

BIDDING DOCUMENT

(Two Bid System for Machinery & Equipment)

FOR
NATIONAL CANCER INSTITUTE
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
(JHAJJAR CAMPUS)

NIB Ref: HITES/PCD/NCI-AIIMS/29/18-19



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SECTION -I**NOTICE INVITING BIDS (NIB)****ALL INDIA INSTITUTE OF MEDICAL SCIENCES**

Ansari Nagar, New Delhi-110 029

NOTICE INVITING BIDS (GLOBAL)**NIB Ref: HITES/PCD/NCI-AIIMS/29/18-19****Dated: 10.08.2018**

Procurement & Consultancy Services Division of **HLL INFRA TECH SERVICES LIMITED** (a fully owned subsidiary of HLL Lifecare Ltd., a Govt. of India Enterprise) for and on behalf of **Director, AIIMS - New Delhi**, invites e-tenders in two bid system (technical and price bid) from the reputed, eligible & qualified firms/ manufacturers for purchase/supply of following goods at **National Cancer Institute Jhajjar, Haryana (AIIMS, New Delhi-29)**.

Sl. no.	Rfx no.	Short Description of goods	Quantity (Nos.)	Bid Security (BS) (Rs.)	Tender Processing Fee incl. GST (Rs.)
1	3000003343	16-Slice SPECT- CT Scanner	1	14,00,000	5,900
2	3000003344	128-Slice PET- CT Scanner	1	30,00,000	5,900
3	3000003345	Dual Particle Cyclotron	1	40,00,000	5900
Pre-bid conference meeting with prospective bidders		Venue for pre-bid meeting	Sr. no. of goods		Date & Time of pre-bid meeting
		Committee Room (No. 149), 1st Floor, Dr. BRAIRCH Building, AIIMS, New Delhi-29.	Item no. 01, 02 and 03		21.08.18 at 12:00 PM
Last date and time of online submission of tender			14.09.2018 at 12:00 Noon		
Last date and time of physical submission of EMD, Tender processing Fee, any other document specified in the Bidding Document			14.09.2018 at 2:00 PM		
Date of tender Opening			14.09.2018 at 2:30 PM		
Contact Person			Project Officer - DVP(PCD), HITES Email: hll.ncij@hllhites.com		
<p>2. Interested bidders are advised to download the complete Tender Enquiry document from the websites www.hllhites.com or www.lifecarehll.com or www.eprocure.gov.in/cppp or https://etender.lifecarehll.com/irj/portal for complete details.</p> <p>3. The prospective bidders have to register with the E-procurement system of HLL at https://etender.lifecarehll.com/irj/portal. On completion of the registration process, the bidders will be provided user ID and password within 48 hours (excluding non-working days). In order to submit the bids electronically, bidders are required to have a valid Class 3-B Digital Signature Certificate (signing and encryption/ decryption certificates).</p> <p>4. Bidders are requested to read the bidders help document on e-tender web site link before proceeding for bidding.</p> <p>5. Post receipt of User ID & Password, Bidders can log on for downloading & uploading</p>					

tender document.

6. The bidders shall submit the required Tender Processing Fee (in form of Demand Draft or Banker's Cheque) and EMD (as per GIT clause no. 19.3) in physical form in favour of '**HLL Infra Tech Services Limited**' at the scheduled time and venue. Tender processing Fee is required from all the bidders irrespective of their registration with NSIC or any other Govt. organisation.
7. The online submission of tender(s) can only be done through <https://etender.lifecarehll.com/irj/portal>
8. All prospective bidders (maximum two representative of a firm bearing ID proof issued by their firm) may attend the Pre-bid conference meeting. The venue, date and time indicated above.
9. Bidders shall ensure that their tender(s), complete in all respects, are submitted online through HLL's e-portal (as described above) **ONLY**.
10. Tender Processing Fee and Bid Security (BS) in original should be deposited within the scheduled date & time in the Tender Box located at: **HLL Infra Tech Services Limited, Procurement and Consultancy Services Division, B-14 A, Sector-62, Noida-201307, Uttar Pradesh.**
11. Prospective bidders are advised to browse the above websites regularly before submission of their bids as any further amendments will be published in these websites only.

CEO (HITES)

SECTION - II**GENERAL INSTRUCTIONS TO BIDDERS (GIB)
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GENERAL INSTRUCTIONS TO BIDDERS (GIB)

A. PREAMBLE

1. Definitions and Abbreviations

1.1 The following definitions and abbreviations, which have been used in these documents shall have the meanings as indicated below:

1.2. Definitions:

- i. "Purchaser" means HLL INFRA TECH SERVICES LIMITED (HITES) for and on behalf of The Director, AIIMS, New Delhi.
- ii. "Bid" means Quotation / Tender received from a Firm / Tenderer / Bidder.
- iii. "Bidder" means Tenderer/the Individual or Firm submitting Bids/ Quotation/Tender
- iv. "Supplier" means the individual or the firm supplying the goods and services as incorporated in the contract/purchase order.
- v. "Goods" means all articles, material, commodity, livestock, furniture, fixtures, raw material, spares, instruments, machinery, equipment, vehicles, medicines, assemblies, sub-assemblies, accessories, intangible products like software, technology transfer, licenses, patents or other intellectual properties purchased or otherwise acquired for the use of Government but excludes books, publications, periodicals, etc. for a library. The term 'goods' also includes works and services which are incidental or consequential to the supply of such goods, such as, transportation, insurance, installation, commissioning, training and maintenance.
- vi. "Services" means services allied and incidental to the supply of goods, such as transportation, installation, commissioning, provision of technical assistance, training, after sales service, maintenance service and other such obligations of the supplier covered under the contract.
- vii. "Bid Security" (BS) means Earnest Money Deposit / monetary or financial guarantee to be furnished by a bidder along with its tender.
- viii. "Contract" means the written agreement entered into between the purchaser and the supplier, together with all the documents mentioned therein and including all attachments, annexure etc. therein.
- ix. "Performance Security" means monetary or financial guarantee to be furnished by the successful bidder for due performance of the contract placed on it. Performance Security is also known as Security Deposit.
- x. "Consignee" means the Centre/Hospital/Department/Sections /person to whom the goods are required to be delivered as specified in the Contract.
- xi. "Specification" also called Technical Specifications means the document/standard that prescribes the requirement with which goods or service has to conform.
- xii. "Inspection" means activities such as measuring, examining, testing, gauging one or more characteristics of the product or service and comparing the same with the specified requirement mentioned in the contract to determine conformity.
- xiii. "Day" means calendar day.

1.3 Abbreviations:

- (i) "NIT" means Notice Inviting Tenders.
- (ii) "GIB" means General Instructions to Bidders
- (iii) "SIT" means Special Instructions to Bidders

- (iv) "GCC" means General Conditions of Contract
- (v) "SCC" means Special Conditions of Contract
- (vi) "LC" means Letter of Credit
- (vii) "DP" means Delivery Period
- (viii) "BG" means Bank Guarantee
- (ix) "GST" means Goods & Service Tax
- (x) "CD" means Custom Duty
- (xi) "BL" means Bill of Lading
- (xii) "FOB" means Free on Board
- (xiii) "CIF" means Cost, Insurance and Freight
- (xiv) "CIP (Destinations)" means Carriage and Insurance Paid up to named port of destination. Additionally the Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery.
- (xv) "INCOTERMS" means International Commercial Terms as on the date of Bid Opening
- (xvi) "CAMC" means Comprehensive Annual Maintenance Contract (labour, spare and preventive maintenance)

2. Introduction

- 2.1 The Purchaser has issued these Bidding Documents for purchase of goods and related services as mentioned in Section – VI – "List of Requirements", which also indicates, *interalia*, the required delivery schedule, terms and place of delivery.
- 2.2 This section (Section II - "General Instructions to Bidders") provides the relevant information as well as instructions to assist the prospective bidders in preparation and submission of bids. It also includes the mode and procedure to be adopted by the bidder for receipt and opening as well as scrutiny and evaluation of bids and subsequent placement of contract.
- 2.3 The bidder shall also read the Special Instructions to Bidders (SIB) related to this purchase, as contained in Section III of these documents and follow the same accordingly. Whenever there is a conflict between the GIB and the SIB, the provisions contained in the SIB shall prevail over those in the GIB.
- 2.4 Before formulating the bid and submitting the same to the purchaser, the bidder should read and examine all the terms, conditions, instructions, checklist etc. contained in the Bidding Document. Failure to provide and/or comply with the required information, instructions etc. incorporated in these Bidding Documents may result in rejection of its Bid.

3. Availability of Funds

- 3.1 Expenditure to be incurred for the proposed purchase will be met from the funds available with the purchaser/consignee.

4. Language of Bid

- 4.1 The bid submitted by the bidder and all subsequent correspondence and documents relating to the bid exchanged between the bidder and the purchaser, shall be written in the English language. However, the language of any printed literature furnished by the bidder in connection with its bid may be written in any other language provided the same is accompanied by an English translation and, for purposes of interpretation of the bid, the English translation shall prevail.

5. Eligible Bidders

- 5.1 This Invitation for Tenders is open to all bidder who fulfil the eligibility criteria specified in these documents.

6. Eligible Goods and Services

- 6.1 All goods and related services to be supplied under the contract shall have their origin in India or any other country with which India has not banned trade relations. The term “origin” used in this clause means the place where the goods are mined, grown, produced, or manufactured or from where the related services are arranged and supplied.

7. Bid Expense

- 7.1 The bidder shall bear all costs and expenditure incurred and/or to be incurred by it in connection with its bid including preparation, mailing and submission of its bid and for subsequent processing the same. The purchaser will, in no case be responsible or liable for any such cost, expenditure etc. regardless of the conduct or outcome of the bidding process.

B. TENDER ENQUIRY DOCUMENTS

8. Content of Tender Enquiry Documents

- 8.1 In addition to Section I – “Notice Inviting Tender” (NIT), the Bidding Documents include:

Section II	– General Instructions to Bidders (GIB)
Section III	– Special Instructions to Bidders (SIB)
Section IV	– General Conditions of Contract (GCC)
Section V	– Special Conditions of Contract (SCC)
Section VI	– List of Requirements
Section VII	– Technical Specifications& General Points
Section VIII	– Qualification Criteria
Section IX	– Bid Form
Section X	– Price Schedules
Section XI	- Check List
Section XII	– Bank Guarantee Form for Bid Security
Section XIII	– Manufacturer’s Authorization Form
Section XIV	– Bank Guarantee Form for Performance Security/CAMC Security
Section XV	– Contract Forms A & B
Section XVI	– Proforma of Consignee Receipt Certificate
Section XVII	– Proforma of Consignee Acceptance Certificate by the consignee

- 8.2 The relevant details of the required goods and services, the terms, conditions and procedure for bidding, bid evaluation, placement of contract, the applicable contract terms and, also, the standard formats to be used for this purpose are incorporated in the above-mentioned documents. The interested bidders are expected to examine all such details etc to proceed further.

9. Amendments to a Bidding documents

- 9.1 At any time prior to the deadline for submission of bids, the purchaser may, for any reason deemed fit by it, modify the Bidding Documents by issuing suitable amendment(s) to it.

- 9.2 Such an amendment will be notified through CPPP (eprocure.gov.in/cppp) and/or www.hllhites.com and/or www.lifecarehll.com and will be binding on them.
- 9.3 In order to provide reasonable time to the prospective bidders to take necessary action in preparing their bids as per the amendment, the purchaser may, at its discretion extend the deadline appropriately for the submission of bids and other allied time frames, which are linked with that deadline.

10. Clarification of Bid document

- 10.1 A bidder requiring any clarification or elucidation on any issue of the Bidding Documents may take up the same with the purchaser in writing. The purchaser will respond in writing to such request provided the same is received by the purchaser not later than ten days (unless otherwise specified in the SIB) prior to the prescribed date of submission of Bids.

C. PREPARATION OF BIDS

11. Documents comprising the e-Bid

- 11.1 The bid(s) shall only be submitted online as mentioned below:

1. Technical Bid (Consisting of Techno-Commercial bids in excel format provided with the tender enquiry along with the supporting documents i.e. scanned copies of Tender Processing Fee, BID SECURITY, Eligibility Criteria & Technical Specifications viz. Product Specification Sheets/Brochures, OEM Certificate, etc.) have to be attached in the C-folder of e-tendering module. Bidders have to ensure that the documents uploaded in pdf and/or excel format or as per format instructed elsewhere are legible.
2. Price Bid has to be submitted in the prescribed excel format provided with the tender enquiry.

Note:

- a. The tender Processing fee and BID SECURITY has to be submitted in physical form as per Section – I, Notice Inviting Tender of this tender enquiry.
- b. The bidders have to follow the steps listed in Bidding Manual – Attachment Modem available in the Bidder Help Documents of e-tender portal login screen for uploading the Techno-Commercial Bid.

A) Techno-commercial Bid (Un-priced Bid)

(Bidders shall furnish the following information along with technical tender in pdf and/or excel format or as per format instructed elsewhere):

- i) Bid Security furnished in accordance with GIB clause 19.1 alternatively, documentary evidence as per GIB clause 19.2 for claiming exemption from payment of Bid Security.
- ii) Bid Form as per Section IX (without indicating any price).
- iii) Documentary evidence, as necessary in terms of clauses 5 and 17 of GIB establishing that the bidder is eligible to submit the bid and, also, qualified to perform the contract if its bid is accepted.
- iv) Bidder who quotes for goods manufactured by other manufacturer shall furnish Manufacturer's Authorisation Form. While giving authorization to agent, to quote on their behalf, manufacturer has to give the reasons for

- not quoting directly against this bid in the Manufacturer's Authorisation Form.
- v) Power of Attorney in favour of signatory and/or who is digitally signing the bidding documents and signatory of Manufacturer's Authorization Form.
 - vi) Documents and relevant details to establish in accordance with GIB clause 18 that the goods and the allied services to be supplied by the bidder conform to the requirement of the bidding documents.
 - vii) Performance Statement as per section VIII along with relevant copies of orders and end users' satisfaction certificate.
 - viii) Price Schedule(s) as per Section X filled up with all the details including Make, Model etc. of the goods offered with prices blank (without indicating any prices).
 - ix) Documents confirming to Sole Proprietorship/Partnership/Private Limited Firm in the country of origin as the case may be.
 - x) Checklist as per Section XI.
 - xi) Copies of GST registration certificate and PAN Card.
 - xii) Copies of annual report, audited balance sheet and profit & loss account as per tender requirement.
 - xiii) Non conviction /no pending conviction certification issued by Notary on non-judicial stamp paper for preceding three years.
 - xiv) Notarized affidavit that bidder does not have any relation with the person authorized to evaluate technically or involve in finalizing the tender or will decide the use of tendered items.
 - xv) A self-declaration on Rs. 10/- non-judicial Stamp Paper that the rates quoted in the tender are the lowest and not quoted less than this to any Government Institution (State/Central/ other Institute in India).
 - xvi) Technical and Commercial Compliance statement in excel format provided in the e-tender portal.
 - xvii) Product catalogues/original Data Sheets for all quoted items.
 - xviii) Copies of quality certificates, if applicable, namely, BIS, ISO, FDA, CE, etc.

B) Price Tender:

Prices are to be quoted in the prescribed Price Bid format in excel provided along with the tender enquiry in the e-tender portal. The price should be quoted for the accounting unit indicated in the e-tender document.

Note:

- a) The bidder has to be diligent while filling up the Techno-commercial Bid and Price Bid provided in excel formats and must not tamper the contents of the sheets.
- b) It is the responsibility of bidder to go through the TE document to ensure furnishing all required documents in addition to above, if any.
- c) The bidders have to follow the steps listed in Bidding Manual – Attachment Mode available in the *Bidder Help Documents of e-tender portal login screen* for uploading the Price Bid.

11.2 The authorized signatory of the bidder must sign the bid duly stamped at appropriate places and initial all the remaining pages of the bid. Individuals signing the bid or other documents connected with a contract must specify whether he signs as:

- i. A 'Sole Proprietor' of the firm or constituted attorney of such Sole Proprietor.

- ii. In case of partnership firm he must have authority to quote & to refer to arbitration dispute concerning the business of the partnership either by virtue of the partnership agreement or a power of attorney;
- iii. Constituted attorney of the firm if it is a company.

Note:

1. In case of (ii) above, a copy of the partnership agreement duly registered with “Registrar of Firm’s” or general power of attorney, in either, case, attested by a Notary Public should be furnished, or affidavit on stamped paper of all the partners admitting execution of the partnership agreement or the general power of attorney should be furnished.
 2. In case of the partnership firms, where no authority to refer disputes concerning the business of the partnership has been conferred on any partner, the bid and all other related documents must be signed by every partner of the firm.
 3. A person signing the bid form or any documents forming part of the contract on behalf of another shall be deemed to warrantee that he has authority to bind such other persons and if, on enquiry, it appears that the persons so signing had no authority to do so, the purchaser may, without prejudice to other civil and criminal remedies, liable for rejection of bid or cancel of contract and hold the signatory liable for all cost and damages.
- 11.3 A bid, which does not fulfil any of the above requirements and/or gives evasive information/reply against any such requirement, shall be liable to be ignored and rejected.

12. Bid Currencies

- 12.1 The bidder supplying indigenous goods or already imported goods shall quote only in Indian Rupees.
- 12.2 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. Commission for Indian Agent, if any and if payable shall be indicated in the space provided for in the Price Schedule and will be payable in Indian Rupees only after satisfactory supply, installation and acceptance of the goods. The rate of conversion shall be taken as on the date of placement of purchase order.
- 12.3 Bids, where prices are quoted in any other way shall be treated as non-responsive and rejected.

13 Bid Prices

- 13.1 The Bidder shall indicate on the Price Schedule provided under Section X all the specified components of prices shown therein including the unit prices, applicable taxes and total bid prices of the goods and services it proposes to supply against the requirement. All the columns shown in the Price Schedule should be filled up as required. If any column does not apply to a bidder, same should be clarified as “NA” by the bidder.
- 13.2 If there is more than one schedule in the “List of Requirements”, the bidder has the option to submit its bid for any one or more schedules and, also, to offer special

discount for combined schedules. However, while quoting for a schedule, the bidder shall quote for the complete requirement of goods and services as specified in that particular schedule.

13.3 The quoted prices for goods offered from within India and that for goods offered from abroad are to be indicated separately in the applicable Price Schedules attached Under Section X.

13.4 While filling up the columns of the Price Schedule, the following aspects should be noted for compliance:

13.4.1 For domestic goods or goods of foreign origin located within India, the prices in the corresponding Price Schedule 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 packing charges and GST and Custom Duty 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 taxes and duty, which will be payable on the goods in India if the contract is awarded;
- c) Charges towards Inland Transportation, Insurance (local transportation and storage) would be borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery, Loading/Unloading and other local costs incidental to delivery of the goods to their final destination as specified in the List of Requirements and Price Schedule;
- d) The price of Incidental Services (including installation & commissioning, supervision, demonstration and training), at the consignee site as mentioned in List of Requirements, Technical Specification and Price Schedule;
- e) The prices of Turnkey Work (if any), as mentioned in List of Requirements, Technical Specification and Price Schedule; and
- f) The price of CAMC, as mentioned in List of Requirements, Technical Specification and Price Schedule.

13.4.2 For goods offered from abroad, the prices in the corresponding price schedule shall be entered separately in the following manner:

- a) The price of goods quoted on FOB at port/ FCA at airport of shipment, as mentioned in List of Requirements, Technical Specification and Price Schedule
- b) The amount of Freight and Insurance (port of loading to port of entry) and other incidental costs.
- c) The price of Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) at the Consignee's site as mentioned in List of Requirements, Technical Specification and Price Schedule.
- d) The price of Extended Insurance (local transportation and storage) from port of entry to the consignee site for a period including 3 months beyond date of delivery.
- e) The Unit Price on CIP Name port of Destination + Extended Insurance (local transportation and storage)
- f) The price of total Price on CIP Named port of Destination +Insurance (local transportation on and storage)
- g) The prices of Turnkey Work (if any), as mentioned in List of Requirements, Technical Specification and Price Schedule; and
- h) The price of CAMC, as mentioned in List of Requirements, Technical Specification and Price Schedule.

13.5 Additional information and instruction on Taxes and Duties:**13.5.1 GST (Goods & Services Tax)**

If the bidder desires to ask for GST (goods and services tax) to be paid extra, the same must be specifically stated. In the absence of any such stipulation, the price will be taken inclusive of GST and no claim for the same will be entertained later.

13.5.2 Customs Duty

The Purchaser will pay the Customs duty wherever applicable.

13.6 For transportation of imported goods offered from abroad, relevant instructions as incorporated under GCC Clause 10 shall be followed.

13.7 For insurance of goods to be supplied, relevant instructions as provided under GCC Clause 11 shall be followed.

13.8 Unless otherwise specifically indicated in this Bidding Document, the terms FCA, FOB, CIF, CIP etc. for imported goods offered from abroad, shall be governed by the rules & regulations prescribed in the current edition of INCOTERMS - 2010, published by the International Chamber of Commerce, Paris

13.9 The need for indication of all such price components by the bidders, as required in this clause (viz., GIB clause 13) is for the purpose of comparison of the bids by the purchaser and will no way restrict the purchaser's right to award the contract on the selected bidder on any of the terms offered.

14. Indian Agent

14.1 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, in a manner described under GIB sub clause 12.2 above, shall also furnish the following information:

- a) The complete name and address of the Indian Agent.
- 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 consignee(s), to render services during Warranty and CAMC period.

15. Firm Price

15.1 Unless otherwise specified in the SIB, prices quoted by the bidder shall remain firm and fixed during the currency of the contract and not subject to variation on any account.

15.2 However, as regards taxes and duties, if any, chargeable on the goods and payable, the conditions stipulated in GIB clause 13 will apply.

16. Alternative Models

16.1 Alternative Models are permitted. The Bidder can quote alternate models meeting the specifications of the bidding document of same manufacturer with single Bid Security.

- 16.2 If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same ATE for the same item/product. In a bid, either the Indian Agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same models in the same ATE.
- 16.3 One Principal/OEM cannot authorize two agents simultaneously for the same item against same ATE.

17 Documents Establishing Bidder's Eligibility and Qualifications

- 17.1 Pursuant to GIB clause 11, the bidder shall furnish, as part of its bid, relevant details and documents establishing its eligibility to quote and its qualifications to perform the contract if its bid is accepted.
- 17.2 The documentary evidence needed to establish the bidder's qualifications shall fulfill the following requirements:
- a) In case the bidder offers to supply goods, which are manufactured by some other firm, the bidder has been duly authorised by the goods manufacturer to quote for and supply the goods to the purchaser. The bidder shall submit the manufacturer's authorization letter to this effect as per the standard form provided under Section XIII in this document.
 - b) In case the bidder is not doing business in India, it is duly represented by an agent stationed in India fully equipped and able to carry out the required contractual functions and duties of the supplier including after sale service, maintenance & repair etc. of the goods in question, stocking of spare parts and fast moving components and other obligations, if any, specified in the conditions of contract and/or technical specifications.

18. Documents establishing good's Conformity to Bidding Document.

- 18.1 The bidder shall provide in its bid the required as well as the relevant documents like technical data, literature, drawings etc. to establish that the goods and services offered in the bid fully conform to the goods and services specified by the purchaser in the Bidding Documents. For this purpose the bidder shall also provide a clause-by-clause commentary on the technical specifications and other technical details incorporated by the purchaser in the Bidding Documents to establish technical responsiveness of the goods and services offered in its bid.
- 18.2 In case there is any variation and/or deviation between the goods & services prescribed by the purchaser and that offered by the bidder, the bidder shall list out the same in a chart form without ambiguity and provide the same along with its bid.
- 18.3 If a bidder furnishes wrong and/or misleading data, statement(s) etc. about technical acceptability of the goods and services offered by it, its bid will be liable to be ignored and rejected in addition to other remedies available to the purchaser in this regard.

19. Bid Security (BS)

- 19.1 Pursuant to GIB clauses 8.1 and 11.1 A (i) the bidder shall furnish along with its bid, Bid Security for amount as shown in the Notice Inviting Bids (NIB). The Bid Security is required to protect the purchaser against the risk of the bidder's unwarranted conduct as amplified under sub-clause 19.7 below.

- 19.2 The bidders who are currently registered with MSME for the specific goods as per bidding document specification shall be eligible for exemption from Bid Security as defined in MSE Procurement Policy issued by the department of MSME. In case the bidder falls in this category, the bidder shall enclose relevant certificate of registration issued by department of MSME.
- 19.3 The Bid Security shall be denominated in Indian Rupees or equivalent currencies as per GIB clause 12.2. The Bid Security shall be furnished in one of the following forms:
- i) Account Payee Demand Draft/ Banker's cheque
 - ii) Fixed Deposit Receipt
 - iii) Bank Guarantee
- 19.4 The demand draft or banker's cheque shall be drawn on any commercial bank in India or country of the bidder, in favour of the "....."(as indicated in the NIB) payable at New Delhi. In case of Bank Guarantee, the same is to be provided from any commercial bank in India or country of the bidder as per the format specified under Section XII in these documents.
- 19.5 The Bid Security shall be valid for a period of forty-five (45) days beyond the validity period of the bid. As validity period of Bid as per Clause 20 of GIB is 270 days, the Bid Security shall be valid for 315 days from Techno-Commercial Bid opening date.
- 19.6 The Bid Security of unsuccessful bidders will be returned without any interest, after expiry of the bid validity period, but not later than thirty days after conclusion of the resultant contract. The Bid Security of successful bidder will be returned without any interest, after receipt of performance security from that bidder.
- 19.7 Bid Security is required to protect the purchaser's right against the risk of the Bidder's conduct, which would warrant the forfeiture of the Bid Security. Bid Security of a bidder will be forfeited, if the bidder withdraws or amends its bids or impairs or derogates from the bid in any respect within the period of validity of its bid or if it comes to the notice that the information/documents furnished in its bid is incorrect, false, misleading or forged without prejudice to other rights of the purchaser. The Bid Security of the successful bidder will be forfeited without prejudice to other rights of Purchaser if it fails to furnish the required performance security within the specified period.
- 19.8 In the case of Bank Guarantee furnished from banks outside India (i.e. foreign Banks), it should be authenticated and countersigned by any nationalized bank in India by way of back-to-back counter guarantee and the same should be submitted along with the bid.

20. Bid Validity

- 20.1 If not mentioned otherwise in the SIB, the bid shall remain valid for acceptance for a period of 270 days (Two hundred and Seventy days) after the date of bid opening prescribed in the Bidding Document. Any bid valid for a shorter period shall be treated as unresponsive and rejected.
- 20.2 In exceptional cases, the bidder may be requested by the purchaser to extend the validity of their bids up to a specified period. Such request(s) and responses thereto shall be conveyed by mail/fax/email. The bidders, who agree to extend the bid validity, are to extend the same without any change or modification of their original bid and they are also to extend the validity period of the Bid Security accordingly. A

bidder, who may not agree to extend its bid validity after the expiry of the original validity period, their bid will not be considered further and the Bid Security furnished by them shall be returned.

- 20.3 In case the day up to which the bids are to remain valid falls on/subsequently declared a holiday or closed day for the purchaser, the bid validity shall automatically be extended up to the next working day.

21. Signing and Sealing of Bid

- 21.1 The bidders shall submit their bids as per the instructions contained in GIB Clause 11.
- 21.2 Unless otherwise mentioned in the SIB, a bidder shall submit only one copy of its bid marking it as "Original". Bidders are requested to submit their Bids after binding and page numbering.
- 21.3 The Bid shall either be typed or written in indelible ink and the same shall be signed by the bidder or by a person(s) who has been duly authorized. The letter of authorization shall be by a written power of attorney, which shall also be furnished along with the bid.
- 21.4 All the documents of the bid shall be duly signed at the appropriate places as indicated in the Bidding Documents and all other pages of the bid including printed literature (if any), shall be initialled and stamped by the same person(s) signing the bid. The bid shall not contain any eraser or overwriting, except as necessary to correct any error made by the bidder and, if there is any such correction; the same shall be initialled and stamped by the person(s) signing the bid.
- 21.5 The bidder is to seal the bid and writing the address of the purchaser and the bid reference number on the envelopes. The sentence "NOT TO BE OPENED" before _____ (The bidder is to put the date & time of bid opening) are to be written on this envelope. If the envelope is not sealed and marked properly as above, the purchaser will not assume any responsibility for its misplacement, premature opening, late opening etc.
- 21.6 Bidding Document seeks quotation following "Two Bid System", in two parts. First part will be known as 'Techno-Commercial Bid', and the second part 'Price Bid' as specified in clause 11 of GIB. Bidders shall seal 'Techno-Commercial Bid' and 'Price Bid' separately and covers will be suitably super scribed. Both these sealed covers shall be than put in a bigger cover and sealed and procedure prescribed in Paras 21.1 to 21.5 be followed.

D. SUBMISSION OF BIDS

22. Submission of Bids:

- 22.1 Unless otherwise specified, the bidders are to drop the Bids in the tender box located at **HLL Infra Tech Services Limited, Procurement and Consultancy Division, B-14 A, Sector-62, Noida-201307, Uttar Pradesh** or the same shall be submitted by the bidder by hand to concerned Project Officer dealing hand or his nominee. The necessary entry will be made in the Bid Receipt Register.
- 22.2 The bidders must ensure that they submit the on-line bids within the scheduled closing date & time. They shall also ensure to submit the original Tender Processing Fee and Bid Security within its scheduled date & time. It is the

responsibility of the bidder to ensure that their Bids whether sent by post or by courier or by person, are dropped in the Tender Box by the specified clearing date and time. In the event of the specified date for submission of bid falls on / is subsequently declared a holiday or closed day for the purchaser, the bids will be received up to the appointed time on the next working day.

23. Late Bid:

23.1 A bid, which is received after the specified date and time for receipt of bids will be treated as “late bid” and will be ignored.

24. Alteration and Withdrawal of Bid

24.1 The bidder, after submitting its bid, is permitted to alter/modify its bid, within the deadline for submission of bids. Alterations/modifications to bids received after the prescribed deadline will not be considered.

24.2 No bid should be withdrawn after the deadline for submission of bid and before expiry of the bid validity period. If a bidder withdraws the bid during this period, it will result in forfeiture of the Bid Security furnished by the bidder in its bid.

E. BID OPENING

25. Opening of Bids:

25.1 The purchaser will open the bids at the specified date and time and at the specified place as indicated in the NIB.

In case the specified date of bid opening falls on / is subsequently declared a holiday or closed day for the purchaser, the bids will be opened at the appointed time and place on the next working day.

25.2 Authorized representatives of the bidder, who have submitted bids on time may attend the bid opening provided they bring with them letter of authority from their bidder. The bid opening official(s) will prepare a list of the representatives attending the bid opening. The list will contain the representatives’ names & signatures and corresponding bidder’s names and addresses.

25.3 Two Bid System as mentioned in Para 21.6 above will be as follows. The “Techno - Commercial Bids” are to be opened in the first instance, at the prescribed time and date as indicated in NIB. These Bids shall be scrutinized and evaluated by the competent committee/authority with reference to parameters prescribed in the Bidding Document. During the Techno-Commercial Bid opening, the bid opening official(s) will read the salient features of the bids like brief description of the goods offered, Bid Security and any other special features of the bids, as deemed fit by the bid opening official(s). Thereafter, in the second stage, the Price Bids of only the Techno-Commercially acceptable offers (as decided in the first stage) shall be opened for further scrutiny and evaluation on a date notified after the evaluation of the Techno-Commercial Bid. The prices, special discount if any of the goods offered etc., as deemed fit by bid opening official(s) will be read out.

F. SCRUTINY AND EVALUATION OF BIDS**26. Basic Principle**

26.1 Bids will be evaluated on the basis of the terms & conditions already incorporated in the Bidding Document, based on which bids have been received and the terms, conditions etc. mentioned by the bidders in their bids. No new condition will be brought in while scrutinizing and evaluating the bids.

27. Scrutiny of Bids

27.1 The Purchaser will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required Bid Securities have been furnished, whether the documents have been properly signed stamped and whether the Bids are generally in order.

27.2 The Purchaser's determination of a Bid's responsiveness is to be based on the contents of the Bid itself without recourse to extrinsic evidence.

27.3 The Bids will be scrutinized to determine whether they are complete and meet the essential and important requirements, conditions etc. as prescribed in the Bidding Documents. The bids, which do not meet the basic requirements, are liable to be treated as non-responsive and will be rejected.

27.4 The following are some of the important aspects, for which a bid shall be declared non-responsive during the evaluation and will be ignored;

- (i) Bid form as per Section IX (signed & stamped) not enclosed.
- (ii) Bid is unsigned.
- (iii) Bid validity is shorter than the required period.
- (iv) Required Bid Security (Amount, validity etc.)/ Exemption documents have not been provided.
- (v) Bidder has quoted for goods manufactured by other manufacturer(s) without the required Manufacturer's Authorization Form as per Section XIII.
- (vi) Bidder has not agreed to give the required Performance Security of required amount in an acceptable form in terms of GCC clause 5, read with modification, if any, in Section - V – "Special Conditions of Contract", for due performance of the contract.
- (vii) Bidder has not agreed to other essential condition(s) specially incorporated in the bidding document like terms of payment, liquidated damages clause, warranty clause, dispute resolution mechanism, and applicable law.
- (viii) Poor/unsatisfactory past performance.
- (ix) Bidders who stand de-registered/banned/blacklisted by any Central Govt. Ministries/Departments/Hospitals/Institutes.
- (x) Bidder is not eligible as per Clauses 5, 6 & 17 of GIB.
- (xi) Bidder has not quoted for the entire quantity as specified in the List of Requirements in the quoted schedule.
- (xii) Bidder has not agreed for the delivery terms and delivery schedule.

28. Minor Informality/Irregularity/Non-Conformity

28.1 If during the evaluation, the purchaser find any minor informality and/or irregularity and/or non-conformity in a bid, the purchaser will convey its observation on such 'minor' issues, which has not price implication, to the bidders by registered/speed post/ e-mail/fax etc. asking the bidder to respond by a specified date. If the bidder does not reply by the specified date or gives evasive

reply without clarifying the point at issue in clear terms, that bid will be liable to be ignored.

29 Discrepancies in Prices

- 29.1 If, in the price structure quoted by a bidder, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless the purchaser feels that the bidder has made a mistake in placing the decimal point in the unit price, in which case the total price as quoted shall prevail over the unit price and the unit price corrected accordingly.
- 29.2 If there is an error in a total price, which has been worked out through addition and/or subtraction of subtotals, the subtotals shall prevail and the total corrected; and
- 29.3 If there is a discrepancy between the amount expressed in words and figures, the amount in words shall prevail, subject to sub clause 29.1 and 29.2 above.
- 29.4 If, as per the judgment of the purchaser, there is any such arithmetical discrepancy in a bid, the same will be suitably conveyed to the bidder by registered/speed post/email. If the bidder does not agree to the observation of the purchaser, the bid is liable to be ignored.

30. Qualification Criteria

- 30.1 Bids of the bidder, who do not meet the required Qualification Criteria prescribed in Section VIII, will be treated as non-responsive and will not be considered further.

31. Conversion of Bid currencies to Indian Rupees

- 31.1 In case the Bidding Documents permits the bidder to quote their prices in different currencies, all such quoted prices of the responsive bidder will be converted to a single currency viz., Indian Rupees for the purpose of equitable comparison and evaluation, as per the exchange rates established by the Reserve Bank of India for similar transactions, as on the date of 'Price Bid' opening.

32. Schedule-wise Evaluation

- 1.1 In case the List of Requirements contains more than one schedule, the responsive bids will be evaluated and compared separately for each schedule. The bid for a schedule will not be considered if the complete requirements prescribed in that schedule are not included in the bid. However, as already mentioned in GIB sub clause 13.2, the bidders have the option to quote for any one or more schedules and offer discounts for combined schedules. Such discounts wherever applicable will be taken into account to determine the lowest evaluated cost for the purchaser in deciding the successful bidder for each schedule, subject to bidder (s) being responsive.

33. Comparison of Bids

- 33.1. Unless mentioned otherwise in Section – III – Special Instructions to bidder and Section – VI – List of Requirements, the comparison of the responsive Bids shall be carried out on Free Delivery at consignee site basis. The quoted Turnkey Work prices and CAMC prices will also be added for comparison/ranking purpose for evaluation. "Net Present Value (NPV) of the Comprehensive Annual Maintenance Contract Charges (CAMC) quoted for 5 years after the warranty period shall be added to the bid price for evaluation and will be calculated after discounting the

quoted price by a discounting factor of 10% per annum.” However the payment of CAMC shall be made to the successful bidder at approved rates.

34. Additional Factors and Parameters for Evaluation and Ranking of Responsive Tenders

34.1 Further to GIB Clause 33 above, the purchaser’s evaluation of a bid will include and take into account the following:

- i) In the case of goods manufactured in India or goods of foreign origin already located in India, GST which will be contractually payable (to the bidder), on the goods if a contract is awarded on the bidder; and
- ii) in the case of goods of foreign origin offered from abroad, customs duty and GST which will be contractually payable (to the bidder) on the goods if the contract is awarded on the bidder.

34.2 The purchaser’s evaluation of bid will also take into account the additional factors, if any, incorporated in SIB in the manner and to the extent indicated therein.

34.3 The Purchaser reserves the right to give the price preference to small-scale sectors etc. and purchase preference to central public sector undertakings as per the instruction in vogue while evaluating, comparing and ranking the responsive Bids.

35. Bidder’s capability to perform the contract

35.1 The purchaser, through the above process of bid scrutiny and bid evaluation will determine to its satisfaction whether the bidder, whose bid has been determined as the lowest evaluated responsive bid is eligible, qualified and capable in all respects to perform the contract satisfactorily. If, there is more than one schedule in the List of Requirements, then, such determination will be made separately for each schedule.

35.2 The above-mentioned determination will, inter alia, take into account the bidder satisfying all the requirements of the purchaser as incorporated in the Bidding Document. Such determination will be based upon scrutiny and examination of all relevant data and details submitted by the bidder in its bid as well as such other allied information as deemed appropriate by the purchaser.

36. Contacting the Purchaser

36.1 From the time of submission of bid to the time of awarding the contract, if a bidder needs to contact the purchaser for any reason relating to NIB/Bidding Document and / or its bid, it should do so only in writing.

36.2 In case a bidder attempts to influence the purchaser in the purchaser’s decision on scrutiny, comparison & evaluation of bids and awarding the contract, the bid of the bidder shall be liable for rejection in addition to appropriate administrative actions being taken against that bidder, as deemed fit by the purchaser.

G. AWARD OF CONTRACT

37. Purchaser’s Right to accept any bid and to reject any or all bids.

37.1 The purchaser reserves the right to accept in part or in full any bid or reject any or more bid(s) without assigning any reason or to cancel the bidding process and

reject all bids at any time prior to award of contract, without incurring any liability, whatsoever to the affected bidder(s).

38. Award Criteria

38.1 Subject to GIB clause 37 above, the contract will be awarded to the lowest evaluated responsive bidder decided by the purchaser in terms of GIB Clause 35.

39. Variation of Quantities at the Time of Award/ Currency of Contract

39.1 At the time of awarding the contract, the purchaser reserves the right to increase or decrease by up to twenty five (25) per cent, the quantity of goods and services mentioned in the schedule (s) in the "List of Requirements" (rounded off to next whole number) without any change in the unit price and other terms & conditions quoted by the bidder.

39.2 If the quantity has not been increased at the time of the awarding the contract, the purchaser reserves the right to increase by up to twenty five (25) per cent, the quantity of goods and services mentioned in the contract (rounded off to next whole number) without any change in the unit price and other terms & conditions mentioned in the contract, during the currency of the contract.

40. Notification of Award

40.1 Before expiry of the bid validity period, the purchaser will notify the successful bidder(s) in writing, by registered / speed post or by fax/email (to be confirmed by registered / speed post) that its bid for Goods & Services, which have been selected by the purchaser, has been accepted, also briefly indicating there in the essential details like description, specification and quantity of the goods & services and corresponding prices accepted. The successful bidder must furnish to the purchaser the required Performance Security within thirty days from the date of dispatch of this notification, failing which the Bid Security will be forfeited and the award will be cancelled. Relevant details about the Performance Security have been provided in clause 5 of GCC under Section IV.

40.2 The Notification of Award shall constitute the conclusion of the Contract.

41. Issue of Contract

41.1 Promptly after notification of award, the Purchaser will mail the contract form (as per Section XV) duly completed and signed, in duplicate, to the successful bidder by registered / speed post.

41.2 Within twenty one days from the date of the contract, the successful bidder shall return the original copy of the contract, duly signed and dated, to the Purchaser/ by registered / speed post/courier.

41.3 The Purchaser reserves the right to issue the Notification of Award consignee wise.

42. Non-receipt of Performance Security and Contract by the Purchaser

42.1 Failure of the successful bidder in providing Performance Security and/or returning contract copy duly signed in terms of GIB clauses 40 and 41 above shall make the bidder liable for forfeiture of its Bid Security and, also, for further actions by the Purchaser it as per the clause 24-Termination of default of GCC under Section IV.

43. Return of Bid Security

43.1 The Bid Security of the successful bidder and the unsuccessful bidder will be returned to them without any interest, whatsoever, in terms of Clause 19 of GIB.

44. Publication of Bid Result

44.1 The name and address of the successful bidder (s) receiving the contract(s) will be mentioned in the Website of AIIMS, CPPP and HITES.

H. CORRUPT OR FRADULENT PRACTICES

45. Corrupt or Fraudulent Practices

45.1 It is required by all concerned namely the Bidder/ Suppliers/Purchaser/Consignee/End User etc. to observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Purchaser: -

- (a) defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) “corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution; and
 - (ii) “fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Purchaser, and includes collusive practice among bidders (prior to or after Bid submission) designed to establish Bid prices at artificial non-competitive levels and to deprive the Purchaser of the benefits of free and open competition;
- (b) Will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
- (c) Will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract by the purchaser if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing the contract.

SECTION – III**SPECIAL INSTRUCTIONS TO BIDDERS
(SIB)**

The following Special Instructions to Bidders will apply for this purchase. These special instructions will modify/substitute/supplement the corresponding General Instructions to Bidders (GIB) incorporated in Section II. The corresponding GIB clause numbers have also been indicated in the text below:

In case of any conflict between the provision in the GIB and that in the SIB, the provision contained in the SIB shall prevail.

Sl. No.	GIB Clause No.	Topic	SIB Provision	Ref. Page No.
A	1 to 7	Preamble	No Change	
B	8 to 10	Bidding Document	Change in GIB Clause no. 8.1 and 10.1	
	8.1	In addition to Section I – “Notice inviting e-Tender” (NIT), the TE documents include:	Added Point: Appendix A- Integrity pact	9
	10.1	Clarification of Bid document	Changed as under	10
C	11 to 21	Preparation of Bids	Change in GIB Clause no. 11.1 a., 11.1 A), 11.1 (B), 19, 21.1	
	11.1 Note a.		Changed as under	
	11.1 A)		Additional Para. xix) as under	
	11.1		Additional Note ‘d’ as under	
	19		Additional para 19.9 as under	
	21.1		Changed as under	25
D	22 to 24	Submission of Bids	Guiding notes given as under	25
E	25	Bid Opening	No Change	
F	26 to 36	Scrutiny and Evaluation of Bids	Change in GIB Clause no. 27.4	
	27.4		Added Point no. (xiii)	26
	33	Comparison of Bids	Additional para 33.2 as under	26
	34	Additional factors...	Additional Para as below	27
G	37 to 44	Award of Contract	No Change	
H	45	Corrupt or Fraudulent Practices	No Change	

10. Clarification of Bid document

10.1 A bidder requiring any clarification or elucidation on any issue of the TE documents may take up the same with the purchaser in writing in their letter head duly signed and scanned through email to hll.ncij@hllhites.com. The purchaser will respond to such request provided the same is received 2 (two) days prior to the Pre-bid Meeting

Conference. Any queries/representations received after the pre-bid meeting will not be taken into cognizance.

11.1 **Note:**

- a. The tender Processing fee, BID SECURITY and **Integrity Pact (Appendix A) on non-judicial stamp paper** has to be submitted in physical form as per Section – I, Notice Inviting Tender of this tender enquiry.

11.1 **A) Techno-commercial Bid (Un-priced Bid):**

- xix) The Integrity pact (At Appendix-A) on non-judicial stamp paper shall be a part and parcel of this document and has to be signed by bidder(s) at the pre-tendering stage itself, as a pre-bid obligation and should be submitted along with the Techno-Commercial Bids. All bidders are bound to comply with the integrity pact clauses. Bids submitted without signing the integrity pact will be *ab initio* rejected without assigning any reason.

11.1 **(B) Price Tender:**

Note:

- d) **The Price is to be quoted for all the line items strictly as per the given price-bid format on the e-tender portal, failing which the bid shall be straight away rejected.**

19. **Bid Security (BS)**

- 19.9 HITES Bank details for necessary issuance of ‘Structured Financial Messaging System (SFMS)’ in case the Bid Security (i.e. EMD) is submitted in the form of Bank Guarantee:

Name of the Beneficiary	Bank Details	IFSC Code
HLL INFRA TECH SERVICES LTD.	HDFC BANK LTD, NOIDA, UTTAR PRADESH	HDFC0000088

21. **Digital Signing of e-Bid**

- 21.1 The bidders shall submit their bids online as per the instructions contained in GIB Clause 11 and any other specific instruction mentioned in the e-Tender portal using the digital signature.

Instruction on submission of Bids

- i) All the documents pertaining to the event/RFx no. may be downloaded from the e-portal by clicking on the ‘**Technical RFx**’ option in the ‘top-left portion of the web-page’ when the RFx/event is in **Display Mode**.

- ii) All the necessary documents as prescribed in the NIB shall be prepared and scanned in different files (in PDF and/or Excel format or as per format instructed elsewhere) and uploaded for on-line submission of Proposal.
- iii) The scanned copies of Bid Processing Fee, Bid Security, all document(s)/ information(s) including the Financial Proposal should be uploaded **online**
- iv) **only** in the prescribed format given in the designated e-tendering portal website. No other mode of submission shall be acceptable.

However, **Bid Processing Fee, Bid Security, Catalogue(s)/Data-sheet(s)** related to all quoted items must be submitted in original at the desired venue before the last date and time of physical submission as mentioned in the NIB.

- v) The prospective bidders may **scan the documents in low resolution (75 to 100 DPI)** instead of 200 DPI. The documents may be scanned for further lower resolution (if possible). This would reduce the size of the Cover and would be uploaded faster.
- vi) The Individual file size of uploading is restricted up to 5 MB. Bidders may upload multiple files (Not exceeding 5 MB individually) & give relevant file name indicating the contents.
- vii) The file name of price bid should not be different from the price bid format uploaded by the Bid inviting Authority in the e-portal. This can be downloaded from the **Notes & Attachment** under **Details** of item when the RFX/event is in **Display Mode** or as mentioned in point no. i) above.
- viii) **Bidders may simulate online bid submission (technical & financial) at least one week in advance of the bid submission deadline. No clarifications/troubleshooting regarding any problems being faced during bid submission online shall be entertained in the last week of bid submission.**

27. Scrutiny of Bids

27.4 (xiii) The Integrity pact (At Appendix-A) on non-judicial stamp paper shall be a part and parcel of this document and has to be signed by bidder(s) at the pre-tendering stage itself, as a pre-bid obligation and should be submitted along with the Techno-Commercial Bids. All bidders are bound to comply with the integrity pact clauses. Bids submitted without signing the integrity pact will be *ab initio* rejected without assigning any reason.

Qualification Criteria (Ref. GIB Clause 30.1)

The Purchaser reserves the right to ask for a free demonstration of the quoted equipment after giving reasonable time to the bidder at a pre-determined place acceptable to the purchaser or at site (in case of non-portable and heavy equipment) for technical acceptability as per the bidding document specifications, before the opening of the Price Bid.

33. Comparison of Bids

33.2 Unit Prices for all optional items/accessories/services (if any) asked in the tender specifications must be quoted separately by all the bidders in their price bid. Such unit prices after multiplying by the required quantity shall be added and taken into consideration for comparison and ranking of bids.

34. Additional Factors and Parameters for Evaluation and Ranking of Responsive Tenders

34.1 Further to GIB Clause 33 above, the purchaser's evaluation of a bid will include and take into account the following (added para):

- iii) The items under this tender enquiry are intended to be specifically delivered and installed for use at National Cancer Institute, AIIMS (Jhajjar Campus) which is a Research cum Cancer Institute. Accordingly, custom duty, cess, IGST, payable at the time of Import in the name of the Institute shall be applicable as per Custom Notification No. 51/96-Cus dated 23.07.1996 and its subsequent amendments, if any. Similarly, CGST/SGST payable at the time of supplies in the name of the Institute from Indian suppliers shall be applicable as per notification no. 47/2017-Integrated Tax (Rate) dated 14.11.2017 issued by Department of Revenue, Ministry of Finance, GOI. The ranking of bids shall also be made by taking into such rates of taxes & duties for those items as mentioned in the said notifications.

Added Para (Ref. GIB Clause 33 & 34):

The comparison of bids will be based on GIB Clause 33, 34 and if any, as specified in the Technical specification(s). However, at the time of award of contract, the value of award (bid value/contract value) shall be limited to the upfront charges payable by the exchequer for Supply, Installation, Testing & Commissioning value only on DDP basis which is inclusive of warranty (for number of years specified at section VI; List of Requirement, Part I) and any other item(s)/services detailed for upfront purchase in the technical specifications. The cost of any other parameters like CAMC price beyond the warranty period, cost of any Consumables, any other recurring expenditure, etc. which have been considered for ranking of bids or for freezing of rates shall not be part of tender/award/bid/contract value.

SECTION - IV**GENERAL CONDITIONS OF CONTRACT (GCC)
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1. Application

- 1.1 The General Conditions of Contract incorporated in this section shall be applicable for this purchase to the extent the same are not superseded by the Special Conditions of Contract prescribed under Section V, List of requirements under Section VI and Technical Specification under Section VII of this document.

2. Use of contract documents and information

- 2.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract or any provision thereof including any specification, drawing, sample or any information furnished by or on behalf of the purchaser in connection therewith, to any person other than the person(s) employed by the supplier in the performance of the contract emanating from this Bidding Document. Further, any such disclosure to any such employed person shall be made in confidence and only so far as necessary for the purposes of such performance for this contract.
- 2.2 Further, the supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC sub-clause 2.1 above except for the sole purpose of performing this contract.
- 2.3 Except the contract issued to the supplier, each and every other document mentioned in GCC sub-clause 2.1 above shall remain the property of the purchaser and, if advised by the purchaser, all copies of all such documents shall be returned to the purchaser on completion of the supplier's performance and obligations under this contract.

3. Patent Rights

- 3.1 The supplier shall, at all times, indemnify and keep indemnified the purchaser, free of cost, against all claims which may arise in respect of goods & services to be provided by the supplier under the contract for infringement of any intellectual property rights or any other right protected by patent, registration of designs or trademarks. In the event of any such claim in respect of alleged breach of patent, registered designs, trademarks etc. being made against the purchaser, the purchaser shall notify the supplier of the same and the supplier shall, at his own expenses take care of the same for settlement without any liability to the purchaser.

4. Country of Origin

- 4.1 All goods and services to be supplied and provided for the contract shall have the origin in India or in the countries with which the Government of India has trade relations.
- 4.2 The word "origin" incorporated in this clause means the place from where the goods are mined, cultivated, grown, manufactured, produced or processed or from where the services are arranged.
- 4.3 The country of origin may be specified in the Price Schedule.

5. Performance Security

- 5.1 Within Thirty (30) days from date of the issue of notification of award by the Purchaser, the supplier, shall furnish Performance Security to the Purchaser for an amount equal to ten percent (10%) of the total value of the contract, valid up to

ninety (90) days after the date of completion of all contractual obligations by the supplier, including the warranty obligations.

- 5.2 The Performance security shall be denominated in Indian Rupees or in the currency of the contract as detailed below:

It shall be in any one of the forms namely Account Payee Demand Draft or Fixed Deposit Receipt drawn from any Scheduled bank in India or Bank Guarantee issued by a Scheduled bank in India, in the prescribed form as provided in Section XIV of this document in favour of the Purchaser. The validity of the Fixed Deposit Receipt or Bank Guarantee will be for a period up to ninety (90) days beyond Warranty Period.

- 5.3 In the event of any failure/default of the supplier with or without any quantifiable loss to the government including furnishing of consignee wise Bank Guarantee for CAMC security as per Performa in Section XIV, the amount of the performance security is liable to be forfeited. The needful will be done to cover any failure/default of the supplier with or without any quantifiable loss to the Government.
- 5.4 In the event of any amendment issued to the contract, the supplier shall, within fifteen (15) days of issue of the amendment, furnish the corresponding amendment to the Performance Security (as necessary), rendering the same valid in all respects in terms of the contract, as amended.
- 5.5 The supplier shall enter into Comprehensive Annual Maintenance Contract as per the 'Contract Form - B' in Section XV with respective consignees, 3 (three) months prior to the completion of Warranty Period. The CAMC will commence from the date of expiry of the Warranty Period.
- 5.6 Subject to GCC sub – clause 5.3 above, the Purchaser will release the Performance Security without any interest to the supplier on completion of the supplier's all contractual obligations including the warranty obligations & after receipt of Consignee wise bank guarantee for CAMC security in favour of concerned Director AIIMS/Chief of Centres/MS of Hospital/Head of the Department/Dean as per the format in Section XIV.

6. Technical Specifications and Standards

- 6.1 The Goods & Services to be provided by the supplier under this contract shall conform 'Technical Specification' under Sections VII of this document.

7. Packing and Marking

- 7.1 The packing for the goods to be provided by the supplier should be strong and durable enough to withstand, without limitation, the entire journey during transit including transshipment (if any), rough handling, open storage etc. without any damage, deterioration etc. As and if necessary, the size, weights and volumes of the packing cases shall also take into consideration, the remoteness of the final destination of the goods and availability or otherwise of transport and handling facilities at all points during transit up to final destination as per the contract.
- 7.2 The quality of packing, the manner of marking within & outside the packages and provision of accompanying documentation shall strictly comply with the requirements as provided in Technical Specifications under Section VII and in SCC under Section V. In case the packing requirements are amended due to issue of any

amendment to the contract, the same shall also be taken care of by the supplier accordingly.

7.3 Packing instructions:

Unless otherwise mentioned in the Technical Specification under Section VII and in SCC under Section V, the supplier shall make separate packages for each consignee (in case there is more than one consignee mentioned in the contract) and mark each package on three sides with the following with indelible paint of proper quality:

- a. Contract number and date
- b. Brief description of goods including quantity
- c. Packing list reference number
- d. Country of origin of goods
- e. Consignee's name and full address and
- f. Supplier's name and address

8. Inspection, Testing and Quality Control

- 8.1 The purchaser and/or its nominated representative(s) will, without any extra cost to the purchaser, inspect and/or test the ordered goods and the related services to confirm their conformity to the contract specifications and other quality control details incorporated in the contract. The purchaser shall inform the supplier in advance, in writing, the purchaser's programme for such inspection and, also the identity of the officials to be deputed for this purpose. "The cost towards the transportation, boarding and lodging will be borne by the purchaser and/or its nominated representative(s) for the first visit. In case the goods are rejected in the first instance and the supplier requests for re-inspection, and if same is accepted by Purchaser/Consignee, all subsequent inspections shall be at the cost of the supplier. The expense will be to and fro Economy Airfare, Local Conveyance, Boarding and Lodging of the inspection team for the inspection period."
- 8.2 The Technical Specification incorporated in the contract shall specify what inspections and tests are to be carried out and, also, where and how they are to be conducted. If such inspections and tests are conducted in the premises of the supplier or its subcontractor(s), all reasonable facilities and assistance, including access to relevant drawings, design details and production data, shall be furnished by the supplier to the purchaser's inspector at no charge to the purchaser.
- 8.3 If during such inspections and tests the contracted goods fail to conform to the required specifications and standards, the purchaser's inspector may reject them and the supplier shall either replace the rejected goods or make all alterations necessary to meet the specifications and standards, as required, free of cost to the purchaser and re-submit the same to the purchaser's inspector for conducting the inspections and tests again.
- 8.4 In case the contract stipulates pre-dispatch inspection of the ordered goods at supplier's premises, the supplier shall put up the goods for such inspection to the purchaser's inspector well ahead of the contractual delivery period, so that the purchaser's inspector is able to complete the inspection within the contractual delivery period.
- 8.5 If the supplier tenders the goods to the purchaser's inspector for inspection at the last moment without providing reasonable time to the inspector for completing the inspection within the contractual delivery period, the inspector may carry out the inspection and complete the formality beyond the contractual delivery period at the

risk and expense of the supplier. The fact that the goods have been inspected after the contractual delivery period will not have the effect of keeping the contract alive and this will be without any prejudice to the legal rights and remedies available to the purchaser under the terms & conditions of the contract.

- 8.6 The purchaser's contractual right to inspect, test and, if necessary, reject the goods after the goods' arrival at the final destination shall have no bearing of the fact that the goods have previously been inspected and cleared by purchaser's inspector during pre-dispatch inspection mentioned above.

"On rejection, the supplier shall remove such stores within 14 days of the date of intimation of such rejection from the consignee's premises. If such goods are not removed by the supplier within the period mentioned above, the purchaser/consignee may remove the rejected stores and either return the same to the supplier at his risk and cost by such mode of transport as purchaser/consignee may decide or dispose of such goods at the suppliers risk to recover any expense incurred in connection with such disposals and also the cost of the rejected stores if already paid for."

- 8.7 Goods accepted by the purchaser/consignee and/or its inspector at initial inspection and in final inspection in terms of the contract shall in no way dilute purchaser's/consignee's right to reject the same later, if found deficient in terms of the warranty clause of the contract, as incorporated under GCC Clause 15.
- 8.8 Principal/ Foreign supplier shall also have the equipment inspected by recognized/ reputed agency like SGS, Lloyd, Bureau Veritas, TUV etc. prior to dispatch at the supplier's cost and furnish necessary certificate from the said agency in support of their claim.

9. Terms of Delivery

- 9.1 Goods shall be delivered by the supplier in accordance with the terms of delivery and as per the delivery period specified in the schedule of requirement. Please note that the time shall be the essence of the contract.

10. Transportation of Goods

- 10.1 Instructions for transportation of imported goods offered from abroad:

The supplier shall not arrange part-shipments without the express/prior written consent of the purchaser. The supplier is required under the contract to deliver the goods under CIP (Named port of destination) terms.

11. Insurance

- 11.1 Unless otherwise instructed in the SCC, the supplier shall make arrangements for insuring the goods against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the following manner:
- i) In case of supply of domestic goods on Free Delivery at Consignee's Site basis, the supplier shall be responsible till the entire stores contracted for arrival in good condition at destination. The transit risk in this respect shall be covered by the Supplier by getting the stores duly insured for an amount equal to 110% of the value of the goods from warehouse to warehouse (consignee site) on all risk basis. The insurance cover shall be obtained by the Supplier and should be valid till 3 months after the receipt of goods by the Consignee.

- ii) In case of supply of the imported goods on CIP (named port of Destination Basis), the additional extended Insurance (local transportation and storage) would be borne by the Supplier from the port of entry to the consignee site for a period including 3 months beyond date of delivery for an amount equal to 110% of the overall expenditure to be incurred by the purchaser from warehouse to warehouse (consignee site) on all risk basis.

If the equipment is not commissioned and handed over to the consignee within 3 months, the insurance will have to be extended by the supplier at their cost till the successful installation, testing, commissioning and handing over of the goods to the consignee. In case the delay in the installation and commissioning is due to handing over of the site to the supplier by the consignee/End User, such extensions of the insurance will still be done by the supplier, but the insurance extension charges at actual will be reimbursed.

12. Spare parts

12.1 If specified in the List of Requirements and in the resultant contract, the supplier shall supply/provide any or all of the following materials, information etc. pertaining to spare parts manufactured and/or supplied by the supplier:

- a) The spare parts as selected by the Purchaser/End User to be purchased from the supplier, subject to the condition that such purchase of the spare parts shall not relieve the supplier of any contractual obligation including warranty obligations; and
- b) In case the production of the spare parts is discontinued:
 - i) Sufficient advance notice to the Purchaser/End User before such discontinuation to provide adequate time to the purchaser to purchase the required spare parts etc., and
 - ii) Immediately following such discontinuation, providing the Purchaser/End User, free of cost, the designs, drawings, layouts and specifications of the spare parts, as and if requested by the Purchaser/End User.

12.2 Supplier shall carry sufficient inventories to assure ex-stock supply of consumables and spares for the goods so that the same are used during warranty and CAMC period.

13. Incidental services

13.1 Subject to the stipulation, if any, in the SCC (Section – V), List of Requirements (Section - VI) and the Technical Specification (Section – VII), the supplier shall be required to perform the following services:

- i) Installation & Commissioning, Supervision, Demonstration, Trial run etc. of the goods.
- ii) Turnkey work (if any).
- iii) Training of Consignee's/End Users Doctors, Staff, operators etc. for operating and maintaining the goods.
- iv) Supplying required number of operation & maintenance manual for the goods.

14. Distribution of Dispatch Documents for Clearance/Receipt of Goods

The supplier shall send all the relevant dispatch documents well in time to enable the purchaser clear or receive (as the case may be) the goods in terms of the contract. Unless otherwise specified in the SCC, the usual documents involved and the drill to be followed in general for this purpose are as follows:

Within 24 hours of dispatch, the supplier shall notify the concerned Store Officer in AIIMS Clearing Agent and others concerned the complete details of dispatch and also supply following documents by air mail/ courier etc. with intimation by e-mail:

- a) Commercial Supplier's Invoice giving full details of the goods including quantity, value, etc.;
- b) Packing list;
- c) Certificate of country of origin;
- d) Bill of Lading/Airway Bill;
- e) Insurance Certificate; (if applicable)
- f) Manufacturer's guarantee and Inspection certificate; (if applicable)
- g) Inspection certificate issued by the Purchaser's Inspector; (if applicable)
- h) Any other document(s) as and if required in terms of the contract.

15. Warranty and CAMC

15.1 The supplier warrants comprehensively that the goods supplied under the contract is new, unused and incorporate all recent improvements in design and materials unless prescribed otherwise by the purchaser in the contract. The supplier further warrants that the goods supplied under the contract shall have no defect arising from design, materials (except when the design adopted and/or the material used are as per the Purchaser's/Consignee's specifications) or workmanship or from any act or omission of the supplier, that may develop under normal use of the supplied goods under the conditions prevailing in India.

15.2 The warranty shall include all spares, labour and preventive maintenance from the date of completion of the satisfactory installation and acceptance till warranty period.

15.3 The Comprehensive Annual Maintenance Contract shall include all spares, labour and preventive maintenance from the date of completion of the satisfactory installation and acceptance till warranty period.

15.4 Warranty as well as Comprehensive Annual Maintenance Contract will be inclusive of all accessories and turnkey work and it will also cover the following, wherever applicable:-

- All kinds of Motors.
- Plastic & Glass Parts against any manufacturing defects.
- All kinds of sensors.
- All kinds of coils, probes and transducers.
- Printers and imagers including laser and thermal printers with all parts.
- UPS including the replacement of batteries.
- Air-conditioners

15.5 In case of any claim arising out of this warranty and CAMC period the Purchaser/Consignee shall promptly notify the same in writing to the supplier. The period of the warranty will be as per G.C.C clause number 15.2 unless revised in SCC in Section V of Bidding Document.

- 15.6 Upon receipt of such notice, the supplier shall, within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis respond to take action to repair or replace the defective goods or parts thereof, free of cost, at the ultimate destination. The supplier shall take over the replaced parts/goods after providing their replacements and no claim, whatsoever shall lie on the purchaser for such replaced parts/goods thereafter. The penalty clause for non-rectification will be applicable as per conditions laid down in the Bidding Document.
- 15.7 In the event of any rectification of a defect or replacement of any defective goods during the warranty period, the warranty for the rectified/replaced goods shall be up to the completion of the original warranty period of the main equipment.
- 15.8 If the supplier, having been notified, fails to respond to take action to repair or replace the defect(s) within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis, the purchaser may proceed to take such remedial action(s) as deemed fit by the purchaser, at the risk and expense of the supplier and without prejudice to other contractual rights and remedies, which the purchaser may have against the supplier.
- 15.9 During Warranty and CAMC period, the supplier is required to visit at each consignee's site at least once in 6 months commencing from the date of the installation for preventive maintenance of the goods.
- 15.10 The Purchaser/Consignee reserve the rights to enter into Comprehensive Annual Maintenance Contract between the Purchaser and the Supplier for the period as mentioned in Section VII, Technical Specifications after the completion of warranty period.
- 15.11 The supplier along with its Manufacturer, Indian Agent and the CAMC provider shall ensure continued supply of the spare parts for the machines and equipment supplied by them to the purchaser for 10 years from the date of installation and handing over.
- 15.12 The Supplier along with its Manufacturer Indian Agent and the CMC Provider shall always accord most favoured client status to the Purchaser vis-à-vis its other Clients/Purchasers of its equipment/machines/goods etc. and shall always give the most competitive price for its machines/equipment supplied to the Purchaser/Consignee.

16. Assignment

- 16.1 The Supplier shall not assign, either in whole or in part, its contractual duties, responsibilities and obligations to perform the contract, except with the Purchaser's prior written permission.

17. Sub Contracts

- 17.1 The Supplier shall notify the Purchaser in writing of all sub contracts awarded under the contract, if not already specified in its bid. Such notification, in its original bid or later, shall not relieve the Supplier from any of its liability or obligation under the terms and conditions of the contract.
- 17.2 Sub contract shall be only for bought out items and sub-assemblies.
- 17.3 Sub contracts shall also comply with the provisions of GCC Clause 4 ("Country of Origin").

18. Modification of Contract

18.1 If necessary, the purchaser may, by a written order given to the supplier at any time during the currency of the contract, amend the contract by making alterations and modifications within the general scope of contract in any one or more of the following:

- a) Specifications, drawings, designs etc. where goods to be supplied under the contract are to be specially manufactured for the purchaser,
- b) Mode of packing,
- c) Incidental services to be provided by the supplier
- d) Mode of dispatch,
- e) Place of delivery, and
- f) Any other area(s) of the contract, as felt necessary by the purchaser depending on the merits of the case.

18.2 In the event of any such modification/alteration causing increase or decrease in the cost of goods and services to be supplied and provided, or in the time required by the supplier to perform any obligation under the contract, an equitable adjustment shall be made in the contract price and/or contract delivery schedule, as the case may be, and the contract amended accordingly. If the supplier doesn't agree to the adjustment made by the Purchaser the supplier shall convey its views to the Purchaser within twenty-one days from the date of the supplier's receipt of the Purchaser's amendment/modification of the contract.

19. Prices

19.1 Prices to be charged by the supplier for supply of goods and provision of services in terms of the contract shall not vary from the corresponding prices quoted by the supplier in its bid and incorporated in the contract except for any price adjustment authorized in the SCC.

20. Taxes and Duties

20.1 Supplier shall be entirely responsible for GST incurred until delivery of the contracted goods to the purchaser.

20.2 Further instruction, if any, shall be as provided in the SCC.

21. Terms and Mode of Payment

21.1 Payment Terms

Payment shall be made through electronic transfer in NEFT/RTGS subject to recoveries, if any, by way of liquidated damages or any other charges as per terms & conditions of contract in the following manner:

A) Payment for Indigenous Goods (M&E) Or Foreign Origin Located Within India.

Payment shall be made in Indian Rupees as specified in the contract in the following manner:

- a) **On delivery:** 75% payment of the contract price shall be paid on receipt of goods in good condition and upon the submission of the following documents:
 - (i) Original copies of supplier's invoice showing contract number, goods description, quantity, packing list, unit price and total amount;

- (ii) Consignee Receipt Certificate as per Section XVI of bidding document in original issued by the authorized representative of the consignee;
- b) **On Acceptance:** Balance 25% payment would be made against “Installation and Acceptance Certificate” of goods to be issued by the End User subject to recoveries, if any, either on account of non-rectification of defects/deficiencies not attended by the Supplier or otherwise. “Installation and Acceptance Certificate” need to be issued by the concerned End User after installation, commissioning, testing and successful trial run (if applicable).
- B) Payment for Imported Goods (M&E):** Payment for foreign currency portion shall be made in the currency as specified in the contract in the following manner:
- a) **On Shipment:** 75% of the net FCA/CIP price (i.e. FCA/CIP price less Indian Agency commission) of the goods despatch by Sea/Air 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 submission of documents specified hereunder:
- i) Commercial Supplier’s Invoice giving full details of the goods including quantity, value, etc.;
 - ii) Packing list;
 - iii) Certificate of country of origin;
 - iv) Negotiable clean Bill of Lading/Airway Bill;
 - v) Insurance Certificate; (if applicable)
 - vi) Manufacturer’s guarantee and Inspection certificate; (if applicable)
 - vii) Inspection certificate issued by the Purchaser’s Inspector; (if applicable)
 - viii) Any other document(s) as and if required in terms of the contract.
- b) **On Acceptance:** Balance payment of 25% of net FCA/CIP price of goods would be made against “Installation and Acceptance Certificate” to be issued by the End User through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the Foreign Principal in a bank in his country, subject to recoveries, if any. “Installation and Acceptance Certificate” need to be issued by the concerned End User after installation, commissioning, testing and successful trail run (if applicable).
- c) Payment of Consumable Imported Goods/Reagents/Kits would be made 100% against “Installation and Acceptance Certificate” to be issued by the End User through Wire Transfer.
- d) **Payment of Incidental Costs:** Incidental costs till consignee site towards Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training),if applicable will be paid in Indian Rupees to the Indian Agent on submission of “Installation and Acceptance Certificate” by the End User.
- e) **Payment of Indian Agency Commission:** Indian Agency Commission (IAC) will be paid to the Authorised manufacturer’s agent in Indian rupees indicated in the contract (as per prevailing rate of exchange ruling on the date of Contract) and shall not be subject to further escalation/exchange variation. The agency commission payment shall be made on submission of “Installation and Acceptance Certificate” by the End User.
- C) Payment of Civil/Electrical Works at site:** The payment related to Civil/Electrical Works at site will be made as indicated in the contract (as per prevailing rate of exchange ruling on the date of Contract) and shall not be subject

to further escalation/exchange variation. The payment for Civil/Electrical works shall be made on submission of "Installation and Acceptance Certificate" by the End User.

D) Payment for Comprehensive Annual Maintenance Contract Charges: The consignee will enter into CAMC with the supplier at the rates as stipulated in the contract. The payment of CAMC will be made on six monthly basis after satisfactory completion of said period, duly certified by the End User on receipt of bank guarantee for an amount equivalent to 2.5% of the cost of the equipment as per contract in the prescribed format given in Section XV of the bidding document valid till 3 months after expiry of entire CAMC period. The Performance Bank Guarantee for CAMC will be applicable in case of contract value is more than Rs. 10 lakh.

21.2 Terms of payment for imported goods

- 21.2.1 The supplier shall not claim any interest on payments under the contract.
- 21.2.2 Where there is a statutory requirement for tax deduction at source, such deduction towards income tax and other tax as applicable will be made from the bills payable to the Supplier at rates as notified from time to time.
- 21.2.3 Irrevocable & non-transferable LC shall be opened by the Purchaser. However, if the supplier requests specifically to open confirmed LC, the extra charges would be borne by the supplier. If LC is required to be extended and/or amended for reasons not attributable to the purchaser, the charges thereof shall be borne by the supplier.
- 21.2.4 The payment shall be made in the currency/currencies authorised in the contract.
- 21.2.5 The supplier shall send its claim for payment in writing, when contractually due, along with relevant documents etc., duly signed with date.
- 21.2.6 While claiming payment, the supplier is also to certify in the bill that the payment being claimed is strictly in terms of the contract and all the obligations on the part of the supplier for claiming that, payment has been fulfilled as required under the contract.
- 21.2.7 While claiming reimbursement of duties, taxes etc. (like GST, sales tax, excise duty, custom duty) from the Purchaser, as and if permitted under the contract, the supplier shall also certify that, in case it gets any refund out of such taxes and duties from the concerned authorities at a later date, the supplier shall refund to the Purchaser forthwith.

22. Delivery

- 22.1 The supplier shall deliver the goods and perform the services under the contract within the time schedule specified by the Purchaser in the List of Requirements and as incorporated in the contract. The time for and the date of delivery of the goods stipulated in the schedule shall be deemed to be of the essence of the contract and the delivery must be completed no later than the date(s) as specified in the contract.
- 22.2 Subject to the provision under GCC clause 26, any unexcused delay by the supplier in maintaining its contractual obligations towards delivery of goods and

performance of services shall render the supplier liable to any or all of the following sanctions:

- (i) Imposition of liquidated damages,
- (ii) Forfeiture of its Performance Security and
- (iii) Termination of the Contract for default.

22.3 If at any time during the currency of the contract, the supplier encounters conditions hindering timely delivery of the goods and performance of services, the supplier shall promptly inform the Purchaser in writing about the same and its likely duration and make a request to the Purchaser for extension of the delivery schedule accordingly. On receiving the supplier's communication, the Purchaser shall examine the situation as soon as possible and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages for completion of supplier's contractual obligations by issuing an amendment to the contract.

22.4 When the period of delivery is extended due to unexcused delay by the supplier, the amendment letter extending the delivery period shall, interalia contain the following conditions:

- (a) The Purchaser shall recover from the supplier, under the provisions of the clause 23 of the General Conditions of Contract, Liquidated Damages on the goods and services, which the Supplier has failed to deliver within the delivery period stipulated in the contract.
- (b) That no increase in price on account of any ground, whatsoever, including any stipulation in the contract for increase in price on any other ground and, also including statutory increase in or fresh imposition of GST levied in respect of the goods and services specified in the contract, which takes place after the date of delivery stipulated in the contract shall be admissible on such of the said goods and services as are delivered and performed after the date of the delivery stipulated in the contract.
- (c) But nevertheless, the Purchaser shall be entitled to the benefit of any decrease in price on account of reduction in or remission of customs duty and GST which takes place after the expiry of the date of delivery stipulated in the contract.

22.5 The supplier shall not dispatch the goods after expiry of the delivery period. The supplier is required to apply to the Purchaser for extension of delivery period and obtain the same before dispatch. In case the supplier dispatches the goods without obtaining an extension, it would be doing so at its own risk and no claim for payment for such supply and/or any other expense related to such supply shall lie against the purchaser.

22.6 Passing of Property

22.6.1 The property in the goods shall not pass to the purchaser unless and until the goods have been delivered to the consignee in accordance with the contract.

22.6.2 Where there is a contract for sale of specific goods and the supplier is bound to do something to the goods for the purpose of putting them into a deliverable state the property does not pass until such thing is done.

22.6.3 Unless otherwise agreed, the goods remain at the supplier's risk until the property therein is transferred to the purchaser.

23. Liquidated Damages

- 23.1 Subject to GCC clause 26, if the supplier fails to deliver or install/commission any or all of the goods or fails to perform the services within the time frame(s) incorporated in the contract, the Purchaser shall, without prejudice to other rights and remedies available to the Purchaser under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% per week of delay or part thereof on delayed supply of goods, installation, commissioning and/or services until actual delivery or performance subject to a maximum of 10% of the contract price. Once the maximum is reached Purchaser may consider termination of the contract as per GCC 24.

During the above-mentioned delayed period of supply and/or performance, the conditions incorporated under GCC sub-clause 22.4 above shall also apply.

24. Termination for Default

- 24.1 The Purchaser without prejudice to any other contractual rights and remedies available to it the Purchaser, may, by written notice of default sent to the supplier, terminate the contract in whole or in part, if the supplier fails to deliver any or all of the goods or fails to perform any other contractual obligation(s) within the time period specified in the contract, or within any extension thereof granted by the Purchaser pursuant to GCC sub-clauses 22.3 and 22.4.
- 24.2 The Performance Security in such cases will be forfeited.
- 24.3 Unless otherwise instructed by the Purchaser, the supplier shall continue to perform the contract to the extent not terminated.

25. Termination for Insolvency

- 25.1 If the supplier becomes bankrupt or otherwise insolvent, the purchaser reserves the right to terminate the contract at any time, by serving written notice to the supplier without any compensation, whatsoever, to the supplier, subject to further condition that such termination will not prejudice or affect the rights and remedies which have accrued and / or will accrue thereafter to the Purchaser.

26. Force Majeure

- 26.1 Notwithstanding the provisions contained in GCC clauses 22, 23 and 24, the supplier shall not be liable for imposition of any such sanction so long the delay and/or failure of the supplier in fulfilling its obligations under the contract is the result of an event of Force Majeure.
- 26.2 For purposes of this clause, Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable and not brought about at the instance of the party claiming to be affected by such event and which has caused the non – performance or delay in performance. Such events may include, but are not restricted to, wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes excluding by its employees, lockouts excluding by its management and freight embargoes.
- 26.3 If a Force Majeure situation arises, the supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof within twenty one days of

occurrence of such event. Unless otherwise directed by the Purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

- 26.4 If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period exceeding sixty days, either party may at its option terminate the contract without any financial repercussion on either side.
- 26.5 In case due to a Force Majeure event the Purchaser is unable to fulfil its contractual commitment and responsibility, the Purchaser will notify the supplier accordingly and subsequent actions taken on similar lines described in above sub-paragraphs.

27. Termination for Convenience

- 27.1 The Purchaser reserves the right to terminate the contract, in whole or in part for its Purchaser's convenience, by serving written notice on the supplier at any time during the currency of the contract. The notice shall specify that the termination is for the convenience of the Purchaser. The notice shall also indicate inter alia, the extent to which the supplier's performance under the contract is terminated, and the date with effect from which such termination will become effective.
- 27.2 The goods and services which are complete and ready in terms of the contract for delivery and performance within thirty days after the supplier's receipt of the notice of termination shall be accepted by the Purchaser following the contract terms, conditions and prices. For the remaining goods and services, the Purchaser may decide:
- a) To get any portion of the balance completed and delivered at the contract terms, conditions and prices; and / or
 - b) To cancel the remaining portion of the goods and services and compensate the supplier by paying an agreed amount for the cost incurred by the supplier towards the remaining portion of the goods and services.

28. Governing Language

- 28.1 The contract shall be written in English language following the provision as contained in GIB clause 4. All correspondence and other documents pertaining to the contract, which the parties exchange, shall also be written accordingly in that language.

29. Notices

- 29.1 Notice, if any, relating to the contract given by one party to the other, shall be sent in writing or by Facsimile/email and confirmed in writing. The procedure will also provide the sender of the notice, the proof of receipt of the notice by the receiver. The addresses of the parties for exchanging such notices will be the addresses as incorporated in the contract.
- 29.2 The effective date of a notice shall be either the date when delivered to the recipient or the effective date specifically mentioned in the notice, whichever is later.

30. Resolution of Disputes

- 30.1 If dispute or difference of any kind shall arise between the Purchaser/Consignee and the supplier in connection with or relating to the contract, the parties shall make every effort to resolve the same amicably by mutual consultations.
- 30.2 If the parties fail to resolve their dispute or difference by such mutual consultation within twenty-one days of its occurrence, then, unless otherwise provided in the SCC, either the Purchaser/Consignee or the supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided the applicable arbitration procedure will be as per the Arbitration and Conciliation Act, 1996 of India.
- 30.3 In the case of a dispute or difference arising between the Purchaser and a domestic Supplier relating to any matter arising out of or connected with the contract, such dispute or difference shall be referred to the sole arbitration to be appointed by the Director, AIIMS. The award of the arbitrator shall be final and binding on the parties to the contract subject to the provision that the Arbitrator shall give reasoned award in case the value of claim in reference exceeds Rupees One lakh (Rs. 1,00,000/-).
- 30.4 **Venue of Arbitration:** The venue of arbitration shall be the place from where the contract has been issued, i.e., New Delhi, India.
- 30.5 **Jurisdiction of the court** will be from the place where the Bidding Document has been issued, i.e., New Delhi, India.

31. Applicable Law

The contract shall be governed by and interpreted in accordance with the laws of India for the time being in force.

32 Withholding and Lien in respect of sums claimed

- 32.1 Whenever any claim for payment arises under the contract against the supplier the purchaser shall be entitled to withhold and also have a lien to retain such sum from the security deposit or sum of money arising out of under any other contract made by the supplier with the purchaser, pending finalization or adjudication of any such claim.
- 32.2 It is an agreed term of the contract that the sum of money so withheld or retained under the lien referred to above, by the purchaser, will be kept withheld or retained till the claim arising about of or under the contract is determined by the Arbitrator or by the competent court as the case may be and the supplier will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention.

33. Fall Clause

Fall clause is a price safety mechanism. The fall clause provides that if the contract holder reduces its price or sells or even offers to sell the contracted goods of identical specification and terms & conditions to that of the contract, at a price lower than the contract price, to any person or organization during the currency of the Contract, the Contract price will be automatically reduced with effect from that date for all the subsequent supplies under the Contract and the contract amended accordingly.

SECTION – V

SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract (SCC) will apply for this purchase. The corresponding clauses of General Conditions of Contract (GCC) relating to the SCC stipulations have also been incorporated below.

These Special Conditions will modify/substitute/supplement the corresponding (GCC) clauses.

Whenever there is any conflict between the provision in the GCC and that in the SCC, the provision contained in the SCC shall prevail.

Any specific clause, mentioned in the technical specification shall prevail and will supersede the similar clause mentioned anywhere in the tender.

The warranty and CAMC period will be as mentioned in the list of requirement as per section VI of the Bidding Document.

SECTION- VI**LIST OF REQUIREMENTS****Part I:**

Sl. no.	Rfx/ Event number	Short Description of goods	Quantity	Warranty Period	CAMC period after warranty
1	3000003343	16-Slice SPECT- CT Scanner	1	05 years	05 years
2	3000003344	128-Slice PET- CT Scanner	1	05 years	05 years
3	3000003345	Dual particle Cyclotron	1	05 years	15 years

Part II: Required Delivery Schedule:

Supply, Installation and Commissioning to be completed within **120 days** from the date of NOA or date of opening of LC or date of approval of layout drawing (if case applicable), whichever is later.

(In case of LC opening, necessary documents like valid Performance Security and Proforma Invoice are to be submitted within 30 days from the date of release of NOA. In case layout drawing approval is applicable, it should be submitted by the supplier within 21 days from the date of release of NOA)

For delayed delivery and/or installation and commissioning liquidated damages will get applied as per GCC clause 23.

Part III: Scope of Incidental Services:

Installation & Commissioning, Supervision, Demonstration, Trial run and Training etc. as specified in GCC Clause 13.

Part IV:

Turnkey Work (if any) as per details in Technical Specification.

Part V:

Warranty period as per details mentioned in technical specification and as specified in Part I above. Warranty period will start from the date of installation, commissioning and acceptance.

Comprehensive Annual Maintenance Contract (CAMC) as per details in Technical Specification as specified in part I above. Comprehensive Annual Maintenance Contract (CAMC) will start from the date of successful completion of warranty period.

Part VI: Required Terms of Delivery and Destination.**a) For Indigenous goods or for imported goods if supplied from India:**

Free Delivery at Consignee's Site(s)

b) For Imported goods directly from abroad:

The foreign bidders are required to quote their rates on CIP (Named Port of Destination Basis) giving breakup of the price as per the Proforma prescribed in the

Price Schedule. Purchaser will place the order on CIP (Named Port of Destination basis).

Insurance (Local Transportation and Storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery.

- c) The Consignee details** are as under but the supplier is required to deliver the goods at the designated site in the floor and building of concerned Centers/Hospital/Departments:

Consignee	Site	Contact Address.	Air Port	Sea Port
NCI-AIIMS (National Cancer Institute – All India Institute of Medical Sciences)	Jhajjar Campus	Badsha Village Jhajjar Haryana	New Delhi	ICD Tuglakabad (for containerised shipments) Or ICD Patparganj

Note: The consignee will ensure timely issue of NMIC, CDEC etc., wherever applicable to the supplier.

SECTION - VII**TECHNICAL SPECIFICATION AND GENERAL POINTS****A. TECHNICAL SPECIFICATION:****Item sl. no. 01****16-Slice SPECT - CT Scanner**

Primary vendor shall be responsible for:

- A. Site Preparation: Design, planning, interiors and furnishing "on turn-key basis", adhering to all the AERB prescribed safety guidelines, regulations and as per AERB approved drawings. Vendor has to coordinate with NCI team to get all construction done to avoid duplicity of work. If any modification required in the existing AERB approved structure as per current/new AERB guidelines then it will be the responsibility of Vendor.
- B. Supply, Installation, Commissioning (functional delivery) on Site Modification Basis.
- C. 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. AERB Registration and site approval - Vendor has to provide the drawings and support in getting the AERB approval.
- E. Any improved modifications or updated versions of the system should be included in the quotations.

A latest technology dual headed variable angle SPECT-CT system for commissioning by the company on site modification basis.

1. General

- i. The 16 slice SPECT CT model quoted should be top-of-line model available with the manufacturer, meeting the technical specifications.
- ii. System should be capable of performing all Planar, dynamic, SPECT, Gated Cardiac SPECT, WB SPECT and whole body imaging applications.
- iii. System should be capable to perform CT image based attenuation correction on same patient table for nuclear medicine images and functional anatomical image fusion.
- iv. System should be supplied along with image fusion software and hardware.
- v. 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 set to be provided in computer readable format, preferably as MS Word for Windows format document.

2. Gantry

- i. Unobstructed wide open gantry with clockwise and anticlockwise movement.
- ii. Should be capable of variable angle including 90° and 180° detector configuration for SPECT, Horizontal and vertical upright for static views.
- iii. Gantry should have emergency stop buttons.
- iv. Gantry motion controlled by remote control handset and via user defined programs.
- v. Persistence scope (LCD Color Display) mounted on the gantry or wall for continuous display of patient position and gentry parameters.
- vi. Integrated CT hardware option for transmission attenuation correction and functional- anatomical image fusion.

3. Detectors

- i. Large field of view and rectangular detectors having UFOV of at least 530x 380 mm.
- ii. Crystal thickness should be 9.5 mm (3/8").
- iii. Number of PMT should be 55 or more per detector with 1ADC per PMT (True digital detector).
- iv. The detector should be equipped with automatic body countering (ABC).
- v. System should have facility for automatic correction for energy, linearity and uniformity.
- vi. Performance parameters should conform NEMA NU 1-2007/2012 standards or the latest specifications prevailing at the time of supply of equipment and clearly mentioned with literature support.

4. CT specifications

- i. 16 slice or more CT scanner.
- ii. Integrated CT hardware for transmission attenuation correction and lesion localization for all applications.
- iii. Anatomical and functional data co-registration software for exact image localization (SPECT-CT fusion software). The thickness of the CT reconstruction image should be at least 5 mm.

5. Collimators

Following high precision collimators with collision sensor to do all clinically possible examinations along with proper storage carts and with Automatic/Semi-Automatic collimator change.

- i. Low Energy High Resolution (LEHR)- One pair.

- ii. High Energy General Purpose (HEGP)- One pair.
- iii. Leap collimator -1 Pair or LEHR / MEGP for Lu-177.

6. Patient Table

- i. Single universal table for all studies i.e Planer, SPECT, Whole body imaging and CT images.
- ii. Table top should be composed of low attenuation material, preferably, carbon fibre. It should be covered with mattress pad and straps.
- iii. Table should be able to withstand at least 180 Kg of body weight.
- iv. Whole body imaging covering should not be less than 190 cm.
- v. Table should move to home position automatically.
- vi. Table should have facility for lowering the height to facilitate easy patient transfer and should be movable to permit imaging for sitting, standing, and stretcher/wheel chair patients.
- vii. Paediatric pallet, adjustable head positioning pallets, injection arm rest, cardiac arm rest, leg support, Velcro straps for patient restraint and support.

7. Acquisition Workstation

- i. One acquisition station independent of main processing unit capable of data acquisition in static, dynamic, multi-gated, whole body scanning, SPECT and Gated SPECT.
- ii. High performance PC of latest specifications with multi tasking operating system. It should have a minimum of 4 GB RAM, 2.6 GHz or more processor speed, 600 GB or more SCSI hard drive and high resolution (1024x 1024 or more) antiglare flat panel square LCD monitor of minimum of 19" size. It should also have CD and DVD combo drive preferably with writer facility.
- iii. Fully integrated CT system capable of acquiring X-ray transmission data along with nuclear emission data. SPECT and CT data acquisition should be on the same console.
- iv. Image acquisition and data display should be from 64x 64 matrix up to 256 x 1024 matrix.
- v. Acquisition termination by preset time, preset count with ability to manually pause, resume and stop all types of acquisitions.
- vi. Pre-defined acquisition protocols as well as facility for user to configure customized protocols.
- vii. Zoom and rotate features.

- viii. Online live display of acquired data and imaging parameters during acquisition. Cinematic display of dynamic MUGA and all multi frame studies.
- ix. Should provide system compatible ECG Gating Device with all leads and cables for MUGA/Gated Data acquisition. There should be ECG and R- to-R Histogram display during acquisition. Indicate frames per R-R interval and maximum frame rate capability.
- x. Acquisition software should include camera quality control activities including Centre of rotation (COR) correction, Uniformity correction maps, Energy, Sensitivity and linearity maps, Daily/weekly QC including Gentry calibration, Energy spectrum histogram (PHA) display, QC for Whole Body Acquisition, QC for Balancing sensitivity of both Detector heads.
- xi. Acquisition console should allow universal networking via DICOM ready local and wide area networks. It should also be connected to network laser color printer.

8. Processing Workstation

- i. High performance PC latest specification multi-tasking readiness for image transfer printer, PC with full DICOM.
- ii. Minimum of 4 GB RAM , 2.5 GHz or more processor speed and minimum 600 GB SCSI hard drive logically divided in to 3-4 partitions.
- iii. Antiglare high resolution high resolution (1024x 1024 or more) flat panel square LCD monitor of minimum 19" size.
- iv. The graphic user inter-face (GUI) should be identical to that of the acquisition unit.
- v. Predefined and user configurable protocols for standard studies for rapid recall
- vi. Workstation should support functions like SPECT, CT and SPECT-CT Image reconstruction correction, film documentation, and other Nuclear Medicine protocols for organ specific quantitation.
- vii. There should be provision for data transfer to external storage device (CD/DVR/External HardDisk) for mass data storage and achieving. Both processed data (reports etc) as well as raw (acquired images) should be amenable to such data transfer and storage. CD/DVR archiving facility should be available on main console.
- viii. One additional processing work station to be supplied with all the standard and third party software and licenses as in the primary post processing workstation , and it should be connected with online server.

9. Clinical Applications Software

- i. All standard SPECT, Whole body imaging and Planer such as general static, dynamic clinical applications package including Display Analysis software, 3-D volume rendering display with Maximum intensity projection (MIP), Cine review capability, curve generation, and image manipulation tools.

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- ii. Filtered back projection and Iterative reconstruction, Wide beam and 3D-OSEM reconstruction algorithm software for SPECT studies.
 - iii. The image profile curve should be possible in all the acquired images with a possibility to draw FWHM of the profile curve.
 - iv. Image subtraction and addition software should be available for all types of images.
 - v. Image output format should include JPEG, TIFF, AVI and multimedia reporting tool with self-executable CD creation software.
 - vi. Complete Renal processing software including Transplant Evaluation, Diuretic Renography, Package for GFR, ERPF, **Renal Extraction Fraction or Renal Processing protocol**, Deconvolution analysis.
 - vii. Thyroid Uptake and Thyroid Volumes
 - viii. Technetium- Thallium/MIBI subtraction for Parathyroid Scintigraphy.
 - ix. Gall Bladder Ejection Fraction.
 - x. Condensed dynamic image programme for **Gastric transit studies**.
 - xi. Lung perfusion and ventilation, Left to Right Lung ratio.
 - xii. Bone Static, Three Phase and SPECT with 3-D display.
 - xiii. 3-D bone reconstruction programme.
 - xiv. Whole body SPECT processing software.
 - xv. Complete cardiac packing including First Pass EF and Cardiac Shunt quantification studies, Gated equilibrium, MUGA SPECT, Myocardial perfusion (planar and SPECT including Bulls eye).
 - xvi. Dedicated licensed cardiac software Emory Cardiac Toolbox for gated cardiac SPECT quantification. If EMORY CARDIAC TOOLBOX is not available, then equivalent dedicated licensed cardiac software should be offered.
 - xvii. Brain, both planer and SPECT with attenuation correction and choice of different filters.
 - xviii. Advanced licensed neuro software- or equivalent.
 - xix. Brain quantification program for rCBF calculation.
 - xx. Transmission attenuation correction software to generate map. Flexibility to manually adjust the transmission attenuation map as per requirements.
 - xxi. Anatomical and functional data co-registration software (SPECT/CT/MRI fusion software}. It should also work for the imported anatomic imaging data.
 - xxii. **Latest collimator-detector response – Resolution recovery algorithm software (EVOLUTION OR IQ SPECT with necessary hardware if required)**

that enables half dose/ half acquisition time in SPECT including cardiac SPECT, BONE SPECT and planar images should be offered as a standard feature.

xxiii. Whole body dosimetry software, fully integrated to be supplied along with Olinda Software.

xxiv. SPECT SUV must be offered as standard. Quantitative volumetric analysis for SUV calculation: Automated organ definition & segmentation on SPECT & CT combined images.

10. SPECT CT system should be HIS and PACS compatible DICOM ready. Vendor shall be responsible for integration with the PACS system and HIS of the institute including all required software and hardware support without any additional cost.

11. Others

- i. The radiation equipment offered against this tender shall duly conform to the prescribed international/national standards and norms of radiation safety. AERB type approval certificate /NOC should be attached.
- ii. Equipment is to be installed as per AERB requirements. Qualified personnel from the company should install and commission the camera.
- iii. Cordoning off of the acquisition terminal with lead and appropriate sized lead glass is to be done.
- iv. Comprehensive warranty of the equipment including crystals & CT tube and all accessories as well as batteries of the UPS and Air conditioning units should be for Five years after the satisfactory commissioning and handing over of the system. Warranty will include all the accessories as well as electronic/electrical consumables/cable/ leads etc. and third party items.
- v. Rates for Five years comprehensive maintenance contract (CMC) after the expiry of warranty with uptime as per the tender terms. CMC will include the crystal, CT tube, batteries of the UPS, Air-conditioning units. All the accessories supplied with the main equipment as well as electronic/electrical consumables/cable/leads etc will also be part of CMC.
- vi. Uptime should be 95%. Uptime calculation and downtime penalty as per institute
- vii. The acceptance tests for the verification of different performance parameters of the system will be carried out by us with the help of the company service engineers.
- viii. Hands on onsite training for physician, physicist and technologist to be provided by trained engineer and application specialist for at least three working weeks.

12. Accessories and QC Utility

- i. System compatible indigenous online UPS with maintenance free batteries for the whole system with 30 min back up time. The cardiac stress room electric points and few ordinary lights will also need to be connected through this UPS.

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- ii. High resolution network Laser Color Paper printer compatible with the processing work station (MS Windows) with 5 sets of all cartridges.
 - iii. Co-57 flood source of at least 15mCi strength for rectangular field of the size adequate for the camera.
 - iv. Cs-137 calibration source of at least one mCi strength for dose calibrator.
 - v. Deleted.
 - vi. Four Quadrant Bar Phantom for rectangular detector of size not less than the UFOV of the detector.
 - vii. SPECT (Jaszczak) phantom 5 chamber.
 - viii. CT quality assurance phantom for contrast resolution, radiation safety and image uniformity and pixel noise etc.
 - ix. Two dose calibrator (Capintec-CRC25 R) including Moly assay canister.
 - x. One PC based 12 lead ECG monitor having at least 15" color monitor and compatible TMT system. TMT and ECG monitor should be from the same manufacturer. 20 boxes of ECG paper for the quoted ECG monitor also to be supplied.
 - xi. One No. : vital sign multiparameter patient vital signs monitor, 15 inch monitor (standard make) : 5 parameters - ECG, SPO2, NIBP, Respiration, Temperature. with
 - ECG/Resp: 5 Lead ECG Cable with clip- 2 sets.
 - NIBP: Adult cuff & Paediatric cuff- 2 nos. each.
 - Reusable SPO2: Adult SPO2 sensor with cable- two nos.
 - Pediatric SPO2 sensors- two nos.
 - skin temperature probe- one no..
 - xii. One single syringe infusion pump (Schiller/ASCOR/AITECS/B-Braun / Fresenius).
 - xiii. One Defibrillator (standard make).
 - xiv. One Radiation Fume Hood for installation in the hot lab with laminar Flow Unit (vertical) and HEPA filter, 100% exhaust for Microbiological use.

Should be sliding window type with built-in double wall socket 220 V, and water fitting with drainage basin.

Size approx. 1200 mm (W) x 820 mm (D) x 2620 mm (H)

Materials: The fume hood should be constructed of stainless steel (Type 304). Inner chamber finished in chemical -resistant Epoxy paint and work surface covered with thick non glossy stainless steel sheet.

Filter: Charcoal filters.

PVC ducting.

Exhaust to be laid to suitable height as per radiation safety standards laid by AERB, Mumbai.
 - xv. One side by side **domestic refrigerator of minimum 550 litre capacity** for storing radiopharmaceutical kits.
 - xvi. Four lead lined waste bins of at least 4 mm thickness for Tc99m waste.

- xvii. 60 interlocking painted lead bricks and 12 painted lead corners.
- xviii. Two 15" sized L- Bench with glass for Tc-99m radio-pharmacy work.
- xix. Three stainless steel syringe carriers having lead lining of minimum 4 mm thickness.
- xx. Two 2 ml syringe shield and two 5 ml syringe shields.
- xxi. Long handled tongs and forceps- five each.
- xxii. Two sets of straight and curved forceps.
- xxiii. Two syringe needle destroyer.
- xxiv. One hot plate.
- xxv. One decontamination kit.
- xxvi. Two digital ion meter (Rotem or equivalent only)
- xxvii. Two digital 11Sv/hr range GM based survey-cum-contamination monitors (Rotem or equivalent)
- xxviii. Two light weight (imported) vinyl Lead Apron of 5 mm equivalence.
- xxix. Two X-ray LCD illuminators for minimum 2 film view,
- xxx. Multimedia projection system with XVGA resolution OR 56" LED Display.
- xxxi. One stainless steel side trolley in the gamma camera room.
- xxxii. One Crash cart side trolley in the cardiac stress lab
- xxxiii. Three decappers.
- xxxiv. One height scale.
- xxxv. Lead line syringe carrier- one quantity
- xxxvi. Two digital electric weighing machines.
- xxxvii. Mobile lead glass shield, size: 6 feet x 4 feet.

- 13.** Automatic /semi-automatic collimator change may be included as essential.
- 14.** Olinda dosimeter software to be provided.
- 15.** BOQ for the site modification work to be submitted by the vendors after the survey and consultation with the institute.
- 16.** AERB clearance: The vendor will render all necessary help and provide needed documents. The vendor has to provide all supporting documents, site plan, NEMA QC equipment details and drawings to facilitate AERB clearance after completion of the site modification works and installation of the equipment.
- 17.** The offered warranty shall commence from the date of satisfactory handing over of the equipment (functional delivery) and start of its clinical use.
- 18.** Future updates/revision of the software versions shall be done by the vendors without any additional cost.
- 19.** Vendor shall provide preventive maintenance of the equipment every month at the convenience of the Institute.
- 20. Installation**
 - i. The scope of work for site modification for SPECT CT shall include SPECT CT examination room, console area, UPS area/room.
 - ii. 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 console room, changing room, wash basin, work-station and printer locations. It should also include Lead lined door with lead glass peeping window, radiation warning indicators and signages, Aluminium false ceiling, GVT floor tiles and full height wall tiles. All site-modification should comply with specified standards of the hospital.

- iii. Necessary furniture and fixtures for comfortable working conditions, storage of system components and consumable stand for protective aprons and gonad shields. etc. should be provided.
- iv. Power and Air-conditioning requirement must be mentioned. AC of adequate capacity should be provided. Power supply by the institute will be terminated at existing point. All electrical provisions including earthing etc. will be vendor's responsibility.
- v. The site should be rendered pest/rodent free.

SITE MODIFICATION – 16-Slice SPECT - CT Scanner	
	<ol style="list-style-type: none"> 1. Supplier shall ensure that the equipment model quoted is commissioned within the designated area of NCI, without major structural changes to the building. 2. The Site drawing of the Institute can be obtained from the Project office of NCI - AIIMS, room no. 161, 1st floor, DBAIRCH, AIIMS campus, New Delhi. 3. The vendor should inspect the site at NCI, Jhajjar, before quoting and ensure that the unit can be installed in the available space without any functional compromise. 4. Complete equipment layout site plan and details of work (BOQ) should be part of technical bid. 5. Provisions should be made for placing the various accessories in console room, work-station and printer locations. 6. It should also include Lead lined door with lead glass peeping window, radiation warning indicators and signages, Aluminium false ceiling, GVT floor tiles and full height wall tiles. 7. All site modification works should comply with specified standards of the hospital.
	The SCOPE OF WORK for SITE MODIFICATION OF SPECT CT SYSTEM shall consist of the following rooms:
a.	SPECT CT Examination Room
b.	Console room
c.	SPECT CT equipment / UPS room.
	The area considered for Site Modification for item: SPECT CT SYSTEM is indicated in the site plan attached as Annexure 1.
	Civil work
a)	Civil construction work including construction/ modification / demolition of brick wall if any, plastering, flooring as per the approved plan and equipment layout plan.
b)	Additional strengthening of floor / Concrete bed of SPECT CT and equipment area, if required
c)	Platform for unloading and shifting the SPECT CT should be provided if necessary.
d)	Cable tray, trench & channel – necessary trenches, cable tray and channels at required location would be provided.
e)	All the construction work to be done as per the final plan approved by NCI Jhajjar
f)	Ceiling-to-wall ceramic tiling in SPECT CT examination room.
a)	Flooring
1	600 x 600 mm glazed vitrified (GVT) tiles with 100mm tile skirting in SPECT CT Examination room.

2	5mm-Vinyl flooring in SPECT CT equipment / UPS room.	
b)	Painting	
	Two coats Plastic Emulsion Paint over 2 coats of wall putty including primer in Console, SPECT CT equipment / UPS room.	
c)	False Ceiling	
1	Aluminum, 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.	
d)	Electrical work	
1	The supplier shall be required to specify the total load requirements for the SPECT 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 SPECT CT Scan area. The distribution panel for UPS, SPECT 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:	
a.	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.	
b.	Switches light and power points should be of modular type and of standard make as listed below.	
c.	General lights –LED light fittings with minimum 500 Lux Illumination	
3	AIR CONDITIONING: Minimum 15 TR capacity.	
i)	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.	
	The outdoor units of AC should have grill coverings to prevent theft and damage.	
ii)	Environment specifications:	
a)	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?	
b)	Temperature ranges: 22± 2° C in all areas except equipment room which shall be as per requirement of the equipment.	
c)	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.	
	Furniture:	
a)	Revolving chairs height adjustable, medium-back with hand-rest – 8 NO.S	
c)	Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement. – 3 Nos.	
d)	Drug trolleys - 1 Nos.	
e)	Patient trolley with rubber foam mattress - 1 Nos.	
f)	Name boards for all rooms	
g)	Tables for Workstation - 5 Nos.	
i)	Dustbins: 10 Nos.	
	All furniture items should be of standard make as mentioned in the table below.	
	Miscellaneous:	
1	LED X-ray Film viewer with adjustable brightness; capable of holding 3 films of 14"x17" size. – 2 no.s	
2	Fire extinguisher ABC type- 5kg - 3 Nos.	
	LIST OF ITEMS AND SUGGESTED MANUFACTURERS.	
SL NO	ITEMS	PREFERRED MAKES
A	FLOORING VITRIFIED TILES	-Somany, Kajaria , H&R Johnson, RAK india

B	PAINT	- Dulux, Asian Paints , Nerolac
C	PLUMBING	- Kohler, Jaguar , Grohe , Roca
E	ELECTRICAL	
1	CABLES	- Finolex, Havells ,V-Guard
2	SWITCHES	- Legrand, L&T, Crabtree , Roma
3	DISTRIBUTION BOX , MCB	- Legrand, L&T, Siemens, Havels
4	LIGHT FITTINGS	- Philips / Crompton / Wipro/Syska
F	AIR CONDINTIONING	- Daikin, Hitachi, Blue Star, Voltas,
G	FURNITURE	- Hermen Miller, Godrej, Featherlite, Geeken.

Note:

Finishing of floor, walls, ceilings for all rooms where not specified shall be in compliance with AERB guidelines, if any, or shall be as per finishing in SPECT-CT exam room if no specific AERB guidelines are there.

Item sl. no. 02**128-SLICE PET - CT SCANNER****Primary vendor shall be responsible for:**

- A. Site Preparation: Design, planning, interiors and furnishing "on site modification basis", adhering to all the AERB prescribed safety guidelines and regulations. Vendor has to coordinate with NCI for avoiding duplicity of work. If any modification required in the AERB approved structure as per current / new AERB guidelines shall be undertaken by the vendor.
- B. Supply, Installation, Commissioning (functional delivery) on Site Modification Basis.
- C. 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. AERB Registration and site approval - Vendor has to provide the drawings and support in getting the AERB approval.

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

1) General

- a) A latest technology whole body Positron Emission Tomography system with **minimum 64 rows of detector capable of acquiring/generating 128 slices per rotation**, DICOM ready and isotropic volume generation/ production spiral CT scanner 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.
- b) The system should have capability for data acquisition, processing, image reconstruction & analysis and fusion of PET with CT images.
- c) The system should operate on 220 (± 10) V A/C (Single phase) 50HZ and/or 440V (± 20) A/C {3 phase} 50HZ.
- d) 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. Further quoted machine must be US FDA approved.
- e) For acceptance of the equipment, all the QA tests as per NEMA guidelines and to fulfil 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. 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.

- f) All the Application, Operating and Service manual sets in English language 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.
- g) PET data acquisition and CT image reconstruction should be concurrent process.

2) Gantry and Detector

- a) Gantry should have integrated PET & CT hardware and should be a Single Gantry.
- b) The PET scanner should employ non-hygroscopic high light yield ($\geq 80\%$) and low decay time scintillator material like Lutetium based crystals for detecting 511 KeV gamma photons in coincidence with crystal thickness ≥ 20 mm.
- c) Ring diameter should be ≥ 80 cm.
- d) The patient gantry aperture should be ≥ 70 cm and uniform for both PET and CT.
- e) It must be capable of acquiring 45 or more transverse cross sectional slices, simultaneously without undergoing any axial motion.
- f) Axial Field of view should be 15 cm or more.
- g) The transverse field of view should be ≥ 50 cm.
- h) The separation (center to center) between slices acquired simultaneously without any axial motion should be : 5 mm or better.
- i) 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.
- j) The scanner must have a detection configuration of a continuous ring around the patient. It must not have "gaps" of detection or areas of decreased sensitivity around the ring of detection.
- k) The system should have 4D PET-CT acquisition capability. Laser system (three lasers of green colour) to be provided. It should be connected with main TPS in the radiotherapy department through Ethernet wiring.
- l) Efficient Gantry cooling system for continuous running of the machine.

3) CT Specifications

- a) **Multi - row detector CT capable of acquiring or generating 128 slices per rotation.**
- b) Rotation time should be ≤ 0.5 sec.
- c) Multiple pitch factor settings should be available.
- d) Image slice width should be from: 0.5mm to 10 mm.
- e) Detector coverage should be at least 38 mm or higher.
- f) Low contrast detectability should be at least 5 mm@ 0.3% on 20 cm CATPHAN phantom.

- g) High contrast resolution should be better than 15 lp/cm.
- h) High frequency X-Ray generator tube with output of 70 kW or more, Anode heat storage capacity of 6.0 MHU or more, Tube Voltage between 80-140 kV, Tube Current of 20-400mA, Automatic self-testing system.
- i) Controls located on each side.
- j) Adult and paediatric modes for filter and dose reduction device.

4) Performance Specifications:

- a) All specifications must comply with NEMA Standards Publication NU 2-2012 or latest performance measurements without altering instrument parameters. QC Software to measure these parameters must be available in the system.
- b) Axial & Transverse spatial resolution at 1cm & 10 cm from the central axis of the gantry should be: ≤ 5.1 mm FWHM.
- c) System efficiency I sensitivity must exceed 5 cps/KBq at 350 KeV.
- d) System Energy Resolution should be ≤ 14.0 %.
- e) 3-D scatter Fraction should be ≤ 40 %.
- f) During image reconstruction system should use Time-of-flight algorithms, when required for better lesion detectability. Any other reconstruction algorithm if available should also be provided.
- g) System should have & capable to use HD technology during image reconstruction.
- h) Attenuation correction should be CT based. Protocol / Algorithm for attenuation correction should be independent of metal/mA/IV contrast related artifacts.

5) Patient Bed:

- a) Precision bed with low attenuation carbon fibre pallet and minimum sag of the patient table top.
- b) It should be able to bear 180 kg or more patient weight.
- c) 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.
- d) A separate flat carbon fibre table top should be provided for radiotherapy treatment planning.
- e) The horizontal travel of the bed should enable the full length scanning of a patient in one scan acquisition. Full body horizontal length should be 190 cm and vertical travel from 60 to 90 cm.
- f) 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.
- g) Paediatric support, headrest, armrests, knee-leg support are to be provided and low attenuation ergonomic head holder.

6) Workstation (Data Acquisition, Processing & Management).

- a) A Client Server Architecture based solution comprising of One no. Server with 5 no.s client nodes OR a workstation based solution comprising of 5 NO.S of independent post processing Workstation.
It should be independent of main acquisition unit and should have HD, OSEM and Time-of-flight reconstruction and any other reconstruction algorithms as standard features. The Workstations or the Server and Client nodes should be of latest specifications at the time of shipment.
- b) Workstations or Server and Client nodes should have both, serial and USB ports.
- c) The Workstations or Server should be high performance CPU with multi-tasking operating system having minimum of 4 GB RAM, 2.5 GHz processor speed, minimum 1GB graphic card, 300 GB storage capacity or more, Optical Mouse, Key-board It should also have CD and DVD combo drive preferably with writer facility.
- d) Intercom with user programmable patient .
- e) Reconstruction filters -latest available filters with the company for PET-CT applications.
- f) Communications -Ethernet with TCP/IP protocols and DICOM and above i.e., latest networking of all possible equipment in the facility with their peripherals and PACS available in the department. PET-CT must be connected to the PACS System as part of this order.
- g) Each Processing workstation or each client node should have concurrent licences of image fusion, quantification facility and image comparison software for the baseline and follow-up studies.
- h) All 5 nos. client nodes or the 5 nos. workstations should be concurrently capable of all post processing functions of PET & CT images. They should be provided with keyboard, mouse and Medical grade flat panel monitor of minimum 19" size and minimum resolution of 2 Megapixel.
- i) List mode PET data reconstruction should not take more than 90 sec/bed.

7) Software:

1. Data Acquisition

- a) Acquisition Modes: Acquisition in Full 3-D mode must include Static, Whole Body, Dynamic and Gated acquisition provisions with prospective 3-D reconstruction algorithm.
- b) 4D CT Scanning facility: 4D CT Respiratory Gating hardware with necessary software to be provided.
- c) Same PET CT protocol should be used for Contrast CT in single acquisition.
- d) Acquisition Protocols: The acquisition program should support pre-programmed scan protocols with acquisition and reconstruction parameters and patients 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 frame / list mode, bed motion), as well as information necessary for reconstruction.

- e) 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.
- f) Dynamic frame Mode Acquisition: The acquisition setup 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.
- g) Reconstruction: Image reconstruction should simultaneously start for the acquired image while acquisition is still in process.
- h) Time of Flight and HD must be available for image reconstruction.
- i) Fully 3-D Iterative reconstruction technique should be available as standard. Low dose iterative reconstruction algorithm should also be provided.
- j) Pixel Size: The User should have the option to specify the pixel size for reconstruction.
- k) The reconstruction program should support reconstruction in image sizes of at least 128x128 or higher.
- l) Scatter Correction: **latest scatter correction protocol must be provided.**

2. Clinical Application Software

- a) 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.
- b) Neuro quantification software including assessment of dementia using SUV values. Provide detailed specification of s/w quoted.
- c) Quote complete cardiac package both for PET and CT with ECG gating.
- d) System management software for computerized calibration, quality control for all scanner performance parameters, diagnostics and administration of the patients' records.
- e) Attenuation correction, quality control software and a latest version of DICOM facilities for clinical applications.
- f) Software for PET/CT/MRI fusion.
- g) Should be possible to evaluate different scans of same patients done over a time to give overall assessment of malignancies progression in oncology.
- h) Provision to make DICOM/ PDF/ JPEG /AVI /MPEG digital output.

- i) PET DICOM 3.0 or higher version must be implemented. It should have the ability to import MR/CT DICOM Data.
- j) Latest advanced CT radiation dose reduction technology and software that should offer higher speed image reconstruction.
- k) All future software updates during warranty period and CMC shall be free of cost.

8) Peripherals / Accessories

- a) UPS for the whole system including CT with minimum 30 min backup at full load should be provided.
- b) High Resolution dry chemistry type DICOM laser film printer with online capability of 3 film sizes for x-ray films with minimum 500 packets of films of 14x17 inch size.
- c) Supply of Germanium-68 / Na-22 pin source for a period of 5 years. - Specification of Ge-68 Pin source: 55 MBq (1.49mCi) Ge-68 uniformly dispersed in a ceramic medium with an outer stainless tube and permanently sealed end caps.
- d) High resolution colour laser printer for colour hardcopy on paper with 5 sets of all cartridges.
- e) Required Phantoms for CT & PET Quality Assurance and calibration sources.
- f) Four dose calibrators (Capintec- CRC 25 PET or equivalent).
- g) One shielded L-bench for F-18 handling.
- h) One decay drum for PET radionuclides.
- i) Four waste bins with minimum 12 mm lead for PET Radiopharmaceutical waste.
- j) 40 Lead bricks and 8 lead corners for F-18 handling.
- k) One Dose drawing module for F-18 FDG.
- l) Four Tungsten syringe holders of 2 sizes (Two 2 ml and Two 5 ml).
- m) Five digital pocket dosimeters (Rad-60R by Rados Technology or equivalent).
- n) One digital ion meter (Rotem or equivalent).
- o) Two digital -mSv / hr range GM based survey-cum-contamination monitors (Rotem or equivalent).
- p) One decontamination kit.
- q) Onsite remote service diagnostic facility to be provided.
- r) **PET Transport Containers -07 nos. :** capable of carrying at least 3 nos. unit dose syringes. The detailed of this item is given below:

The FDG Transport Box should consist of three parts:

1. Outer Box

The external container of the FDG transport box is a Molded-in case with, tongue-in-groove gasketed parting lines for splash resistance and tight seals.

Reinforced corners and edges for additional impact protection

Molded-in ribs and corrugations for secure, non-slip stacking, columnar strength, and added protection

Recessed hardware for extra protection

Positive anti-shear locks, which prevent lid separation after impact, and reduce stress on hardware

Dimensions of the outer box: (L X W X D) 12.93" x 13.00" x 15.64" (32.8 x 33 x 39.7 cm)

2. Polyethylene Foam

Removable Polyethylene foam should be fit wall-to-wall inside the case and should be used to seat the tungsten shield in the center of the container.

The polyethylene foam should also act as a shock absorber for the tungsten shield and consequently the vial inside the shield.

3. Tungsten Vial Shield

The Tungsten **syringe shield** should be manufactured using alloy with 95% purity Tungsten in order to ensure maximum radiation protection. A certificate from an NABL certified lab should be provided for the purity of Tungsten used to manufacture the syringe shield Tungsten wall shielding should be 29.5 mm thick. The tungsten **syringe** shield should comprise of two parts, the shield cap and the shield base. It should incorporate an easy lock and unlock mechanism with positive locking.

It should be equipped with an O-ring seal for perfect tightness

9) Others

- a) Site has been already approved by AERB.
- b) Dehumidifier: 6 nos.
- c) Fume hood for PET Radio pharmacy.
- d) Area zone monitor- 2 no.
- e) Tungsten Syringe carriers for PET Radiopharmaceuticals, 5 cc: 04 no.
- f) Tungsten Syringe carriers for PET Radiopharmaceuticals, 2 cc: 02 no.
- g) Lead Glass Window: 100 x 150 cm separating the scanner and console which should be sufficient to shield 511kev radiation optimally as per AERB guidelines.
- h) The complete system should have a guarantee including the radioactive reference source, crystals, detectors and x-ray tubes replacement for a period of FIVE years after the satisfactory commissioning (functional delivery) and handing over of the equipment. Warranty will include all the accessories and third party items.
- i) Rates for Comprehensive maintenance contract (CMC) for whole system including x-ray tube replacement as and when required and accessories for a period of FIVE years after the expiry of warranty period.
- j) The peripherals/accessories, electronic/electrical consumables (leads, probes, batteries etc.), calibration sources, air-conditioning units 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. Supplier shall be responsible for maintaining adequate humidity and temperature for proper functioning for PET CT.

- k) At least 95% uptime should be maintained during warranty as well as CMC period.
- l) On-site Training to be imparted to staff identified by the institute for One month.
- m) Four Physicians to be trained onsite for 4 weeks and two technologist to be trained onsite for 4 weeks.
- n) Qualified Engineer with Minimum 3 years' experience be deputed by the OEM to perform weekly onsite maintenance check-up.
- o) After sale service to be available onsite through a service centre of the company located in **Jhajjar**.

10) BOQ for the turn key to be submitted by the vendors after the survey and consultation with the institute.

11) AERB clearance: The vendor will render all necessary help and provide needed documents. The vendor has to provide all supporting documents, site plan, equipment details and drawings to facilitate AERB clearance after completion of the site modification works and installation of the equipment.

12) The offered warranty shall commence from the date of satisfactory handing over of the equipment (functional delivery) and start of its clinical use.

13) Future updates/ revision of the software versions shall be done by the vendors without any additional cost.

14) Automatic syringe less triple-head continuous injector with accessories and disposables for first 500 patients.

15) Vendor shall provide preventive maintenance of the equipment once per month at the convenience of the Institute.

16) Vendor shall be responsible for updates of all software to the latest available throughout the warranty period.

17) Installation

- a) The scope of work for site modification for PET CT shall include PET examination room, console area, dose admin room, post admin room, hot lab cum radiopharmact room, radioactive store, radioactive waste store, active toilets, technician room, ups area/room.
- b) 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 console room, changing room, wash basin, work-station and printer locations. It should also include Lead lined door with lead glass peeping window, radiation warning indicators and signages, Aluminium false ceiling, GVT floor tiles and full height wall tiles. All site-modification should comply with specified standards of the hospital.

- c) Necessary furniture and fixtures for comfortable working conditions, storage of system components and consumable stand for protective aprons and gonad shields, etc. should be provided.
- d) Power and Air-conditioning requirement must be mentioned. AC of adequate capacity should be provided. Power supply by the institute will be terminated at existing point. All electrical provisions including earthing etc. will be vendor's responsibility.
- e) The site should be rendered pest/rodent free.

SITE MODIFICATION - 128-SLICE PET - CT SCANNER	
	<ol style="list-style-type: none"> 1. Supplier shall ensure that the equipment model quoted is commissioned within the designated area of NCI, without major structural changes to the building. 2. The Site drawing of the Institute can be obtained from the Project office of NCI - AIIMS, room no. 161, 1st floor, DBRAIRCH, AIIMS campus, New Delhi. 3. Complete equipment layout site plan and details of work (BOQ) should be part of technical bid. 4. Provisions should be made for placing the various accessories in console room, work-station and printer locations. 5. It should also include Lead lined door with lead glass peeping window, radiation warning 6. Indicators and signages, Aluminium false ceiling, GVT floor tiles and full height wall tiles. 7. All site modification works should comply with specified standards of the hospital.
	The SCOPE OF WORK for SITE MODIFICATION OF PET CT SYSTEM shall consist of the area as shown in Annexure 1:
	The area considered for Site Modification for item: PET CT SYSTEM is indicated in the site plan attached as Annexure 1.
1	Civil work
a)	Civil construction work including construction/ modification / demolition of brick wall if any, plastering, flooring as per the approved plan and equipment layout plan.
b)	Additional strengthening of floor / Concrete bed of CT and equipment area, if required
c)	Platform for unloading and shifting the PET CT should be provided if necessary.
d)	Cable tray, trench & channel – necessary trenches, cable tray and channels at required location would be provided.
e)	All the construction work to be done as per the final plan approved by NCI Jhajjar
f)	Ceiling-to-wall ceramic tiling in PET CT examination room.
a)	Flooring
i)	600 x 600 mm glazed vitrified (GVT) tiles with 100mm tile skirting in PET CT Examination room.
ii)	5mm-Vinyl flooring in PET CT equipment / UPS room.
b)	Painting
i)	Two coats Plastic Emulsion Paint over 2 coats of wall putty including primer in Console, PET CT equipment / UPS room.

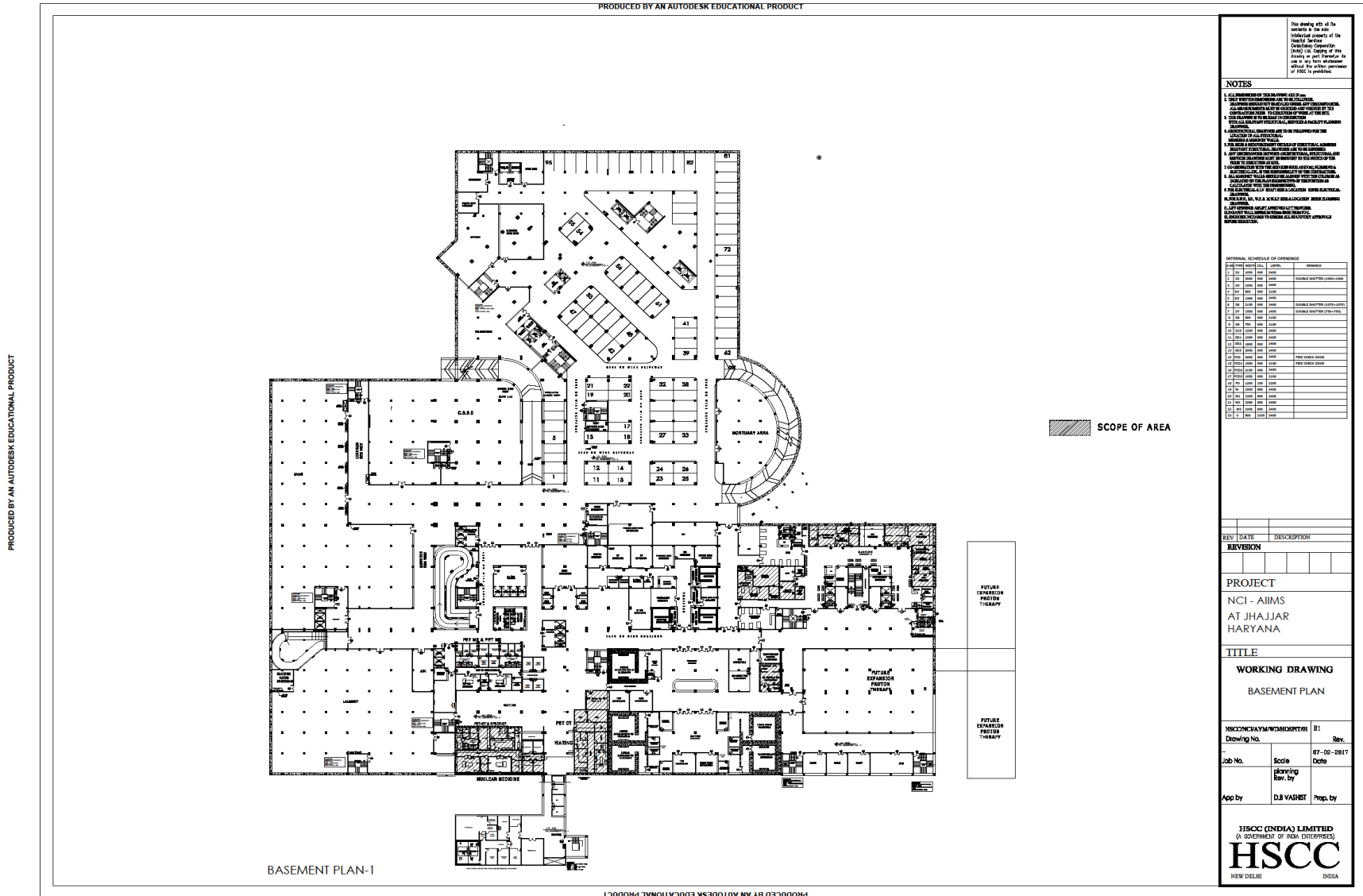
c)	False Ceiling	
i)	Aluminum, acoustical-treated, powder coated tile for ceiling supported on grid or finished seamless with support above ceiling. Ceiling height to suit the equipment mount and clearances.	
2	Electrical work	
i)	The supplier shall be required to specify the total load requirements 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.	
ii)	The electrical work shall include the following:	
a.	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.	
b.	Switches light and power points should be of modular type and of standard make as listed below.	
c.	General lights –LED light fittings with minimum 500 Lux Illumination	
3	AIR CONDITIONING: Minimum 15 TR capacity.	
a)	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.	
b)	The outdoor units of AC should have grill coverings to prevent theft and damage.	
c)	Environment specifications:	
i)	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?	
ii)	Temperature ranges: 22± 2° C in all areas except equipment room which shall be as per requirement of the equipment.	
iii)	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.	
5	Furniture:	
a)	Revolving chairs height adjustable, medium-back with hand-rest – 8 Nos.	
b)	Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement. – 3 Nos.	
c)	Drug trolleys - 1 Nos.	
d)	Patient trolley with rubber foam mattress - 1 Nos.	
e)	Name boards for all rooms	
f)	Tables for Workstation - 5 Nos.	
g)	Dustbins: 10 Nos.	
h)	All furniture items should be of standard make as mentioned in the table below.	
6	Miscellaneous:	
a)	Fire extinguisher ABC type- 5kg - 3 Nos.	
	LIST OF ITEMS AND SUGGESTED MANUFACTURERS.	
Sl. No.	ITEMS	PREFERRED MAKES
A	FLOORING VITRIFIED TILES	-Somany, Kajaria , H&R Johnson, RAK India

B	PAINT	- Dulux, Asian Paints , Nerolac
C	PLUMBING	- Kohler, Jaguar , Grohe , Roca
E	ELECTRICAL	
1	CABLES	- Finolex, Havells ,V-Guard
2	SWITCHES	- Legrand, L&T, Crabtree , Roma
3	DISTRIBUTION BOX , MCB	- Legrand, L&T, Siemens, Havels
4	LIGHT FITTINGS	- Philips / Crompton / Wipro/Syska
F	AIR CONDINTIONING	- Daikin, Hitachi, Blue Star, Voltas,
G	FURNITURE	- Hermen Miller , Godrej , Featherlite,Geeken.

Note:

Finishing of floor, walls, ceilings for all rooms where not specified shall be in compliance with AERB guidelines, if any, or shall be as per finishing in SPECT-CT exam room if no specific AERB guidelines are there.

Site plan showing the location of the equipment in tender and site modification area (Annexure-1)



This drawing and all the contents of the same are the intellectual property of the Haryana State Electricity Corporation, Chandigarh. It shall be the responsibility of the user to ensure that the use of this drawing is in accordance with the terms and conditions of the license agreement of HSEC is prohibited.

NOTES

1. ALL DIMENSIONS OF THE DRAWING ARE IN METERS UNLESS OTHERWISE SPECIFIED.
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INTERNAL SCHEDULE OF OPERATIONS

DATE	TIME	EVENT
01-01-2017	08:00	START OF WORK
01-01-2017	12:00	MIDDAY BREAK
01-01-2017	18:00	END OF WORK
02-01-2017	08:00	START OF WORK
02-01-2017	12:00	MIDDAY BREAK
02-01-2017	18:00	END OF WORK
03-01-2017	08:00	START OF WORK
03-01-2017	12:00	MIDDAY BREAK
03-01-2017	18:00	END OF WORK
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04-01-2017	12:00	MIDDAY BREAK
04-01-2017	18:00	END OF WORK
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10-01-2017	12:00	MIDDAY BREAK
10-01-2017	18:00	END OF WORK
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11-01-2017	18:00	END OF WORK
12-01-2017	08:00	START OF WORK
12-01-2017	12:00	MIDDAY BREAK
12-01-2017	18:00	END OF WORK

REV	DATE	DESCRIPTION

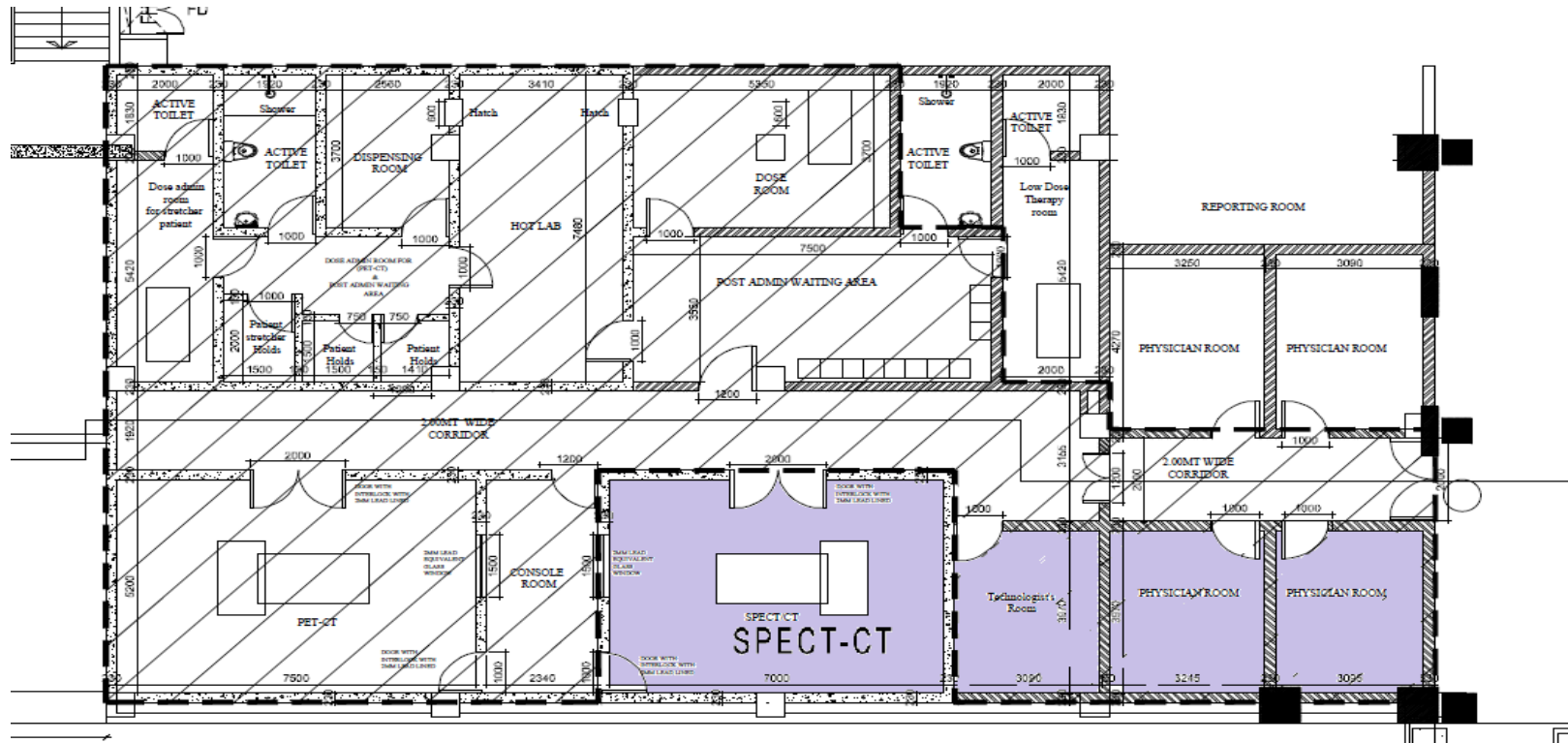
PROJECT
NCI - AIIMS
AT JHAJJAR
HARYANA

TITLE
WORKING DRAWING
BASEMENT PLAN

HSEC/NCI/AYM/WDR/BSR/RT/AN	B1	Rev.
Drawing No.	07-06-2017	
Job No.	07-06-2017	
Scale		
planning		
Rev. by		
App by	D.J. VASHIST	Prep. by

HSCC (INDIA) LIMITED
(A COMPANY OF HLL INFRA SERVICES)
HSCC
NEW DELHI INDIA

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PET - CT site modification area is shown as

SPECT-CT site modification area is shown as

Site- Layout for '16-Slice SPECT-CT Scanner' and '128-Slice PET-CT Scanner'

Item sl. no. 03**Dual Particle Cyclotron**

S.No.	DUAL PARTICLE SELF SHIELDED CYCLOTRON
	Plan , Design, Supply, Installation, Commissioning & Maintaining of a Medium-Energy Dual-Particle Self-Shielded Cyclotron , Targets, Synthesis Modules and Laboratory Equipment for PET Radiopharmaceuticals Production including Support and Expertise on the Building Design and Laboratory Layout According to GMP Guidelines.
	1. Scope
	Tenderers (cyclotron manufacturers) are requested to make a proposal for the plan, design, supply, installation, commissioning and maintenance of the following:
	A. Medium Energy Cyclotron:
	Radiopharmaceutical Production Laboratory Equipment for production of PET Radiopharmaceutical under GMP rules to the NCI JHAJJAR which is to be located at SITE.
	B. Together with the supply of the equipment, the proposal shall include support on:
	i. GMP layout proposal.
	ii. Building engineering file related to Pharmaceutical production.
	iii. GMP rules application (training and consultancy).
	iv. Marketing Authorisation for FDG.
	MEDIUM ENERGY CYCLOTRON:
	MEDIUM ENERGY CYCLOTRON: The Cyclotron energy must be at least 18 MeV or higher in order to allow production of conventional (F18-, 11CO2-, 11C-H4, 13NH3, O15, F2-18) and non-conventional radioisotopes (I-124,I-123, 64Cu, 89Zr, 86Y) with liquid, gas and solid targets.
	Technical descriptions of the cyclotron and the targets are given in Appendix 1.
	RADIOPHARMACEUTICAL PRODUCTION LABORATORY FOR THE PRODUCTION OF RADIOPHARMACEUTICALS UNDER GMP RULES
	A. FDG PRODUCTION:
	All the equipment necessary for FDG production should be with remote handling/ robotic arms hot cells for dispensing unit dose and distribution must be detailed.
	i. In particular:
	: the FDG Synthesis module will be described.
	: It must be a manual or auto-ejectable cassette system that will be installed in one hot cell with four mini- hot cells for synthesis of radiopharmaceuticals.
	: the quality control equipment will be selected according to latest version of European Pharmacopoeia
	iii. PET compounds production laboratory (including Iodine compounds):
	iv. All equipment necessary for PET compounds production must be detailed.
	Technical descriptions of the Synthesis units are given in Appendix 2.
	Technical descriptions of the laboratory equipment are given in Appendix 3.
	B. IODINE-124 & IODINE -123 PRODUCTION:

	All the equipment necessary for Iodine-124 & Iodine -123 production must be detailed.
	BUILDING ENGINEERING FILE RELATED TO RADIOPHARMACEUTICAL PRODUCTION
	The tenderers shall provide building engineering file in relation with the layout proposal for the project.
	Detailed description of this support is given in Appendix 4 .
	Prospective bidders may contact NCI Office, Room No 160 DBRAIRCH, AIIMS , New Delhi for drawings.
	GMP GUIDELINES APPLICATION (TRAINING AND CONSULTANCY)
	The layout including Air Class and Rooms Pressure will be detailed and must comply with GMP guidelines. The cyclotron supplier will provide a support on GMP guidelines application by giving training to local team and providing consultancy on FDG production process validation/Qualification.
	Detailed description of this support is given in Appendix 6 .
	MARKETING AUTHORIZATION FOR FDG
	The tenderers will give support to build the files for FDG Marketing Authorization submission to local authorities.
	Detailed description of this support is given in Appendix 7 .
	TRAINING
	i. Training shall be given on-site by the successful Tenderer to the End-User staff who will operate and/or maintain the equipment for a period of One month, so as to familiarize them with the working procedures and maintenance of the Supplies. The training shall be given in English.
	ii. All documents and software provided shall be in English language.
	iii. The offer should contain provisions for adequate training of the End-User staff covering both maintenance and operation.
	Detailed description of this support is given in Appendix 5.
	MAINTENANCE / SERVICING
	i. The offer shall describe the service organisation that will be available for the Equipment Maintenance. The outlines of service program should be included, as should conditions for scheduled service, response time and spare part delivery.
	ii. Proposals can be made in the offer for a service contract with four preventive maintenance visits with, as option, the possibility to make these preventive maintenance during the week-end.
	iii. The Supplier must describe his service contract and various options.
	iv. Trained Service Engineer should be stationed on-site on 24 hrs x7 days basis.
	v. As part of the contract, a remote support of 24 hrs x 7 days must be offered.
	vi. This 24 hrs x7 days support must give direct access to cyclotron engineer-specialist.
	vii. A proposal will be made for recommended spares parts and the Supplier should offer a list of cyclotron tools and support equipment.
	DOCUMENTATION
	One full set of documentation "User Guide & Maintenance Guide" in English and with metric units of measure relating to the Supplies will be supplied.
	WARRANTY
	: The offer should state what contractual obligations the Supplier can make concerning remedy, guarantee and service. As a minimum, the Supplier shall provide a full warranty (excluding consumables) for a period of at least FIVE YEARS on all equipment, including such provided by third party suppliers.
	APPENDICES:
	Appendix 1: Medium Energy Cyclotron – specifications

	Appendix 2: Synthesis modules for PET Production laboratory - specifications
	Appendix 3: Equipment for PET Production laboratory – specifications
	Appendix 4: Building engineering files - specifications
	Appendix 5: Training on equipment and User’s meeting
	Appendix 6: Support and training on GMP guidelines
	Appendix 7: Support on FDG Marketing authorization submission
S.No.	APPENDIX 1: MEDIUM ENERGY CYCLOTRON – SPECIFICATIONS
	The cyclotron supplied shall include all necessary components to meet the following minimum specifications.
	A1.1. Particle Acceleration and Beam Extraction Requirements
	i. A negative ion cyclotron shall be supplied.
	ii. It must include all power supplies, electronic devices, and the primary cooling system with heat exchanger, magnet system, Radio Frequency system, ion sources, beam extraction system, vacuum system.
	iii. It must be possible to control the cyclotron from several control stations.
	iv. Minimum Two number control station to be connected.
	v. The cyclotron shall be capable of producing and accelerating protons to an energy ≥ 15 MeV with maximum extracted proton beam current $\geq 150 \mu\text{A}$.
	vi. The cyclotron should be equipped with minimum one number proton source .
	vii. The changeover between protons on target to protons shall be 1 min or less.
	viii. The cyclotron shall be capable of simultaneously irradiating two targets.
	viii. The The Cyclotrons should be self-shielding type.
	A1.2. Vacuum / Power Consumption / Personnel safety / Decommissioning
	Vacuum
	i. The vacuum system must be highly reliable and simple to maintain. All O-ring seals should be accessible and easy to change with minimal radiation dose to the technologist.
	ii. The time required to establish the vacuum must not exceed thirty minutes.
	iii. In addition, the Tenderer must provide convincing evidence that the oil diffusion pump (if applicable) is able to establish and maintain the required vacuum, i.e. that the pump is not operating at the limit of its range and that down-time resulting from vacuum problems is small.
	Power Consumption
	The cyclotron should be low power requirements.
	The following table shall be completed by the tenderer:
	i. Cyclotron Medium Energy Current $150\mu\text{A}$: Stand-by mode kW
	ii. Operational mode kW
	iii. Total for 365 days (considering 6 hours/operation and 18 hours stand-by per day Power consumption: kW
	The following table regarding the building issue related to power consumption shall be completed by the tenderer:
	Power dissipated
	Cyclotron Vault kW
	Power Room kW
	Radiation safety

	The Cyclotrons should be of the self-shielding type and sufficient radiation shielding shall be incorporated in the vault design to ensure that the integrated equivalent dose (total gamma and neutron dose) limits detailed below in areas adjacent to the Cyclotron room shall be met (dose constraints shall be met at ≤ 1 m from the walls and above floor level in the indicated areas.
	Integrated equivalent dose during cyclotron operation for one hour at maximum sustainable beam current for dual F18- target proton irradiation (or dual F18- target irradiation at $2 * 75 \mu\text{A}$) shall be:
	$\leq 0.5 \mu\text{Sv}$ in any of the rooms above the cyclotron
	$\leq 0.5 \mu\text{Sv}$ in any rooms or plant rooms adjacent to the cyclotron
	$\leq 0.5 \mu\text{Sv}$ outside the cyclotron vault door entrance
	Personnel safety
	Equipment design concept shall be such that radiation exposures to operating personnel from leakage or from induced radioactivity (if any) in system components and accessories are minimised and under no circumstances exceed the relevant dose equivalent limits outlined by the Basic Safety Standards IAEA and AERB.
	Tenderer must describe their design and tools in order to demonstrate in which way it reduces personnel exposure.
	Decommissioning
	The Tenderer must detail how its cyclotron design will reduce the neutron activation of the vault and what are its recommendations for the vault design.
	A1.3. Cyclotron Control system
	Suitable computers shall be supplied for computer controlled operation of the cyclotron. Any additional computers or work stations and software required for full maintenance of the cyclotron and for problem diagnosis of both the cyclotron shall be provided. Required number of comp and soft ware for 2 control stations to be provided
	General Requirements for Control Computers
	i. All control computers shall be based on latest & standard compatible PCs.
	ii. All control computers shall run their respective standard operating systems.
	Cyclotron Control Computer
	i. The cyclotron control computer shall allow fully automated operation of the cyclotron, including but not limited to,
	a) Loading of target with target material
	b) Selection of target to be irradiated
	c) Selection of particle type and beam current
	d) Irradiation of target
	e) Transfer of radioisotope to the selected delivery point
	f) Automatically optimise and tune cyclotron operational parameters
	g) Monitor, display and record cyclotron operational parameters and provide alerts when abnormal conditions are detected.
	ii. Routine operation of the cyclotron shall not require the operator to enter the cyclotron room to manually operate valves, fill traps and targets, purge or prime systems, view system operation status etc
	iii. It should be possible to fully control the cyclotron operation from multiple computer work stations, installed at different locations and interlinked to the cyclotron via standard ethernet cabling (Cat 5 - UTP).Details of the function offered shall be provided

	iv. Interlocking between cyclotron control computers should be provided to ensure that only one of the control computers has control of cyclotron operation at any given time. Once one of the control computers has taken control of the cyclotron operation, other control computers should be locked out from controlling any of the cyclotron's operation until control is relinquished by the controlling computer.
	v. Full cyclotron operational information should be displayable on any of the work stations, including those not controlling the cyclotron at the time.
	vi. Details of the function offered shall be provided
	vii. The computer work stations should provide a simple and automated scheme to display, record, archive, recall and graph cyclotron operational parameters.
	viii. Details of the function offered shall be provided
	A1.4. Cyclotron Targets Requirements
	A. Target port - General Requirements
	i. Each target must be fixed at best position
	ii. There must be one beam exit port per target
	iii. Minimum Two number of exits ports required.
	iv. Each beam exit port must be equipped with one extraction system.
	v. Each extraction system must have at least two strippers
	B. Cyclotron Short-lived Isotope PET Targetry System - General Requirements
	The tenderer shall provide targets capable of producing [F18], [C11-CO2] or [C11-CH4], [O15], [N13], [I123] and [I124] radionuclides and related compounds according to the specifications below.
	a) The tenderer shall be capable of providing a complete target system including:
	i. Target body
	ii. All interconnections, fittings and control systems required to cool the target during irradiation
	iii. All interconnections, fittings, control systems and automated apparatus required to allow computer controlled filling of the target and transfer of the target contents to the hot-lab.
	iv. The tenderer shall be responsible for interconnecting the chosen targets to the hot-lab including, but not limited to, all plumbing, fittings, valves, tubing, flow meters and regulators which are required for this purpose.
	v. The tenderer shall be responsible for interconnecting the targets to the appropriate target material supply including all plumbing, fittings, valves, tubing, flow meters and regulators which are required for this purpose.
	vi. Loading and irradiation of the target and transfer of irradiated product to the hot-lab shall be controllable from the cyclotron control computer(s).
	b) A monitoring system shall be provided to monitor and control the targets as required during irradiation (pressure, cooling, beam current) and detect abnormal operation including target foil rupture. Warning messages shall be displayed on the cyclotron control computer when abnormal operation is detected.
	c) It shall be possible to mount at least six targets on the cyclotron at the same time.
	d) Transfer of irradiated target material to designated delivery points.
	e) It is highly desirable that for liquid targets, push-gas transfer of irradiated target material to the delivery points specified is used and described.
	f) For Solid targets, Automated extraction of radionuclide should be inbuilt.
	g) The targets and target control shall include safety features to limit accidental release of activity in case of target foil rupture. Irradiation of target shall stop when foil ruptures.

	h) Details shall be provided on how activity is contained following target foil rupture.
	i) Amount of expected release of activity following target foil rupture into cyclotron room shall be specified.
	j) Example must be given for a C11-CO2 target rupture with 3 Ci. The tenderer shall provide the following documentation for each target:
	i. Target body material and entrance window material
	ii. Target volume and normal operating pressure
	iii. Frequency of any regular maintenance (eg. cleaning, entrance foil replacement etc.) required for the target expressed in terms of $\mu\text{A}\cdot\text{hr}$ irradiation time.
	iv. Full specifications of required target material, including, but not limited to, required purity, isotopic enrichment.
	v. Data demonstrating reliable and consistent operation of target for > 1 yr.
	vi. Time required to remove entrance foil from target body during maintenance of target.
	C. Target Production Rate Requirements
	i. The supplied targets shall meet the production rates shown in the table “Targets Yields”
	ii. It is highly desirable that the production rates are achieved with single target irradiation. The tenderer shall indicate in the table whether dual target irradiation is required to meet the production rate specification.
	iii. If a high yield target is available as an option for any of the targets, then the specifications for the high yield target shall be given in the table below and the high yield target shall be offered in response to this tender.
	iv. The following table shall be completed by the tenderer. The beam current for the specification shall be less than or equal to the maximum recommended for the target.
	Target Production Rate Requirements The supplied targets shall meet the production rates shown in the table “Targets Yields” : table : TARGET YIELDS is included as a separate sheet.
	D. Target Line Switching:
	i. Valves and associated controls shall be provided to direct irradiated target material to a choice of delivery points as follows.
	ii. It shall be possible to select the different delivery points using suitable valves under the control of the cyclotron control computer.
	E. [F18]F- Switching module
	i. The irradiated material from all the [F18]F- targets mounted on the cyclotron shall be able to be transferred to the hot cells designated for synthesis using [F18]F-
	ii. For dual target irradiation, it shall be possible to transfer material from both targets to a single F18 Synthesis Unit
	iii. The [F18]F- switching module must have at least 6 inputs and 6 outputs
	F. [C11]CO2 Switching module
	i. The irradiated material from all the [C11]CO2 targets mounted on the cyclotron shall be able to be transferred to the hot cells designated for synthesis using [C11]CO2
	ii. For dual target irradiation, it shall be possible to transfer material from both targets to a single [C11]CO2 Synthesis Unit
	iii. The [C11]CO2 switching module must have 4 inputs and 2 outputs

	G. Cyclotron Solid Targetry System
	The cyclotron shall be capable of irradiating a solid target. Thus an external beam port allowing the uncomplicated attachment of a solid target assembly shall be offered
	Any restrictions on the provision of an external beam port suitable for attaching a solid target assembly and thus irradiating a solid target shall be specifically stated.
	A list of references of similar systems shall be given (system with minimum three references will be accepted)
	i. Any restrictions on the capacity of the solid-target external beam port with its attached solid target to be operated simultaneously with, and independently of, any one of the short-lived PET-isotope targets, shall be stated.
	ii. Data on the maximum proton beam current typically available for solid target irradiation shall be provided. (protons)..... μ A
	iii. Each tenderer for the cyclotron shall provide full specifications of recommended configurations of their machine for the irradiation of solid targets. If more than one option exists, all options will be fully described using schematic diagrams.
	iv. It is highly desirable that the Tenderer's targets, rather than third party targets, are offered. All targets offered mainly for guarantee and maintenance should be from the Tenderer.
	H. Examples of R&D using the cyclotron:
	i. The tenderer shall specify an ongoing active research and development program, either in-house, or in collaboration with other organizations, citing innovative applications of the cyclotron, novel developments in targetry and so on. The tenderer shall specifically supply examples of R&D additional to medical applications of the PET isotopes.
	ii. The tenderer shall specifically cite examples of active R&D programs using solid targetry that utilise the type of cyclotron the tenderer is advocating in their response to this tender.
	iii. Partnership / Network:
	The tenderer shall demonstrate his involvement in new PET compounds development and how he could be a partner to the Buyer by giving access to a network and/or to proprietary molecules.

APPENDIX 1: MEDIUM ENERGY CYCLOTRON – SPECIFICATIONS

Target Production Rate Requirements

The supplied targets shall meet the production rates shown in the table "Targets Yields"

Table "Target Yields"

Target Required Production	Activity @ EOB/irradiation time	Rate Specification		
		Dual Target Irradiation Required to Meet Specification	Production Rate Achieved with Single Target @ Beam current	Production Rate Achieved with Dual Target @ Beam current
F18- (very high yield)	≥ 333 GBq / 120 min	≥ 9 Ci / 120 min	..... GBq / 120 min	..... GBq / 120 min
			@ μ A	@ μ A
F18-	≥ 185 GBq / 120 min	≥ 5 Ci / 120 min	..... GBq / 120 min	..... GBq / 120 min

(high yield)			@ μ A	@ μ A
F18- (research)	≥ 59 GBq / 120 min	$\geq 1,6$ Ci / 120 min	..... GBq / 120 min @ μ A	..... GBq / 120 min @ μ A
CO2 11	≥ 111 GBq / 30 min	≥ 3 Ci / 30 min	..... GBq / 120 min @ μ A	..... GBq / 120 min @ μ A
C11H4	≥ 37 GBq / 30 min	≥ 1 Ci / 30 min	.....GBq / 30 min @ μ A	.....GBq / 30 min @ μ A
F18 2 (proton)	≥ 44 GBq / 60 min	$\geq 1,2$ Ci / 60 min	.....GBq / 60 min @ μ A	.....GBq / 60 min @ μ A
F18 2 (deuteron)	$\geq 9,25$ GBq / 60 min	$\geq 0,25$ Ci / 60 min	.....GBq / 60 min @ μ A	.....GBq / 60 min @ μ A
13NH3	≥ 15 GBq / 15 min	$\geq 0,4$ Ci / 15 min	.....GBq / 15 min @ μ A	.....GBq / 15 min @ μ A
15O2 Continuou s	$\geq 18,5$ GBq / min	$\geq 0,5$ Ci / min	Not Applicable Not Applicable	.....GBq / 15 min @ μ A

APPENDIX 2: SYNTHESIS UNITS FOR PET PRODUCTION LABORATORY - SPECIFICATIONS

A. General Requirements

The automated radiochemistry synthesis units shall be provided with all components, control systems and computers required to allow fully automated operation, including transfer of irradiated target material to synthesis unit, synthesis of product and transfer of product into dispensing system.

The synthesis units shall be housed in the hot cells specified in Appendix 3

Details of special requirements, if any, for the hot cells shall be provided.

i. It is highly desirable that the synthesis units have in-built detectors with computer readout display to allow the operator to monitor the radioactivity in the synthesis unit and follow the progress of the synthesis.

ii. Data from the in-built detectors shall be able to be logged by the computer.

iii. Details of the log file format shall be provided.

	iv. Required consumables to be provided with each synthesis unit to allow at least 100 batches to be produced for testing purposes.
	v. The tenderer shall provide full details of the consumables required for the synthesis unit and their costs.
	vi. Some consideration will be given to synthesis units not made by the cyclotron vendor. The synthesis unit's ability to meet or exceed the specifications will be an important assessment criterion.
	B. [F18]FDG Synthesis Units
	i. The two [F18]FDG Synthesis Units (to be located in one dedicated hot cell) shall meet the following requirements:
	ii. The non-decay corrected radiochemical yield of FDG at end-of-synthesis (EOS) shall be no less than 55%. and must be part of the tests for modules acceptance:
	iii. Radiochemical yield %
	iv. (Radiochemical yield is defined as the FDG activity at EOS divided by the F18-activity in the FDG Synthesis Unit at beginning of synthesis x 100).
	v. The total time of FDG synthesis shall be ≤ 30 min : FDG synthesis time .....min.
	vi. Each FDG Synthesis Unit shall be capable of ≥ 4 runs in one day.
	vii. Is manual clean up or change of reagents or fittings required between runs on the one day?
	viii. Are the modules equipped with a cassette system?
	ix. Are the modules able to automatically eject the cassette at the end of synthesis?
	x. The maximum dose rate from the FDG Synthesis Unit 1 hour after the end of a synthesis using 37 GBq of F18- shall be specified in $\mu\text{Sv/hr}$ at a distance of 30 cm from the synthesis unit $\mu\text{Sv/hr}$
	xi. The tenderer shall specify the time required for set-up and clean-up between runs. ....min
	xii. The total radioactive release during an FDG synthesis and radioactive waste recovery at end of FDG synthesis using 37 GBq of F18- in the synthesis unit shall be specified.
	xiii. Activity released into hot cell: MBq
	xiv. Radioactive waste collected in waste containers: MBq
	xv. The FDG Synthesis Unit shall incorporate [O18] H ₂ O collection.
	xvi. It is highly desirable that programming tools and documentation required for user modification of FDG synthesis unit software be provided. Will programming tools and documentation be provided with the system?
	xvii. The FDG Synthesis Unit shall be capable of producing FDG of a quality suitable for human injection and with specifications meeting those of the European Pharmacopoeia (latest version) for FDG
	xviii. The tenderer shall specify maximum allowable distance permitted between the Unit in the hot cell and the associated electronic control module and control computer located external to the hot cell m
	xix. The FDG Synthesis Unit shall be also a platform that allows making other molecules
	xx. Other molecules currently available on same platform are:
	1)
	2)
	3)
	xxi. Other molecules in development on same platform that will be available within one year from this tender date are:
	1)

	2)
	3)
C. [F18]-COMPOUNDS SYNTHESIS UNITS	
a) F18-Choline:	
	The [F18]Choline Synthesis Units (to be located in one dedicated hot-cell) shall meet the following requirements:
	i. The F-Choline Synthesis Units shall be capable of interfacing with the cyclotron and targetry system offered as part of this tender.
	ii. The non-decay corrected radiochemical yield of FDG at end-of-synthesis (EOS) shall be no less than 18% and must be part of the tests for modules acceptance:
	iii. Radiochemical yield %
	(Radiochemical yield is defined as the F-Choline activity at EOS divided by the F18 activity in the F-Choline Synthesis Unit at beginning of synthesis x 100).
	iv. The total time of F-Choline synthesis shall be ≤ 50 min
	v. F-choline synthesis time min
	vi. Each F-Choline Synthesis Unit shall be capable of ≥ 2 runs in one day.
	vii. Is manual clean up or change of reagents or fittings required between runs on the one day?
	viii. Are the modules equipped with a cassette system?
	ix. Are the modules able to eject automatically the cassette at the end of synthesis?
b) F18 LT	
	The [F18 LT] Synthesis Units (to be located in one dedicated hot-cell) shall meet the following requirements:
	i. The FLT Synthesis Units shall be capable of interfacing with the cyclotron and targetry system offered as part of this tender.
	ii. The non-decay corrected radiochemical yield of FLT at end-of-synthesis (EOS) shall be no less than 15% and must be part of the tests for modules acceptance.
	iii. Radiochemical yield %
	(Radiochemical yield is defined as the FLT activity at EOS divided by the F18-activity in the FLT Synthesis Unit at beginning of synthesis x 100).
	iv. The total time of FLT synthesis shall be ≤ 50 min
	v. FLT synthesis time min
	vi. Each FLT Synthesis Unit shall be capable of ≥ 2 runs in one day.
	vii. Is manual clean up or change of reagents or fittings required between runs on the one day?
	viii. Are the modules equipped with a cassette system:
	ix. Are the modules able to eject automatically the cassette at the end of synthesis?
c) NaF18	
	The NaF18 Synthesis Units (to be located in one dedicated hotcell) shall meet the following requirements:
	i. The NaF18 Synthesis Units shall be capable of interfacing with the cyclotron and targetry system offered as part of this tender.
	ii. The non-decay corrected radiochemical yield of NaF18 at end-of-synthesis (EOS) shall be no less than 80% and must be part of the tests for modules acceptance:
	iii. Radiochemical yield %
	iv. (Radiochemical yield is defined as the NaF18 activity at EOS divided by the F18- activity in the NaF18 Synthesis Unit at beginning of synthesis x 100).

	v. The total time of NaF18 synthesis shall be ≤ 10 min
	vi. NaF18 synthesis time min
	vii. Each NaF18 Synthesis Unit shall be capable of ≥ 4 runs in one day.
	viii. Is manual clean up or change of reagents or fittings required between runs on the one day?
	ix. Are the modules equipped with a cassette system?
	x. Are the modules able to eject automatically the cassette at the end of synthesis?
	D. [C11] – COMPOUNDS SYNTHESIS UNIT
	a) [C11] Methyl Iodide ([C11]MeI) Synthesis Unit
	The [C11] Methyl Iodide Synthesis Unit ([C11]MeI) shall meet the following requirements:
	i. The [C11] MeI Synthesis Unit, located in dedicated hot-cell, shall be capable of interfacing with the cyclotron and optional [C11] targetry system offered as part of this tender.
	ii. Starting from [C11]CO ₂ , the radiochemical yields of [C11]MeI shall be $>30\%$ at end-of-synthesis (not decay corrected)
	iii. The time of [C11]MeI synthesis shall be <15 minutes
	iv. Synthesis time: min
	v. The conditions (eg number of prior priming runs, target gas purification) required to meet these specifications shall be specified.
	vi. Specific activity when 19 GBq of [C11]MeI is produced GBq/ μ mol
	vii. The [C11]MeI shall be capable of ≥ 5 runs in one day without requiring manual change of reagents, consumables and fixtures by the operator between runs
	viii. The time between sequential syntheses shall be 30 minutes or less
	ix. Minimum synthesis “turn-around” time: min
	x. It is highly desirable that programming tools and documentation required for user modification of [C11]MeI synthesis unit software be provided. Will programming tools and documentation be provided with the system?
	xi. The tenderer shall specify maximum allowable distance permitted between Synthesis Unit in the hot cell and associated electronic control module and control computer located external to the hot cell m
	xii. Does the [C11]MeI Synthesis Unit have the option of producing [C11]Methyl Triflate ([C11] MeTf) ?
	xiii. Is it possible to link the [C11]MeI Synthesis Unit with an optional producing unit of [C11]Methyl Triflate ([C11] MeTf) ?
	xiv. Is it possible to link the [C11]MeI Synthesis Unit with an optional labeling unit where precursors in solution are coated on the internal surface of a custom HPLC injection loop ?
	xv. The [C11]MeI or [C11]Tf gas will be trapped by the solvent and reacts with the precursor through a loop system. Are the efficiencies are greater than 90%
	xvi. Does the reaction occur in a closed loop at room temperature?
	xvii. Does the system allow producing Acetate?
	E. [O15] – COMPOUNDS SYNTHESIS UNITS
	a) [O15]Water Radiochemistry Synthesis Unit- OPTIONAL
	An optional automated radiochemistry synthesis unit for producing H ₂ 15O from 15O ₂ gas and meeting the following specifications shall be quoted for :
	i. Synthesis yield decay corrected to EOB shall be $\geq 80\%$
	ii. It is highly desirable that the minimum time between each series of production runs be ≤ 10 min. Minimum time between production runs min
	iii. All necessary furnaces, control equipment etc required for the operation of the

	synthesis unit shall be provided
	iv. The synthesis unit shall be able to produce H2 15O in batch mode
	v. It is highly desirable for the synthesis unit to be able to produce H2 15O in continuous mode. Is synthesis unit capable of producing H2 15O in continuous mode?
	vi. A suitably shielded synthesis unit that can produce H2 15O remote from the cyclotron at the “camera couch” shall also be offered as an option
	vii. Detailed specifications of the optional “camera-couch” synthesis unit shall be provided
	F. [O15] Gas Processing Unit
	The tenderer shall provide costing and technical specifications of gas processing systems to optionally produce radioactive gases meeting the following specifications
	The gas processing system shall contain all necessary equipment, including furnaces to allow the production of the following radioactive gases.
	· [O15]CO batch and continuous mode
	· [O15]CO2 batch and continuous mode
	Synthesis times and synthesis yields shall be specified for all the radioactive gases produced by the gas processing unit
	Radioactive gas shall be switchable to the required hot cell or PET camera room or to the shielded radioactive waste gas collection system
	G. [F2-18] SYNTHESIS UNIT
	[F2-18]-FLUORODOPA Module
	i. The Fluorodopa Synthesis unit capable of nucleophilic synthesis processes - F-Dopa, F-Tyrosine and all fluorinated compounds.
	ii. The non-decay corrected radiochemical yield of NaF18 at end-of-synthesis (EOS) shall be no less than 20% and must be part of the tests for modules acceptance:
	iii. Radiochemical yield %
	iv. The total time of F-Dopa synthesis (HPLC and F2-18 transfer time included) shall be ≤ 40 min
	v. F-Dopa synthesis time min
	H. [124-IODINE] - RECOVERY UNIT & [123-IODINE] - RECOVERY UNIT
	The [124-Iodine, 123-Iodine]-Recovery unit shall be capable of performing an automated thermo-chromatographic separation of radionuclides of iodine from tellurium oxide targets irradiated on the solid target.
	The following table shall be completed by the tenderer
	i. Radiochemical purity > ... % of Iodide (I-123, I-124)
	ii. Recovery > ... % radioiodine in the product vial
	iii. TeO2 losses per batch ≤ ... mg / cycle
	APPENDIX 3: EQUIPMENT FOR PET PRODUCTION LABORATORY - SPECIFICATIONS
	A. General Requirements
	The design and function of the equipment offered are considered to have a critical impact on the overall operation of the unit and production of the required radiopharmaceuticals, especially regarding GMP guidelines. Preference will be given to proven designs.
	References list will be provided.
	Technical datasheets on each equipment offered will be provided
	B. Hot Cell for two FDG Synthesis Units:
	The hot cells shall meet the following requirements.

	One Single Production Hot Cell made of 90 mm lead shielding Front Face and 75mm lead shielding (stainless steel finishing) shall be made to house up to two FDG Synthesis units.
	It shall be equipped with a shielded drawer in order to collect the cassette that will be ejected from the FDG Synthesis Unit(s).
	C. Dispensing system for FDG from the FDG Synthesis Unit:
	a) The Dispensing system includes
	i. one hotcell made of 75mm lead shielding (stainless steel finishing) with Laminar Flow Class A.
	ii. one automatic dispenser for vials (syringe must be also possible and offered as option).
	b) At a minimum, it allows the following operations to be performed “hands off”, without opening the door of the hot cell:
	i. Dispensing of selectable volumes from the product vial into other vials
	ii. Lowering the sample vials into the dose calibrator for activity assay
	iii. Remove vials from the cell in a shielded container without compromising the integrity of the laminar air flow or air-tight seal
	D. Quality Control Equipment for FDG
	a) Quality Control Equipment for FDG must be selected in order to allow performing tests according to the European Pharmacopoeia (latest version).
	b) At least the following equipment shall be offered:
	i. One HPGe detector coaxial 50 keV to 2 MeV, 10% efficiency, FWHM resolution 2 keV, lead shielding 5cm w/th Cu lining, digital spectrum analyser and related software.
	ii. High Pressure Liquid Chromatography (HPLC) – 2 Nos (QC & Separation)
	iii. Gas Chromatograph (GC) – 1No
	iv. Thin Layer Chromatograph (TLC) -1No
	v. Dose Calibrator – 4 Nos (2 for PET 511 keV and 2 for SPECT)
	vi. Digital pH meter – 1No
	vii. Water bath 20 to 25 L – 1No
	viii. Table top autoclave 20 to 25 L – 1No
	ix. Deep Freezer -40deg, 200-250L – 2 Nos
	x. Analytical balance as per requirement – 2 Nos
	c) Equipment for safe handling of the samples must be included.
	d) Quality Control equipment for Endotoxin Tests and Sterility Tests on site shall be offered including the respective enclosures.
	e) The layout proposal must take into account that these tests will be made internally and consequently must be in line with GMP guidelines.
	E. Radiation Monitoring Equipment
	a) A radiation monitoring system including (but not limited to) the following specifications should be supplied:
	b) Two nos of Gamma Monitor (GM) type area survey monitors, as required are to be installed in the appropriate locations of the PET laboratories.
	c) Each area survey meter shall meet or exceed the following specifications:
	i. sensitivity range from 0.5 µSv/h to 100 mSv/h
	ii. an energy compensated response
	iii. visible display of dose rate
	iv. audible and visual alarm with adjustable threshold
	v. A data logging and record system shall be supplied and installed.

	vi. One Stack monitoring system.
	vii. Neutron monitor : 4 no. (price to be quoted separately)
	F. Other Equipment
	a) All other equipment related to the installation of the Synthesis Units (and/or recovery unit for Iodine-124) and other solid targeting products like Cu 64, Zr 89 etc. Should be included in the scope of supplies shall be priced (item per item).
	b) Hot cells for these Synthesis units shall be described as well as one dispensing system for other compounds than FDG.
	c) Other equipment (for example, fridge for reagent storage) shall be offered and technically described.
	<u>APPENDIX 4: BUILDING ENGINEERING FILE - SPECIFICATIONS</u>
	Bidder is responsible for construction of complete building including all associated turnkey works including design .Bidder shall be responsible for complete design of building as per AERB requirement and other statutory requirements. The bidder should ensure structural stability of proposed building.
	It should be compliant to all applicable international, national and local regulations & standards
	Bidder is responsible for getting all regulatory approvals for building construction, electrical installation etc in coordination with the institute.
	The GMP layout proposal will be revised with the end-user after contract signature
	Once agreed upon, the successful Tenderer shall work, in full consultation with the Buyer Project Manager, in preparing detailed site plan for the installation of the cyclotron and associated equipment.
	The site plan shall include all requirements for the operation of the cyclotron and associated equipment in accordance with the Specifications.
	The proposal of tenderers must include the price of building engineering files as described here below:
	Scope of the work includes
1	Civil works
2	HVAC works
3	Electrical works
4	Plumbing & Sanitary Works
5	Fire Extinguishers
6	LAN Networking
7	Interior Furnishing & Furniture
8	Any other work which is not mentioned, but essential for completing installation and commissioning of cyclotron .
1	CIVIL WORKS
	Bidder is responsible for construction of building including Architectural , Structural design of the building .
	Bidder is responsible for Vault Construction, Shielding meeting all applicable international, national and local regulations & standards.
	Civil construction work including construction of brick wall, plastering, flooring ,False ceiling works as per the approved plan and equipment layout plan.
	Cable tray, trench & channel – necessary trenches, cable tray and channels at required location should be provided.
	All the construction work to be done as per the final plan approved by the Consignee.
	An Approximate area of 2500 square feet should be considered. Approximate room dimensions are mentioned below. Cyclotron Room...7.5 m X 7.5 m Control room.....4m X 4 m Chiller room...3.5 m x 3.5 m

	<p>UPS Room..... 5m X 5 m Radiochemistry Lab 1.....6m X 5m Radiochemistry Lab 2.....6m X 5m QC room.....6m X 5m Office Area.... 5 m x 4 m Allied Facilities.</p>
a)	Flooring
	Floor surface of Vault : The floor surface should be hard, washable, and smooth. The concrete surface should be painted or covered with an epoxy coating, so that there will be a minimum of dust collected and contamination can be removed.
	Work surfaces : There should be some work surfaces, either inside the vault or in an area immediately adjacent to the vault, that are set up for carrying out radioactive work. These surfaces are essential for the routine maintenance and repair work on the cyclotron. The work surfaces should be resistant to chemicals and solvents, smooth, and easy to clean. They should not generate dust.
	Floor drains : The floor of the vault must contain drains for water. There should be hoses that break and, during maintenance, it is often necessary to remove water from the water lines. These drains should be normally connected to the sanitary sewer system. They may also be tied into a hold up system, for the water to be checked for radioactivity, before it is released into the sanitary sewer system. The holdup system is preferable,.
	Floor loading : The floor underneath the cyclotron and vault must be strong and thick enough to bear these weights. There should be minimum floor thickness of 40-50 cm for the self-shielded version of the cyclotron.
	Shielding thickness : The thickness of the shielding around the cyclotron vault should be suitable. to reduce the neutron flux during the operation of the machine and it should be as per national and international standard . Final testing should be done using a reaction which produces a lot of neutrons.
	Penetrations : Penetrations through the wall of the vault (to accommodate power cables, control cables, and gas supply and water lines) should not provide direct line of sight access to the vault. The penetrations should be at an angle or have an S-shaped curve. if it is necessary to run more than one type of utility in a single trench, then they should be separated vertically with the water lines on the bottom and the electrical conduits or lines supported at least 3-4 cm above the bottom of the trench. The trenches should have drains to the sanitary sewer system to prevent water leaks from flooding the cyclotron vault
	Conduit and cable tray contents : Conduits and cable trays should carry both power and control signals from the cyclotron to the control room, from the cyclotron and control rooms to the equipment room, and perhaps from the cyclotron to the chemistry laboratory. The cables in the high radiation area should be insulated with a radiation resistant material. The position and function of each single cable should be well documented. Power and signal cables should be separately routed
	Flooring of Areas other than Vault should be 2mm thick vinyl sheet as per approved make.
	The walls of radiochemical lab should be thick concrete (on the order of 40cm) meeting with national and international regulation.
b)	Painting
1	Two coats Plastic Emulsion Paint over 2 coats of wall putty including primer in..... roomsetc.
c)	False Ceiling

1	Acoustical tile for ceiling with light weight insulating material of high quality supported on grid or finished seamless with support above ceiling. Finished with white paint or powder coated with white paint, if metallic.
	A. Architectural Design
	a) Overall layout
	b) Highlights of building specific aspects such as (but not limited to):
	: Cyclotron connections
	: transfer line trenches
	: clean room & lab finishing aspects
	c) 1/100 scaled plans and sections of the concerned part of the building
	d) Architectural Basic Design shall be offered and scope of supplies will include above files
	B. Structural design
	a) Load capacity for supplied heavy equipment on architectural drawings.
	b) Structural Design information shall be given
2	HVAC Design
a	Bidder is responsible for design, supply, installation and completion of HVAC system for the building as per international standards.
b	HVAC system of the building must provide necessary the necessary environmental condition suitable for each equipment.
c	Bidder is responsible for supply and installation of chillers, AHU, ducting ,grills etc. The ducts should be properly thermally insulated.
c	Humidity control should be effective to eliminate moisture condensation on equipment surface. The Air conditioning should be designed to function 24 hours a day.
d	Temperature : 20 ± 2 degree Celsius
e	Humidity : 50 -60 %
f	Number of air changes per hour should be as per international standards. Please specify the number of air changes per hour.
f	Bidder shall install and commission an external chiller with all necessary piping to provide cooling facility for cyclotron. The external chiller could be common for both cyclotron and building HVAC system provided that it is fully automated and capable of keeping chilled water temperature within ± 2 degree Celsius of above mentioned value.
g	Radiochemistry lab room should be well ventilated at a negative pressure and maintained at a comfortable temperature using appropriate heating and air conditioning.
h	HVAC Design shall be offered and scope of supplies will include above files
	i) Air conditioning, heating and cooling system – aeraulic and hydraulic diagrams
	ii) Cooling system including chilled water for technical equipment cyclotron) cooling
	iii) Definition and dimensioning of ventilation equipment
	iv) Unifiliar drawings of ducts, piping and ventilation grids
	v) Specification book for tendering
	vi) Establishment of a B.O.Q. (bill of quantity)
3	ELECTRICAL WORKS
a	Bidder is responsible for design, supply, installation and completion of Electrical system for the building as per international standards.

b	The supplier shall be required to specify the total load requirements for the building including the load of air conditioning , room lighting and for the accessories if any. The institute will provide one point electrical, water, & drain supply.
c	Bidder has to supply, install and commission suitable online UPS with one hour back up to support entire facility including equipment,HVAC system and peripheral lighting. Please specify the UPS capacity.
d	Bidder has to provide a backup of 250 KVA Diesel Generator with AMF panel for the proposed facility
c	The electrical work shall include the following:
i	Main distribution panels and Cabling
ii.	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.
iii.	Switches light and power points should be of modular type and of standard make as listed below.
iv	General lights –LED light fittings with suitable Lux Illumination as per international standards
v	Low impedance grounding system for the building should be installed.
vi	Obtaining local regulatory approvals if any.
4	PLUMBING ,SANITRAY WORKS AND COMPRESSED AIR SUPPLY
a	Bidder is responsible for complete plumbing system for the building including cold water supply, hot water supply and proper drainage.
b	Supply, installation and commission of water pumps, water tanks, piping ,valves etc
c	All water pipes and fittings shall be of high density polythene of approved and standard make. The gratings shall be brass chrome plated. All plumbing accessories should be of standard make
d	Wash basins/sinks has to be provided as per the layout of approved drawing.
e	Bidder is also responsible for supply and installation of air compressor .Air outlets should be provided as per the layout of approved drawing
f	Bidder is responsible for submission of
	i) Description and unifiliar drawings for waste disposal, cold water, hot water, waste water, compressed air and gas systems.
	ii) Dimensioning of the installations with the detailed design drawings of the installations with dimensions required for tendering, excluding specific locally agreed systems for potentially activated waste water treatment after decay (customers'charge).
	iii) Specification book
	iv) Establishment of a B.O.Q. (bill of quantity)
	v) Sanitary & Fluids files shall be offered and scope of supplies will include above documents
5	FIRE FIGHTING
	Bidder should provide effective firefighting system. Bidder should provide fire sprinkler system For the building. Safety clearance from the concerned authority has to be obtained by the bidder.
6	LAN CABLING
	Bidder is responsible for installation and commission of LAN cabling for the building. Broad band facility has to be provided by the bidder.
7	INTERNAL FURNISHING AND FURNITURE
a)	Revolving chairs height adjustable, High-back with hand-rest 3 Nos

b)	Revolving chairs height adjustable, medium-back with hand-rest 8 Nos.
c)	Visitors chairs low-back with hand-rest... 6 nos
d)	Staff tables ----- 2 Nos
e)	Name boards for all rooms
f)	Dustbins: - 10 no.s
g)	Wooden cupboards for storing spares,document,consumables - 15 nos
LIST OF ITEMS AND SUGGESTED MANUFACTURERS.	
	ITEMS PREFERRED MAKES
A	Vinyl Sheet .....Armstrong, Gerfloor, Tarkett
B	PAINT - Dulux, Asian Paints , Nerolac
C	PLUMBING - Kohler, Jaguar , Grohe , Roca
D	SANITARY ITEMS - CERA, Hindware, Parryware
E	ELECTRICAL
1	UPS - APC,Emerson,Hitachi
2	DG set Engine - Cummins / Caterpillar / Kirloskar
3	Alternator - Stamford / Kirloskar / Leroy somer / BHEL
4	CABLES - Finolex, Havells ,V-Guard
5	SWITCHES - Legrand, L&T, Crabtree , Roma
6	DISTRIBUTION BOX , MCB - Legrand, L&T, Siemens, Havels
7	LIGHT FITTINGS - Philips / Crompton / Wipro/syska
F	AIR CONDITIONING /Chiller - Daikin, Blue Star, Hitach
G	FURNITURE - Hermen Miller , Godrej , Featherlite,Wipro
G. GMP turnkey references list	
Expertise in building GMP compliant PET laboratories must be given by providing a references list.	
References list of successful project realisation including building engineering and GMP support will be supplied.	
The GMP layout proposal will be revised with the end-user after contract signature.	
APPENDIX 5: TRAINING ON EQUIPMENT AND USER'S MEETING	
A. Training on equipment:	
A description of each training course will be given and must include, at least the following training:	
B. Cyclotron operation training:	
One Month training at On-site for four trainees of Buyer Staff having good command of English. The training will cover daily routine operation of the cyclotron.	
C. Cyclotron maintenance training:	
Two weeks training On-site on preventive maintenance and first line trouble shooting at manufacturer's premises for four trainees of Buyer Staff having good	

	command of English.
	D. FDG Synthesis units training:
	Two weeks training at On-site for up to four radio-chemists of Buyer Staff having good command of English. The training will cover daily operation of FDG synthesis unit.
	PET radio-chemistry modules training :
	A minimum One week training per module supplied at On-site for up to four radio-chemists of Buyer Staff having good command of English. The training will cover operation of each radio-chemistry modules supplied.
	E. Quality Control training:
	One week training at On-site for up to four radio-chemists of Buyer Staff having good command of English. The training will cover the use of the Quality Control equipment.
	F. Advanced technical training:
	The tendered must mention the additional training courses that are available and that are dedicated to experienced technicians.
	For example, specialised training on Radio-frequency for which the goals are fine tuning, advanced trouble shooting and corrective actions.
	G. Global support
	User's meeting:
	Tendered is requested to provide information on User's meetings that have been previously organized by the company. It must describe the content and give the participants feed-back.
	APPENDIX 6: SUPPORT AND TRAINING ON GMP GUIDELINES
	A. Support on GMP Guidelines:
	i. The tenderer must quote his support for the pharmaceutical Validation / Qualification of the site regarding the pharmaceutical production process of F18DG.
	ii. References of similar projects must be given. Evidence that these projects have been successfully supported by cyclotron manufacturer team must be given.
	iii. Quality audits of the pharmaceutical process will be also offered, as option
	iv. Tenderer must have the internal expertise in his company to provide support on Validation and Qualification of the Site:
	v. How many GMP sites certified in Europe have been put in operation by the Tenderer? sites.
	vi. How many GMP compliant sites (outside Europe) have been realized by the Tendered? sites.
	vii. How many GMP sites certified in Europe belong to the Tenderer? sites.
	B. Training on GMP Guidelines:
	Quality assurance advanced training
	One week training at On-site for up to four radio-chemists or radio-pharmacists of Buyer Staff having good command of English. The training will cover education to GMP guidelines; Quality Control and FDG process requirements.
	APPENDIX 7: FDG MARKETING AUTHORIZATION - SUPPORT
	The tenderer will provide the deliverables to support the preparation of the final submittal file to local authorities for obtaining the Market Authorization for FDG manufacture.
	All deliverables will be in English language and in accordance with European Good Manufacturing practice.

B. GENERAL POINTS:**1. Warranty:**

- a) The bidders must quote for Five years Comprehensive Warranty as per Conditions of Contract of the bidding document for complete equipment (Including all spares, labour and third party items) and Turnkey Work (if required) from the date of satisfactory installation, commissioning, trial run, handing over and acceptance of the goods by the User Department.
- b) The warranty charges shall not be quoted separately.
- c) All software updates should be provided free of cost during Comprehensive Warranty period.
- d) During the Warranty period, desired Uptime of 95% of 365/366 (Leap Year) days (24 hrs), if downtime more than 5%, the warranty period/CAMC period will be extended by double the downtime period. Complaints should be attended properly, maximum within 8 hrs.

2. After Sales Service:

After sales service centre should be available at the city of Institution on 24 (hrs) X 7 (days) X 365 (days) basis. Complaints should be attended properly, maximum within 8 hrs. The service should be provided directly by Bidder/Indian Agent. Undertaking by the Principals in the "Manufacturer Authorisation Form" that the spares for the equipment shall be available for at least 10 years from the date of supply of equipment.

3. Training:

On Site training to Doctors/ Technicians/ staff is to be provided by Principal/Indian Agents (if they have the requisite know-how) for operation and maintenance of the equipment to the satisfaction of the User Department.

4. Comprehensive Annual Maintenance Contract (CAMC) of subject equipment:

- a) The cost of Comprehensive Annual Maintenance Contract (CAMC) which shall include preventive maintenance including testing & calibration as per technical/service/ operational manual of the manufacturer, labour and all spares, after satisfactory completion of Warranty period may be quoted for next five years on yearly basis for complete equipment including third party items as per Price Schedule.
- b) The cost of CAMC may be quoted along with GST applicable on the date of Bid Opening.
- c) Cost of CAMC will be added for Ranking/Evaluation purpose on NPB basis.
- d) Before commencement of CAMC period, the suppliers shall furnish a Performance Bank Guarantee for 2.5% of the cost of the equipment (as per Performa given in bidding document) valid till 3 months extra after expiry of entire CAMC period. The Performance Bank Guarantee for CAMC will be applicable in case of equipment cost is more than Rs.10 lakh.

- e) All software updates should be provided free of cost during CAMC. In case of failure by the supplier, the Bank Guarantee of CAMC will be forfeited.
- f) The payment of CAMC will be made on half yearly basis after satisfactory completion of said period duly certified by end User.
- g) During the CAMC period, desired Uptime of 95% of 365/366 (Leap Year) days (24 hrs), if downtime more than 5%, the warranty period/CAMC period will be extended by double the downtime period. Complaints should be attended properly, maximum within 8 hrs.

5. Uptime & Downtime Penalty Clause:

- a) The firm should provide uptime guarantee of 95% during warranty period and CAMC period.
- b) During the Warranty period and CAMC period, desired Uptime of 95% of 365/366 (Leap Year) days (24 hrs), if downtime more than 5%, the warranty period/CAMC period will be extended by double the downtime period. Complaints should be attended properly, maximum within 8 hrs.

6. Turnkey Work:

Turnkey Work is to be indicated in the Technical Specification wherever required. The Bidder shall examine the existing site where the equipment is to be installed, in consultation with User Department. The Bidders are required to quote separately for the equipment and Turnkey Work as per Price Schedule. The Turnkey Work costs may be quoted in Indian Rupee and the same will be added for Ranking Purpose.

The Turnkey Work should completely comply with AERB requirement, wherever required.

SECTION – VIII

QUALIFICATION CRITERIA

1. The bidders must be a manufacturer. In case the manufacturer does not quote directly, they may authorise their authorized agent as per proforma of “Manufacturer Authorization Form” as given in the bidding document to quote and enter into a contractual obligation.
2. The Manufacturer should have supplied and installed in last Five years from the date of Bid Opening, similar equipment meeting major parameters of technical specification which is functioning satisfactorily.
3. In support of 2, the Bidder shall furnish Performance statement in the enclosed Proforma ‘A’.

The Bidder shall furnish Satisfactory Performance Certificate in respect of above, duly translated in English and duly signed alongwith the bid.

4. The bidder should not have failed in executing any order from Governement institution in India within the given time period, for orders placed within the past five years.
5. The Purchaser reserves the right to ask for a free demonstration of the quoted equipment after giving reasonable time to the bidder at a pre-determined place acceptable to the purchaser or at site (in case of non portable and heavy equipment) for technical acceptability as per the bidding document specifications, before the opening of the Price Bid.

PROFORMA 'A'**PROFORMA FOR PERFORMANCE STATEMENT**

(For the period of last five years)

NIB No./RFx No. : _____

Date of Bid Opening : _____

Name and address of the Bidder : _____

Name and address of the Manufacturer : _____

Order placed by (full address)	Order no. and date ##	Description (Model no.) and quantity of ordered goods.	Value of order (Rs.)	Date of Completion of contract		Remarks indicating reasons for delay, if any	Have the goods been functioning satisfactorily (attach documentary proof)**
				As per Contract	Actual		
1	2	3	4	5	6	7	8

We hereby certify that if at any time, information furnished by us is proved to be false or incorrect; we are liable for any action as deemed fit by the purchaser in addition to forfeiture of the Bid Security.

Name _____

Business Address _____

Signature of Bidder _____

Place: _____

Seal of the Bidder _____

** The documentary proof will be a certificate from the consignee/end user with cross-reference of order no. and date in the certificate duly self-attested by the bidder.

The bidders are requested to submit the latest purchase order copies supplied to AIIMS, PGIMER, JIPMER, RML Hospital, Safdarjung Hospital, Institute of National importance for the specific model quoted along with the price-bid.

SECTION – IX

BID FORM

To
CEO
HLL Infra Tech Services Limited
B-14A, Sector-62
Noida – 201 307

Ref. Your TE No. _____ due for opening on _____

We, the undersigned have examined the above mentioned bidding document, including amendment/corrigendum (*if any*), the receipt of which is hereby confirmed. We now offer to supply and deliver _____ in conformity with your above referred document for the sum as shown in the Price Schedules attached herewith and made part of this bid. If our bid is accepted, we undertake to supply the goods and perform the services as mentioned in the bidding documents, in accordance with the delivery schedule specified in the List of Requirements.

We further confirm that, if our bid is accepted, we shall provide you with a performance security of required amount in an acceptable form in terms of “General Conditions Contract”, Section - IV read with modification, if any “Special Conditions of Contract”, in Section - V, for due performance of the contract.

We agree to keep our bid valid for acceptance as required in the “General Instruction to Bidders”, read with modification, if any in “Special Instructions to Bidders”, Section – III or for subsequently extended period, if any, agreed to by us. We also accordingly confirm to abide by this bid up to the aforesaid period and this bid may be accepted any time before the expiry of the aforesaid period. We further confirm that, until a formal contract is executed, this bid read with your written acceptance thereof within the aforesaid period shall constitute a binding contract between us.

We further understand that you are not bound to accept the lowest or any bid you may receive against your above-referred advertised tender enquiry.

We confirm that we do not stand deregistered/banned/blacklisted by any Central Govt. Ministries/Departments/Hospitals/Institutes.

We confirm that we fully agree to the terms and conditions specified in above mentioned bidding document, including amendment/ corrigendum if any.

“We hereby certify that if at any time, information furnished by us is proved to be false or incorrect, we are liable for any action as deemed fit by the purchaser in addition to forfeiture of the bid security.”

Name_____

Business Address_____

Place: _____

Signature of Bidder_____

Date: _____
Bidder_____

Seal of the

SECTION - X
PRICE SCHEDULE

Price to be filled in the relevant field strictly as per the Price Format provided in the e-tender portal '<https://etender.lifecarehll.com/irj/portal>' under the RFX No. as per terms of the tender.

SECTION - XI**CHECK LIST**

The bidders should furnish specific answers to all the questions/issues mentioned in the Checklist detailed below:

Name of Bidder: _____

Name of Manufacturer: _____

Sl. No.	Activity	Yes/ No/ NA	Page No. of the Bids submitted	Remarks
1. a.	Have you enclosed Bid Security of required amount for the quoted schedules?			
b.	In case Bid Security is furnished in the form of Bank Guarantee, has it been furnished as per standard format of the bidding document?			
c.	In case Bank Guarantee is furnished, have you kept its validity 45 days beyond the validity of Techno Commercial Bid?			
2.a.	Are you exempted for furnishing bid security being MSE as defined in MSE procurement policy issued by department of MSME.			
b.	If yes, have you enclosed certificate of registration issued by department of MSME.			
c.	Does such certificate clearly mention the quoted item?			
3. a.	Have you enclosed duly filled bid form as per bidding document?			
b.	Have you enclosed Power of Attorney in favour of the signatory?			
4. a.	Have you enclosed clause-by-clause technical compliance statement (in excel format as provided on e-portal) for the quoted goods vis-à-vis the Technical specifications?			
b.	In case of Technical deviations in the compliance statement, have you identified and marked the deviations?			
5. a.	Have you submitted satisfactory performance certificate as per the Proforma for performance statement given in the bidding document?			
b.	Have you submitted the documentary proof that goods have been functioning Satisfactorily?			

Sl. No.	Activity	Yes/ No/ NA	Page No. of the Bids submitted	Remarks
c.	Have you submitted latest purchase order copies?			
6.	Have you submitted Manufacturer's Authorization Certificate as per bidding document?			
7.a.	Have you quoted prices of goods, turnkey (if any), CAMC etc. in the Price Schedule as per bidding document?			
b.	If the ATE calls for buy back, have you quoted buy back prices along with applicable GST?			
8.	Have you kept validity of 270 days from the Techno Commercial Bid Opening date as per the bidding document?			
9. a.	In case of Indian Bidder, have you furnished GST No.?			
b.	In case of Foreign Bidder, have you furnished GST No. of your Indian Agent?			
10.	Have you intimated the name and full address of your Banker (s) along with your Account Number, IFSC Code etc.?			
11.	Have you furnished documents establishing your eligibility & qualification criteria as per bidding documents?			
12.	Have you accepted all the terms and conditions of this bidding document?			
13.	Have you submitted the duly signed copy of Integrity pact (At Appendix-A) on non-judicial stamp paper?			

N.B.

- All pages of the Bid should be page numbered and indexed.
- The Bidder may go through the checklist and ensure that all the documents/ confirmations listed above are enclosed in the bid and no column is left blank. If any column is not applicable, it may be filled up as NA.
- It is the responsibility of bidder to go through the bidding document to ensure furnishing all required documents in addition to above, if any.
- Wherever necessary and applicable, the bidders shall enclose certified copy as documentary proof/ evidence to substantiate the corresponding statement.
- In case a bidders furnishes a wrong or evasive answer against any of the question/issues mentioned in the Checklist, its bids will be liable to be ignored.

Name _____

Business Address _____

Place: _____

Signature of Bidder _____

Date: _____

Seal of the Bidder _____

SECTION - XII

BANK GUARANTEE FORM FOR BID SECURITY

Whereas _____ (Name and address of the Bidder)
(Hereinafter called the "Bidders")
Has submitted its Bid dated _____ for the supply of _____
(Hereinafter called the "Bid")
Against the purchaser's ATE No. _____

Know all persons by these presents that we _____ having
our registered office at _____
(Hereinafter called the "Bank")
Are bound unto HLL Infra Tech Services Ltd., Noida (for and on behalf of AIIMS)
(Hereinafter called the "Purchaser")
In the sum of _____ for which payment will and truly to be
made to the said Purchaser, the Bank binds itself, its successors and assigns by these
presents. Sealed with the Common Seal of the said Bank this _____ day of _____
20____.

The conditions of this obligation are:

- 1) If the Bidder withdraws or amends, impairs or derogates from the bid in any respect within the period of validity of this Bid.
- 2) If the Bidder having been notified of the acceptance of his Bid by the Purchaser during the period of its validity:-
 - a. if the bidder fails or refuses to furnish the performance security for the due performance of the contract or
 - b. if the bidder fails or refuses to accept/execute the contract or
 - c. if it comes to notice at any time, that the information/documents furnished in its Bid are false or incorrect or misleading or forged.

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or more the three conditions, specifying the occurred condition(s).

This guarantee will remain in force upto _____ (insert date of additional forty-five days after Bid validity) and any demand in respect thereof should reach the Bank not later than the above 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)

SECTION – XIII

MANUFACTURER’S AUTHORISATION FORM

The CEO
HLL Infra Tech Services Limited
B-14A Sector-62
Noida, Uttar Pradesh-201307

Dear Sir,

Ref: Your TE document No _____ dated _____

We, _____ who are proven and reputable manufacturers of _____ (*name and description of the goods offered in the bid*) having factories at _____, hereby authorise Messrs _____ (*name and address of the agent*) to submit a bid, process the same further and enter into a contract with you against your requirement as contained in the above referred TE documents for the above goods manufactured by us.

We also state that we are not participating directly in this bid for the following reason(s):
_____ (*please provide reason here*).

We further confirm that no supplier or firm or individual other than Messrs. _____ (*name and address of the above agent*) is authorised to submit a bid, process the same further and enter into a contract with you against your requirement as contained in the above referred TE documents for the above goods manufactured by us.

We also hereby extend our full warranty, CAMC as applicable as per clause 15 of the General Conditions of Contract, read with modification, if any, in the Special Conditions of Contract for the goods and services offered for supply by the above firm against this TE document.

We also hereby confirm that we would be responsible for the satisfactory execution of contract placed on the authorized agent and the spares for the equipment shall be available for at least 10 years from the date of supply of equipment.

We also confirm that the price quoted by our agent shall not exceed the price which we would have quoted directly”

Yours faithfully,

[*Signature with date, name and designation*]
for and on behalf of Messrs _____
[*Name & address of the manufacturers*]

Note:

1. *This letter of authorisation should be on the letter head of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.*
2. *Original letter may be sent.*

SECTION – XIV

BANK GUARANTEE FORM FOR PERFORMANCE SECURITY/CAMC SECURITY

WHEREAS _____ (Name and address of the supplier) (Hereinafter called “the supplier”)

has undertaken, in pursuance of Purchase Order/ Contract no _____ dated _____ to supply _____ (*insert description of goods and services*) (Hereinafter 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 recognized 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 bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of _____ (*insert 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 your demanding the said debt from the supplier before presenting us with the demand.

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 will remain in force upto _____ (*insert date of additional Ninety days after completion of satisfactorily warranty period in case of Performance Security and additional Ninety days after completion of satisfactorily CAMC period in case of CAMC security*) and any demand in respect thereof should reach the Bank not later than the above date.

.....
(Signature with date of the authorised officer of the Bank)
.....
Name and designation of the officer
.....
.....
Seal, name & address of the Bank and address of the Branch

SECTION - XV**CONTRACT FORM - A****CONTRACT FORM FOR SUPPLY, INSTALLATION, COMMISSIONING, HANDING OVER, TRIAL RUN, TRAINING OF OPERATORS & WARRANTY OF GOODS****ALL INDIA INSTITUTE OF MEDICAL SCIENCES***(Insert Name of concerned Centre/Hospital/Department/Section)***ANSARI NAGAR, NEW DELHI-110 029**

Contract No _____ dated _____

To _____

*(insert name of Supplier with address)***This is in continuation to this office's Notification of Award No _____ dated _____**

1. Name & address of the Supplier: _____
2. ATE No of Bidding Documents: _____ and subsequent Amendment No _____, dated _____ (if any), issued by the Purchaser
3. Supplier's Bid No _____ dated _____ and subsequent communication(s) No _____ dated _____ (if any), exchanged between the supplier and the purchaser in connection with this Bidding Document.
4. In addition to this Contract Form, the following documents etc, which are included in the Bidding Documents mentioned under paragraphs 2 and 3 above, shall also be deemed to form and be read and construed as integral part of this contract:
 - (i) General Conditions of Contract;
 - (ii) Special Conditions of Contract;
 - (iii) List of Requirements;
 - (iv) Technical Specifications;
 - (v) Quality Control Requirements;
 - (vi) Bid Form furnished by the supplier;
 - (vii) Price Schedule(s) furnished by the supplier in its Bid;
 - (viii) Manufacturers' Authorisation Form (if applicable);
 - (ix) Purchaser's Notification of Award

Note: The words and expressions used in this contract shall have the same meanings as are respectively assigned to them in the conditions of contract referred to above. Further, the definitions and abbreviations incorporated under clause 1 of Section II – "General Instructions to Bidders" of the Bidding Document shall also apply to this contract.

5. Some terms, conditions, stipulations etc. out of the above-referred documents are reproduced below for ready reference:
 - (i) Brief particulars of the goods and services which shall be supplied/ provided by the supplier are as under:

Schedule No.	Brief description of of goods/services	Accounting unit	Quantity to be supplied	Unit Price	Total price	Terms of delivery

Any other additional services (if applicable) and cost thereof: _____
Total value (in figure) _____ (In words) _____

- (ii) Delivery schedule: _____
- (iii) Details of Performance Security required: _____
- (v) Destination and despatch instructions: _____
- (vi) Consignee: _____

6. Warranty clause:

7. Payment terms:

(Signature, name and designation of the Purchaser authorised official)
For and on behalf of Director, AIIMS

Received and accepted this contract

(Signature, name and address of the supplier's executive duly authorised to sign on behalf of the supplier)

For and on behalf of _____
(Insert Name and address of the supplier)

(Seal of the Supplier)

Date: _____

Place: _____

CONTRACT FORM – B**CONTRACT FORM FOR COMPREHENSIVE ANNUAL MAINTENANCE
CONTRACT (CAMC)**

Comprehensive Annual Maintenance Contract No. _____
Dated _____

Between

Director, AIIMS

And

(insert Name & Address of the Supplier)

Reference: Contract/ Purchase Order No _____ dated _____ for supply, installation & commissioning, Training and CAMC of goods & services.

In continuation to the above referred Contract/Purchase Order, the Contract of Comprehensive Annual Maintenance Contract is hereby concluded as under: -

1	2	3	4					5	6
Items Sr. No./ RFx no.	Brief descriptio n of goods	Quantity (Nos.)	CAMC Cost for Each Unit year wise in Rs					GST Value in Rs (___ %)	Total CAMC Cost for 5 Years with GST (3) $X[(4a+4b+4c+4d+4e)$ + (5)]
			1 st	2 nd	3 rd	4 th	5 th		
			a	b	c	d	e		

Total value (in figure) _____ (In words) _____

- b) The CAMC commence from the date of expiry of all obligations under Warranty i.e. from _____ (date of expiry of Warranty) and will expire on _____ (date of expiry of CAMC)
- c) The cost of Comprehensive Annual Maintenance Contract (CAMC) which includes preventive maintenance, labour and spares, after satisfactory completion of Warranty period as contained in the above referred contract on yearly basis for complete equipment as per contract including Turnkey Work(if any).
- d) There will be 95% uptime warranty during CAMC period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend CAMC period by double the downtime period and other penalty as per contract.
- e) During CAMC period, the supplier shall visit at each consignee's site for preventive maintenance including testing and calibration as per the manufacturer's service/technical/operational manual. The supplier shall visit each consignee site as recommended in the manufacturer's manual, but at least once in 3 months commencing from the date of the successful completion of warranty period for preventive maintenance of the goods.
- f) All software updates should be provided free of cost during CAMC period.

- g) The Bank Guarantee valid till _____ [(fill the date) 3 months after expiry of entire CAMC period] for an amount of Rs. _____ [(fill amount) equivalent to 2.5% of the cost of the equipment as per contract] shall be furnished in the prescribed format given in Section XIV of the Bidding Document, along with the signed copy of CAMC within a period of 21 (twenty one) days of start of CAMC failing which the Performance Security (10% of the contract value) submitted shall be en-cashed payable to the Purchaser/Consignee.
- h) If there is any lapse in the performance of the CAMC as per contract, the proceeds Annual CAMC Bank Guarantee shall be forfeited and their bad performance will be considered while awarding future contracts.
- i) Payment terms: The payment of CAMC will be made against the bills raised by the supplier on six monthly basis after satisfactory completion of said period, duly certified by the concerned User Department. The payment will be made in Indian Rupees.

(Signature, name and designation of the Store Officer/ASO of the Purchaser)

(Signature, name and designation of the F&CAO of the Purchaser)
For and on behalf of Director, AIIMS

(Seal of the Purchaser)
Date: _____
Place: _____

Received and accepted this contract

(Signature, name and address of the supplier's executive duly authorised to sign on behalf of the supplier)

For and on behalf of _____
(Insert Name and address of the supplier)

(Seal of the Supplier)
Date: _____
Place: _____

*Note:- The contract will be prepared on Non-judicial Stamp paper
(currently of value of Rs. 100).*

SECTION – XVI

CONSIGNEE RECEIPT CERTIFICATE

(To be given by consignee's authorized representative)

The following store(s) has/have been received in good condition:

- 1) Contract/Purchase Order No. & date: _____
- 2) Supplier's Name: _____
- 3) Consignee's Name & Address: _____
- 4) Name of the item supplied: _____
- 5) Quantity Supplied: _____
- 6) Date of Receipt by the Consignee: _____
- 7) Signature of Authorized Representative of Consignee with date: _____
- 8) Name and designation of Authorized Representative of Consignee: _____
- 9) Seal of the Consignee: _____

SECTION – XVII

CONSIGNEE ACCEPTANCE CERTIFICATE

(To be given by consignee's authorized representative)

This is to certify that the goods as detailed below have been received in good conditions along with all the standard and special accessories in accordance with the contract. The same has been installed and accepted.

- 1) Contract/Purchase Order No. & date:_____
- 2) Supplier's Name:_____
- 3) Consignee's Name & Address: _____
- 4) Name of the item Supplied :_____
- 5) Quantity Supplied :_____
- 6) Date of Receipt by the Consignee :_____
- 7) Date of Installation/Commissioning and Acceptance of Equipment: _____
- 8) The supplier has fulfilled its contractual obligations satisfactorily

OR

The supplier has failed to fulfill its contractual obligations with regard to the following:

- i)
- ii)
- iii)
- iv)
- 9) The amount of recovery on account of failure of the supplier to meet his contractual obligations is_____ (here indicate the amount).
- 10) Signature of Authorized Representative of Consignee with date:_____
- 11) Name and designation of Authorized Representative of Consignee:_____
- 12) Seal of the Consignee:_____

APPENDIX-A

INTEGRITY PACT

PRE-CONTRACT INTEGRITY PACT

This Pre-Contract Integrity Pact (herein after called the Integrity Pact) is made on _____ day of the month of _____ Year _____

Between

HLL Infra Tech Services Ltd. [HITES], a wholly owned subsidiary company of M/s. HLL Lifecare Ltd. a Government of India Enterprise with registered office at HLL Bhavan, Poojappura, Thiruvananthapuram 695 012, Kerala, India. (Hereinafter called "HITES", which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Party.

And

M/s. _____, with office at _____ represented by Shri _____, _____ (*Designation*) (hereinafter called the "BIDDER/Seller"/Contractor which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Party.

Preamble

[Both HITES and BIDDER referred above are jointly referred to as the Parties]

HITES intends to award, under laid down organizational procedures, Purchase orders / contract/s against Tender /Work Order /Purchase Order No. HITES desires full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:-

1. Enable HITES to obtain the desired materials/ stores/equipment/ work/ project done at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement; and
2. Enable the BIDDER to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and HITES will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

Clause.1. Commitments of HITES

- 1.1 HITES undertakes that HITES and/or its Associates (i.e. employees, agents, consultants, advisors, etc.) will not demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.
- 1.2 HITES will, during the tender process / pre-contract stage, treat all BIDDERS with equity and reason, and will provide to all BIDDERS the same information and will not provide any such information or additional information, which is confidential in any manner, to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS in relation to tendering process or during the contract execution.
- 1.3 All the officials of HITES regarding this Integrity Pact will report to IEM, any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach shall not be permitted.
- 1.4 HITES will exclude from the process all known prejudiced persons and persons who would be known to have a connection or nexus with the prospective bidder.
- 1.5 If the BIDDER reports to HITES with full and verifiable facts any misconduct on the part of HITES's Associates (i.e. employees, agents, consultants, advisors, etc.) and the same is prima facie found to be correct by HITES, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by HITES. Further, such an Associate may be debarred from further dealings related to the contract process. In such a case, while an enquiry is being conducted by HITES the proceedings under the contract would not be stalled.

Clause 2. Commitments of BIDDERS/ CONTRACTORS

2. The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:-
 - 2.1 The BIDDER will not offer, directly or indirectly (i.e. employees, agents, consultants, advisors, etc.) any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of HITES, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
 - 2.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of HITES or otherwise in procuring the contract or forbearing to do or having done any act in relation to obtaining or execution of the contract or any other contract with HITES for showing or forbearing to show favour or disfavor to any person in relation to the contract or any other contract with HITES.

-
- 2.3 The BIDDER will not engage in collusion, price fixing, cartelization, etc. with other counterparty(s).
 - 2.4 The Bidder(s) will not pass to any third party any confidential information entrusted to it, unless duly authorized by HITES.
 - 2.5 The Bidder(s) will promote and observe ethical practices within its Organization and its affiliates.
 - 2.6 BIDDER shall disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principals or associates.
 - 2.7 The Bidder(s) will not make any false or misleading allegations against HITES or its Associates.
 - 2.8 BIDDER(s) shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.
 - 2.9 The BIDDER further confirms and declares to HITES that the BIDDER is the original manufacture or its authorised agent/integrator and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to HITES or any of its functionaries, whether officially or unofficially to award the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
 - 2.10 The BIDDER while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of HITES or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
 - 2.11 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
 - 2.12 The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
 - 2.13 If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of HITES, or alternatively, if any relative of an officer of HITES has financial interest/stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filing of tender.

The term 'relative' for this purpose would be as defined in Section 2(77) of the Companies Act 2013

- 2.14 The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of HITES.
- 2.15 The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract, and will not enter into any undisclosed agreement or understanding with other Bidders, whether formal or informal. This applies in particular to prices, specifications,

certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

- 2.16 The BIDDER will not commit any offence under the relevant Indian Penal Code, 1860 or Prevention of Corruption Act, 1988; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the HITES as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.
- 2.17 The BIDDER will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 2.18 The Bidder(s)/Contractors(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly the Bidder(s)/Contractors(s) of Indian Nationality shall furnish the name and address of the foreign Principal(s), if any.
- 2.19 The Bidder(s) shall not approach the courts while representing the matters to IEM and the Bidder(s) will await their decision in the matter.

Clause.3. Previous contravention and Disqualification from tender process and exclusion from future contracts

- 3.1 The BIDDER declares that no previous contravention occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the tender process
- 3.2 The BIDDER agrees that if it makes incorrect statement on this subject, BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

If BIDDER before award or during execution has committed a contravention through a violation of Clause 2, above or in any other form such as to put his reliability or credibility in question, t HITES is entitled to disqualify the BIDDER from the tender process.

Clause.4. Equal treatment of all Bidders/Contractors / Subcontractors

- 4.1 The Bidder(s)/Contractor(s) undertake(s) to demand from his Subcontractors a commitment in conformity with this Integrity Pact.
- 4.2 HITES will enter into agreements with identical conditions as this one with all Bidders and Contractors.
- 4.3 HITES will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Clause.5. Consequences of Violation / Breach

- 5.1 Any breach of the aforesaid provision by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle HITES to take all or any one of the following action, wherever required:-
- i. To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
 - ii. If BIDDER commits violation of Integrity Pact Policy during bidding process, he shall be liable to compensate HITES by way of liquidated damages amounting to a sum equivalent to 5% to the value of the offer or the amount equivalent to Earnest Money Deposit/Bid Security, whichever is higher.
 - iii. In case of violation of the Integrity Pact after award of the contract, HITES will be entitled to terminate the contract. HITES shall also be entitled to recover from the contractor liquidated damages equivalent to 10% of the contract value or the amount equivalent to security deposit/ performance guarantee, whichever is higher.
 - iv. To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
 - v. To recover all sums already paid by HITES, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from HITES in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid amount.
 - vi. To encash the advance bank guarantee and performance guarantee /warranty bond, if furnished by the BIDDER, in order to recover the payments already made by HITES, along with interest.
 - vii. To cancel all or any other contract with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to HITES resulting from such cancellation/recession and HITES shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
 - viii. To debar the BIDDER from participating in future bidding processes of HITES for a minimum period of five (5) years, which may be further extended at the discretion of HITES or until Independent External Monitors is satisfied that the Bidder (s) will not commit any future violation.
 - ix. To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
 - x. In cases where irrevocable Letters of credit have been received in respect of any contract signed by HITES with the BIDDER, the same shall not be opened.
 - xi. Forfeiture of performance guarantee in case of a decision by HITES to forfeit the same without assigning any reason for imposing sanction for violation of the pact.

- 5.2 HITES will be entitled to all or any of the actions mentioned in para 5.1(i) to (x) of this pact also on the commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal Code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.
- 5.3 The decision of HITES to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent External Monitor(s) appointed for the purposes of this Pact.

Clause.6. Fall Clause

The BIDDER undertakes that it has not supplied/is not supplying similar product/systems or subsystems OR providing similar services at a price / charge lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found any stage that similar product/systems or sub systems was supplied by the BIDDER to any to the Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time will be applicable to the present case and the difference in the cost would be refunded by the BIDDER to HITES, if the contract has already been concluded.

Clause .7. Independent External Monitor(s)

- 7.1 HITES has appointed Sh. A.K. Arora, EX-DG, Indian Defense Service of Engineers as Independent External Monitor(s) (hereinafter referred to as IEM(s)) for this Pact in consultation with the Central Vigilance Commission. Contact details of IEM is as below:

Sh. A.K. Arora
Independent External Monitor (IEM)

Office: HLL Infra Tech Services Ltd
B-14-A, sector 62, Noida 201307, U.P
Tel: 0120 4071500

Residence: B-333, Chittaranjan Park
New Delhi – 110019
Tel: 011 26273406

Mobile: +91 8130588577
Email: iem@hllhites.com

- 7.2 The responsibility of the IEM(s) shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- 7.3 The IEM(s) shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 7.4 Both the parties accept that the IEM(s) have the right to access all the documents relating to the project/ procurement, including minutes of meetings.
- 7.5 As soon as the IEM(s) notices, or has reason to believe, a violation of this pact, he will so inform the CEO/CMD.

- 7.6 The BIDDER(S) accepts that the IEM(s) have the right to access without restriction to all project documentation of HITES including that provided by the BIDDER. The BIDDER will also grant the IEM(s), upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to subcontractors engaged by the BIDDER. The IEM(s) shall be under contractual obligation to treat the information and documents of the BIDDER/ Subcontractor(s) with confidentiality.
- 7.7 HITES will provide to the IEM(s) sufficient information about all meetings among the parties related to the Project provided such meeting could have an impact on the contractual relation between the parties. The parties will offer to the IEM(s) option to participate in such meetings.
- 7.8 The IEM(s) will submit a written report to the CEO/CMD of HITES within 3 to 5 weeks from the date of reference or intimation to him by HITES/BIDDER.

Clause.8. Criminal charges against violating Bidder(s)/ Contractor(s)/ Subcontractor(s)

If HITES obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if HITES has substantive suspicion in this regard, HITES will inform the same to the Chief Vigilance Officer, HLL

Clause.9. Facilitation of Investigation

In case of any allegation of violation of any provisions of this Pact or payment of commission, HITES or its agencies shall be entitled to examine all the documents, including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

Clause.10. Law and Place of Jurisdiction

Both the Parties agree that this Pact is subject to Indian Law. The place of performance and hence this Pact shall be subject to Delhi/ NCR Jurisdiction.

Clause.11. Other legal Actions

The actions stipulated in the Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

Clause.12. Validity and Duration of the Agreement

This Pact begins when both parties have legally signed it. It expires for the Contractor/Successful bidder 12 months after the last payment under the contract or the complete execution of the contract to the satisfaction of the both HITES/Consignee and the BIDDER/Seller, including warranty period, whichever is later, and for all other Bidders/unsuccessful bidders 6 months after the contract has been awarded.

If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged / determined by Chairman and Managing Director/ CEO of HITES.

Clause. 13. Other provisions

- 13.1 Changes and supplements as well as termination notices need to be made in writing. Both the Parties declare that no side agreements have been made to this Integrity Pact.

- 13.1 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- 13.1 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions

IN WITNESS THEREOF the parties have signed and executed this pact at the place and date first above mentioned in the presents of following witnesses:

HLL Infra Tech Services Ltd.

Bidder

Witness

Witness

1.....

1.....

2.....

2.....

* Provisions of these clauses would be amended /deleted in line with the policy of the HITES in regard to involvement of Indian agents of foreign suppliers.