

श्रीहरिकोटा रेंज डा.घ.524 124,  
नेल्लूर जिल्ला, आंध्र., भारत  
टेलिफोन: +91-8623-245060 (10 जं)  
फेक्स: +91-8623-225160



Sriharikota Range P.O. 524 121,  
Nellore Dist., A.P., India  
Telephones : +91-8623-245060 (10 Lines)  
Fax : +91-8623-225160

## Indian Space Research Organisation

**GOVERNMENT OF INDIA  
DEPARTMENT OF SPACE  
SATISH DHAWAN SPACE CENTRE SHAR SRIHARIKOTA (SDSC SHAR)  
NELLORE**

**Tender for Supply of 450KV X-ray system for Industrial Application**

**Bids to be submitted online**

**Tender No.: SDSC SHAR/VALF PURCHASE/SH202500141501 dated 18-11-2025**

## A. Tender Details

|                        |                                                            |
|------------------------|------------------------------------------------------------|
| Tender No :            | SDSC SHAR/VALF PURCHASE/SH202500141501                     |
| Tender Date :          | 18-11-2025                                                 |
| Tender Classification: | GOODS                                                      |
| Purchase Entity :      | VALF PURCHASE                                              |
| Centre :               | SATISH DHAWAN SPACE CENTRE SHAR SRIHARIKOTA<br>(SDSC SHAR) |

## Supply of 450KV X-ray system for Industrial Application

GEM/GARPTS /09102025/V90Y8M9A33SO

As per tender documents

### A.1 Tender Schedule

|                              |                  |
|------------------------------|------------------|
| Bid Submission Start Date :  | 18-11-2025 17:30 |
| Bid Clarification Due Date : | 03-12-2025 10:00 |
| Bid Submission Due Date :    | 15-12-2025 16:30 |
| Bid Opening Date :           | 16-12-2025 10:00 |
| Price Bid Opening Date :     | 30-12-2025 14:00 |

## B. Tender Attachments

NA

### Instructions To Vendors

#### 1. STANDARD TERMS & CONDITIONS

1. Tele No.08623-225174/225127/226082

Fax No.08623-225170/22-5028

e-Mail ID : hps@shar.gov.in, sselvan@shar.gov.in, jomin@shar.gov.in

1. Instruction to Indigenous Suppliers:

a) Payment Terms shall be as specified in RFP. If not specifically mentioned Our Normal payment term is 100% within 30 days after receipt and acceptance of the item at our site. Please confirm acceptance in your quotation.

b) Our GST No. is. 37AAAGS1366J1Z1.

c) Purchase / Price preference to MSEs

Purchase/Price preference will be applicable to the product reservation admissible to the Micro and Small Enterprises. Purchase/Price Preference shall be extended to the MSEs under the Public Procurement Policy for MSEs formulated under the Micro, Small and Medium Enterprises Development Act, 2006. The participating MSEs in a tender, quoting price within the band of L-1 + 15% may also be allowed to supply a portion of the requirement by bringing down their price to the L-1 price, in a situation where L-1 price is from someone other than an MSE. Such MSEs may be allowed to supply up to 25% of the total tendered value. In case of more than one such eligible MSE, the supply will be shared equally.

Micro & Small Enterprises which have technical capability to deliver the goods & Services as per prescribed technical & quality specifications and may not be able to meet the qualification criterion relating to prior experience-prior turnover may be relaxed as per guidelines issued by Ministry of MSMEs & as amended from time to time.

Interested vendors shall specifically claim the benefit with supporting documents.

d) Purchase / Price preference to Make-in-India Products:

Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a Class 1 local supplier is denoted in the bid document 50%. If the bidder wants to avail the Purchase preference, the bidder must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted. In case the bid value is more than Rs. 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in-India) order

2017 dated 04.06.2020 and amendments thereof. In case Buyer has selected Purchase preference to Micro and Small Enterprises clause in the bid, the same will get precedence over this clause.

## 2. Instruction to Foreign Suppliers:

a) Payment Terms shall be as specified in RFP. If not specifically mentioned Our normal payment term is SIGHT DRAFT, Please confirm acceptance in your offer, if you insist for L/C, and all bank charges shall be to your account. Confirm acceptance.

b) Please specify whether any export clearance is required in case of an order on you.

c) Warranty/Guarantee applicable for the item shall be mentioned in your offer

d) Special Certification for packing Material : as per Plant Quarantine (Regulation of Control into India) Order 2003, Articles packed with packing material of plant origin viz., hay, straw, wood shavings, wood chips, saw dust, wood waste, wooden pallets, Dunn age Mats, wooden packages, coir pith, pear or sphagnum moss etc., will be allowed entry by Customs only with a Phytosanitary Certificate. In case if a Purchase Order, if you propose to us any of the above material for packing such a certificate issued by your local Plant Quarantine Authority shall be furnished.

e) Confirm whether any Export License is required and for which End User Certificate is to be provided by us, in case of an Order on you. (Enclose format for EUC, if applicable)

f) Either Indian Agent on behalf of the foreign principals or the foreign principal directly can quote against this order, but not both. In either case an Indian agent cannot represent more than one principal against the same tender.

g) In case the quote is in INR we prefer to execute the same on HSS Basis and for which Concessional Customs duty as per Notification no.50/2017 Customs dated 30.06.2017, Serial No.539(A) as amended by Notification no.05/2018 dated 25.01.2018. In case the quote is on Indian Rupee (Outside High Sea Sale), the price shall include taxes and duties if any. We shall not able to provide any duty or IGST tax exemption/concession certificates. If the item quote is of USA make, please quote for all-inclusive price since we prefer to get the item on FOR destination basis.

h) Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with Competent Authority as specified in Office Memorandum no.F.No.6/18/2019-PPD, Ministry of Finance, Department of Expenditure, Public Procurement Division dated 23rd July 2020. All the conditions mentioned in the above OM is applicable for this tender.

Common terms to Indigenous and foreign suppliers:

### 3.Warranty

You shall provide applicable warranty for the items offered by you without fail. For the applicable period you shall provide necessary warranty certificate.

### 4.Performance Bank Guarantee

Towards the performance of the systems during the warranty period you shall submit a performance bank guarantee equivalent to 3% of the order value to cover the warranty period. This PBG shall be interest free and the same shall be returned to you on successful completion of all contractual obligations. The said PBG shall have a further claim period of 2 months.

## 5.Security Deposit

On acceptance of the order, you shall submit an interest free amount equivalent to 3% of the total contract/order value towards security deposit. This security deposit is collected towards the performance of the Contract. The said Security Deposit shall be submitted either in the form of Bank Guarantee/Demand Draft/FDR receipts duly endorsed in the name of the centre. The Security Deposit will be returned to you on successful completion of the Contractual obligations; failing which it shall be forfeited/adjusted.

## 6.Offer Validity

Your offer shall be valid for 180 days in case of 2 part / 90 days in case of single part from the date of tender opening. In case you offer validity is less than the mentioned above, the said offer is liable for rejection which may please be noted.

## 7.Liquidated Damages:

If you fail to deliver the ordered items satisfactorily within the time specified or any extension thereof, Liquidated Damage @ 0.5%(zero point five percent) of the order value or part thereof the un-delivered items for each calendar weeks of delay shall be recovered from your bill. However total Liquidated Damage shall not exceed 10% (ten percent) of the order value.

## FORCE MAJEURE:

Should a part or whole work covered under this contract be delayed in delivery/completion of work due to reasons of Force majeure which shall include legal lockouts, strikes, riots, civil commotion, fire, accidents, quarantines, epidemic, acts of God & War, stoppage of deliveries by the Government , freight embargoes etc; the delivery period/completion of work referred to in this Contract shall be extended by a period not in excess of duration of such Force Majeure. The occurrence shall be notified by either party within reasonable time.

## 8.Offers received through post, courier, fax or email will not be considered.

9. Technical and commercial bid (Part-I) shall not contain any price details. Optional accessories or other price details, if any shall be uploaded in Supporting documents related to Price Bid, to be opened along with Price Bid.

10. In respect of FIM being issued, the fabricator shall submit Bank Guarantee for equivalent sum compulsorily. In case, submission of Bank Guarantee is not possible, the reasons there for shall be clearly mentioned. However, for such cases the fabricators at their cost shall secure such FIM through Insurance Policy with Director, SDSC SHAR as beneficiary. In case of PSU and Government Organization, Indemnity Bond in lieu of Bank Guarantee is acceptable. Balance FIM/Scrap, if any shall be returned along with the supply of the items. Please confirm acceptance in your quotation.

11. SDSC SHAR shall have the right to place part order among the parties for the items for which they are the lowest.

## 12. Arbitration:

In the event of any dispute/s, difference/s or claim/s arising out of or relating to the interpretation and application of the Contract, such dispute/s or difference/s or claim/s shall be settled amicably by mutual consultations of the good Offices of the respective Parties and recognizing their mutual interests attempt to reach a solution satisfactory to both the parties. If such a resolution is not possible, within 30

days from the date of receipt of written notice of the existence of such dispute/s, then the unresolved dispute/s or difference/s or claim/s shall be referred to the Sole Arbitrator appointed by the Parties by mutual consent in accordance with the rules and procedures of Arbitration and Conciliation Act 1996 as amended from time to time. The arbitration shall be conducted in Bengaluru in the Arbitration and Conciliation Centre Bengaluru (Domestic and International) as per its rules and regulations. The expenses for the Arbitration shall be shared equally or as may be determined by the Arbitrator. The considered and written decision of the Arbitrator shall be final and binding between the Parties. The applicable language for Arbitration shall be English only.

Work under the Contract shall be continued by the CONTRACTOR during the pendency of arbitration proceedings, without prejudice to a final adjustment in accordance with the decision of the Arbitrator unless otherwise directed in writing by the DEPARTMENT or unless the matter is such that the works cannot be possibly continued until the decision (whether final or interim) of the Arbitrator is obtained.

## **2. INSTRUCTIONS TO TWO PART TENDER**

1. We are proposing to invite Tenders in Two Parts viz., Part-I Techno and Commercial & Part-II Price. All Tenderers are requested to follow carefully the following instructions before preparing their offer.

### **PART- I- TECHNO COMMERCIAL BID:**

(1) This part should contain detailed Specifications of the items quoted by you along with Technical Literature and Leaflets if any.

(2) All the Commercial terms and Conditions applicable also should be indicated separately under separate heads.

(3) The Commercial terms such as delivery terms, delivery period, payment terms, warranty, validity of the offer, Installation & Commissioning, Duties and Taxes etc shall come into this.

(4) Either Technical Specifications or Terms & Conditions as above should be very clearly reflected items wise with reference to the items called for in the tender.

(5) Please note that Prices should not be indicated in this part.

(6) Any deviations from the Technical Specifications and Commercial Terms shall be indicated separately.

### **PART II-PRICE BID:**

(1) The prices applicable for the items, item wise in response to the tender shall come into this part.

(2) Tender shall indicate very clearly item wise prices with reference to their Technical Offer.

Note: 1. PLEASE NOTE THAT THE OFFERS SUBMITTED CONTRADICTORY TO ABOVE INSTRUCTIONS WILL BE LIABLE FOR REJECTION. PLEASE ENSURE OFFERS ARE SUBMITTED WITHIN THE DUE DATE.

2. BEING TWO PART TENDER, WE REQUEST YOU NOT TO DISCLOSE / INDICATE ANY OF THE PRICE VALUE WHILE SEEKING / PROVIDING CLARIFICATION. YOU SHOULD INDICATE ONLY IN PERCENTAGE. IN CASE IF YOU DISCLOSE ANY OF THE PRICE AMOUNT YOUR OFFER WILL BE REJECTED.

### 3. General Instructions to Vendor

#### 1. Instructions to tenderers

TeleNo.08623-225174/225127

Fax No.08623-225170/22-5028

e-Mail ID : hps@shar.gov.in, sselvan@shar.gov.in, psovalf@shar.gov.in

1. Interested tenderers may, at their option, login to <https://eproc.isro.gov.in> and submit your offers.

2. TENDER FEE IS NOT APPLICABLE.

3. EARNEST MONEY DEPOSIT IS NOT APPLICABLE IF NOT MENTIONED IN THE RFP SPECIFICATION.

4. Indian agents while quoting on behalf of their principals are requested to attach Principals original quote, necessary authorization letter from their Principals, copy of agency agreement etc. in their bid.

5. TWO PART BIDS: In case of Two part tender, price details shall not be uploaded in the Technical & Commercial Bids (Part I), failing to which the bid will be treated as INVALID.

6. The offer should be valid for a minimum period of 180 days for 2 part / 90 days for single part from the date of opening.

7. Due date & time: Sufficient time has been allotted for Bid submission. Vendors are requested to complete Bid submission well in advance. Last minute requests for due date extension citing server problems etc. will not be entertained. Bids will not be entertained after the due date and time.

7 (A). Request for the extension of the due date will not be considered.

8.

(a) Bid Opening for Public Tender: In case of Public Tender-Two Part Tenders: Technical and Commercial Bids will be opened on the first day specified for Tender opening. Interested vendors can attend the tender opening session to know the bidding details (Bidders presence is not mandatory to consider the quote for evaluation). Price Bid opening of the selected vendors will be scheduled later and it will be intimated to the selected Bidder (s).

(b) For Limited Tender: Bidders participation is not allowed.

9. Prices are required to be quoted according to the units indicated.

10. Preference will be given to those tenderers offering supplies from ready stocks and on the basis of FOR destination delivery at site.



11. (a) All available technical literature, catalogues and other data in support of the specifications and detail of the items should be furnished as attachments.

(b) Samples, if called for, should be submitted free of all charges by the tenderer and the Purchaser shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of non-acceptance of tender, the tenderer will have to remove the samples at his own expense.

(c) Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensions details are available the same should be indicated in your offer.

(d) Specifications: Stores offered should strictly conform to our specifications. Deviations, if any, should be clearly indicated by the tenderer in their quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples wherever necessary. Test certificates wherever necessary should be attached. Whenever options are called for in our specifications, the tenderer should address all such options. Wherever specifically mentioned by us the tenderer could suggest changes to specifications with appropriate response for the same.

12. The purchaser shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portion of quantity offered and the tenderers shall supply the same at the rates quoted.

13. All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, amount quoted in words shall prevail.

14. The tenderer will be required to furnish a document containing the name of his bankers as well as the latest income-tax clearance certificate duly counter signed by the Income-tax Officer of the Circle concerned under the Seal of his office, if required by the Purchaser.

15. The Purchaser reserves the right to place order on the successful tenderers for additional quantity up to 25% of the quantity offered by them at the rates quoted.

16. Sr. Head, Purchase and Stores, SDSC SHAR SRIHARIKOTA reserves the right to accept or reject any bid in part or full without assigning any reason thereof.

17. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with Competent Authority as specified in Office Memorandum no.F.No.6/18/2019-PPD, Ministry of Finance, Department of Expenditure, Public Procurement Division dated 23rd July 2020. All the conditions mentioned in the above OM is applicable for this tender.

## C. Bid Templates

### C.1 Technical Bid - Supply of 450KV X-ray system for Industrial Application

**1. Non-Destructive Testing- Supply, Installation, Commissioning and Testing of 450KV X-ray System for Industrial Application as per specifications attached in the annexure**

**Item specifications for Non-Destructive Testing- Supply, Installation, Commissioning and Testing of 450KV X-ray System for Industrial Application as per specifications attached in the annexure**

| SI No | Specification        | Value                                                                                   | Compliance         | Offered Specification | Remark |
|-------|----------------------|-----------------------------------------------------------------------------------------|--------------------|-----------------------|--------|
| 1     | Tender Specification | Vendor shall agree the tender terms and conditions stipulated in the attached document. | Yes / No / Explain |                       |        |

#### Document : Tender Document

#### Supporting Documents required from Vendor

1. Vendor shall attach the supportive documents for his commitments including pre qualification criteria
2. Please upload Annexure duly sealed & signed by your competent authority
3. Udyam Certificate if caliming MSE purchase preference.
4. Self-deceleration indicating percentage of local content along with location of value addition.
5. Technical datasheet
6. Experince certificate as mentioned in the attached RFP
7. Copy of IT return for last three FY
8. Current Solvency Certificate for an amount of Rs. 50 lakhs
9. Firm establishment certificate and nature of work

5 additional documents can be uploaded by the vendor

## C.2 Commercial Terms / Bid

| Sl. No. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Compliance         | Vendor Terms |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------|
| 1       | Full                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Yes / No / Explain |              |
| 2       | The procurement intended for the bonafide use in Systems/Sub-systems of Launch Vehicle Project of Indian Space Research Organization, Government of India, Department of Space and eligible for IGST@5% as per guiding principles conveyed by the Ministry of Finance Dept. of Revenue Notification No. 25/2018-Integrated Tax (Rate) Schedule-I; Sl. No. 243B dated 31.12.2018 (Amendment to Notification No. 07/2018-Integrated Tax (Rate) dated 25.01.2018 and Notification No. 01/2017- Integrated Tax (Rate) dated: 28.06.2017). End User Certification shall be issued in this effect along with placement of order. | Yes / No / Explain |              |
| 3       | Please confirm here whether your quoted "UNIT PRICE" in our Price Bid is EXCLUDING GST or INCLUDING GST.<br>----- NOTE: If you are not clearly stating "GST is Inclusive OR Extra in basic cost" it will be treated as "GST is included in the quoted Basic/Unit cost in the price bid". Your offer will be evaluated as INCLUSIVE OF GST.                                                                                                                                                                                                                                                                                 | Yes / No / Explain |              |
| 4       | Delivery Term FOR : SLC Site,SLC Project, Kulasekarappattinam (MANDATORY)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Yes / No / Explain |              |
| 5       | Packing and Forwarding(P & F) charges, extra if any, please mention percentage in price-bid. Please note that in case of Two part tenders, only percentage should be mentioned otherwise those offers shall be summarily rejected.                                                                                                                                                                                                                                                                                                                                                                                         | Yes / No / Explain |              |
| 6       | Freight charges, extra if any, please mention percentage in price-bid Please note that in case of Two part tenders, only percentage should be mentioned otherwise those offers shall be summarily rejected.                                                                                                                                                                                                                                                                                                                                                                                                                | Yes / No / Explain |              |
| 7       | Delivery Period required for delivery of the items/completion of total scope of work: 06 Months from the date of release of PO as detailed in the para no. 2 of RFP                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Yes / No / Explain |              |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |  |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--|
| 8  | <p>Payment Term:<br/>For Supply of Items:<br/>a. 80% of supply cost payment against receipt of complete material at SLC site, along with 100% GST.<br/>b. 20% of supply cost, after successful commissioning of equipment &amp; system covered and acceptance by the department.<br/>For Erection Commissioning and Testing of System:<br/>a. 100% of erection cost after successful assembly of system in all respect, including testing &amp; commissioning and acceptance of equipment &amp; systems.</p>                   | Yes / No / Explain |  |
| 9  | <p>Warranty/Guarantee:<br/>Warranty/Guarantee for the offered item shall be from the date of acceptance of the item at our site for a minimum period of one year or specified in the tender document.</p>                                                                                                                                                                                                                                                                                                                      | Yes / No / Explain |  |
| 10 | <p>Liquidated Damages (LD) :- Since delivery is the essence of this order, LD @ 0.5% per week or part thereof subject to a maximum of 10% of the order value for the delayed period of supply.</p>                                                                                                                                                                                                                                                                                                                             | Yes / No / Explain |  |
| 11 | <p>Security Deposit (SD)<br/>3% value of the order shall be deposited with SDSC within 10 days from the date of the Purchase Order towards security deposit in the form of Bank Guarantee(BG)/ FDR/DD towards performance of the Contract valid till completion of the contract period plus sixty days towards claim period. (This will be returned by SDSC immediately on execution of the order satisfactorily as per order terms. If not, the amount will be forfeited). NOT REQUIRED FOR LANDED COST BELOW RS.5 LAKHS.</p> | Yes / No / Explain |  |
| 12 | <p>Performance Bank Guarantee (PBG)<br/>You have to submit a BG/DD/FDR in lieu of PBG from a Nationalized / Scheduled Bank for 3% of the order value at the time of supply valid till the completion of warranty period plus 60 days towards claim period.</p>                                                                                                                                                                                                                                                                 | Yes / No / Explain |  |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |  |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--|
| 13 | Combined BG for PBG cum SD<br>In case, if parties are unable to provide two separate BGs, i.e., one for SD & one for PBG, they can submit a combined BG for SD & PBG for 3% of the Order value valid till the completion of total contractual obligation (i.e., Supply period plus warranty period plus 60 days). Please confirm.                                                                                                                                                                                  | Yes / No / Explain |  |
| 14 | Insurance<br>Being a Govt. Of India Dept., Insurance is not required at our cost. Please ensure the safe delivery of the ordered item with proper transport worthy packing.                                                                                                                                                                                                                                                                                                                                        | Yes / No / Explain |  |
| 15 | Validity of Offer<br>In case of single part tender - the validity of offers/tenders should be 90 days. In case of two part tender - 120 days from the date of opening of Part-I bid and 60 days from the date of opening of Part-II bid. Tenders shorter than offer validity mentioned above will not be considered for evaluation.                                                                                                                                                                                | Yes / No / Explain |  |
| 16 | The bidder shall provide compliance to Order No. F.No.7/10/2021 PPD dated 23.02.2023 and amendments thereof by Ministry of Finance, Department of Expenditure, Public Procurement Division regarding restrictions on procurement from a bidder of a country which shares a land border with India and comply to all the provisions of the Order. In this regard, you shall certify that the bidder entity is not from such a country or, is from such a country, has been registered with the Competent Authority. | Yes / No / Explain |  |
| 17 | As per the above Order, are you (the Bidder/Company/Entity) OR offering product/service is from such a Country sharing Land border with INDIA.                                                                                                                                                                                                                                                                                                                                                                     | Yes / No / Explain |  |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |  |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--|
| 18 | <p>Make-In-India (MII) Clause: Provisions contained in Public Procurement Policy (Preference to Make in India), Order 2017 issued by DPIIT vide OM No. P-45021/2/2017-PP(BE-II) dated 16.09.2020 &amp; directives related including latest amendments (if any) is applicable for this tender.</p> <p>You are requested to provide Self Declaration Certificate that the offered Item meets Local Content Requirement of Class 1 or Class 2 as per Make in India(MII) Policy, clearly indicating the Percentage of local content &amp; the details of Location(s) at which value addition is made in the offered product.</p> <p>It may be noted that Local Content shall not include services such as Transportation, Insurance, Installation, Commissioning, Training and after sales service support like AMC/CMC etc.</p> | Yes / No / Explain |  |
| 19 | <p>Please mention in PERCENTAGE the Value addition of offered products happened in INDIA in line with Make In India Policy. (Mandatory). You have to upload MII Declaration mentioning place and percentage of value addition along with Offer.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Yes / No / Explain |  |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |  |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--|
| 20 | <p>Purchase preference to Micro and Small Enterprises (MSEs): Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail the Purchase preference, the BIDDER MUST BE MANUFACTURER OF THE OFFERED PRODUCT in case of bid for supply of goods. TRADERS ARE EXCLUDED from the purview of Public Procurement Policy for Micro and Small Enterprises. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence along with UDYAM REGISTRATION in this regard shall be uploaded along with the bid in respect of the offered product or service. If L-1 is not an MSE and MSE Seller (s) has/have quoted price within L-1 plus 15% (Selected by Buyer) of margin of purchase preference/price band defined in relevant policy, such Seller shall be given opportunity to match L-1 price and contract will be awarded for 25% (selected by Buyer) percentage of total QUANTITY.</p> | Yes / No / Explain |  |
| 21 | <p>Are you claiming MSME Preference for this tendered item/service?</p> <p>Note: You should have been the MANUFACTURER of the offered product or SERVICE Provider of the said service (in service tender) as per your MSME Registration. (If YES, valid Udyam Registration documents shall be uploaded. Otherwise your claim will not be considered. False declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h))</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Yes / No / Explain |  |
| 22 | <p>Please Select for the offered Product whether you are:<br/>(1) Manufacturer (2) Authorized Agent (3) Distributor (4) Dealer (5) Reseller (6) Others</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Yes / No / Explain |  |



|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |  |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--|
| 23 | <p><b>ARBITRATION:-</b> The Contract/PO shall be interpreted, construed and governed by the Laws in India. In the event of any dispute/s, difference/s or claim/s arising out of or relating to the interpretation and application of the Contract/PO, such dispute/s or difference/s or claim/s shall be settled amicably by mutual consultations of the good Office of the respective Parties and recognizing their mutual interests attempt to reach a solution satisfactory to both the parties. If such a resolution is not possible, within 30 days from the date of receipt of written notice of the existence of such dispute/s, then the unresolved dispute/s or difference/s or claim/s shall be referred to the Sole Arbitrator appointed by the Parties by mutual consent in accordance with the rules and procedures of Arbitration and Conciliation Act 1996 as amended from time to time. The arbitration shall be conducted in Bengaluru in the Arbitration and Conciliation Centre - Bengaluru (Domestic and International) as per its rules and regulations. The expenses for the Arbitration shall be shared equally or as may be determined by the Arbitrator. The considered and written decision of the Arbitrator shall be final and binding between the Parties. The applicable language for Arbitration shall be English only.</p> | Yes / No / Explain |  |
| 24 | <p>Do you have Unique GeM Seller ID? If YES, provide details If NO, As per Office Memorandum No 6/9/2020-PPD dated 24/08/2020 of Department of Expenditure, it shall be mandatory for sellers providing Goods and Services to Central Government Organizations to be registered on GeM and obtain a Unique GeM Seller ID, at the time of Placement of Order/acceptance of contract. Tenderers shall ensure the same.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Yes / No / Explain |  |
| 25 | <p>Address on which PO is to be placed and GSTIN</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -                  |  |
| 26 | <p>Please provide valid/currently using E-mail Id &amp; Contact no. for seeking further clarifications if any</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                  |  |
| 27 | <p>Remarks if any.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                  |  |

### C.3 Price Bid

| Sl. No. | Item                                                                                                                                                                    | Quantity  | Unit Price | Currency | Total Price | P&F IN PERCENTAGE | FREIGHT PERCENTAGE | Remark |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|----------|-------------|-------------------|--------------------|--------|
| 1       | Non-Destructive Testing-Supply, Installation, Commissioning and Testing of 450KV X-ray System for Industrial Application as per specifications attached in the annexure | 1.00 Nos. |            | -        |             |                   |                    |        |

**Request for Proposal (RFP) of  
450kV Industrial X-ray System  
For  
NDT Facility – SLC Project, Kulasekarappattinam**



**Satish Dhawan Space Centre SHAR**

**Indian Space Research Organization**

**Sriharikota -524 124, A.P**

## **CONTENTS**

|                                                      | Page No |
|------------------------------------------------------|---------|
| 1. OVERALL SCOPE OF WORK                             | 03      |
| 2. RESPONSIBILITIES                                  | 03      |
| 3. GENERAL TERMS AND CONDITIONS                      | 04      |
| 1) VALIDITY OF OFFER                                 | 04      |
| 2) DELIVERY SCHEDULE                                 | 05      |
| 3) PRICE                                             | 05      |
| 4) TAXES & DUTIES                                    | 05      |
| 5) PAYMENT TERMS                                     | 06      |
| 6) DELIVERY TERMS                                    | 06      |
| 7) PACKING                                           | 06      |
| 8) INSTALLATION, TESTING, EVALUATION & COMMISSIONING | 06      |
| 9) INSPECTION & TRAINING                             | 07      |
| 10) LIQUIDATED DAMAGES                               | 07      |
| 11) WARRANTY & REPLACEMENT                           | 07      |
| 12) TECHNICAL DOCUMENTS                              | 07      |
| 13) MII Clause                                       | 08      |
| 14) LANGUAGE AND MEASURES                            | 08      |
| 15) APPLICABLE LAW                                   | 08      |
| 16) FORCE MAJEURE                                    | 08      |
| 17) CANCELLATION OF CONTRACT                         | 09      |
| 18) FRAUDULENT PRACTICES, BRIBERY AND CORRUPTION     | 11      |
| 19) RISK AND COST PURCHASE                           | 11      |
| 20) LAND BORDER SHARING DECLARATION                  | 12      |

**Annexure-1:** Specifications for 450KV Industrial X-ray System &

**Annexure-2:** Price Bid Format

**Annexure-3:** Preparation of Bids- Information to Bidders

**Annexure-4:** standard terms and conditions

**Figure – 1:** 450KV bay layout with supporting rooms arrangement

# Request for Proposal (RFP) of 450kV Industrial X-ray System

## I. Overall Scope of Work

Supply, installation, commissioning & testing of 450kV Industrial X-ray machine (Qty: 1No) for Industrial NDT purpose as per the technical specifications given in annexure-1.

### **Requirements of supplier:**

- a) 450KV Industrial X-ray system: Supplier shall be a Manufacturer or an authorized dealer for supply of these systems. Supplier has to furnish the details like dealership certificates and relevant experience in supply of these systems & customers/purchase order details of similar systems supplied earlier.

Details of the NDT facility and other interface details are explained in this document. (It may be noted that SDSC SHAR may be referred to as Purchaser/User/Department/Owner, etc. and so also the supplier as the Contractor/Party/Tenderer/Seller/Bidder/Vendor etc. elsewhere in this document, to mean the same).

## II. Responsibilities of Supplier and SDSC SHAR

### **Responsibility of Supplier**

1. Supply, installation, testing and commissioning of 450kV Industrial X-ray System at SLC Project Site, Kulasekarappatinam, Thoothukudi District, Tamilnadu as per the specifications given in the annexure-1.
2. Supplier, if necessary, shall make a visit to SLC site for understanding the arrangements and exposure bay plan before offering quotation.
3. All material handling equipments, special purpose tools/fixtures, loads required during erection & commissioning shall be arranged by supplier.
4. Supplier shall submit the following;
  - a. General arrangement drawings and other details of X-ray machine, which includes X – ray tube, HV- generator, HV & control cables and control console.
  - b. General Arrangement drawings and other details of collimator.

5. Type approval or NOC for supply of 450KV x-ray machine shall be obtained by the supplier from Atomic Energy Regulatory Board (AERB), India.
6. Providing acceptance test & measurement procedures and test certificates for the 450 KV industrial X-ray machines for the acceptance tests at supplier's site prior to dispatch of the systems SLC.
7. Supplier shall arrange for inspection of the 450kV Industrial X-ray System by the purchaser at the supplier's premises for ensuring /meeting the specifications.
8. Providing IQIs such as duplex wire IQI ASTM E 1647 for contrast sensitivity measurements.
9. Three sets of Operation, service & Maintenance manuals for the complete system. All service & maintenance manuals shall contain block diagram, circuit diagram/wiring diagram and flow charts.
10. Local conveyance and other logistics shall be the responsibility of supplier
11. The dispatch clearance to be obtained from purchaser. After clearance only the system shall be moved to purchaser site.
12. Pre clearance to be obtained from purchaser for installation. It is subject to readiness of the facility at SLC site.

- **Responsibility of SLC Project**

1. SLC Project will provide the NDT building and necessary electrical power (415V, 3 phase or 230V, 50Hz) requirements for installation and commissioning of the 450kV Industrial X-ray System.

### **III. General Terms and Conditions**

#### **1. VALIDITY OF OFFER**

The offer shall be valid for 120 days from the date of opening the bids. In case of any delay in obtaining technical clarifications from the supplier due to incomplete bid, the validity shall be extended accordingly.

## **2. DELIVERY SCHEDULE**

Supplier shall deliver the 450kV Industrial X-ray machine within 5 months from the date of release of purchase order and erection & demonstration of the rated outputs/performance of the systems as per the tender document shall be within one month from the date of clearance given by the department for erection and commissioning.

In case if supplier is ready to supply the systems well before the schedule delivery, department/purchaser's clearance is essential.

## **3. PRICE**

Price shall be quoted in the format enclosed in Annexure-2 as per e-procurement portal. The price shall include machine supply cost (including the cost of additional spare) and Installation & commissioning as per list given in this document.

## **4. TAXES AND DUTIES**

The tendered items as per the above subjected tender comes under "Scientific and technical instruments, apparatus, equipment, accessories, parts, components, spares, tools, mock ups and modules, raw material and consumables required for launch vehicles and satellites and payloads" having GST @ 5% (As per Dept of Revenue IGST Notification No. 25/2018 Integrated Tax (Rate) Schedule-I ; Sl. No.243B dt: 31.12.2018 (Amendment to Notifications No. 7/2018-Integrated Tax (Rate) dt: 25.01.2018. Clause A (ix) about Schedule I 243A))

Kindly accept to offer the item with 5% GST against End User Certificate from our Competent Authority that the items belong to the above category

## **5. PAYMENT TERMS**

### **5.1. For Supply of Items:**

- a. **80%** of supply cost payment against receipt of complete material at Purchasers / Department site, along with 100% GST.



- b. **20%** of supply cost, after successful commissioning of equipment & system covered under contract and acceptance by the department, against submission of Performance bank guarantee valid till warranty period.

**5.2. For Erection Commissioning and Testing of System:**

- a. **100%** of erection cost after successful assembly of system in all respect, including testing & commissioning and acceptance of equipment & systems covered under contract by the department, against submission of performance bank guarantee.

**6. Delivery Terms**

Delivery of all the items shall be on 'FOR, SLC Site, Thoothukudi District, Tamilnadu basis and the supplier take responsibility to deliver the consignment to SLC site.

**7. PACKING**

- a) The Suppliers responsible for packaging the system as per the guided norms of X- ray machine Principal. The Supplier is responsible for delivering the items at site without damages.

**8. INSTALLATION, TESTING, EVALUATION & COMMISSIONING**

- a) The erection, testing and commissioning shall be completed within one month after issuing the site clearance by department/purchaser.
- b) The acceptance of the system is as per the Acceptance Test Plan to be supplied by the supplier, which shall be discussed and mutually agreed upon.
- c) The detailed installation and commissioning schedule shall be provided to SLC Project on mutual agreement.
- d) Supplier shall submit all the test certificates of individual sub-systems tested at supplier's site along with the systems.
- e) Acceptance Testing will be conducted at SLC Project as per mutually agreed Acceptance Test Plan (ATP). Supplier shall submit the ATP document with the Acceptance criteria proposed in the specification document.

## **9. INSPECTION & TRAINING**

- a) Inspection of the 450kV Industrial X-ray machine will be carried out by the purchaser at the supplier's premises for ensuring /meeting the specifications.
- b) SDSC SHAR Engineers shall be trained during testing and commissioning of the 450kV X-Ray System and maintenance including various troubleshooting tasks at SLC.

## **10. LIQUIDATED DAMAGES**

If the Supplier fails to deliver the Stores within the time specified in the contract or any extension thereof, the Purchaser shall recover from the Supplier as liquidated damages a sum of 0.5 percent per calendar week or part thereof of the undelivered portion work. The total liquidated damages shall not exceed ten percent (10 percent) of the contract price of the unit or units so delayed. Stores will be considered only when all its component parts are delivered. If certain components are not delivered in time, the Stores will be considered as delayed until such time as the missing parts are delivered.

## **11. WARRANTY, PERFORMANCE BANK GUARANTEE & REPLACEMENT**

- a) The Supplier shall guarantee/warranty that the Stores supplied shall comply fully with the specifications laid down, for material, workmanship and performance.
- b) Warranty shall be applicable for a period of twelve months after the acceptance of the system by purchaser at SLC , if any defects are discovered therein or any defects therein are found to have developed under proper use arising from faulty materials, design or workmanship, the Supplier shall rectify such defects at his own cost.
- c) If in the opinion of the Purchaser, it becomes necessary to replace or renew any defective Stores, such replacement or renewal shall be made by the supplier free of all costs to the Purchaser.

## **12. TECHNICAL DOCUMENTS**

Supplier shall deliver, three copies of the Test certificates, Technical Manual, consisting of Operation Instructions, Preventive Maintenance procedures & Trouble Shooting etc. in English along-with the system. Any changes or modifications that may be found necessary at the time of test and evaluation shall be incorporated and the documents shall be amended suitably

## **13. MII Clause**

Provisions contained in Public Procurement Policy (Preference to Make in India); Order 2017 issued by DPIIT vide OM No. P-45021/2/2017-PP(BE-II) dated 16.09.2020 & directives related including latest amendments (if any) is applicable for this tender. You are requested to provide Self Declaration Certificate that the offered Item meets Local Content Requirement of Class 1 or Class 2 as per Make in India (MII) Policy, clearly indicating the Percentage of local content & the details of Location(s) at which value addition is made in the offered product. It may be noted that Local Content shall not include services such as Transportation, Insurance, Installation, Commissioning, Training and after sales service support like AMC/CMC etc. Minimum 50% local content for Class-1 local supplier and minimum 20% local content for class 2 local suppliers.

Bidders shall submit self-declaration indicating percentage of local content along with location of value addition in INDIA.

## **14. LANGUAGE AND MEASURES**

All documents pertaining to the contract including specifications, schedule notices, correspondence, operating and maintenance instructions, drawings or any other writings shall be written in English Language. The metric system of measurement shall be used exclusively in this contract.

## **15. APPLICABLE LAW**

The Supplier shall be interpreted, construed and governed by the laws of India.

## **16. FORCE MAJEURE**

Neither party will be held responsible for non-fulfillment of their respective obligations under this agreement due to the exigency of one or more of the force majeure events such as but not limited to Acts of God, war, flood, earthquake, strike, lock-outs, epidemics, riots, civil commotions etc., provided on the occurrence and cessation of any such events, the party affected thereby will give a notice in writing to the other party within one month of such occurrence or cessation. If the force majeure conditions continue beyond six months, the parties will then mutually decide about the future course of action.

The agreement contains the modalities, terms and conditions of different services during the development, testing and commissioning phases.

## **17. CANCELLATION OF CONTRACT**

### **17.1 GENERAL RULE**

The Department shall have the right at any time to cancel a contract either totally or in part by giving written notice by registered mail. From the time of receipt of the written notice, the Supplier shall undertake to observe the instructions of the Department as to the winding up of the contract both on his own part and on the part of his sub-suppliers.

### **17.2 WITHOUT FAULT OF SUPPLIER**

In the case of cancellation of a contract by the Department without any fault of the Supplier, the Supplier shall on receipt of Department's instructions forthwith take the necessary steps to implement them. The period to be allowed to implement them shall be fixed by the Department after conclusion with the Supplier and, in general, shall not exceed three months.

Subject to the Supplier confirming, Department shall take over from the Supplier at a fair and reasonable price all finished parts not yet delivered to the Department, all unused and undamaged material, bought-out components and articles in course of manufacture in the possession of the supplier and property obtained by or supplied to the Supplier for the performance of the contract, except such material, bought-out components and articles in

course of manufacture as the supplier shall, with the agreement of the Department, elect to retain.

## **18 FRAUDULENT PRACTICES, BRIBERY AND CORRUPTION OF GOVERNMENT SERVANTS**

The contractor represents and undertakes that he has not given, offered or promised to give, directly or indirectly any amount, gift, consideration, reward, commission, fees, brokerage or inducement to any person in service of the department or otherwise in procuring the contracts or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of the contract or any other contract with the Government for obtaining a contract or showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the government. Any breach of the aforesaid undertaking by the contractor or any one employed by him or acting on his behalf or for his benefit (whether with or without the knowledge of the contractor) or the commissioning of any offence by contractor or any one employed by him or acting on his behalf, as defined in chapter IX of the Indian Penal code, 1860 or the prevention of corruption Act. 1947 or any other Act enacted for the prevention of corruption shall, without prejudice to any other legal action, entitle the Department to cancel the contract either wholly or in part, and all or any other contracts with Contractor and recover from the Contractor such amount or the monetary value thereof and the amount of any loss arising from such cancellation without any entitlement or compensation to the Contractor. The Department will also have the right to recover any such amount from any contracts concluded earlier between the contractor and the Government of India. The contractor will also be liable to be debarred from entering into any contract with the Government of India for a minimum period of five years. A decision of the Department to the effect that a breach of the undertaking had been committed shall be final and binding on the Contractor.

## **19 Risk and Cost Purchase**

Timely delivery of goods/services is of prime importance and where the vendor fails to fulfil their contractual obligations, the Procuring Entity shall be entitled, and it shall be lawful on his part, to procure Stores and/ or services similar to those ordered/cancelled, with such terms and

conditions and in such manner as it deems fit at the “Risk and Cost” of the Contractor and the Contractor shall be liable to the Procuring Entity for the extra expenditure, if any, incurred or accrued by the Procuring Entity for arranging such procurement. However, the Contractor shall not be entitled to benefits if any, from such procurements.

Prior to resorting to risk purchase the Purchaser shall consider impact of the default by the contractor, proper notice to the contractor to invoke risk purchase clause and method of recovering the additional amount spent by the Purchaser. The cost as per risk purchase exercise may be recovered from the Earnest Money Deposit/ Security Deposit/ Performance Security of the supplier and/or bills submitted by the supplier against the same contract or any other contract. GST will be charged / levied on Risk Purchase as per the provision of GST Act Rule thereon.

Risk purchase action may be initiated under any of the following conditions.

- a. When the supplier fails to deliver the materials even after extending the delivery period.
- b. When the supplier fails to respond to purchases request for supply of the materials and fails to provide any genuine and bonafide reason for the delay in supply.
- c. When the supplier breaches any of the terms and conditions of the supply order/ contract and as a result fails to execute the order satisfactorily

## **20 Land Boarder Sharing Declaration.**

The bidder shall provide compliance to Order No. F.No.7/10/2021 PPD dated 23.02.2023 and amendments thereof by Ministry of Finance, Department of Expenditure, Public Procurement Division regarding restrictions on procurement from a bidder of a country which shares a land border with India and comply to all the provisions of the Order. In this regard, you shall certify that the bidder entity is not from such a country or, is from such a country, has been registered with the Competent Authority.

## Annexure-1

### Technical Specifications of 450kV industrial X-Ray system

#### **1.0 Scope:**

Supplier shall Supply, Install, Commission and Testing, industrial 450 KV X-ray system at SLC Project Site, Tamilnadu, for Industrial NDT purpose. Detailed specifications of this system are given below.

#### **2.0 Major Components:** The system shall have components listed below,

- a) **X-Ray Head :** - It is a directional, sealed X-ray tube capable to generate X-ray up to 450 KV energy level. The head shall have in built low energy filter system and **the beam exit point at the center of tube assembly ( $\pm 100\text{mm}$ )**. The HV cable assembly to head shall be provided at both the ends with sealed connection end point. The tube shall be supplied with end fitting assembly for easy handling.
- b) **HV Generator:** - The HV generator system shall generate the +225KV (Anode to ground) and – 225KV (cathode to ground) for X-ray generation.
- c) **Control console:** - The control console shall be equipped for remote operation with built in safety mechanism, like customer interlock connections and authorization key. Console shall have provision for machine parameter settings, like KV, mA, focus selection and time. It shall have minimum three visible indicator lamps for Power up, Safety and X-ray beam ON.
- d) **Tube Cooling Unit:** - Preferably oil based colling system, for X-ray tube and shall be supplied with oil leak proof enclosure with built in pump mechanism for coolant circulation inside the tube.
- e) **Laser Centering device:** - Laser based centering device shall be supplied with the system to locate the focus point or beam exit point from the tube. The laser used shall be He-Ne, class II type and have the range of at least 3 meters. The laser power must be less than 5mW. The laser shall be battery operable.
- f) **Head Collimator (External):** - Source shall be supplied with compatible collimator assembly with provision for symmetric, asymmetric jaw movements. The collimator

jaws shall be operable remotely and the jaw display provision shall be made in the control room. The electrical connections to the collimator systems shall be intrinsic safe and certified to operate in zone 1, class 1 explosive area.

- g) **HV and Control Console Cables:** - The insulated HV cable assembly shall have 20 meters length and compatible end fittings for tube as well as HV generator side connections. Control console cable shall be of 35 meters length with compatible end connectors for operation.
- h) **Safety features:** - The system shall be supplied with minimum safety features for personnel as well as equipment:
- Provision for Customer Door interlock
  - Radiation warning lamp
  - Emergency switch
  - Safety Key

The party shall provide customer interlock panel with visible indication lamps, push buttons, necessary terminal strips, Contactors, MCBs, IS barrier, Relays, etc. to interface the exposure bay with systems

- i) **Software:** The OEM (applicable for computer-based Control console) software with original license and key shall be given to purchaser after installation at SLC site

**j) Required cable lengths for X-ray machine**

Approximate cable lengths required for different sub-systems are given below. However any variation in cable lengths during erection and commissioning of X-ray machine at SLC shall be taken care by the supplier without any extra cost.

- i. X ray machine to HV generator (HV cable and cooling hose) : 20 m
- ii. HV generator to control console (control and data cable) : 35 m



### 3. Overall Specifications

#### a) 450KV X –ray machine: -

| Sl.No. | Description                                                                                              | Requirement                                                      |
|--------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| 1.     | Supply voltage                                                                                           | 440 / 230 V $\pm$ 10%, 50 Hz (Indian standard)                   |
| 2.     | Tube Voltage                                                                                             | Max Peak 450KV                                                   |
| 3.     | Anode to Ground                                                                                          | 225 KV                                                           |
| 4.     | Cathode to Ground                                                                                        | 225 KV                                                           |
| 5.     | Voltage adjustments                                                                                      | Fine<br>Coarse                                                   |
| 6.     | Tube Current                                                                                             | Adjustable                                                       |
| 7.     | Current adjustments                                                                                      | Fine<br>Coarse                                                   |
| 8.     | Focal Spot Size                                                                                          | Maximum 2.5 mm for small focus<br>Maximum 5.5 mm for large focus |
| 9.     | X-ray beam exit location                                                                                 | At the center of tube housing (100mm offset acceptable)          |
| 10.    | Radiation Coverage or field                                                                              | 40° or 40° X 30°                                                 |
| 11.    | Collimator                                                                                               | Motorized shutters operated remotely                             |
| 12.    | HV cable length                                                                                          | 20 meters                                                        |
| 13.    | Control console cable length                                                                             | 35 meters                                                        |
| 14.    | Maximum radiation leakage                                                                                | 10 mSV/hr @ 1 meter from source while collimator shutters closed |
| 15.    | User manual (English) with operation instructions and maintenance instructions<br>Hard copy<br>Soft copy | 3 Nos.<br>1 No.                                                  |

#### b) Standard Spares: -

Machine shall be supplied along with Standard spare kit.

#### c) Additional spares:

The Machine shall be supplied with additional spares as per the list given below.

| Sl No | Description                      | Qty    |
|-------|----------------------------------|--------|
| 1     | Control boards for HV generation | 01 set |
| 2     | Control console boards           | 01 set |
| 3     | Transformer cooling oil          | 20 lts |
| 4     | Collimator spare motor           | 02 Nos |

|   |                                |        |
|---|--------------------------------|--------|
| 5 | HV connector cable 20 m length | 01 set |
| 6 | Cooling oil hoses 20 m length  | 01 set |

**d) Test and acceptance procedure:**

- Supplier shall demonstrate the scope, functionalities of the system at customer site.
- Supplier must submit certificates with respect to the focal size as per EN 12543-2.
- The supplier for the customer provided specimens corresponding to different energy levels should demonstrate the sensitivity levels 1-2T or better.
- On part of endurance test the supplier must demonstrate the operation of machine at maximum peak voltage and current for 30 minutes duration without any interruption or with one interception. The test has to be repeated for 2 times after necessary tube cooling time.

**e) Other Details / Requirements**

- 1) The line power available with the purchaser: 415V $\pm$  10 % AC-3 phase or 230V AC, 50 Hz at 30mtrs from the proposed X-ray machine. Necessary armoured power cable to be supplied and end terminated by supplier.
- 2) The ambient temperature at site varies from 25°C (winter) to 50°C(summer)
- 3) The percentage of relative humidity at site varies from 70% to 95%
- 4) The exposure hall dimensional details are provided in the enclosed figure.

All electrical systems viz. junction boxes, local pushbutton pendent etc provided inside Hazardous area (450KV bay) shall be flame proof or intrinsically safe systems. Detailed requirements of flame proof/ intrinsic safe systems are briefed in this document.

**4. Standard Tool kit:**

The standard tool kit shall be supplied along with the system for maintenance purpose as per the given list.

| Sl No | Items                    | Specifications ( BIS or ISI certified hand tools or equivalent international standard.) | Qty    |
|-------|--------------------------|-----------------------------------------------------------------------------------------|--------|
| 1     | Screw driver with sleeve | + & - All standard sizes,                                                               | 01 set |
| 2     | Chubby screw driver set  | + & - All standard sizes,                                                               | 01 set |
| 3     | Spanner set              | double end ring, All standard sizes in                                                  | 01 set |

|    |                                                                                                                      |                                                                          |             |
|----|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|-------------|
|    |                                                                                                                      | mm                                                                       |             |
| 4  | Spanner set                                                                                                          | double end open, All standard sizes in mm                                | 01 set      |
| 5  | Spanner set                                                                                                          | double end ring, All standard sizes in inches                            | 01 set      |
| 6  | Spanner set                                                                                                          | double end open, All standard sizes in inches                            | 01 set      |
| 7  | Allen keys set                                                                                                       | All standard sizes in mm                                                 | 01 set      |
| 8  | Allen keys set                                                                                                       | All standard sizes in inches                                             | 01 set      |
| 9  | Adjustable spanner                                                                                                   | (Small, Medium & large size)                                             | Each 01 No  |
| 10 | Combination plier                                                                                                    | Medium size                                                              | 01 No       |
| 11 | Monkey plier                                                                                                         | Medium size                                                              | 01 No       |
| 12 | Wire stripper                                                                                                        |                                                                          | 02 Nos      |
| 13 | Lead cutter                                                                                                          |                                                                          | 02 Nos      |
| 14 | Nose plier                                                                                                           |                                                                          | 02 Nos      |
| 15 | Tweezer (forceps)                                                                                                    | straight                                                                 | 02 Nos      |
| 16 | Knife                                                                                                                | Heavy duty                                                               | 02 Nos      |
| 17 | Electric lug crimping tool (up to 16 square mm able to crimp )                                                       |                                                                          | 01 No       |
| 18 | Torque wringer set                                                                                                   | Standard size                                                            | 01 set      |
| 19 | Pipe wringer                                                                                                         | Standard size with 3-inch jaw opening (As per IS standard or equivalent) | 02 Nos      |
| 20 | Soldering irons (80W and 200W) with temperature control stations includes additional tip sets (temperature variable) | (As per BIS, IS959:1994 )                                                | Each 01 set |
| 21 | De solder pump                                                                                                       | AS per IS standard or equivalent                                         | 01 No       |



**Annexure-2****PRICE BID FORMAT**

| <b>S. No.</b> | <b>Description of the item</b>                                                                                                                  | <b>Unit</b> | <b>Cost</b> |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|
| 1.            | Supply of 450KV Industrial X-Ray System (including additional spares & Listed Standard tool kit ) as per the specifications given in annexure-1 | 1 No        |             |
|               |                                                                                                                                                 |             |             |
| 2.            | Installation and Commissioning charges for 450 KV Industrial X-ray System                                                                       | 1 No.       |             |
|               |                                                                                                                                                 | GST         |             |
|               | <b>Total cost</b>                                                                                                                               |             |             |

Note: No price related noting shall be revealed on Techno-Commercial stage, otherwise offer shall be rejected.

**PREPARATION OF BIDS- INFORMATION TO BIDDERS**

**a. SITE VISIT**

The Supplier may visit SLC Project site and acquaint himself fully with the requirements before submitting the tender. Supplier shall be deemed to have clearly understood and satisfied himself regarding the work and services, all conditions liable to be encountered during the execution

**b. VALIDITY OF OFFER**

Bid shall remain valid for acceptance for a period of 4 (Four) months from the due date of submission of the Bid. The Supplier shall not be entitled during the said period to revoke or cancel his Bid or to vary the Bid except and to the extent required by Purchaser and communicated in writing. Bid shall be revalidated for extended period as required by Purchaser in writing. In such cases, unless otherwise specified, it is understood that validity is sought and provided without varying either the quoted price or any other terms and conditions of Bid finalized till that time.

**c. COST OF BIDDING**

All direct and indirect costs associated with the preparation and submission of Bid (including clarification meetings and site visit, if any), shall be to Supplier's account and the Purchaser will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bid process.

**d. SCHEDULE OF PRICES**

The schedule of prices shall be read in conjunction with all the sections of proposal document.

For Lump sum contract, the lump sum prices quoted by the Supplier shall be firm and fixed for the completion of the work, unless stated otherwise. The price must be filled in the format specified in the document.

**e. DOCUMENTS COMPRISING THE BID**

**PART – I TECHNICAL AND UNPRICED COMMERCIAL PART**

Technical bid shall be submitted online and the following documents shall be attached along with the technical bid. If sufficient space is not available for on line submission, the same in hard copy form shall be send to Department by courier/ post to reach before the tender opening date, failing which the on-line bid will not be considered for evaluation. No attachment with price information shall be attached along with the technical bid.

- i. Submission of bid letter along with one set of proposal document duly signed and stamped as token of acceptance
- ii. Copy of Company's registration number certificate.
- iii. Power of attorney in favour of authorized signatory of the bid / proposal documents.
- iv. All the annexures enclosed in proposal duly filled, signed and sealed
- v. Unpriced copy of schedule of prices with all other commercial terms and conditions duly filled (Prices to be kept blank), signed and stamped
- vi. Data sheets for all the equipment & checklists enclosed in proposal duly filled, signed, & stamped.
- vii. Solvency certificate from a scheduled bank for a value not less than 50Lakh and not before 6 months from tender closing date.
- viii. Technical details, equipment general arrangement drawings with part list, catalogue, layout drawings, P & I diagram, catalogues etc as applicable and any other drawing, document as mentioned in the proposal.
- ix. Any other relevant document, Supplier desires to submit.

**PART – II PRICED COMMERCIAL BID**

Commercial bid shall be filled in on line and no scanned copy should be attached to technical bid. No deviations, terms and conditions, assumptions, conditions, discounts

etc. shall be stipulated in price bid. Purchaser will not take cognizance of any such statement and may at their discretion reject such bids.

**f. PRE-QUALIFICATION CRITERIA**

| Sl. No    | CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b>  | Tenderer for supplying the 450 KV Industrial X-ray System shall be a manufacture or an authorized agent and shall produce the authorization letter to this effect along with the techno commercial bid. Tenderer shall have minimum 5 years of experience, ending with 31-03-2025, in supply of 450KV x-ray machine to ISRO Centre's or any other Indian Govt. Department or PSUs or Private Firm for industrial purpose. Documentary proof about the supplied systems shall be submitted. |
| <b>2</b>  | The supplier shall submit documentary proof of purchase order executed for 450 KV X-ray machine supply. The minimum PO value as given below<br>One purchase order value of Rs. 100 lakhs                                                                                                                                                                                                                                                                                                   |
| <b>3.</b> | The Vendor annual turn over for last three years ending with March 2025 shall be minimum of 125 lakhs.                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>4.</b> | The supplier shall submit Solvency certificate from a scheduled bank for a value not less than 50Lakh and not before 6 months from tender closing date.                                                                                                                                                                                                                                                                                                                                    |

**g. BID EVALUATION**

- i. If the bid which does not satisfy the pre-qualification criteria as mentioned above shall summarily be rejected and shall not be considered for further evaluation. SDSC SHAR will scrutinize bids to determine whether the bid is substantially responsive to the requirements of the tender documents. For the purpose of this clause, a substantially responsive bid is one which inter-alia conforms to all the terms and conditions of the entire Tender document without any deviations and reservations. The decision of purchaser shall be final in this regard.
- ii. The supplier should not have any record of precedence that any government agency or PSU banned or short closed the active contracts during last 5 years.



- iii. During evaluation, purchaser may request Supplier for any clarification on the bid upon additional documents which is to be complied with; otherwise offer will be deemed incomplete.
- iv. Techno-commercial discussion shall be arranged with Supplier, if needed. Supplier shall depute his authorized representatives for attending discussions. The representatives attending the discussions shall produce authorization from his organization to attend the discussion and sign minutes of meeting on behalf of his organization if required. The authorized representative must be competent and empowered to settle/decide on all technical and commercial issues.
- v. The complete scope of work is defined in the Proposal document. Only those Suppliers who undertake total responsibility for the complete scope of work as defined in the Proposal document shall be considered.
- vi. In case Bid does not fully comply with the requirement of Proposal document and the Supplier stipulates deviations to the clauses of the proposal in Schedule of deviations, which are unacceptable to the Purchaser, the Bid will be rejected.
- vii. Performance of Supplier on similar works executed/ under execution shall be taken into consideration before selecting the Supplier for opening his price bid.
- viii. Purchaser reserves right to visit client's site for verification/validation.
- ix. The time schedule for completion is given in the Proposal document. Supplier is required to confirm the completion period unconditionally.
- x. Purchaser reserves the right to accept a bid other than a lowest and to accept or reject any bid in full or part without assigning any reasons. Such decisions by the Purchaser shall bear no liability on the Purchaser whatsoever consequent upon such decision.
- xi. Purchaser shall not be obliged to furnish any information / clarification to unsuccessful Suppliers as regards to non-acceptance of their Bids.

**h. Vendor Evaluation Format:**

(i) Tenderer shall submit the following information along with the techno-commercial bid.

| S. No | Description                                                                                           | Vendor Response                                |         |         |
|-------|-------------------------------------------------------------------------------------------------------|------------------------------------------------|---------|---------|
| 1.    | Name of the company :                                                                                 |                                                |         |         |
| 2.    | Type of the Company :<br>(Proprietary/Pvt.Ltd/Public Ltd/Joint<br>Venture/Consortium)                 |                                                |         |         |
| 3.    | Registration number & certificate :                                                                   |                                                |         |         |
| 4.    | Name & Address of the Office of the<br>Chief Executive of the Company :                               |                                                |         |         |
| 5.    | Contact person for this tender with<br>name & address and contact number :                            |                                                |         |         |
| 6.    | From which year the Company is in<br>operation :                                                      |                                                |         |         |
| 7.    | Financial parameters :                                                                                |                                                |         |         |
| 8.    | In Rs. Lakhs only                                                                                     | 2022-23                                        | 2023-24 | 2024-25 |
|       | Turnover ` in lakhs :                                                                                 |                                                |         |         |
|       | Profit/Loss in Rs. lakhs :                                                                            |                                                |         |         |
|       | The major customers for whom similar<br>works are provided (Enclose copies of<br>the Purchase Orders) |                                                |         |         |
| 9.    | Any customers feedback on the<br>services which is in writing (Pl. enclose<br>copies)                 |                                                |         |         |
| 10.   | Vendor Pre-qualification criteria:<br>Supporting document:                                            | Meeting / Not Meeting<br>Attached/Not attached |         |         |
| 11.   | 450KV X-ray system, NOC or Type<br>Approval from AERB                                                 | Attached / Not Attached                        |         |         |

| S. No | Description              | Vendor Response       |
|-------|--------------------------|-----------------------|
| 12.   | Compliance of Tender T&C | Complied/Not complied |

- (i) Details of experience of contractor in executing similar type of works which are completed

| Sl. No | Full postal address of the client with Contact Person | Description of the work | Value of the work (Rs. in Lakhs) | Completion Time as per PO | Actual period of completion | Reasons for delay |
|--------|-------------------------------------------------------|-------------------------|----------------------------------|---------------------------|-----------------------------|-------------------|
| 1      |                                                       |                         |                                  |                           |                             |                   |
| 2      |                                                       |                         |                                  |                           |                             |                   |
| 3      |                                                       |                         |                                  |                           |                             |                   |
| 4      |                                                       |                         |                                  |                           |                             |                   |

Note: In order to consider as valid experience, all the experience has to be supported with the completion certificate and purchase order

Signature of Authorized Person with Seal

**STANDARD TERMS & CONDITIONS:**

1. Offers shall be sent online only using standard digital signature certificate of class iii with encryption /decryption. The tenders authorize online on or before the open authorization date and time only will be considered as valid tenders even though the bids are submitted online.
2. The tenderer must authorize bid opening within the time stipulated in the schedule by SDSC SHAR. Otherwise the online bid submitted will not be considered for evaluation. Physical copy will not be considered even though it is received before the bid submission date.

**In case of two-part tenders, parties shall submit their offers as follows: -**

**a) Part-I – Techno-commercial Bid**

(No price details shall be mentioned in this bid and shall not upload the details of price along with the techno-commercial bid)

**b) Part-II – Price Bid**

In view of Two-Part Tender, the Offers submitted contrary to above instructions will be summarily rejected.

3. In case, the tenderer is not interested to participate in the tender, the tenderer shall submit regret letter giving reasons, failing which future enquiries will not be sent.
4. **Offer Validity:** The validity of the offers / tenders should be 90 days (in case of single part tender) and 120 days (in case two part tender) from the date of opening of the tenders. Tenders with offer validity less than the period mentioned above, will not be considered for evaluation.
5. **Liquidated Damages** – In all cases, delivery schedule indicated in the Purchase Order/Contract is the essence of the contract and if the party fails to deliver the material within the delivery schedule, Liquidated Damages will be levied @ 0.5% per week or part thereof subject to a maximum of 10% of total order value.

6. **Performance Bank Guarantee** – Performance Bank Guarantee for 3% of the order value should be furnished in the form of Bank Guarantee from nationalized/ scheduled bank or by Demand Draft valid till warranty period plus sixty days as claim period.
7. **Security Deposit** – Security Deposit for 3% of the order value is mandatory. Party shall furnish the Security Deposit in the form of Bank Guarantee from nationalized/scheduled bank or by Demand Draft valid till completion of the contract period plus sixty days towards claim period for faithful execution of the contract.
8. **Combined BG for PBG cum SD**  
In case, if parties are unable to provide two separate BGs, i.e., one for SD & one for PBG, they can submit a combined BG for SD & PBG for 3% of the Order value valid till the completion of total contractual obligation (i.e., Supply period plus warranty period plus 60 days).  
Note: No interest shall be payable on any bank guarantee.
9. The delivery period mentioned in the tender enquiry, IF ANY, is with the stipulation that no credit will be given for earlier deliveries and offers with delivery beyond the period will be treated as unresponsive.
10. The Department will have the option to consider more than one source of supply and final orders will be given accordingly.
11. The bidders should note that conditional discounts would not have edge in the evaluation process of tenders.
12. Non-acceptance of any conditions wherever called for related to Guarantee/ Warranty, Performance Bank Guarantee, Security Deposit, Liquidated damages are liable for disqualification.
13. Wherever installation/ commissioning involved, the guarantee/warranty period shall reckon only from the date of installation and commissioning.
14. Purchase/Price Preference will be extended to the MSMEs under the Public Procurement Policy for MSMEs formulated under the Micro, Small and Medium Enterprises Development Act, 2006 and instructions issued by Government of India from time to time. Vendors who would like to avail the benefit of MSME should clearly

mention the same and submit all the documentary evidences to substantiate their claim along with tender itself.

15. The drawings, specifications, end use etc., given by the Centre/Unit along with the tender enquiry are confidential and shall not be disclosed to any third party.

**16. EXCLUSION OF TENDERS**

The following tenders shall be summarily rejected from the procurement process

- a. Tenders received from vendors who have not qualified in terms of their registration.
- b. Tenders received against publishing of a limited tender in the EGPS portal.
- c. Tenders of vendors who have been removed from the vendor list or banned/debarred from having business dealings.
- d. Unsolicited tenders from vendors.
- e. The tenders which materially depart from the requirements specified in the tender document or which contain false information.
- f. The tenders which are not accompanied by the prescribed Earnest Money Deposit.
- g. The tenders of vendors who have not agreed to furnish Security Deposit, Performance Bank Guarantee and Liquidated Damages.
- h. The validity of the tenders is shorter than the period specified in the tender enquiry.
- i. The tenders received from vendors or their agents or anyone acting on their behalf, who have promised or given to any official of the Centre/Unit/Department, a gratification in any form, or anything of value, so as to unduly influence the procurement process.
- j. The tenders received from vendors, who, in the opinion of the Centre/Unit, have a conflict of interest materially affecting fair competition.
- k. The tenders received from Indian agents on behalf of their foreign Principals/OEMs (in cases where the Principals/OEMs also submit their tenders simultaneously for the same item/product in the same tender).
- l. In case two or more tenders are received from an Indian agent on behalf of more than one foreign Principal/OEM, in the same tender for the same item/product.

m. If a firm quotes 'NIL' charges / consideration, the bid shall be treated as un-responsive and will not be considered.