium-68 radiopharmaceuticals - Rates should be quoted separately

One 68 Germanium / 68 Gallium Generator of 25mCi capacity per year for next 2 years, with delivery at doorsteps - Rates should be quoted separately.

PSMA-11 (10mg) & DOTANOC (10mg) alongwith radiolabelling Kits (GMP approved) & supplies to meet 200 runs of each - Rates should be quoted separately.

**P** Warranty
1. The complete system should have a guarantee / warranty including the radioactive reference source required for calibration of the scanner, crystals, detectors and CT X-Ray tubes replacement for a period of FIVE years after the satisfactory commissioning and handing over of the equipment. Warranty will include all accessories and third party items.

Pro-rata warranty is not acceptable.

2. Comprehensive maintenance contract (CMC) for whole system as in warranty clause including CT X-Ray tube replacement as and when required and accessories for a period of FIVE years after the expiry of warranty period.

After the expiry of the warranty period CAMC that includes both labor and spare parts inclusive of CT tube should be quoted yearwise in INR by manufacturers.

3. The peripherals / accessories, electronic / electrical consumables (leads, probes, batteries etc.), phantom source and calibration sources and batteries of UPS will also form part of the warranty and CMC. Service, repair and maintenance of all third party items will be the sole responsibility of
primary vendor. Replacement / Replenishment of the coolant for gantry will also form the part of warranty as well as CMC.

4. The price quoted for the equipment, turnkey works, warranty and CAMC should include all expenses including the customs duty, customs clearances, insurance, freight, clearance charges, and also all expenses towards the maintenance and repairs of the entire PET-CT unit including spare-parts, electrical and electronic items, computer systems, air-conditioning, cooling systems, networking, etc. AIIMS Rishikesh will not be held responsible for payment under any head other than CAMC payments during this 5 year period and necessary documents required from time to time.

5. Maintenance contract from the local agents is also not acceptable.

6. At least 95% uptime should be maintained during warranty as well as CMC period. During warranty period and CAMC period, the vendor shall give in the form of Bank guarantee, an uptime guarantee of 95%.

A penalty of Rs. 20,000/- per day will be charged after the expiry of 95% uptime warranty. If the machine lies non-functional for a period of more than one week continuously, the same penalty (at the rate of Rs.20,000/- per day) will be imposed even if 95% uptime clause is met with. Any bid without agreeing to this uptime warranty and penalty clauses will be summarily rejected.

Availability of adequate spares and accessories for the next 10 years should be ensured by the vendor.

Warranty, guarantee and service are considered as part of the bid specification. The contractor shall provide complete and specific details of maintenance operations performed under service contracts.

7. Onsite training by trained engineers and application specialists working in good PET centres abroad to two physicians and a technologist for at least 2 weeks period.

8. After sale service to be available locally with availability of an onsite engineer.
Q Turnkey Works

1. Entire area for proposed site to be prepared and finished on turnkey basis.

2. Area will be defined as per requirements and rate per square foot may be quoted, work to be done as per requirement of department.

3. Turnkey works would also include work for preparation and finishing of ‘High dose Radioisotope Therapy Facility’ i.e. Isolation Ward (Four bedded) as per AERB requirements. (*If separate building is planned, budget may be quoted for the same too on per square foot basis)

(*Additional scope as in Point V page no.)

4. Scope of work for PET/CT:
All civil works, interior finishing including furniture would be included, within building premises.

5. As the unit will be installed on site-modification basis. The vendor should inspect the site before quoting and ensure that the unit can be installed in the available space without any functional compromise. Complete layout site map and details of work (BOQ) should be part of technical bid. Provisions should be made for PET-CT equipment room, UPS room, PET examination room, Physician rooms, Console area, Reporting room, Dose Admin room, Post dose admin uptake room, Hot lab cum Radiopharmacy room, Technicians room, Radioactive source storage room, Radioactive waste Store, post scan active waiting & Active toilets & printer locations.

It should also include Lead lined door with lead glass peeping window, radiation warning indicators and signage’s, Aluminium false ceiling, GVT floor tiles and full height wall tiles. All site-modification should comply with specified standards of the hospital.

6. Necessary furniture and fixtures for comfortable working conditions, storage of system components and consumable stand for protective aprons, gonad shields and thyroid shields etc. should be provided.

Light weight vinyl Lead aprons- 4 in no.

7. Power and Air-conditioning requirement must be mentioned. AC of adequate capacity should be provided. All electrical provisions including earthing etc. will be vendor’s responsibility. Ductable package air-conditioner may be used according to room, equipment requirement and suitability. Outdoor units of AC should have grilled coverings to prevent theft and damage.

8. The site should be rendered pest/rodent free.

9. Complete equipment layout site plan and details of work (BOQ) should be part of technical bid

10. Provisions should be made for placing the various accessories in console room, work-station and printer locations.

11. All site modification works should comply with specified standards of the hospital

R Scope of Site Modification for 128 slice PET CT scanner

The scope of work for site modification for PET CT shall include PET-CT equipment room, UPS room, PET examination room, Physician rooms, Console area, Reporting room, Dose Admin room, Post dose admin uptake room, Hot lab cum Radiopharmacy room, Technicians room, Radioactive source storage room, Radioactive waste Store, post PET scan active waiting & Active toilets.

a. Civil work

1. Civil construction work including construction/ modification / demolition of brick wall if any, plastering, flooring as per approved plan and equipment layout plan.
2. Additional strengthening of floor / Concrete bed of CT and equipment area, if required
3. Platform for unloading and shifting the PET CT should be provided if necessary
4. Cable tray, trench & channel – necessary trenches, cable tray and channels at required location would be provided
5. All the construction work to be done as per the final plan approved, by AIIMS Rishikesh.
6. Ceiling-to-wall ceramic tiling in PET CT examination room

**b Flooring**

1. 600 x 600 mm glazed vitrified (GVT) tiles with 100mm tile skirting in PET CT Examination room.
2. 5mm-Vinyl flooring in PET CT equipment / UPS room

**c Painting**

1. Two coats Plastic Emulsion Paint over 2 coats of wall putty including primer in Console, PET CT equipment / UPS room.

**d False Ceiling**

1. Aluminium, acoustical-treated, powder coated tile for ceiling supported on grid or finished seamless with support above ceiling. Ceiling height to suit the equipment mount and clearances.

**e Electrical work**

1. The supplier shall be required to specify the total load requirements for the PET CT including the load of air conditioning, room lighting and for the accessories if any. The supply line will be provided by the Institute up to one point within the PET-CT Scan area. The distribution panel for UPS, PET CT shall be provided by the vendor. Few lights in each room shall be connected to the UPS to provide emergency lighting.
2. The electrical work shall include the following:
3. Wiring – All interior electrical wiring with main distribution panel board, necessary MCBs, DB, joint box, switch box etc. the wires shall be of copper of different capacity as per the load and should be renowned make as listed below.
4. Switches light and power points should be of modular type and of standard make as listed below
5. General lights -LED light fittings with minimum 500 Lux Illumination

**S AIR CONDITIONING:**

1. AC ≥15 TR capacity. Unit rate to be quoted.
   Duct-able package air conditioners and split air conditioners may be used according to room as well as equipment requirement and suitability. Humidity control should be effective to eliminate moisture condensation on equipment surface.
2. The outdoor units of AC should have grill coverings to prevent theft and damage

**T Environment specifications:**

1. Relative Humidity range: To be maintained between 60% and 80% in all areas except equipment room, which shall be as per requirement of the equipment?
2. Temperature ranges: 22± 2°C in all areas except equipment room which shall be as per requirement of the equipment.
3. Air conditioning load: The heat load calculations and maintaining the desired temperature and humidity shall be the responsibility of the bidder.
4. Fire detection system – shall comprise of fire panel, smoke / heat detectors
U
1. Revolving chairs height adjustable, medium-back with hand-rest – 8 NO.S
2. Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement - 3 NO.S
3. Name boards for all rooms
4. Tables for Workstation - 5 NO.S
5. Dustbins: 10 No’s
6. All furniture items should be of standard make as mentioned in the table below
7. Provision of CCTV to monitor uptake room, Hot Lab & one TV set in patient waiting area.

ADDITIONAL SCOPE FOR HIGH DOSE 131-I RADIOIODINE ISOLATION WARD FOR 4 PATIENTS

CIVIL WORK
1. Construction of 4 Patients Rooms for 131-I Radioiodine high dose therapy with attached washroom & delay tanks as per current AERB guideline.
2. Hot lab, Radioactive Source storage, Radioactive Waste, Linen Storage room, Decontamination Room as per AERB guideline.
3. Nursing Station, Residents Room, Staff Washroom.
4. Attendant’s waiting room with attached washrooms to accommodate 2 Patient attendants at a given time in each room (total two rooms 2: One room for male & female attendant each)

Primary Vendor shall be responsible for
1. Site Preparation:
   Design, planning, interiors and furnishing on full turnkey basis, adhering to all the AERB prescribed safety guidelines and regulations.
   Vendor has to coordinate with AIIMS, Rishikesh for avoiding duplicity of work.
   (*If any modification required in Identified Site for PET/CT installation, as per current / new AERB guidelines, shall be undertaken by the vendor).
2. AERB Registration and Site Approval:
   Vendor has to provide the drawings and support in getting the AERB approval.

RADIATION SAFETY DEVICES & ACCESSORIES
1. Hot lab accessories including
2. Isotope dose calibrator – one.
3. Lead lined Fumehood (Two in Number) for dispensing 131 I- High dose therapy
4. L-Bench to dispense Radioisotopes - 2
5. Lead bricks - 60 , Radioactive Waste Bin, lead lined (Foot operated) – 4 in Number
6. Shielding devices made of tungsten (syringe shield, source container, transport container, and others)
7. Remote handling devices (de-capper, cap sealer, long vial holder, pair of tongs, and others)
8. Lead Glass Shields, mobile (100 x 150 cms) for High dose 131- Iodine therapy Ward: Nos -4, One in each room
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<thead>
<tr>
<th></th>
<th>Description</th>
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<tbody>
<tr>
<td>9</td>
<td>GM-based survey meter/ionization chamber-based survey meter - One</td>
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<tr>
<td>10</td>
<td>Contamination monitor (one) , Area Zone Monitor (one)</td>
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<tr>
<td>11</td>
<td>Pocket dosimeters - 2 in numbers, TLD Reader (Automatic)</td>
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<tr>
<td>12</td>
<td>Provision &amp; Accessories needed for constructing Delay tank for 4 patients.</td>
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<tr>
<td>13</td>
<td>Furniture for all four patient’s rooms &amp; two attendant’s rooms</td>
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<tr>
<td>14</td>
<td>CCTV, ACs, TV sets, telephone &amp; alarm system for all patient rooms.</td>
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<tr>
<td>15</td>
<td>Decontamination Kit, Lead gloves, lead apron &amp; shields.</td>
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