

भारत सरकार
अंतरिक्ष विभाग
सतीश धवन अंतरिक्ष केंद्र शार
श्रीहरिकोटा रेंज डा.प. 524 124
श्री पोष्टि श्रीरामुलु नेल्लूर जिला, आं.प्र., भारत
दूरभाष : +91-8623 245060 (6 जं)
फैक्स : +91-8623 222099



Government of India
Department of Space
Satish Dhawan Space Centre SHAR
Shriharikota Range P.O. 524 124
SPSR Nellore Dist., AP., India
Telephone : +91-8623 245060 (6 Lines)
Fax : +91-8623 222099

निविदा सूचना सं. TENDER NOTICE NO. SDSC SHAR/Sr.HPS/PT/RO-LSSF/10/2025-2026

भारत के राष्ट्रपति की ओर से वरि. प्रधान क्रय एवं भंडार, सतीश धवन अंतरिक्ष केंद्र श्रीहरिकोटा निम्नलिखित वस्तुओं के लिए ऑनलाइन निविदाएं आमंत्रित करते हैं:- On behalf of President of India, Sr. Head, Purchase and Stores, SDSC SHAR, SRIHARIKOTA invites on line quotations for the following.

क्र.सं. SI No	संदर्भ सं. Ref. No.	विवरण Description	मात्रा Qty.
01.	SDSC SHAR /LSSF PURCHASE /LSSF/2025000613 [Public Tender – Two Part]	Supply, Replacement, Erection, Commissioning and non- comprehensive preventive maintenance of detectors and FDA panels for SLP facilities and FCC II.	03 Line Items

बोली-पूर्व आयोजन की तिथि Date of Pre-Bid Meeting : 24.06.2025 at 10:30 hrs.
निविदा दस्तावेजों को डाउनलोड करने की अंतिम तिथि Last Date for downloading of tender documents : 12.07.2025 at 14:00 hrs.
ऑनलाइन निविदा जमा करने की अंतिम तिथि Due Date for submission of bids online : 12.07.2025 at 14:00 hrs.
निविदाएं खोलने की नियत तिथि Due Date for opening of tenders : 12.07.2025 at 14:10 hrs.

निविदाकार के लिए निर्देश Instructions to Tenderers:

निविदाएं ईजीपीएस के माध्यम से ही भेजी जाएं तथा कोई निविदा शुल्क लागू नहीं होगा।
Bids shall be submitted on line through EGPS only and No tender fee shall be applicable.

- कार्य के सम्पूर्ण विवरण/जानकारी तथा नियम व शर्तों इत्यादि के लिए संलग्न अनुलग्नक को देखें। / For full details/scope of work and terms and conditions etc., please see the enclosed annexures.
- इच्छुक निविदाकार इसरो की ई-खरीद वेबसाइट इसरो न्यू ई-प्रोक्युरमेंट www.eproc.isro.gov.in से ई-निविदा डाउनलोड और अपनी निविदा ई-खरीद पोर्टल पर ऑनलाइन जमा कर सकते हैं। डाक / वाहक / स्वयं द्वारा प्राप्त निविदाओं पर विचार नहीं किया जाएगा। / Interested tenderers can download the e-tender from ISRO e-procurement website www.eproc.isro.gov.in and submit the offer on line in the e-procurement portal. Offers sent physically by post/courier/in person will not be considered.
- निविदा दस्तावेज इसरो की वेबसाइट www.isro.gov.in इसरो न्यू ई-प्रोक्युरमेंट वेबसाइट www.eproc.isro.gov.in तथा सतीश धवन अंतरिक्ष केंद्र शार की वेबसाइट www.shar.gov.in पर भी उपलब्ध हैं। इन्हें केवल ई-खरीद पोर्टल से डाउनलोड और निविदा ऑनलाइन जमा कर सकते हैं। / Tender documents are also available on ISRO website www.isro.gov.in, ISRO New e-procurement website www.eproc.isro.gov.in and SDSC SHAR, Sriharikota website www.shar.gov.in. The same can be down loaded and offer submitted on line in the new e-procurement portal only.
- निर्धारित तिथि/समय के पश्चात प्राप्त बोलियों पर विचार नहीं किया जाएगा। / Quotations received after the due date/time will not be considered.
- वरि. प्रधान क्रय एवं भंडार, सतीश धवन अंतरिक्ष केंद्र श्रीहरिकोटा के पास किसी भी या सभी निविदाओं को स्वीकार / अस्वीकार करने का अधिकार है। / Sr. Head, Purchase and Stores, SDSC-SHAR, Sriharikota reserves the right to accept or reject any/or all the quotations.
- GeM GARPTS Report ID: GEM/GARPTS /29052025/VWW46VQ2XV2I

दिनांक DT: 12.06.2025

भारतीय अंतरिक्ष अनुसंधान संगठन



वरि. प्रधान क्रय एवं भंडार
Sr. HEAD PURCHASE AND STORES
Indian Space Research Organisation

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

Tender for Supply, Replacement, Erection, Commissioning and non-comprehensive preventive maintenance of detectors and FDA panels for SLP facilities and FCC II

Bids to be submitted online

Tender No.: SDSC SHAR/LSSF PURCHASE/SH202500061301 dated 12-06-2025

A. Tender Details

Tender No :	SDSC SHAR/LSSF PURCHASE/SH202500061301
Tender Date :	12-06-2025
Tender Classification:	GOODS
Purchase Entity :	LSSF PURCHASE
Centre :	SATISH DHAWAN SPACE CENTRE SHAR SRIHARIKOTA (SDSC SHAR)

Supply, Replacement, Erection, Commissioning and Non-Comprehensive Preventive Maintenance of Detectors and FDA panels for SLP Facilities and FCC-II

1) GARPTS Report ID: GEM/GARPTS /29052025/VWW46VQ2XV2I.

2) Price Bid opening date mentioned in the Tender document is tentative. However, Price bid will be opened after completion of Technical evaluation. The same will be notified to technically qualified bidders.

A.1 Tender Schedule

Tender Publish Date :	12-06-2025 17:05
Bid Clarification Due Date :	24-06-2025 10:30
Bid Submission Start Date :	12-06-2025 17:05
Bid Submission Due Date :	07-07-2025 14:00
Bid Opening Date :	07-07-2025 14:00
Price Bid Opening Date :	16-07-2025 14:10

A.2 Pre-bid Meeting Details

Date :	24-06-2025 10:30
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Place : LSSF Conference Hall, LSSF Building, Zero Point, SDSC SHAR, Sriharikota - 524124

Location : LSSF Conference Hall, LSSF Building, Zero Point, SDSC SHAR, Sriharikota - 524124

Centre : SATISH DHAWAN SPACE CENTRE SHAR SRIHARIKOTA (SDSC SHAR), NELLORE, ANDHRA PRADESH

Details : Interested bidders shall send request through mail-id : psolssf@shar.gov.in for attending the Pre-Bid meeting on or before 20-06-2025, 17:00 Hrs. Please send the details of the persons participating on behalf of the respective firms (Name, Age, Designation, Aadhaar Details, Vehicle details including driver details if applicable). The persons attending the pre-bid meeting shall bring the authorization letter. Entry permissions to meeting hall can be requested by contacting above mentioned email ID.

B. Tender Attachments

Technical Write-up/Drawings

Document : RFP Document

Instructions To Vendors

2. Tender- Two part Instructions

1. This requirement can be quoted only through online Eprocurement mode using ISRO portal. No manual tender will be considered.
2. The vendors have to get themselves registered in above site to download the tender details. To register in above ISRO portal the vendors need to have digital certificate. The digital certificate can be obtained from any digital certifying authority like Ms (n) Code solutions, Ms Tata Consultancy Ltd., Ms Satyam Information System etc.
3. The parties are advised to download the tender and submit the bid on online at least two days prior to tender closing date to avoid last minute network problem. The due date shall not be extended due to network or computer related problems.
4. Tender fee is not applicable.
5. This being a two-part tender i.e. Technical and Commercial Part and Price Part, the tenderer should not attach any documents containing Pricing information along with Technical and Commercial Bid. Normally we do not open PART II (Price bid), if PART I (Technical Offer) does not meet with our technical specification requirements. Price bid opening date mentioned in the tender document/ Schedule is tentative only. However, price bid opening will be made only after satisfactory completion of Part I technical bid evaluation and with prior intimation to vendors.
6. Our Tender Enquiry contains technical requirements and specification. The detailed technical specification of your offer should be covered in the technical part. The Technical documents need to be attached online as a single PDF file without any prior information. The tender attachments containing Price details will be treated as unsolicited offers and rejected.
7. The quote should indicate quantity wise unit rate separately which have to be filled online. The Prices are to be mentioned both in figures as well as in words. The taxes, duties etc. are to be calculated and indicated in the column provided in online forms explicitly.
8. Bidders are expected to comply with the technical, commercial and other terms and conditions given in vendor specified terms of this tender. In case of any deviation, the reasons thereof should be clearly specified in the vendor specified terms column.
9. The vendors have to compulsorily submit the compliance statement online otherwise their offer will not be considered for further evaluation. Before entering the compliance statement, vendors are advised to refer the detailed specification provided in the Technical Write-up or Drawings document. The specification offered by the vendors may also be indicated in the compliance statement wherever

necessary.

10. The Technical Specification or Drawing or Product Catalogues or Works carried by vendor or Make offered etc., as a single PDF file without any financial details has to be uploaded online mode by the vendor. This being TWO PART TENDER the PDF document uploaded should not contain any commercial or pricing details. If the attached PDF contains any pricing detail the offer will be treated as unsolicited and will be summarily rejected.

11. Original Equipment Manufacturer (OEM) or their representative can submit bid. Indian agents while quoting on behalf of their principals are requested to attach necessary authorization letter from their Principals in their bid.

12. Instructions on Indian Agent (if any): Bidders are required to provide the following information in respect of their authorized Indian Agent, if any, along with technical bid as the same is mandatory as is required for consideration of the bid. Name, Address, Telephone no., fax no., email of the Indian Agent including the contact person.

13. A letter from the OEM in the current date certifying that the said Indian Agent is their authorized Indian Agent and also indicating the responsibilities or role of the Indian Agent under the proposed purchase. Remuneration or service charges payable to the Indian Agent under the proposed purchase.

14. Offer validity: In case of single part tender - the validity of offers or 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.

15. Due date and 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.

17. The vendors may contact 0471 2565454 or 4574 or 2527 or 3753 or 3289 or eproc@vssc.gov.in for any technical assistance in bid submission.

18. Once the offer is submitted in on line mode by the vendor and bid submission period is over, vendor will not be able to provide revised offer.

19. Request for the extension of the due date will not be considered.

20. Tender which are not prepared in terms of these instructions are liable to be rejected.

21. Based on the response to the Tender Notice, SDSC SHAR reserves the right to change any milestone date of the tendering activity.

22. SDSC SHAR reserves the right to verify all claims made by the bidder.

23. Tender Opening: The Technical and Commercial Bid (Part I) will be opened on the specified day mentioned in the schedule and in case any further clarification or discussion are required, such clarification or discussion shall be called for before opening the Price Bid.

24. The exact date and time of opening of price bid of successful tenderers will be intimated later (in case of Public Tender).

25. Tenderers can participate in the said tender opening to know the details on for which, the representative of the firm shall be duly authorized by Competent Authority. Against proper authorization only such representatives shall be allowed to attend the tender opening (only in case of public tender). Tenderer Presence is not mandatory to consider the Quote for evaluation.

26. SDSC SHAR, SRIHARIKOTA reserves the right to accept or reject any or all the tenders in part or full without assigning any reasons thereof.
27. Vendors are requested to register in National Public Procurement Portal i.e., Government e Market Place (GeM).

3. Format for Land Border Sharing Declaration under Rule 144 (X) of GFR 2024

1. (to be printed in letter head)

DECLARATION BY AUTHORISED SIGNATORY OF THE FIRM

2. I, the undersigned, _____ (full names), do hereby declare, in my capacity as _____ of M/s _____ (name of bidder entity), that:

3. 1) I have read the Order (Public Procurement No.1, 2 & 3) dtd 23 Jul 2020 & 24 Jul 2020 office memorandum (OM) No. F.18/37/2020-PPD Dt:08.02.2021, OM NO. F.12/1/2021-PPD (Pt) dated 02.03.2021 and OM No. F.7/10/2021-PPD dated 08.06.2021 and OM No.F.7/10/2021-PPD dated 23.02.2023 on the subject of Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017 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.

4. I certify that M/s. _____ (name of bidder entity)

5. (A) IS NOT FROM SUCH A COUNTRY

6. (B) IS FROM SUCH A COUNTRY AND HAS BEEN REGISTERED WITH THE COMPETENT AUTHORITY (attach evidence of valid registration)

7. (Select any one of the above (A) or (B) and strike off the other)

I hereby certify that this SUPPLIER fulfils all requirements in this regard and is eligible to be considered.

8. 3) I understand that the submission of incorrect data and / or if certificate / declaration given by M/s _____ (name of bidder entity) is found to be false, this would be a ground for debarment and further legal action in accordance with law as per Clause 18 of Procurement Policy Division OM No.F.7/10/2021-PPD dated 23.02.2023

9. AUTHORIZED SIGNATURE:

DATE:

Seal / Stamp of Bidder

4. STANDARD TERMS & CONDITIONS

1. Tele No.08623-225127/226331

e-Mail ID : hps@shar.gov.in, sselvan@shar.gov.in, psolssf@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. For AMC cases, payment term is on pro-rata basis against completion of AMC.

b) GST/IGST: Please specify GST percentage, if any, in your offer. Please mention SAC / HSN code in your offer and Our GST No. 37HYDF00385A1DZ

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 PLUS 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. 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.

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) 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 a minimum period of 12 months from the date of receipt and acceptance. 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 be valid till completion of warranty plus 60 days.

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. Security deposit shall be valid till completion of total scope of work plus 60 days.

6. VALIDITY OF OFFER: - 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. Tenders shorter than offer validity mentioned above will not be considered for evaluation, 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 party for whom it has become impossible to meet the obligation under this Contract due to force majeure condition, will notify the other party in writing not later than twenty one days from the date of commencement of the unforeseeable event. Unless otherwise directed by the in writing, the contractor/supplier shall continue to perform his obligations under the Purchase Order/Contract as far as is practical and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

Any certificate issued by the Chamber of Commerce or any other competent authority or organization of the respective country shall be sufficient proof of commencement and cessation of the above circumstances.

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. Central PSUs/PSEs/Autonomous Bodies shall be exempt from the production of BGs towards FIM, 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. 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.

13. INDEMNITY: The Contractor shall warrant and be deemed to have warranted that all stores supplied against this Contract are free and clean of infringement of any Patent, Copyright or Trademark, and shall at all times indemnify the Purchaser against all claims which may be made in respect of the stores for infringement of any right protected by Patent Registration of Design or Trade mark and shall take all risk of accidents or damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for sufficiency of all means used by him for the fulfilment of the contract.

14. APPLICABLE LAW: The Purchase Order / Contract shall be governed by Indian Law and jurisdiction shall lie in the Courts of Andhra Pradesh, India.

15. COUNTER TERMS & CONDITIONS: Counter terms and conditions offered by the bidders shall not be deemed to have been accepted by the Purchaser unless specific written acceptance thereof is obtained from the Purchaser.

5. Format for MII declaration

1. (to be printed in letter head) -

Self-Certification under preference to Make in India order Certificate

2. In line with Government Public Procurement Order No. P-45021/2/2017-PP(BE-II)-Part(4)Vol.II dated 19.07.2024 its latest directives/amendments there of, we hereby certify that we M/s.

_____are local suppliers and the offered item having local content of _____% [Local content means the amount of value added in India which shall, unless otherwise prescribed by the respective Nodal Ministry, be the total value of the item procured (excluding Net Domestic Indirect Taxes, Transportation, Insurance, Installation, Commissioning, Training and after sales service support like AMC/CMC etc.) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent] as defined in above orders for the material against Tender/Bid No _____ dated _____

3. Details of location at which local value addition will be made as follows:

4. We also understand, false declaration will be breach of the code of integrity under the rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

5. Thanking You

Signature with date

Name

Designation

Official Seal

6. General Instructions to Vendor

1. Instructions to tenderers

TeleNo.08623-225127/226331

e-Mail ID : hps@shar.gov.in, sselvan@shar.gov.in, psolssf@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 120 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.

18. Vendors are requested to register in National Public Procurement Portal i.e., Government e-Market Place (GeM).

19. Vendors may note the Guidelines on Debarment of Firms vide O.M No. F.1/20/2018-PPD dated 02.11.2021 in line with rule no.151 and 175 (Code of Integrity) of GFR (General Financial Rules).

C. Bid Templates

C.1 Technical Bid - Supply, Replacement, Erection, Commissioning and non-comprehensive preventive maintenance of detectors and FDA panels for SLP facilities and FCC II

1. FDA system - Supply of detectors and FDA panels for SLP facilities and FCC II as per details enclosed in RFP document

2. FDA systems - Replacement, Erection, Commissioning of detectors and FDA panels for SLP facilities and FCC II as per details enclosed in RFP document

3. Non Comprehensive AMC - Non-comprehensive preventive maintenance of detectors and FDA panels for SLP facilities and FCC II as per details enclosed in RFP document

Common Specifications (Applicable for all items)

Sl No	Specification	Value	Compliance	Offered Specification	Remark
1	Scope, details and technical Specifications for Supply of detectors and FDA panels for SLP facilities and FCCII	As per RFP document	Yes / No / Explain		
2	Scope, details and technical Specifications for Replacement, Erection, Commissioning of detectors and FDA panels for SLP facilities and FCCII	As per RFP document	Yes / No / Explain		

3	Scope, details and technical Specifications of Quarterly preventive non-comprehensive maintenance of detectors, FDA systems of SLP facilities and FCCII	As per RFP document	Yes / No / Explain		
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Supporting Documents required from Vendor

1. make and model no of selected FDA panel its accessories like batteries, detectors etc
2. Proof for valid approval /listing (listing No., validity etc.) / applicable certification of detectors and accessories including control panel
3. OEM confirmation for product compatibility and spare availability for 10 years
4. OEM Authorization certificate
5. Company , PAN & GST registration certificates
6. self-declaration that they have not been black listed by any Govt. Department/PSU
7. annual financial turnover document
8. Price bid for Quarterly non-comprehensive maintenance and testing (for a period of 1 year, 4 visits) (Price Bid Related)
9. Price bid for replacement, erection , commissioning and testing portion (Price Bid Related)
10. Price Bid for supply portion (Price Bid Related)
11. Certified documentary evidence with turnover details of last three Financial years
12. make, model no, manufacturing, assembly and testing facilities etc. of quoted items
13. point-by-point compliance to the technical specifications along with deviations if any

14. Previous Purchase orders

15. RFP signed copy

16. Land Border Sharing Declaration

17. Udhyam Certificate if you are seeking MSE Purchase Preference

18. Make in India Declaration

5 additional documents can be uploaded by the vendor

C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	<p>GST AND OTHER COSTS, IF ANY:</p> <p>As per the Notification No. 6/2018-Central Tax (Rate) dt:25.01.2018 A(ix) S.No.243A (88 or any other chapter) as amended by Notification No.24/2018-Central Tax (Rate) Dt: 31.12.2018 b(viii) S.No.243B issued by Ministry of Finance (Dept. of Revenue) & Government of Andhra Pradesh, Revenue (Commercial Taxes-II) Department, G.O.MS.No. 93 Dated: 19-02-2018 A(ix) S.No.243A and as per the Notification No. 7/2018-Integrated Tax (Rate) dt:25.01.2018 A(ix) S.No.243A (88 or any other chapter) as amended by Notification No.25/2018-Integrated Tax (Rate) Dt: 31.12.2018 b(viii) S.No.243B issued by Ministry of Finance (Dept. of Revenue), SDSC SHAR is eligible to avail GST/IGST @5% for the procurements related to 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. we will issue only End Use Certificate for availing GST/IGST @5%. Hence, kindly confirm your acceptance and submit your price quotation accordingly.</p> <p>Please click yes, if GST is extra to your price, then proceed to input the tax/GST rate in tax column in the price bid. Also mention GST extra in remarks column in price bid. Please click no, if your prices are inclusive of GST, and proceed to input 0 (zero) under in GST column in price bid. Also, mention GST is included in price in remarks column. (HSN/SAC code shall be indicated for each item and accordingly mention the GST rate applicable as per prevailing guidelines.)</p>	Yes / No / Explain	

2	<p>Please indicate the applicable taxes for Non-comprehensive preventive maintenance along with SAC Code. Please click yes, if tax/gst is extra to your price, then proceed to input the tax/GST rate in tax column in the price bid. Also mention GST extra in remarks column in price bid. Please click no, if your prices are inclusive of GST, and proceed to input 0 (zero) under in GST column in price bid. Also, mention GST is included in price in remarks column.</p>	Yes / No / Explain	
3	<p>INDICATE GSTIN: GSTIN of SDSC SHAR: 37HYDF00385A1DZ</p>	Yes / No / Explain	
4	<p>Delivery Term: FOR SRIHARIKOTA Please quote your rates on FOR-SDSC SHAR, Sriharikota basis including P&F & freight charges. If you quote YES or ACCEPTED or NOTED or AS PER TENDER SPECIFICATIONS, it means your prices are FOR-Sriharikota basis including P&F and FREIGHT charges. Even if you quote P&F and FREIGHT charges are extra in price bid or at any other place, this only holds good.</p>	Yes / No / Explain	
5	<p>Delivery Schedule: (i) Delivery period for the supply items, erection, commissioning, testing and documentation is 15 months from the date of Purchase Order. (ii) The delivery period for quarterly non-comprehensive preventive maintenance and testing shall be 1 year from the date of completion of erection, commissioning, testing and documentation. Detailed delivery schedule is listed under Section-A (clause P) in the RFP document.</p> <p>Note: In detailed delivery schedule, under Sl.No.2, "T1--T0 plus 2 weeks months" shall be read as "T1--T0 plus 2 weeks".</p>	Yes / No / Explain	

6	<p>Payment Term:</p> <p>i. For Supply: 80 % of supply cost (inclusive of all taxes) against receipt and acceptance of items at our site on PRO-RATA basis by CLIP. Balance 20 % of supply cost after successful erection, commissioning, testing, acceptance and documentation of all systems.</p> <p>ii. For Installation, Commissioning and Testing: 100% payment against Installation, commissioning, testing and acceptance on pro-rata basis. However, the party shall limit the total no of bills claimed for the installation and commissioning to twelve.</p> <p>iii. For Quarterly non-comprehensive preventive maintenance and testing of Fire detection and alarm system: 100% payment against completion of non-comprehensive preventive maintenance and testing on pro-rata basis duly certified by Engineer-In-Charge and approved by approving authority.</p>	Yes / No / Explain	
7	<p>Evaluation Criteria: Order will be placed on total value wise L1 offer basis. Vendors should quote for all the items, otherwise offer is liable for rejection.</p>	Yes / No / Explain	
8	<p>Liquidated Damage: Since delivery is the essence of this order, in case of delay in completion of total scope of work beyond the stipulated delivery period, Liquidated Damage will be levied @ 1/2% per week or part thereof on undelivered portion as pre-estimated damages subject to a maximum of 10% of total order value.</p>	Yes / No / Explain	

9	<p>Security Deposit (SD): If Order value exceeds Rs.5 Lakh, Security Deposit shall be submitted for 3% of the order value (or as notified by ISRO from time to time) in single instalment through Insurance Surety Bonds/ Account Payee Demand Draft/ Bankers Cheque/ Fixed Deposit Receipts or Bank Guarantee (including e-Bank Guarantee) from a Commercial bank executed on Rs.200/- non-judicial stamp paper or payment online in an acceptable form within 14 days after receipt of Purchase Order valid till completion of the Delivery period plus 60 days claim period. This security deposit shall not carry any interest and shall be returned to you only after successful completion of total scope of work. In case of poor performance/ non performance of the contractual obligation security deposit shall be forfeited. In case of non submission of Security deposit within the stipulated period, this order shall be liable to be cancelled.</p>	Yes / No / Explain	
10	<p>Warranty: One year from the date of receipt, installation, commissioning, acceptance against any manufacturing defects/ bad workmanship. If any defects are noticed during the warranty period, the contractor shall, within 14 days (or within any other period, if stipulated in the contract), expeditiously repair, or replace the defective Goods or parts thereof, free of cost, at the ultimate destination.</p>	Yes / No / Explain	

11	<p>Performance Bank Guarantee (PBG): A Bank Guarantee for 3% of the order value (as notified by ISRO from time to time) shall be provided towards the performance of the system. PBG may be furnished in the form of Insurance Security Bonds, Account Payee Demand Draft, Fixed Deposit Receipt from a commercial Bank, Bank Guarantee (including e-Bank Guarantee) from a Commercial bank executed on Rs.200/- non-judicial stamp paper or online payment in an acceptable form valid till the successful completion of warranty period plus 60 days. This will not carry any interest and shall be returned to you after successful completion of warranty period against your request. In case of non-performance/poor performance the Bank Guarantee shall be forfeited.</p>	Yes / No / Explain	
12	<p>Combined Bank Guarantee (Performance Security): In case vendors are unable to submit two separate BG for SD and PBG, to ensure due performance of the contract, please furnish performance security for 03% of the value of the Purchase Order within 15 days of award/release of GeM contract/PO as per the format issued by the purchaser. Performance Security may be furnished in the form of Insurance Security Bonds, Account Payee Demand Draft, Fixed Deposit Receipt from a commercial Bank, Bank Guarantee (including e-Bank Guarantee) from a Commercial bank executed on Rs.200/- non-judicial stamp paper or online payment in an acceptable form and shall be valid till the completion of total contractual obligation (i.e., Supply period PLUS commissioning period (if applicable) PLUS warranty period PLUS 60 days). This will not carry any interest and shall be returned to you after successful completion of contractual obligations against your request. In case of non-performance/poor performance/breach of contractual obligations, bank Guarantee shall be forfeited and in case if the vendor fails to furnish the performance security deposit within the specified date, the Purchase Order/Contract liable to be cancelled.</p>	Yes / No / Explain	

13	<p>Purchase preference to Micro and Small Enterprises (MSEs): 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 the 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 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% 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. Please specify whether you belong to MSE or not. If YES, supporting documents shall be uploaded. Latest Udayam registration certificate for the current Financial year shall be submitted.</p>	Yes / No / Explain	
14	<p>MSE Purchase preference will be applicable only to the manufacturers of the items offered and supporting documents to that shall be submitted. Traders are not eligible for MSE Purchase preference.</p>	Yes / No / Explain	

15	<p>Make-In-India (MII) Clause: For this procurement, provisions contained in Government Public Procurement Order No. P-45021/2/2017-PP(BE-II)-Part (4)Vol.II dated 19.07.2024 its latest directives/amendments there of shall be followed. Accordingly, you are requested to indicate the percentage of local content in the material, clearly mentioning the details of location(s) at which value addition is made in line with clause 9 to O.M dated 19.07.2024 referred above. 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. 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 a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in-India) order.</p>	Yes / No / Explain	
16	<p>Bidders shall ensure that for tenders involving supply of multiple items, weighted average of all items to be taken while calculating the local content.</p>	Yes / No / Explain	
17	<p>"Purchase preference to MSE/MII-Class-I local suppliers will be as per notification No.F.1/4/2021-PPD dated 18-05-2023 and its directives/amendments thereof issued by Ministry of Finance, Department of Expenditure, Public Procurement Division". In case of Specific Brand items, Please provide Authorization certificate from OEM.</p>	Yes / No / Explain	
18	<p>Safe delivery of the ordered item with proper transport worthy packaging shall be ensured.</p>	Yes / No / Explain	

19	The bidder shall provide compliance to Order No. F.No.6/18/2019 PPD dated 23.07.2020 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 as per the format issued along with the tender.	Yes / No / Explain	
20	Validity of Offer: The validity of the offers/ tenders should be 120 days for this Two Part tender. Tenders shorter than offer validity mentioned above will not be considered for evaluation.	Yes / No / Explain	
21	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 is 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.	Yes / No / Explain	
22	Please furnish Contact details i.e. Name of the focal point for this tender, E-mail id, Mobile no/ Landline no. etc. for further communication.	Yes / No / Explain	

23	<p>Force Majeure: A Force Majeure (FM) means extraordinary events or circumstance beyond human control such as an event described as an act of God (like a natural calamity) or events such as a war, strike, riots, crimes (but not including negligence or wrong-doing, predictable/seasonal rain and any other events specifically excluded in the clause). An FM clause in the contract frees both parties from contractual liability or obligation when prevented by such events from fulfilling their obligations under the contract. An FM clause does not excuse a party's non-performance entirely, but only suspends it for the duration of the FM. The firm has to give notice of FM as soon as it occurs (say, not later than 14 days after its occurrence), and it cannot be claimed ex-post facto. There may be a FM situation affecting the purchase organisation only. In such a situation, the purchase organisation is to communicate with the supplier along similar lines as above for further necessary action. If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of FM for a period exceeding 90 (Ninety) days, either party may at its option terminate the contract without any financial repercussion on either side.</p> <p>Notwithstanding the punitive provisions contained in the contract for delay or breach of contract, the supplier would not be liable for imposition of any such sanction so long as the delay and/ or failure of the supplier in fulfilling its obligations under the contract is the result of an event covered in the FM clause.</p>	Yes / No / Explain	
24	Vendors should quoted prices in INR only	Yes / No / Explain	
25	The price quoted shall be firm and fixed till completion of total scope of work.	Yes / No / Explain	
26	The Purchase Order / Contract shall be governed by Indian Law and jurisdiction shall lie in the Courts of Andhra Pradesh, India.	Yes / No / Explain	

27	Commercial terms and conditions quoted by the vendor in the Commercial Bid (Vendor specified terms) of tender will only be considered. Department will not consider the commercial terms quoted anywhere else in the tender or in any document attached by the bidder. Bidders are requested to make a note and comply.	Yes / No / Explain	
28	Penalty Clause for Non-Comprehensive AMC: In case, services provided by the contractor is unsatisfactory during any period and any breach of contract occurs, no payment will be made on that particular service and penalty will be levied on the Bill of contractor for that period as envisaged in clause 12(t) of Section-D in RFP document.	Yes / No / Explain	
29	Fall Clause for Non-Comprehensive AMC: The service charges quoted by you shall in no event exceed the lowest charges at which you service the machines of identical description to any other party during the period of this Contract. If at any time during the said period, you reduce the service charges of such item to any other customers, it shall be forth with done after the date of coming in to force of such reduction of service charges shall stand correspondingly reduced.	Yes / No / Explain	
30	Down-Time Compensation: In case the break-down calls are not attended to within 48 hours of intimation and if reported problem is not solved within 96 hours without valid reasons, down time compensation @ 0.5% (of the annual maintenance charges) per day shall be recovered from you subject to a maximum of 5%.	Yes / No / Explain	
31	Safety Clause: The contractor shall take all safety precautions and ensure the safety of his workmen. SDSC SHAR is not responsible for injury / loss of life due to any accident / explosion during the execution of the contract.	Yes / No / Explain	
32	Trained personnel deployment: For servicing, bidder has to deploy only trained personnel and must take precaution to avoid any damage to existing machinery.	Yes / No / Explain	

33	POLICE VERIFICATION: You should provide verification report from the local police authorities after release of Purchase order, duly certifying the verification of the character and Antecedents for each of the work force engaged by the contractor for executing the works.	Yes / No / Explain	
34	GeMARPTS ID: GEM/GARPTS/29052025/VWW46V Q2XV2I	Yes / No / Explain	
35	NOTE: Being a Two-Part Tender, Price of any kind shall not be disclosed in Technical Bid (Part-I) or during clarifications if any sought as part of tender evaluation, otherwise offer will be REJECTED summarily	Yes / No / Explain	
36	Remarks, if any:	Yes / No / Explain	

C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Remark
1	FDA system - Supply of detectors and FDA panels for SLP facilities and FCC II as per details enclosed in RFP document	1.00 Lot		-		
2	FDA systems - Replacement, Erection, Commissioning of detectors and FDA panels for SLP facilities and FCC II as per details enclosed in RFP document	1.00 Lot		-		

3	Non Comprehensive AMC - Non-comprehensive preventive maintenance of detectors and FDA panels for SLP facilities and FCC II as per details enclosed in RFP document	1.00 Lot		-		
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RFP document for

Supply, Replacement, Erection, Commissioning and non-comprehensive preventive maintenance of
detectors and FDA panels for SLP facilities and FCC II



LSSF

SATISH DHAWAN SPACE CENTRE SHAR
SRIHARIKOTA 524 124
INDIAN SPACE RESEARCH ORGANISATION

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SECTION	TITLE
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Section B	Scope of work
SECTION B-1	Scope, details and technical Specifications for Supply of detectors and FDA panels for SLP facilities and FCCII
SECTION B-2	Scope, details and technical Specifications for Replacement, Erection, Commissioning of detectors and FDA panels for SLP facilities and FCCII
SECTION B-3	Scope, details and technical Specifications of Quarterly preventive non-comprehensive maintenance of detectors, FDA systems of SLP facilities and FCCII
Section C	Formats to be submitted by supplier
Section D	Fire Alarm Detection System – Detector and Modules arrangement

SECTION A

GENERAL TERMS AND CONDITIONS

REQUEST FOR PROPOSAL DOCUMENT

Quotations are invited from the interested bidders for the enclosed scope of supply in two-part bid.

This specifications document is organized in three sections as follows.

Section A General Terms and Conditions

Section B Scope of Work

Section B-1

Scope, details and technical Specifications of Supply, Erection, Commissioning and testing of detectors and FDA panels for SLP facilities and FCCII

Section B-2

Scope, details of Replacement, Erection, Commissioning and testing of detectors and FDA panels for SLP facilities and FCCII

Section B-3

Scope, details and technical Specifications of quarterly non-comprehensive maintenance of detectors, FDA systems of SLP facilities and FCCII

Section – C Formats to be filled by tenderer

Section – D Fire Alarm Detection System – Detector and Modules arrangement

Title of the proposal:

“Supply, Replacement, Erection, Commissioning, testing and quarterly non-comprehensive maintenance of detectors and FDA panels for SLP facilities and FCCII”

Date of Notification issued by ISRO: **As per notification**

Last Date of downloading tender Document by tenderer: **As per notification**

Last date of submission of tender documents in online by tenderer: **As per notification**

Last date of Bid sealing in online by ISRO: **As per notification**

Last date for giving open authorisation in online by tenderer: **As per notification**

SECTION -A

A PROPOSAL DOCUMENT

- 1.1. Bidder shall sign & stamp each page of the tender document (RFP) as token of his acceptance and submit/upload the same along with his offer.
- 1.2. Proposal documents shall remain the property of SDSC SHAR and shall not be used by the bidder for any another purpose without the consent of SDSC SHAR.
- 1.3. The proposal shall be completely filled in all respects and shall be tendered together with requisite information & Annexure. Offers incomplete in any aspect is liable to be rejected.
- 1.4. The Proposal with a complete set of the required documents shall be submitted/uploaded to SDSC SHAR web portal.

- 1.5. The Proposals shall be submitted before the time limit for bid submission specified in the Letter Inviting Bid.
- 1.6. The Proposal will be opened on the date and on the time specified in the Letter Inviting Bid or as soon thereafter as convenient. Proposal not received in time will not be considered.
- 1.7. Bidders shall submit their quotations in firm figures and without variations/additions in the terms of the Proposal documents.
- 1.8. Parties shall provide Compliance Statement for all the specifications, terms and conditions mentioned. Any deviations from the tender specifications shall be brought out clearly. Party shall quote in total for supply of all items, erection, commissioning, testing and quarterly non-comprehensive maintenance works. **Incomplete / part offer is not acceptable. As all works are inter-related, splitting of order is not possible. Hence, party shall quote for all items /works of this tender without which offer will not be considered.**
- 1.9. Party shall clearly indicate the delivery schedule from date of receipt of the order.
- 1.10. AMBIGUITY:
Should there be any ambiguity or doubt as to the meaning of any of the tender clause/condition or if any further information is required, the matter shall be immediately brought to the notice of Head, Purchase & Stores of SDSC SHAR in writing and clarifications shall be obtained before bid submission date.

B. PREPARATION OF BIDS

Validity of Offer

Bid shall remain valid for acceptance for a minimum period of 120 days from the due date of submission of the Bid and the quoted prices shall be valid for the total period of 120 days. Tenders with offer validity less than the period mentioned above, will not be considered for evaluation. The Bidder shall not be entitled during the said period to revoke or revise his Bid or to vary the Bid except and to the extent required by SDSC SHAR in writing. Bid shall be revalidated for extended period as required by SDSC SHAR 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 & conditions of Bid finalized till that time.

Cost of Bidding

All direct and indirect costs associated with the preparation and submission of bid shall be to Bidder's account and SDSC SHAR will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bid process.

Applicable Language/ measurements

The bid and all correspondence incidentals to and concerning the bid shall be in the English Language. For supporting document and printing literature submitted in any other language, an accurate English Translation shall also be submitted. Responsibility for correctness in translation shall lie with the Bidder. All the measurements shall be given in metric system.

C. BID SUBMISSION

Bids duly filled in by the Bidder should invariably be submitted as stipulated in the Letter inviting bid. Bids shall be submitted in the following manner.

Arrangement of Bid

The Bid shall be neatly presented on white paper with consecutively numbered pages. It should not contain any terms and conditions which are not applicable to the Bid. The Bid and all details submitted by the Bidder shall be signed and stamped on each page as token of acceptance, by a person legally authorised to enter into agreement on behalf of the Bidder. (Corrections/ alteration, if any, shall also be signed by the same person).

Schedule of Prices

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

Price Part of the Bid for the Supply

Price bid shall be filled in the 'price bid' form of the-tender only. The cost of items and other prices shall be filled in the respective forms available. Any other terms and conditions given in this part shall not be considered and if insisted upon by the Bidder, bids are liable for rejection.

- a) SDSC SHAR reserves the right to reject any or all the Bids without assigning any reasons thereof.

Documents Comprising the Bid

Bids shall be arranged in the following order.

Offers shall be submitted in TWO-PARTS as per the details given below:

- a) Part-I – Techno-commercial Bid
- b) Part-II – Price Bid indicating the price

The Offers submitted contrary to above will be liable for rejection.

Department will open the Techno-commercial (Part 1) bid on the due date of opening. Price bid(Part-2) will be opened if the techno-commercial bid is accepted.

Part-I – Techno-commercial Bid

The tenderer shall furnish point-wise confirmation for the technical specifications given in the enquiry. However, change of specifications/ deviations (if any) shall be brought out in the offer as deviation summary with detailed justification. Exclusions, if any from scope of supply shall be clearly indicated in the offer. Offers fulfilling this condition only will be short listed for price bid opening. The following are the list of documents to be submitted.

- a. Signed copy of each page of Tender/Indent specifications.
- b. Necessary supporting documents like technical datasheets, manuals, drawings of all the quoted equipment's / instruments, product catalogue highlighting the quoted make and model numbers shall be provided
- c. **Filled checklist for Technical compliance as per Annexure-I, filled Deviations & Exceptions if any as per Annexure-II, filled acceptance of terms and conditions as per Annexure-III, filled bid evaluation criteria compliance statement as per Annexure IV, filled bid eligibility criteria compliance statement as per Annexure V, compliance for approved makes as per Annexure IV shall be attached with signature of authorised person with seal**

- d. Tenderer need to furnish the details related to commercial terms indicating payment terms, details of bank guarantee in case of advance payments etc.
- e. Tenderer shall quote the prices on "FOR Sriharikota" basis.
- f. The Bidders shall indicate clearly the delivery/time period for supplying the items to SDSC SHAR.
- f. Bidder need to submit Unpriced price bid copy (as highlighted below) indicating the description of all the cost elements considered, **without indicating the price**. **Tenderer shall note that indication of price in the techno-commercial bid shall lead to dis-qualification of bid.**

Table: FORMAT OF UN-PRICED PRICE BID
UNPRICED PRICE BID - SUPPLY PORTION

Sl. no	Description	Unit	Quantity nos	Unit Cost (inclusive of all charges)	GST as applicable (Mention Only in percentage of unit cost as / if applicable)	Total Cost inclusive of GST (INR)	Tenderer's Confirmation Separate Cost mentioned in price bid (YES/NO)
I.	a. Fire detection alarm and control panel with provision for accommodating minimum two loop driver cards (Each loop catering minimum 94 detectors and minimum 32 peripheral devices/modules) with RS 485 card for Portable configurator interface, network card and Modbus TCP/IP interface card for third party device interface. The panel shall accommodate loop driver cards (mentioned below in b), programmable relay card with 4 relays, and Modbus	nos	19	Unpriced	Unpriced	Unpriced	Yes / No

Sl. no	Description	Unit	Quantity nos	Unit Cost (inclusive of all charges)	GST as applicable (Mention Only in percentage of unit cost as / if applicable)	Total Cost inclusive of GST (INR)	Tenderer's Confirmation Separate Cost mentioned in price bid (YES/NO)
	TCP/IP interface for third party device interface. The requirement is indicated below. FACP panels interfaced only to addressable standard detectors shall be of same make and FACP panels interfaced to addressable standard and intrinsic safe detectors, spare FACP panel shall be of same make. The spare part list for the proposed panel shall be provided.						
	b. Loop driver card suitable for the FACP selected above. However, the number of loop cards per FACP shall be selected to accommodate all the detectors and devices of individual facilities and number of loop cards shall be equal to or more than mentioned in Table III.	nos	1 lot				

Sl. no	Description	Unit	Quantity nos	Unit Cost (inclusive of all charges)	GST as applicable (Mention Only in percentage of unit cost as / if applicable)	Total Cost inclusive of GST (INR)	Tenderer's Confirmation Separate Cost mentioned in price bid (YES/NO)
	Spare FACP panel to be installed with minimum one loop driver card suitable for addressable intrinsic detectors						
	c. Hardware and software required for Integration of supplied FACP with existing centralized control monitoring station with Schneider electric Citect 2016 SCADA software through MODBUS TCP/IP Protocol as mentioned in Annexure VII (The centralized control station is approx. 800m from each facility and all FACP shall be interfaced to control station through fibre optic link)	Lot	18	Unpriced	Unpriced	Unpriced	Yes / No
II.	Programmable Relay card with 4 relays	nos	38	Unpriced	Unpriced	Unpriced	Yes / No
III.	Portable FACP configurator with printer	nos	1	Unpriced	Unpriced	Unpriced	Yes / No
IV.	Detectors / Devices / Modules compatible to FACP quoted						
	a. Addressable Multi sensor detector (MSD)	nos	313	Unpriced	Unpriced	Unpriced	Yes / No
	b. Addressable Photo electric detector (PED)	nos	323	Unpriced	Unpriced	Unpriced	Yes / No

Sl. no	Description	Unit	Quantity nos	Unit Cost (inclusive of all charges)	GST as applicable (Mention Only in percentage of unit cost as / if applicable)	Total Cost inclusive of GST (INR)	Tenderer's Confirmation Separate Cost mentioned in price bid (YES/NO)
	c. Addressable Heat detector (HD)	nos	186	Unpriced	Unpriced	Unpriced	Yes / No
	d. Addressable Intrinsic safe Photo electric detector (IPED)	nos	68	Unpriced	Unpriced	Unpriced	Yes / No
	e. Addressable Intrinsic safe Heat detector (IHD)	nos	166	Unpriced	Unpriced	Unpriced	Yes / No
V.	Addressable Duct detector (DD)	nos	22	Unpriced	Unpriced	Unpriced	Yes / No
VI.	Addressable Manual call point						
a.	Non-Intrinsic/ Standard type	nos	41	Unpriced	Unpriced	Unpriced	Yes / No
b.	Intrinsic safe type	nos	28	Unpriced	Unpriced	Unpriced	Yes / No
VII.	Loop sounder(LS)	nos	47	Unpriced	Unpriced	Unpriced	Yes / No
VIII.	Fault Isolator (FI)	nos	70	Unpriced	Unpriced	Unpriced	Yes / No
IX.	Response / Remote indicator (RI)	nos	251	Unpriced	Unpriced	Unpriced	Yes / No
X.	IS Flameproof Hooter	nos	10	Unpriced	Unpriced	Unpriced	Yes / No
XI.	Addressable Switch monitor (SM)	nos	38	Unpriced	Unpriced	Unpriced	Yes / No
XII.	Zener barrier (ZB)	nos	23	Unpriced	Unpriced	Unpriced	Yes / No
XIII.	Protocol translator (PT)	nos	17	Unpriced	Unpriced	Unpriced	Yes / No
Grand Total cost A (in Lakhs) (INR)				Unpriced	Unpriced	Unpriced	Yes / No

UNPRICED PRICE BID – REPLACEMENT, ERECTION, COMMISSIONING AND TESTING PORTION

S.No	Activities	Unit	Quantity	Unit Cost (inclusive of all charges)	Service tax charges as applicable (Mention Only in percentage)	Total Cost inclusive of service tax (INR)	Tenderer's Confirmation on Separate Cost mentioned in price bid (YES/NO)
Removal of existing FACP, detectors, MCPs, fault isolators, etc and installation, testing and commissioning of new FACP, detectors, MCPs, fault isolators, etc and integration of newly installed FACP and associated detectors and subsystems							
I.	Removal of existing FACP and installation, commissioning and testing of new FACP with all its interface cards, relay cards and accessories	Nos	18	Unpriced	Unpriced	Unpriced	Yes / No
II.	Integration of newly installed FACP and associated detectors and subsystems with existing centralized control monitoring station with Schneider electric Citect 2016 SCADA software through MODBUS TCP/IP Protocol as mentioned in Annexure VII	Nos	18	Unpriced	Unpriced	Unpriced	Yes / No
III.	Removal of existing ionisation / multi detector and installation, testing	Nos	306	Unpriced	Unpriced	Unpriced	Yes / No

S.No	Activities	Unit	Quantity	Unit Cost (inclusive of all charges)	Service tax charges as applicable (Mention Only in percentage)	Total Cost inclusive of service tax (INR)	Tenderer's Confirmation on Separate Cost mentioned in price bid (YES/NO)
	and commissioning of supplied Addressable Multi sensor detector						
IV.	Removal of existing and installation, testing and commissioning of supplied addressable Photo electric detector	Nos	316	Unpriced	Unpriced	Unpriced	Yes / No
V.	Removal of existing and installation, testing and commissioning of supplied Addressable Heat detector	Nos	182	Unpriced	Unpriced	Unpriced	Yes / No
VI.	Removal of existing and installation, testing and commissioning of supplied addressable intrinsic safe Photo electric detector	Nos	66	Unpriced	Unpriced	Unpriced	Yes / No
VII.	Removal of existing and installation, testing and commissioning of supplied Addressable Intrinsic safe Heat detector	Nos	162	Unpriced	Unpriced	Unpriced	Yes / No

S.No	Activities	Unit	Quantity	Unit Cost (inclusive of all charges)	Service tax charges as applicable (Mention Only in percentage)	Total Cost inclusive of service tax (INR)	Tenderer's Confirmation on Separate Cost mentioned in price bid (YES/NO)
VIII.	Removal of existing and installation, testing and commissioning of supplied Addressable Duct detector	Nos	21	Unpriced	Unpriced	Unpriced	Yes / No
IX.	Removal of existing and installation, testing and commissioning of supplied Addressable Manual call point						
a.	Non-Intrinsic/ Standard type	Nos	40	Unpriced	Unpriced	Unpriced	Yes / No
b.	Intrinsic safe type	Nos	27	Unpriced	Unpriced	Unpriced	Yes / No
X.	Removal of existing and installation, testing and commissioning of supplied Loop sounder		46	Unpriced	Unpriced	Unpriced	Yes / No
XI.	Removal of existing and installation, testing and commissioning of supplied Fault Isolator		68	Unpriced	Unpriced	Unpriced	Yes / No
XII.	Removal of existing and installation, testing and commissioning of supplied		246	Unpriced	Unpriced	Unpriced	Yes / No

S.No	Activities	Unit	Quantity	Unit Cost (inclusive of all charges)	Service tax charges as applicable (Mention Only in percentage)	Total Cost inclusive of service tax (INR)	Tenderer's Confirmation on Separate Cost mentioned in price bid (YES/NO)
	Response / Remote indicator						
XIII.	Removal of existing and installation, testing and commissioning of supplied IS Flameproof Hooter		9	Unpriced	Unpriced	Unpriced	Yes / No
XIV.	Removal of existing and installation, testing and commissioning of supplied Addressable Switch monitor		37	Unpriced	Unpriced	Unpriced	Yes / No
XV.	Removal of existing and installation, testing and commissioning of supplied Zener barrier		22	Unpriced	Unpriced	Unpriced	Yes / No
XVI.	Removal of existing and installation, testing and commissioning of supplied Protocol translator		16	Unpriced	Unpriced	Unpriced	Yes / No
Grand Total cost B (including service tax as applicable) (in Lakhs) (INR)				Unpriced	Unpriced	Unpriced	Yes / No

UNPRICED PRICE BID – Quarterly non-comprehensive maintenance and testing (for a period of 1 year, 4 visits)

S.No	Activities	Unit	Total Quantity for 4 visits	Unit Cost (inclusive of all charges) / visit	Service tax charges as applicable (Mention Only in percentage)	Total Cost inclusive of service tax (INR) for 4 visits	Tenderer's Confirmation Separate Cost mentioned in price bid (YES/NO)
Quarterly non-comprehensive maintenance and testing of Fire detection and alarm system of following facilities							
I.	GLR & Pump room	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
II.	Security & Communication	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
III.	SLP-Substation	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
IV.	VAB Substation	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
V.	VAB	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
VI.	FCC and LSSF building at zero point	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
VII.	Nitrogen Supply system	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
VIII.	LOX Storage	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
IX.	N2O4 Instrumentation	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
X.	N2O4 Storage	visit	4	Unpriced	Unpriced	Unpriced	Yes / No

S.No	Activities	Unit	Total Quantity for 4 visits	Unit Cost (inclusive of all charges) / visit	Service tax charges as applicable (Mention Only in percentage)	Total Cost inclusive of service tax (INR) for 4 visits	Tenderer's Confirmation Separate Cost mentioned in price bid (YES/NO)
XI.	N2O4 OFT	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
XII.	LCR / CPB	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
XIII.	UH-25 Instrumentation	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
XIV.	CGSS	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
XV.	LH2 Storage	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
XVI.	UH-25 OFT	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
XVII.	UT	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
XVIII.	UH-25 storage	visit	4	Unpriced	Unpriced	Unpriced	Yes / No
Grand Total cost C (including service tax as applicable) (in Lakhs) (INR)				Unpriced	Unpriced	Unpriced	Yes / No

Estimation in Total:

Item / Activities	Cost	Tenderer's Confirmation Separate Cost mentioned in price bid (YES/NO)
Grand total cost A i.e. Supply items (inclusive of all taxes). Scope and detailed specifications mentioned in SECTION B-1	Unpriced	Yes / No
Grand total cost B Replacement, Erection works, Documentation (i/c detail engg., Panel wiring diagrams, loop diagrams. Etc) (inclusive of all taxes) Scope and detailed specifications mentioned in SECTION B-2	Unpriced	Yes / No
Grand total cost C Quarterly non-comprehensive maintenance and testing of Fire detection and alarm system. Scope and specifications mentioned in SECTION B-3 (inclusive of all taxes)	Unpriced	Yes / No
Final Grand Total Rs:	Unpriced	Yes / No

Part-II – Price Bid indicating the price

Price bid should be submitted by the tenderer in the following format with price break-up. In view of Two Part Tender, the Offers submitted contrary to above instructions will be summarily rejected. Priced commercial bid shall contain schedule of prices duly filled in, signed and stamped. No deviations, terms and conditions, assumptions, conditions, discounts etc. shall be stipulated in price bid. Department will not take cognizance of any such statement and may at their discretion reject such bids.

Table: FORMAT OF PRICED PRICE BID
PRICED BID – SUPPLY PORTION

S.L no	Description	Unit	Quantity nos	Unit Cost (inclusive of all charges)	GST as applicable (Mention Only in percentage of unit cost as / if applicable)	Total Cost inclusive of GST (INR)
I.	a. Fire detection alarm and control panel with provision for accommodating minimum two loop driver cards (Each loop catering minimum 94 detectors and minimum 32 peripheral devices/modules) with RS 485 card for Portable configurator interface, network card and Modbus TCP/IP interface card for third party device interface. The panel shall accommodate loop driver cards (mentioned below in b), programmable relay card with 4 relays, and Modbus TCP/IP interface for third party device interface. The requirement is indicated below. FACP panels interfaced only to addressable standard detectors shall be of same make and FACP panels interfaced to addressable standard and intrinsic safe detectors, spare FACP	nos	19	Priced	Priced	Priced

S.L no	Description	Unit	Quantity nos	Unit Cost (inclusive of all charges)	GST as applicable (Mention Only in percentage of unit cost as / if applicable)	Total Cost inclusive of GST (INR)
	panel shall be of same make. The spare part list for the proposed panel shall be provided.					
	b. Loop driver card suitable for the FACP selected above. However, the number of loop cards per FACP shall be selected to accommodate all the detectors and devices of individual facilities and number of loop cards shall be equal to or more than mentioned in Table III. Spare FACP panel to be installed with minimum one loop driver card suitable for addressable intrinsic detectors	lot	1			
	c. Hardware and software required for Integration of supplied FACP with existing centralized control monitoring station with Schneider electric Citect 2016 SCADA software through MODBUS TCP/IP Protocol as mentioned in Annexure VII (The centralized control station is approx. 800m from each facility and all FACP shall be interfaced to control station through fibre optic link)	nos	18	Priced	Priced	Priced
II.	Programmable Relay card with 4 relays	nos	38	Priced	Priced	Priced
III.	Portable FACP configurator with printer	nos	1	Priced	Priced	Priced

S.L no	Description	Unit	Quantity nos	Unit Cost (inclusive of all charges)	GST as applicable (Mention Only in percentage of unit cost as / if applicable)	Total Cost inclusive of GST (INR)
IV.	Detectors / Devices / Modules compatible to FACP quoted					
	a. Addressable Multi sensor detector (MSD)	nos	313	Priced	Priced	Priced
	b. Addressable Photo electric detector (PED)	nos	323	Priced	Priced	Priced
	c. Addressable Heat detector (HD)	nos	186	Priced	Priced	Priced
	d. Addressable Intrinsic safe Photo electric detector (IPED)	nos	68	Priced	Priced	Priced
	e. Addressable Intrinsic safe Heat detector (IHD)	nos	166	Priced	Priced	Priced
V.	Addressable Duct detector (DD)	nos	22	Priced	Priced	Priced
VI.	Addressable Manual call point					
	a. Non-Intrinsic/ Standard type	nos	41	Priced	Priced	Priced
	b. Intrinsic safe type	nos	28	Priced	Priced	Priced
VII.	Loop sounder(LS)	nos	47	Priced	Priced	Priced
VIII.	Fault Isolator (FI)	nos	70	Priced	Priced	Priced
IX.	Response / Remote indicator (RI)	nos	251	Priced	Priced	Priced
X.	IS Flameproof Hooter	nos	10	Priced	Priced	Priced
XI.	Addressable Switch monitor (SM)	nos	38	Priced	Priced	Priced
XII.	Zener barrier (ZB)	nos	23	Priced	Priced	Priced
XIII.	Protocol translator (PT)		17	Priced	Priced	Priced
Grand Total cost A (in Lakhs) (INR)				Priced	Priced	Priced

PRICED BID – REPLACEMENT, ERECTION , COMMISSIONING AND TESTING PORTION

S.No	Activities	Unit	Quantity	Unit Cost (inclusive of all charges)	Service tax charges as applicable (Mention Only in percentage)	Total Cost inclusive of service tax (INR)
Removal of existing FACP, detectors, MCPs, fault isolators, etc and installation, testing and commissioning of new FACP, detectors, MCPs, fault isolators, etc and integration of of newly installed FACP and associated detectors and subsystems						
I.	Removal of existing FACP and installation, commissioning and testing of new FACP with all its interface cards, relay cards and accessories	Nos	18	Priced	Priced	Priced
II.	Integration of newly installed FACP and associated detectors and subsystems with existing centralized control monitoring station with Schneider electric Citect 2016 SCADA software through MODBUS TCP/IP Protocol as mentioned in Annexure VII	Nos	18	Priced	Priced	Priced
III.	Removal of existing ionisation / multi detector and installation, testing and commissioning of supplied Addressable Multi sensor detector	Nos	306	Priced	Priced	Priced

S.No	Activities	Unit	Quantity	Unit Cost (inclusive of all charges)	Service tax charges as applicable (Mention Only in percentage)	Total Cost inclusive of service tax (INR)
IV.	Removal of existing and installation, testing and commissioning of supplied addressable Photo electric detector	Nos	316	Priced	Priced	Priced
V.	Removal of existing and installation, testing and commissioning of supplied Addressable Heat detector	Nos	182	Priced	Priced	Priced
VI.	Removal of existing and installation, testing and commissioning of supplied Addressable intrinsic safe Photo electric detector	Nos	66	Priced	Priced	Priced
VII.	Removal of existing and installation, testing and commissioning of supplied Addressable Intrinsic safe Heat detector	Nos	162	Priced	Priced	Priced
VIII.	Removal of existing and installation, testing and commissioning of supplied Addressable Duct detector	Nos	21	Priced	Priced	Priced

S.No	Activities	Unit	Quantity	Unit Cost (inclusive of all charges)	Service tax charges as applicable (Mention Only in percentage)	Total Cost inclusive of service tax (INR)
IX.	Removal of existing and installation, testing and commissioning of supplied Addressable Manual call point			Priced	Priced	Priced
c.	Non-Intrinsic/ Standard type	Nos	40	Priced	Priced	Priced
d.	Intrinsic safe type	Nos	27	Priced	Priced	Priced
X.	Removal of existing and installation, testing and commissioning of supplied Loop sounder		46	Priced	Priced	Priced
XI.	Removal of existing and installation, testing and commissioning of supplied Fault Isolator		68	Priced	Priced	Priced
XII.	Removal of existing and installation, testing and commissioning of supplied Response / Remote indicator		246	Priced	Priced	Priced
XIII.	Removal of existing and installation, testing and commissioning of supplied IS Flameproof Hooter		9	Priced	Priced	Priced
XIV.	Removal of existing and		37	Priced	Priced	Priced

S.No	Activities	Unit	Quantity	Unit Cost (inclusive of all charges)	Service tax charges as applicable (Mention Only in percentage)	Total Cost inclusive of service tax (INR)
	installation, testing and commissioning of supplied Addressable Switch monitor					
XV.	Removal of existing and installation, testing and commissioning of supplied Zener barrier		22	Priced	Priced	Priced
XVI.	Removal of existing and installation, testing and commissioning of supplied Protocol translator		16	Priced	Priced	Priced
Grand Total cost B (including service tax as applicable) (in Lakhs) (INR)				Priced	Priced	Priced

PRICE BID – Quarterly non-comprehensive maintenance and testing (for a period of 1 year, 4 visits):

S.No	Activities	Unit	Total Quantity for 4 visits	Unit Cost (inclusive of all charges) / visit	Service tax charge s as applica ble (Mention Only in percent age)	Total Cost inclusive of service tax (INR) for 4 visits
Quarterly non-comprehensive maintenance and testing of Fire detection and alarm system of following facilities						
I.	GLR & Pump room	visit	4	Priced	Priced	Priced
II.	Security & Communication	visit	4	Priced	Priced	Priced
III.	SLP-Substation	visit	4	Priced	Priced	Priced
IV.	VAB Substation	visit	4	Priced	Priced	Priced
V.	VAB	visit	4	Priced	Priced	Priced
VI.	FCC and LSSF building at zero point	visit	4	Priced	Priced	Priced
VII.	Nitrogen Supply system	visit	4	Priced	Priced	Priced
VIII.	LOX Storage	visit	4	Priced	Priced	Priced
IX.	N2O4 Instrumentation	visit	4	Priced	Priced	Priced
X.	N2O4 Storage	visit	4	Priced	Priced	Priced

S.No	Activities	Unit	Total Quantity for 4 visits	Unit Cost (inclusive of all charges) / visit	Service tax charges as applicable (Mention Only in percentage)	Total Cost inclusive of service tax (INR) for 4 visits
XI.	N2O4 OFT	visit	4	Priced	Priced	Priced
XII.	LCR / CPB	visit	4	Priced	Priced	Priced
XIII.	UH-25 Instrumentation	visit	4	Priced	Priced	Priced
XIV.	CGSS	visit	4	Priced	Priced	Priced
XV.	LH2 Storage	visit	4	Priced	Priced	Priced
XVI.	UH-25 OFT	visit	4	Priced	Priced	Priced
XVII.	UT	visit	4	Priced	Priced	Priced
XVIII.	UH-25 storage	visit	4	Priced	Priced	Priced
Grand Total cost C (including service tax as applicable) (in Lakhs) (INR)				Priced	Priced	Priced

PRICED BID – TOTAL (SUPPLY, ERECTION & COMMISSIONING AND NON-COMPREHENSIVE
MAINTENANCE CONTRACT PORTION)

Item / Activities	Cost
Grand total cost A i.e. Supply items (inclusive of all taxes) Scope and detailed specifications mentioned in SECTION B-1	Priced
Grand total cost B Replacement, Erection works, Documentation (i/c detail engg., Panel wiring diagrams, loop diagrams. Etc) (inclusive of all taxes) Scope and detailed specifications mentioned in SECTION B-2	Priced
Grand total cost C Quarterly non-comprehensive maintenance and testing of Fire detection and alarm system. Scope and specifications mentioned in SECTION B-3 (inclusive of all taxes)	Priced
Final Grand Total Rs:	Priced

D. DETERMINATION OF RESPONSIVENESS

SDSC SHAR will scrutinize tenders to determine whether the tender is substantially responsive to the requirements of the tender documents. For the purpose of this clause, a substantially responsive tender 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 SDSC SHAR shall be final in this regard.

E. BID EVALUATION

- 1) During evaluation and any stage of evaluation, SDSC SHAR may request bidder for any clarification on the bid or additional documents.
- 2) Techno-commercial discussion shall be arranged with bidder, if needed. Bidder 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.
- 3) Bidder must provide the point-by-point compliance to the technical specifications along with deviations if any. The tender will be rejected, if the deviations are not acceptable to the department.
- 4) **The supply, erection and non-comprehensive maintenance portion shall be considered and quoted to provide a complete offer. Incomplete / part offer will be rejected.**
- 5) The time schedule for completion is given in the proposal document. Bidder is required to confirm the completion period unconditionally.
- 6) If necessary, to arrive at evaluated prices, wherever applicable, loading on total quoted prices shall be done.
- 7) SDSC SHAR 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 SDSC SHAR shall bear no liability whatsoever consequent upon such decision.
- 8) The bidders shall note that conditional discounts would not have edge in the evaluation process of tenders.

The bidder shall provide compliance statement for the bidder evaluation criteria given in Annexure IV

F. BIDDER'S ELIGIBILITY CRITERIA

- 1) The tenderer has to furnish the make, model no, manufacturing, assembly and testing facilities etc. of quoted items along with techno-commercial bid.
- 2) The tenderer should have executed supply, erection and commissioning of Fire detection panel with detectors in the last three years for a value not less than worth of ₹160 lakhs in a single order / at least two orders of worth ₹120 lakhs each / at least three orders of worth ₹80 lakhs each. The tenderer shall also submit reference POs for annual maintenance contract of Fire detection and alarm detection system performed in last three years. Documentary evidence shall be provided along with the techno-commercial bid. (The relevant purchase orders and corresponding work completion certificates indicating the reference PO shall be provided. Non submission of the same shall lead to disqualification of the offer.)
- 3) The tenderer's average annual financial turnover shall be not less than ₹250 lakhs per year during last three Financial years ending with 31.03.2024. Certified documentary evidence with turnover details of last three Financial years shall be provided along with the techno-commercial bid.
- 4) Pre bid Meeting: To facilitate proper understanding of the requirements and assessing the site conditions, Pre bid meeting will be scheduled in SDSC SHAR and bidders who are interested in this tender shall attend the same. Interested bidders shall contact the below mentioned mail-id for knowing the date and time of the pre bid meeting. Please send the details of the persons participating on behalf of the respective firms. The persons attending the pre-bid meeting shall bring the authorization letter. Contact mail-id : psolssf@shar.gov.in
- 5) **The department reserves the right to evaluate the tenderer in case of need or as per department's requirement. The tenderer shall co-operate for the vendor evaluation.**
- 6) The tenderer must provide a self-declaration that they have not been black listed by any Govt. Department/PSU.

The bidder's eligibility criteria compliance statement shall be provided by the bidder in the format given in Annexure V.

H. TAXES AND DUTIES

1. TAXES & DUTIES:

GST: As per the Notification No. 6/2018-Central Tax (Rate) dt:25.01.2018 A(ix) S.No.243A (88 or any other chapter) as amended by Notification No.24/2018-Central Tax (Rate) Dt: 31.12.2018 b(viii) S.No.243B issued by Ministry of Finance (Dept. of Revenue) & Government of Andhra Pradesh, Revenue (Commercial Taxes-II) Department, G.O.MS.No. 93 Dated: 19-02-2018 A(ix) S.No.243A and as per the Notification No. 7/2018-Integrated Tax (Rate) dt:25.01.2018 A(ix) S.No.243A (88 or any other chapter) as amended by Notification No.25/2018-Integrated Tax (Rate) Dt: 31.12.2018 b(viii) S.No.243B issued by Ministry of Finance (Dept. of Revenue), SDSC SHAR is eligible to avail GST/IGST @5% for the procurements related to 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 payload. we will issue only End-Use Certificate for availing GST/IGST @5%. Hence, submit your price quotation by considering 5% GST.

2. INCOME TAX

Income tax at the prevailing rate as applicable and if applicable from time to time shall be deducted from the tenderer's bills as per Income Tax Act and a certificate issued (TDS Certificate).

I. 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/First class international reputed bank or by Demand Draft valid till completion of the delivery period plus sixty days towards claim period for faithful execution of the contract.

J. APPLICABLE LAW, JURISDICTION AND ARBITRATION:

The Contract 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 Work Package Order(s), 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.

Work under the Work Package Order(s) shall be continued by the Service Provider 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 Service Receiver or unless the matter is such the works cannot be possibly continued until the decision (whether final or interim) of the Arbitrator is obtained.

In case order is concluded on the Public Sector Undertakings, the following Arbitration Clause will be applicable:

In the event of any dispute(s) or difference(s) relating to the interpretation and application of the provisions of the commercial contracts between ISRO/SDSC SHAR & Central Public Sector Enterprises (CPSEs)/Port Trusts inter se and also between ISRO/SDSC SHAR & CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute(s) or difference(s) shall be taken by either party for resolution through the "Administrative Mechanism for Resolution of CPSEs Disputes (AMRCD)", as mentioned in the Office Memorandum F No. 4(1)/2013-DPE(GM)/FTS-1835 dated 22nd May, 2018 issued by the Director of the Department of Public Enterprises (DPE) under the Ministry of Heavy Industries and Public Enterprises, Government of India.

K. LIQUIDATED DAMAGE

Time is the essence of this order. LD shall be levied from the supplier at the rate of 0.5% of the order value per week or 0.5% of the value of the stores for which the delivery

is delayed for each week of delay, as the case may be, subject to a maximum of 10% of the order value.

L. PERFORMANCE BANK GUARANTEE

PBG at 3% of the value of the Purchase Order shall be submitted through bank guarantee from any of the Scheduled Banks executed on non-judicial stamp paper of appropriate value, and shall be valid for a period of sixty days beyond the date for completion of warranty period.

M. FORCE MAJEURE

A Force Majeure (FM) means extraordinary events or circumstance beyond human control such as an event described as an act of God (like a natural calamity) or events such as a war, strike, riots, crimes (but not including negligence or wrong-doing, predictable/seasonal rain and any other events specifically excluded in the clause). An FM clause in the contract frees both parties from contractual liability or obligation when prevented by such events from fulfilling their obligations under the contract. An FM clause does not excuse a party's non-performance entirely, but only suspends it for the duration of the FM. The firm has to give notice of FM as soon as it occurs (say, not later than 14 days after its occurrence), and it cannot be claimed ex-post facto. There may be a FM situation affecting the purchase organisation only. In such a situation, the purchase organisation is to communicate with the supplier along similar lines as above for further necessary action. If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of FM for a period exceeding 90 (Ninety) days, either party may at its option terminate the contract without any financial repercussion on either side.

Notwithstanding the punitive provisions contained in the contract for delay or breach of contract, the supplier would not be liable for imposition of any such sanction so long as the delay and/ or failure of the supplier in fulfilling its obligations under the contract is the result of an event covered in the FM clause.

N. MAKE IN INDIA CLAUSE

For this procurement, bids from Class-I and Class-II Local Suppliers are admissible.

Make-In-India (MII) Clause: For this procurement, provisions contained in Government Public Procurement Order No. P-45021/2/2017-PP(BE-II)-Part (4) Vol.II dated 19.07.2024 its latest directives/amendments there of shall be followed. Accordingly, you are requested to indicate the percentage of local content in the material, clearly mentioning the details of location(s) at which value addition is made in line with clause 9 to O.M dated 19.07.2024 referred above. 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. 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 a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make in -India) order. Hence provisions contained in Public Procurement (Preference to Make in India), bidder shall provide compliance and undertaking as per order and hereafter amendments:

Provisions contained in Government Public Procurement Order No. P-45021/2/2017-PP(BE-II)-Part(4)Vol.II dated 19.07.2024 is applicable.

Class-I local supplier means a supplier or service provider, whose goods, service or works offered for procurement, has local content equal to or more than 50% as defined under this order.

Class-II local supplier means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 20% but less than 50% as defined under this Order

Procurement/ Supply of repackaged/ refurbished/ rebranded imported products as understood commonly shall be treated as reselling of imported products and shall be excluded from calculation of local content.

Imported items sourced locally from resellers/ distributors shall be excluded from calculation of local content.

The license fees/ royalties paid/ technical charges paid out of India shall be excluded from local content calculation

Verification of local content:

The Class-I local supplier/Class-II local supplier at the time to tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for Class-I local supplier/Class-II local supplier as the case may be. They shall also give details of the location(s) at which the local value addition is made.

In case bid value is in excess of Rs. 10 Crore, Class-I local supplier/Class-II local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant in respect of suppliers other than companies) giving the percentage of local content.

False declarations will be in breach of the code of Integrity under Rule 15(1)(i)(h) of the General Financial Rules (GFR) for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Rules along with such other auctions as may be permissible under Law.

A Supplier who has been debarred by any procuring entity for violation of this order shall not be eligible for preference under this order for procurement by any other procuring entity for the duration of the debarment.

The percentage of local content should be specifically mentioned in the offer, without which it will be summarily rejected.

Preference will be given to Class-I Local Supplier and in their absence, Class-II local supplier will be considered.

O. PAYMENT TERMS

In general, our payment terms will be 100% within 30 days after commissioning and testing. However, if Vendors/Suppliers are requesting for payment against supply, department may consider as given below,

For supply:

- i. 80 % of supply cost (inclusive of all taxes) against receipt and acceptance of items at our site on PRO-RATA basis. Balance 20 % of supply cost after successful erection, commissioning, testing and documentation of all systems

For installation, commissioning and testing:

- ii. 100% payment against Installation, commissioning and testing cost on pro-rata basis

However, the party shall limit the total no of bills claimed for the installation and commissioning to twelve.

For Quarterly non-comprehensive preventive maintenance and testing of Fire detection and alarm system

- iii. 100% payment against completion of non-comprehensive preventive maintenance and testing on pro-rata basis

P. DELIVERY

Delivery is the essence of the PO. Delivery period for the supply items, erection, commissioning, testing and documentation is 15 months from the date of PO. The delivery period for quarterly non-comprehensive preventive maintenance and testing shall be 1 year from the date of completion of erection, commissioning, testing and documentation.

The delivery period for all the supply items shall be within 6 months from the date of receipt of purchase order by the vendor. The delivery period for erection, commissioning, testing and documentation shall be 9 months from date completion of supply of items subject to availability of department clearance for start of work. 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. The detailed milestones with timeline is given below

S.No.	Time (EDC)	Major events	Responsibility
1	T ₀	Date of release of Purchase order	SDSC SHAR
2	T ₁ = T ₀ + 2 weeks months	Submission of QAP for all supply items for department approval	Vendor / Supplier
3	T ₂ = T ₁ + 2 weeks	QAP Review and department approval	SDSC SHAR
4	T ₃ = T ₂ + 1 month	Submission of Preliminary design of Analogue Addressable Fire Detection and Alarm System along with the necessary drawings and wiring diagram showing configuration, the layout of sensors with all its interfaces for all facilities for department review and approval	Vendor / Supplier
5	T ₄ = T ₃ + 1 month	Review and approval of submitted Preliminary design of Analogue Addressable Fire Detection and Alarm System	SDSC SHAR
6	T ₅ = T ₂ + 5 months	Supply of all items	Vendor / Supplier
7	Prerequisite for Clearance for start of work are <ul style="list-style-type: none"> Preliminary design approval from department obtained for the facilities by the party Supply completion for the facilities by the party Work front clearance T ₆ – Clearance for start of work at Launch pad facilities inside D area		SDSC SHAR

S.No.	Time (EDC)	Major events	Responsibility
	T7 - Clearance for start of work at Launch pad facilities outside D area T8- Clearance for start of work at control centre T9 - Clearance for start of work at Launch vehicle service building		
8	T10= T6 + 8 months	Erection, commissioning, testing and readiness of FDA system inside D area	Vendor / Supplier
9	T11 = T7 + 6 months	Erection commissioning, testing and readiness of FDA system outside D area	Vendor / Supplier
10	T12= T8 + 2 months	Erection commissioning, testing and readiness of FDA system in control centre	Vendor / Supplier
11	T13 = T9 + 3 month	Erection commissioning, testing and readiness of FDA system in Launch vehicle service building	Vendor / Supplier
12	T14 = T10 + 1 month	Final Documentation submission for all facilities (Hardcopy and softcopy)	Vendor / Supplier
13	T15 = T14 + 1 year	Quarterly non-comprehensive preventive maintenance and testing of all facilities	Vendor / Supplier

SECTION B

SCOPE OF WORK

SLP	Second Launch pad
LOX	Liquid oxygen
LH2	Liquid Hydrogen
VAB	Vehicle Assembly Building
UT	Umbilical Tower
FRLS PVC	Fire Retardant Low Smoke Poly Vinyl Chloride
AA	Addressable Analog
GLR	Ground level reservoir
CGSS	Compressed gas storage and supply system
FACP	Fire alarm detection and control panel
LCR	Local control Room
FCC	Filling control centre
MSD	Multi sensor detector (Addressable)
PED	Photoelectric detector (Addressable)
HD	Heat detector (Addressable)
DD	Duct Detector (Addressable)
MCP	Manual call point (Addressable)
FI	Fault Isolator
RI	Remote Indicator
LS	Loop sounder
SM	Addressable switch monitor
IMSD	Intrinsic safe Multi sensor detector
IPED	Intrinsic safe Addressable Photoelectric detector
HD	Intrinsic safe Addressable Heat detector
FLP	Flame proof
ZB	Zener Barrier
PT	Protocol translator
NCMC	Non-comprehensive maintenance contract

1. INTRODUCTION

Satish Dhawan Space Centre (SDSC SHAR), Indian Space Research Organization (ISRO), Department of Space, Government of India, Tirupathi District, Andhra Pradesh State, India 524124 (here after referred as "Department") intends for

- Supply, Erection, Commissioning and non-comprehensive AMC of detectors and FDA panels for SLP facilities and FCCII at SHAR Centre, Sriharikota.

System Description:

- The Fire detection and alarm control panel with fire detection system is required for second launch pad facilities and launch vehicle filling control centre -2 where the following critical and hazard nature activities are carried out.
 - Hazardous, toxic and flammable propellants are stored, handled and transferred in large quantities in propellant storages involving IIC classification
 - Integrated launch vehicle with solid propellant boosters will be positioned and liquid propellants will be filled in pre-defined manner in Umbilical tower
 - Solid propellant boosters are integrated and satellite with liquid propellant are handled in assembly building
- Addressable Analogue automatic Smoke Detectors of multi-sensor, optical type, heat detectors of rate of rise cum fixed temperature type and UV/UVIR detectors with local control panels, alarms, remote Indicators & manual call points are installed in the facilities and interfaced to fire detection and alarm control panel(FACP) as indicated in the Table I at SLP and FCC-2 at SDSC SHAR Sriharikota.
- The entire facilities are classified as outside D-area, inside D area, launch vehicle service building and control centre for providing clearance for erection and commissioning activities.
- For SLP Facilities (Serial Numbers:1-5 & 7 -18 of Table I given below) alarm signals will be generated at individual facility panel, Local safety control room located about ~600m from each facility and repeater panel at security near local control room. Upon detection of Fire, the Automatic Fire Suppression System (FM 200 System) will be actuated automatically.
- For SI.No 6, Alarm signals will be generated at individual facility panel and no Automatic Fire Suppression System (FM 200 System) is available.
- The details of existing installed FDA system with detectors and interfaces is given below

Table I

S. No	Name of the Facility	Make	FACP	4 way relay card	AA Detectors, Hooters, MCP etc	Gas release panel	UV / UVIR
Launch pad Facilities outside D area							
1.	GLR & Pump room	Panel: Morley Device: Apollo	1	1	66	1	
2.	Security & Communication	Gas release panel: Steelage	1	1	18	1	
3.	SLP-Substation		1	4	110	1	
Launch Vehicle Service Building							

S. No	Name of the Facility	Make	FACP	4 way relay card	AA Detectors, Hooters, MCP etc	Gas release panel	UV / UVIR
4.	VAB Substation		1	1	36	1	
5.	VAB		1	6	170	1	
Control Centre							
6.	FCC and LSSF building at zero point	Panel: Morley Device: Hochiki Gas release panel: Nil	1	0	199	1	
Launch pad Facilities inside D area							
7.	Nitrogen Supply system	Panel: Morley Device: Apollo Gas release panel: Steelage	1	2	80	1	
8.	LOX Storage		1	2	70	1	
9.	N2O4 Instrumentation		1	1	35	1	
10.	N2O4 Storage		1	1	68	1	
11.	N2O4 OFT		1	1	29	1	
12.	LCR / CPB		1	5	196	1	
13.	UH-25 Instrumentation		1	1	35	1	
14.	CGSS		1	3	131	1	
15.	LH2 Storage		1	2	173	1	10
16.	UH-25 OFT		1	1	35	1	
17.	UT		1	3	41	1	
18.	UH-25 storage		1	1	82	1	

The existing FACP, AA detectors, AA IS detectors, AA modules and associated interfaces shall be removed and replaced with supplied items, programmed, tested and ensured for full-fledged fire alarm detection and suppression. The system need to be interfaced to the existing fire suppression FM 200 system and centralized SCADA based monitoring station.

The Bidders shall submit the bids in two part. The department after opening the technical bid will evaluate and if required the department may ask for clarification. After technical evaluation, the price bid of technically suitable offers will be opened and contract will be finalized on technically suitable **overall lowest-priced bid**.

The execution period reckoned from receipt of purchase order to final completion of project and acceptance is 15 months. As this Project is concerned about the fire safety of critical facilities and to be completed within the stipulated period, the Bidders are advised to take utmost care in studying the quantum & nature of work and plan adequate & suitable resources to execute the purchase order within the stipulated period while submitting the bids.

2. GEOGRAPHICAL LOCATION AND CLIMATIC CONDITIONS

S.No	Description	Details
a)	Owner / Purchaser	SDSC, SHAR
b)	Focal Point	Deputy Director, LSSF
c)	Project Title	Supply, Erection and Commissioning of detectors and Non-comprehensive AMC of FDA panels for SLP facilities and FCCII
d)	Plant Location	Satish Dhawan Space Centre, SHAR, Sriharikota – 524 124 Tirupathi Dist. Andhra Pradesh
e)	Altitude	4.7123 meters above MSL
f)	Transportation	
	Nearest Railway Station	<ul style="list-style-type: none"> ✓ The actual site is located about 13.0 km from main gate of Sriharikota. ✓ Sriharikota is 18 km east of Sullurpeta in Nellore Dist. (Sullurpeta is on main rail line from Chennai to Vijayawada) ✓ Sriharikota is 100 km North of Chennai
	Road	Sullurpeta is located on NH-5 from Chennai to Vijayawada.
	Air port	Nearest airport is Chennai
	Sea port	Nearest seaport is Chennai.
g)	Ambient air temperature	
	(a) Maximum dry bulb temperature	45.9 Deg. C
	(b) Minimum dry bulb temperature	11.8 Deg. C
	(c) Design wet bulb temperature for cooling tower design	28.3 Deg. C
h)	Relative humidity	
	a) Maximum	100 % (consider 95 % for design)
	b) Minimum	15 %
i)	Rainfall	
	Annual average rainfall in a year	1331.3 mm / year
	Maximum daily rainfall	240 mm in 24 hours
	Maximum hourly rainfall	26 mm/ hr.
	Design intensity	140 mm / hr
	Period of rainfall	July to December with peak rainfall in October and November.
j)	Wind data	

S.No	Description	Details
	Basic wind speed	230 KMPH
	Cyclone details	<i>Place is prone to cyclones during October to December and facilities are designed for cyclonic loads.</i>
	Wind direction	<i>Predominantly from South East</i>
k)	Seismic data	
	Zone	Zone III as per IS 1893 – 2002
	Coefficient	Basic horizontal seismic coefficient 0.16 as per IS:1893
l)	Latitude , Longitude	13 ° 47' N, 83° 15' E
m)	Atmosphere	Saline and highly corrosive.

3. SCOPE OF WORK

The scope of work includes

- **Supply of Fire alarm and detection system with** FACP's, detectors, MCP, hooters, fault isolators, switch monitors, MCPs, response indicators, zener barriers, etc. **The detailed scope and technical specifications of supply is provided in Section B-1**
- **Replacement, Installation, erection, commissioning and testing works**
 - ✓ Removal of existing Fire Detection & Alarm system panel, detectors, MCP, hooters, fault isolators, switch monitors, MCPs, response indicators, zener barriers and installation, commissioning etc at 18 Nos. of facilities in SDSC SHAR as per list mentioned in Table III
 - ✓ Integration of the replaced FDA panel to the existing Schneider Vijeo citect SCADA software Centralized Monitoring Station (SCADA) via MODBUS TCP/IP protocol and testing with the existing FM 200 suppression systems and associated sub-systems. **The detailed scope and technical specifications of replacement, installation, erection, commissioning and testing is provided in Section B-2**
- **Quarterly non-comprehensive preventive maintenance and testing works** of Fire alarm and detection system as integrated system on quarterly basis for a period of one year after successful commissioning and testing of all systems. **The detailed scope and technical specifications for quarterly non-comprehensive maintenance and testing works provided as Section B-3**

SECTION B-1

Scope, details and technical Specifications of Supply of detectors and FDA panels for SLP facilities and FCCII

4. SUPPLY SCOPE

- The existing FACP, AA detectors, AA IS detectors, MCPs, hooters, Fault isolators, zener barriers, switch monitor, remote indicators etc need to be replaced. In order to replace, the following shall be the scope of supply. All these items shall be supplied from approved makes, indicated against respective items. Quantities mentioned against respective items are indicative and may vary during execution depending on panel configuration. The party shall supply all the items as per requirement. All the standard accessories required for installation of supplied instrument / equipment and interfacing to control station shall be provided along with the item

Table II

S. No	Items	Quantity to be supplied and installed	Spare quantity	Total quantity to be supplied	List of approved makes
I.	a. Fire detection alarm and control panel with provision for accommodating minimum two loop driver cards (Each loop catering minimum 94 detectors and minimum 32 peripheral devices/modules) with RS 485 card for Portable configurator interface, network card and Modbus TCP/IP interface card for third party device interface. The panel shall accommodate loop driver cards (mentioned below in b), programmable relay card with 4 relays, and Modbus TCP/IP interface for third party device interface. The requirement is indicated below. FACP panels interfaced only to addressable standard detectors shall be of same make and FACP panels interfaced to addressable standard and intrinsic safe detectors, spare FACP panel shall be of same make. The spare part list for the proposed panel shall be provided. Shall accommodate Loop driver card suitable for the FACP selected above. However the number of loop cards shall be selected to accommodate all the detectors and devices of individual facilities mentioned in Table III	18	1	19	Morley (Honeywell) / Edwards / Hochiki / Siemens / make compatible with addressable intelligent detectors approved make mentioned in IV.
	b. Loop driver card suitable for the FACP selected above. However, the number of loop cards per FACP shall be selected to accommodate all the detectors and devices of individual facilities and	lot	1	1 lot	Compatible with approved FACP

S. No	Items	Quantity to be supplied and installed	Spare quantity	Total quantity to be supplied	List of approved makes
	number of loop cards shall be equal to or more than mentioned in Table III. Spare FACP panel to be installed with minimum one loop driver card suitable for addressable intrinsic detectors				
	c. Hardware and software required for Integration of supplied FACP with existing centralized control monitoring station with Schneider electric Citect 2016 SCADA software through MODBUS TCP/IP Protocol as mentioned in Annexure VII (The centralized control station is approx. 800m from each facility and all FACP shall be interfaced to control station through fibre optic link)	18	0	18	Compatible with approved FACP
II.	Programmable Relay card with 4 relays	36	2	38	Morley(Honeywell) / Edwards / Hochiki / Siemens / make compatible with approved FACP
III.	Portable FACP configurator with printer	1	0	1	HP/DELL/Equivalent
IV.	Detectors / Devices / Modules compatible to FACP quoted				Edwards / Hochiki / Siemens /Apollo / make compatible with fire alarm control panel approved make
a.	Addressable Multi sensor detector	306	7	313	
b.	Addressable Photo electric detector	316	7	323	
c.	Addressable Heat detector	182	4	186	
d.	Addressable Intrinsic safe Multi sensor detector	33	1	34	
e.	Addressable Intrinsic safe Photo electric detector	33	1	34	
f.	Addressable Intrinsic safe Heat detector	162	4	166	
V.	Addressable Duct detector	21	1	22	
VI.	Addressable Manual call point				
a.	Non-Intrinsic/ Standard type	40	1	41	
b.	Intrinsic safe type	27	1	28	
VII.	Loop sounder	46	1	47	

S. No	Items	Quantity to be supplied and installed	Spare quantity	Total quantity to be supplied	List of approved makes
VIII.	Fault Isolator	68	2	70	mentioned in Sl.No I.
IX.	Response / Remote indicator	248	3	251	
X.	IS Flameproof Hooter	9	1	10	
XI.	Addressable Switch monitor	37	1	38	
XII.	Zener barrier	22	1	23	
XIII.	Protocol translator	16	1	17	

DOCUMENTS ALONG WITH SUPPLY:

- a. FACP installation, commissioning, and user manual along with all panels
 - b. MODBUS TCP/IP documentation
 - c. Wiring diagram of FACP's, detectors and components
 - d. Technical manual on operation of all supplied items
 - e. Maintenance manual of supply items
 - f. All the applicable certification / approvals indicating the model nos of the supply items
 - g. Factory test Certificate of all supply items
- Inspection report of all supply items

5. DETAILED TECHNICAL SPECIFICATIONS

The detailed technical specifications of the system supply items are as given below:

SI. No	ITEM AND SPECIFICATIONS	
I.	FACP PANEL (FIRE DETECTION AND ALARM CONTROL PANEL)	
a.	Make:	: Morley (Honeywell) / Edwards / Hochiki / Siemens / make compatible with addressable intelligent detectors approved make mentioned in IV.
b.	Model no	: Make and model no of the quoted FACP panel shall be mentioned and the required datasheets indicating the quoted specifications shall be provided along with the quote. FACP panels interfaced only to addressable standard detectors shall be of same make and FACP panels interfaced to addressable standard and intrinsic safe detectors, spare FACP panel shall be of same make. The spare part list for the proposed panel shall be provided.
c.	Type	: Addressable, Analogue (AA), Microprocessor based, modular type intelligent addressable fire alarm control panel networkable type suitable for Addressable Analogue (AA) detectors, intrinsically safe AA detectors, AA Manual call points, AA hooters etc., with bidirectional digital data transmission system which provides power and communicates with the initiating devices over a two wire circuit. High resolution LCD display, with built-in system health verification checks, with capability for intelligence, fault isolation, sensor self – test, Alarm delay function, access levels and event historical logging
d.	No. of loops	: Minimum two loops
e.	No. of zones	: 20 minimum with individual LED indicators
f.	Internal Sounder	Intermittent buzzer (fault condition) High-pitched continuous buzzer (fire condition)
g.	Display	: LCD Display for all events, 40 character on each line or equivalent Shall have menu based operation.
h.	Input power Rating	: a. 230 V AC ,50Hz, Main / UPS Source (Primary source) b. 24 V built in Zero Maintenance batteries suitable for minimum 48 hour's battery backup in transit condition
i.	Output	: • NO/NC Potential free contacts for remote display & alarm annunciation (loop wire) and for AHU tripping

SI. No	ITEM AND SPECIFICATIONS	
		<ul style="list-style-type: none"> • Provide outputs that are addressable, i.e. outputs shall have point address. The operator shall be able to command such points manually or assign the points to Logical Point Groups (Software Zones) for pre-programmed operation • Shall supervise detection circuits and shall generate an alarm in case of abnormal conditions. • Shall provide general purpose inputs for monitoring low battery or AC power failure • Shall provide for resetting detectors, fault-isolation, drift compensation facility to compensate for environment. It shall be possible to mix different fire devices within the same FACP to optimize field wiring.
j.	Minimum Addressable capability for detectors and modules	: 94 detectors and 32 peripheral devices/modules per loop.
k.	Loop length	: It shall be possible for the panel to have a loop length with different modules offering minimum 2 km loop length of devices from the panel
l.	Wiring	Each loop can be either Class A or Class B type
m.	Panel	Shall have rigid painted steel enclosure that contains all the required components – microprocessor, power supply plus a clear LCD (Liquid Crystal Display) / LED Display, system status indicators, control keys and additional cards that form the user interface. Sealed to IP30 to withstand various environmental conditions
n.	Control keys required	Sound alarm, Silence (Sounder), Mute (Internal buzzer), Accept, Reset
o.	Battery backup	Required Type: Sealed lead acid Voltage: 24 VDC Standby operation: 48 hrs (Normal mode) <i>(Vendor/Supplier shall mention the make and model no of suitable capacity quoted for above stand by operations. The batteries shall be accommodated inside the FDA panel cabin)</i>
p.	Device Addressing	Electronic addressing with automatic device mapping;

Sl. No	ITEM AND SPECIFICATIONS	
q.	Alarm threshold and testing	<ul style="list-style-type: none"> • Shall be possible to adjust alarm and alarm thresholds and other parameters for the detectors. • Shall provide alarm verification of individual detectors. Alarm verification shall be printed on the printer at the control Station's printer to enhance system maintenance and identify possible problem areas.
r.	CPU operating voltage	24VDC nominal
s.	Protection	Overvoltage and reverse polarity protection required
t.	Panel Mounting and wiring accessories	Shall be provided
u.	Environmental conditions required	Temperature: 10 to 40°C Relative humidity: 10 to 85 % non-condensing
v.	Terminal rating	All terminals suitable for 12 to 18 AWG (0.75 to 2.5 mm ²)
w.	Additional cards / interfaces required for each panel	<p>a) Loop driver card – Shall provide required number of cards to support the required number of detectors and detectors for a facility. Based on minimum detectors and devices / modules supported per loop of FACP selected, number of loop driver cards installed for a particular facility shall be equal to or more than mentioned in Table III. Non- intrinsic and Intrinsic safe detectors of a facility shall be considered in two different loops. Accordingly loop driver cards shall be considered. Spare FACP panel to be installed with minimum one loop driver card suitable for addressable intrinsic detectors</p> <p>b) RS-485 Interface card or compatible communication card for connecting it to Laptop (for configuration of panel setting parameters, mapping, loop device modifications, logic implementation etc.</p> <p>c) Network card for interconnecting FACP's</p> <p>d) Modbus TCP/IP interface card</p> <p>e) Hardware and software required for Integration of supplied FACP with existing centralized control monitoring station with Schneider electric Citect 2016 SCADA software through MODBUS TCP/IP Protocol as mentioned in Annexure VII (The centralized control station is approx. 800m from each facility and all FACP shall be interfaced to control station through fibre optic link)</p>

SI. No	ITEM AND SPECIFICATIONS	
x.	Listing / Approval	EN54 / Vds / UL / IS /LPCB / FM. The relevant certification indicating the quoted model no shall be provided
y.	FACP operation	Any panel operation / loop configuration changes and augmentation / programming/ programming modification shall not necessitate special hardware /software Dongle / license. In case if required, the same shall be specified. All components required shall be included for life time without any conditions and supplied.
z.	FACP and portable configurator interface (1 no)	Required hardware , interface cable , software (full version with licenses in original CD) required to configure, monitor, acquire, export to editable format, shall be provided
aa.	Demonstration	Graphical User Interface software of Fire Alarm Control Panel for Programming of Addressable Detectors, interfacing with the FDA Control panel for obtaining information for monitoring the health of the system, download history / event logs, networking, data acquisition through MODBUS TCP/IP.
bb.	Confirmation from OEM	For maintaining FACP compatibility (to proposed addressable detectors) and spares availability for a period of 10 years from date of supply and acceptance shall be provided.
cc.	Quantity	<ul style="list-style-type: none"> FACP with minimum two loops, RS 485 interface card, Network card, MODBUS TCP/IP interface card - 19 panels Loop driver card – 1 lot (including 1 spare) Hardware and software required for Integration of supplied FACP with existing centralized control monitoring station with Schneider electric Citect 2016 SCADA software through MODBUS TCP/IP Protocol - 18 nos
dd.	Manuals	<ul style="list-style-type: none"> Hard copy of user, installation and commissioning manual shall be provided with each FACP Of additional cards shall be provided
II.	Programmable Relay card	
a.	Make	: Edwards / Hochiki / Siemens /Apollo /Morley (Honeywell) / make compatible with FACP and detectors approved make as mentioned in I and IV respectively
b.	Contact rating	1 amps at 24 V DC
c.	No of outputs and type	Minimum 4 relay outputs built on a single printed circuit board. Each output relay shall provide single pole double throw (SPDT) switching action for other locally powered

SI. No	ITEM AND SPECIFICATIONS	
		equipment. The form C relay contacts are designed to switch resistive loads of up to 1A/24V DC.
d.	FACP compatibility	Additional cards / modules required for the proper functioning of the relay cards in FACP shall be provided
e.	Quantity in nos	38
III.	PORTABLE FACP CONFIGURATOR WITH PRINTER	
a.	Make	HP/DELL/Equivalent
b.	Processor	Intel eight core i7 series, 64-bit processor or latest
c.	Monitor	15.6-inch display
d.	Memory	32GB ECC DDR4-2400 registered SDRAM; 256 GB SSD
e.	Hard drives	Two TB HDD
f.	Optical Drive	Slim Super Multi DVDRW
g.	Network	100/1000Mbps Ethernet
h.	RS485	1 no required. Or RS232 with convertor
i.	Keyboard and mouse	USB based required
j.	Operating system	Windows 11 Professional 64-bit or latest. Shall be suitable for FACP configuration software
k.	Ethernet port	Required
l.	USB Port	Minimum 3 nos required
m.	Serial port	Required
n.	Graphics card	NVIDIA or AMD (ATI) 8 GB graphics card or better
o.	Power supply	Indian power cords to be supplied

Sl. No	ITEM AND SPECIFICATIONS	
p.	Printer	Make: HP; Model no: LaserJet Pro M403d n Laser jet; Output: Black
q.	Software required	MS office preloaded on configurator ; Driver software for printer
r.	Quantity in nos	01
IV.	ADDRESSABLE, ANALOGUE / INTELLIGENT DETECTORS	
a.	Make:	: Edwards / Hochiki / Siemens /Apollo / Morley (Honeywell) / make compatible with fire alarm control panel approved make mentioned in SI.No I.
b.	Model no	Make and model no of the quoted each type of detectors with mounting base shall be mentioned and the required datasheets indicating the quoted specifications shall be provided along with the quote. All the detectors of a facility shall be of same make.
c.	Type	: Addressable, Analogue (AA) / Intelligent, Detectors along with mounting base modular construction with capability for intelligence, remote / local test, status & alarm display functions programmable from panel / hand held device, with possibility to connect loop powered base sounders, with dust compensation feature.
d.	Mounting base	Shall be provided. Ceiling mounted. All the mounting accessories shall be provided OEM compatibility of quoted mounting base and quoted detector shall be provided
e.	Type of Detectors:	: a) Multi-sensor (Photo-Electric cum Heat) detector b) Photoelectric smoke detector c) Heat detector (Should be able to detect rate of rise temperature as well as fixed temperature) d) Intrinsic safe type Photoelectric detector e) Intrinsic safe type Heat detector
f.	Input voltage polarity	Standard /Non-intrinsic detectors – Polarity Insensitive
g.	Sensitivity levels	Shall provide a maintenance/pre-alert/fault alarm capability to prevent the detectors from indicating a false alarm due to dust, dirt etc. Monitoring of individual sensor sensitivity values to be displayed in the FDA panel and provisions to be made to extend and monitor the same to centralized remote SCADA based FDA monitoring system.
h.	Mounting and accessories	Shall be fitted either with plug-in system or bayonet type connections only from the maintenance and compatibility point of view. All mounting , termination accessories shall be provided

Sl. No	ITEM AND SPECIFICATIONS		
i.	Status indication	:	Blinking LED
j.	Addressing		Electronic address-setting by means of configuration software/ Rotary switches.
k.	Alarm indication	:	Twin LED. Should be visible from a 360 deg view
l.	Sensor Operating Range	:	-10 ⁰ C to 50 ⁰ C,20-95% RH (non-condensing)
m.	Input Voltage	:	24 V DC nominal, two wire supply (Non-Intrinsic detectors) 14 – 22VDC, two wire supply (Intrinsic detectors)
n.	Mounting type	:	Ceiling mounted. All the mounting accessories shall be provided
o.	Housing	:	Self-extinguishing polycarbonate or equivalent ; Terminals: Nickel-plated stainless steel
p.	IP rating		IP 42
q.	Listing /Approval	:	EN54 / Vds / UL / IS /LPCB / FM.). Certification shall be provided along with the quote
r.	Hazardous area classification for intrinsic detectors	:	E Ex ia IIC T5 (T4 at Ta =60°C). BASEEFA / PESO / equivalent certification shall be provided along with the quote
s.	Area covered		Shall be as per approval guidelines
t.	Compatibility with FACP		The quoted panel and the detectors shall be compatible and shall have the necessary listing / approval to be used as an integrated system.
u.	Confirmation from OEM		For maintaining quoted detectors compatibility (to quoted FACP) and spares availability for a period of 10 years from date of supply and acceptance shall be provided.
v.	Handheld detector configurator / tester		2 nos shall be provided if available for supplied model no of detectors
w.	Quantity in nos		a) Multi-sensor (Photo-Electric cum Heat) detector - 313 b) Photoelectric detector - 323 c) Heat detector – 186 d) Intrinsic safe type Photoelectric detector – 68 e) Intrinsic safe type Heat detector - 166
V.	AA DUCT DETECTOR		
a.	Make:	:	Edwards / Hochiki / Siemens /Apollo / Morley (Honeywell) / make compatible with FACP and detectors approved make as mentioned in I and IV respectively
b.	Model no		Make and model no of the quoted duct detector shall be mentioned and the required datasheets indicating the quoted

Sl. No	ITEM AND SPECIFICATIONS		
			specifications shall be provided along with the quote. All the detectors of a facility shall be of same make.
c.	Type		Analogue addressable detector.
d.	Air speeds		1 to 25 m/s
e.	Suitable for duct widths		300 to 1500 mm
f.	Sensor Operating Range	:	0° C to 50° C, 20-95% RH (non-condensing)
g.	Housing	:	Self-extinguishing polycarbonate or equivalent; Terminals: Nickel-plated stainless steel. All mounting, fixing, accessories for proper operation with FACP shall be provided
h.	Sampling probe length		≤ 150 mm
i.	Drilling templates and gaskets		To facilitate locating and mounting the housing shall also be provided.
j.	Output		Duct Detector shall be provided with Relay modules to trip A/C Air Handling Units in case of fire/ smoke detection by system
k.	Listing /Approval	:	EN54 / Vds / UL / IS /LPCB / FM.). Certification shall be provided along with the quote
l.	Confirmation from OEM		For maintaining quoted detectors compatibility (to quoted FACP) and spares availability for a period of 10 years from date of supply and acceptance shall be provided.
m.	Quantity in nos		22
VI.	ADDRESSABLE MANUAL CALL POINT		
a.	Make	:	Edwards / Hochiki / Siemens /Apollo / Morley (Honeywell) / make compatible with FACP and detectors approved make as mentioned in I and IV respectively
b.	Model no		Make and model no of the manual call point shall be mentioned and the required datasheets indicating the quoted specifications shall be provided along with the quote. All the detectors of a facility shall be of same make.
c.	Type	:	Addressable, Resettable, push button type with LED indication, weather proof
d.	Operating voltage	:	shall work at the same operating voltage of detectors
e.	Max. Power consumption		Shall be suitable for operation with FACP quoted in A
	a). Normal	:	To be specified by the tenderer.
	b). Alarm	:	To be specified by the tenderer.

SI. No	ITEM AND SPECIFICATIONS		
f.	Communication with FACP		The manual stations shall send data representing the state of the manual station to the FACP based on command from FACP .
g.	Mounting type		Stations shall be suitable for surface mounting / semi flush mount
h.	Hazardous area classification for intrinsic type	:	E Ex ia IIC T5 (T4 at Ta _60°C). BASEEFA / PESO / equivalent certification shall be provided along with the quote
i.	Confirmation from OEM		For maintaining quoted MCP compatibility (to quoted detectors and FACP) and spares availability for a period of 10 years from date of supply and acceptance shall be provided.
j.	Quantity in nos		a. Manual call point (Non-Intrinsic / standard) – 41 b. Manual call point (Intrinsic type FLP) - 28
VII.	LOOP SOUNDER		
a.	Make	:	Edwards / Hochiki / Siemens /Apollo / Morley (Honeywell) / make compatible with FACP and detectors approved make as mentioned in I and IV respectively
b.	Model no		Make and model no of the hooter shall be mentioned and the required datasheets indicating the quoted specifications shall be provided along with the quote. All the sounders of a facility shall be of same make
c.	Type:	:	Variable frequency.
d.	Audio alarm	:	With command from FACP
e.	Operating voltage	:	Shall work at the same operating voltage of detectors
f.	Max. Power consumption	:	To be powered from the 2-wire detector loop itself and no separate power supply or additional cable should be used.
g.	a. Alarm	:	To be specified by the tenderer, as min as possible
h.	b. Stand by	:	To be specified by the tenderer, as min as possible.
i.	Approvals:		UL/FM/LPCB/ equiivalent
j.	Sound output	:	Minimum 85 dB at 1m distance.
k.	Mounting type		Stations shall be suitable for roof mounting and wall mounting
l.	Confirmation from OEM		For maintaining quoted hooter compatibility (to quoted detectors and FACP) and spares availability for a period of 10 years from date of supply and acceptance shall be provided
m.	Quantity in nos		Loop sounder (Non-Intrinsic) – 47

Sl. No	ITEM AND SPECIFICATIONS		
VIII.	FAULT ISOLATOR MODULE		
a.	Make	:	Edwards / Hochiki / Siemens /Apollo / Morley (Honeywell) / make compatible with FACP and detectors approved make as mentioned in I and IV respectively
b.	Operating voltage	:	24VDC nominal
c.	Features	:	1. With minimum short circuit time of 50 μ sec. 2. LED Display when in isolation mode.
d.	Relay cards, I/O Module devices and related accessories (Switching units, etc)	:	Yes
e.	Confirmation from OEM		For maintaining quoted fault isolator compatibility (to quoted detectors and FACP) and spares availability for a period of 10 years from date of supply and acceptance shall be provided
f.	Quantity in nos		70
IX.	RESPONSE / REMOTE INDICATOR		
a.	Make		Edwards / Hochiki / Siemens /Apollo / Morley (Honeywell) / make compatible with FACP and detectors approved make as mentioned in I and IV respectively
b.	Model no		Make and model no of the response indicator shall be mentioned and the required datasheets indicating the quoted specifications shall be provided along with the quote. All the response indicator of a facility shall be of same make
c.	Type		Standard type
d.	Operating voltage		Shall work at the same operating voltage of detectors
e.	Features		LED display when in isolation mode or alarm mode.
f.	Confirmation from OEM		For maintaining quoted response indicator compatibility (to quoted detectors and FACP) and spares availability for a period of 10 years from date of supply and acceptance shall be provided
g.	Quantity in nos		251
X.	IS Flameproof hooter		
a.	Make	:	Baliga /equivalent make compatible with FACP and detectors approved make as mentioned in I and IV respectively
b.	Model no	:	Make and model no of the IS flameproof hooter shall be mentioned and the required datasheets indicating the quoted

Sl. No	ITEM AND SPECIFICATIONS		
			specifications shall be provided along with the quote. All the IS flameproof hooter shall be of same make and model no
c.	Material of construction	:	Cast Aluminum Alloy, With integral terminal chamber
d.	Type of protection	:	Exd as per IS-2148, IIC T5 IP-65
e.	Electrical details	:	Intrinsically safe galvanically isolated protected output connected to terminals in terminal chamber sealed bushes
f.	Input Operating voltage and decibel level	:	24V DC (approx 15 W), dual tone 110dB
g.	Gasket	:	Neoprene
h.	Hardware	:	High tensile steel
i.	IP	:	IP 66
j.	Finish	:	Anti-corrosive Light grey epoxy shade 631 as per IS:5
k.	Earthing	:	External M6 - 1 no ; Internal M5 - 1 no
l.	Cable entry	:	Shall be specified
m.	Cable gland	:	Required flameproof double compression type SS 304/SS304L/SS316/SS316L gland to be provided
n.	Testing and approval	:	CIMFR, Dhanbad / PESO (CCOE), Nagpur
o.	Audio alarm	:	With command from FACP
p.	Max. Power consumption	:	To be powered from the 2-wire detector loop itself and no separate power supply or additional cable should be used.
q.	Confirmation from OEM		For maintaining quoted IS flameproof hooter (to quoted detectors and FACP) spares availability for a period of 10 years from date of supply and acceptance shall be provided
r.	Quantity in nos		10
XI. ADDRESSABLE SWITCH MONITOR			
a.	Make	:	Edwards / Hochiki / Siemens /Apollo / Morley (Honeywell) / make compatible with FACP and detectors approved make as mentioned in I and IV respectively
b.	Model no	:	Make and model no of the switch monitor shall be mentioned and the required datasheets indicating the quoted specifications shall be provided along with the quote. All the switch monitor shall be of same make and model no
c.	Type	:	Addressable
d.	States to control equipment		Normal, Fault, Pre-alarm, Alarm
e.	Status		LED to indicate alarm and fault condition

Sl. No	ITEM AND SPECIFICATIONS		
f.	Mounting		Surface mounting
g.	Interface addressing		Automatically or via code switch
h.	Confirmation from OEM		For maintaining quoted switch monitor (to quoted detectors and FACP) spares availability for a period of 10 years from date of supply and acceptance shall be provided
i.	Quantity in nos		38
XII.	Zener Barrier		
a.	Make	:	Edwards / Hochiki / Siemens /Apollo / Morley (Honeywell) / make compatible with FACP and detectors approved make as mentioned in I and IV respectively
b.	Model no	:	Make and model no of the zener barrier shall be mentioned and the required datasheets indicating the quoted specifications shall be provided along with the quote. All the zener barrier shall be of same make and model no
c.	Output parameters		Max. Output Voltage: $U_o=28V$ • Max. Output Current: $I_o=93mA$ Ensures the energy output always be controlled under a safe value in case of any kind of fault condition
d.	Hazardous area classification		Ex ia Gb II C.
e.	Hazardous area Certification		ATEX/BASEEFA/PESO. Certification shall be provided along with the quote
f.	Confirmation from OEM		For maintaining quoted switch monitor (to quoted detectors and FACP) spares availability for a period of 10 years from date of supply and acceptance shall be provided
g.	Quantity in nos		23
XIII.	Protocol translator		
a.	Make		Edwards / Hochiki / Siemens /Apollo / Morley (Honeywell) / make compatible with FACP and detectors approved make as mentioned in I and IV respectively
b.	Model no		Make and model no of the protocol translator shall be mentioned and the required datasheets indicating the quoted specifications shall be provided along with the quote. All the protocol translator shall be of same make and model no
c.	No of channel		Two
d.	Mounting		DIN rail

SI. No	ITEM AND SPECIFICATIONS		
e.	Requirement		Shall be able to translate electrical signal from FACP to IS requirements and boost the current pulses from IS detector to ensure compatibility with FACP standard thresholds
f.	Compatibility with FACP		The quoted panel and the detectors shall be compatible and shall have the necessary listing / approval to be used as an integrated system.
g.	Confirmation from OEM		For maintaining quoted switch monitor (to quoted detectors and FACP) spares availability for a period of 10 years from date of supply and acceptance shall be provided
h.	Quantity in nos		17

6. INSPECTION AND TESTING

- a) Scope of Inspection and Testing in the Quality Assurance Plan (QAP) shall include but not limited to:
 - Identification of materials, review of manufacturer's factory test certificates
 - Preliminary design of Analogue Addressable Fire Detection and Alarm System along with the necessary drawings and wiring diagram showing the layout of sensors for all facilities Periodical recheck for compliance on scope of work at site.
 - Pre-delivery inspection is required. Party shall provide intimation for inspection after all supply materials are ready. Party shall give one-week advance intimation for inspection.
 - Functional tests of FACP with interface cards, detectors and devices
 - Witness and clearance of all functional tests
- b) Functional testing of Analogue Addressable Fire Detection and Alarm System at site after installation and commissioning shall include
 - The FACP shall be checked for basic tests such as visually checking input voltage and current. All zones one by one shall be de-wired to check for fault signal indication in the FACP.
 - The power source shall be cut off and checked for standby supply from the batteries. After six hours the FACP source shall be switched on to check for auto switch over to the mains module.
 - Test shall be conducted for AC fail, charger fail, DC fail, Battery disconnect or battery fail. In all such cases the relevant LED should glow and the piezo sound shall also give sound output.
 - Functional testing of Integrated system including testing with FM200 instrumentation interface at site as per QAP
 - Check on Integration of total system.
 - Final certification of as built drawings, detector documentation for each facility and compiled stage wise inspection document.
 - Commissioning of the entire installation shall be done in the presence of the purchaser and / or in presence of representative. All necessary instrumentation, equipment, tools, materials and labour shall be brought by the vendor.
- c) The FDA panel shall be connected through MODBUS TCP/IP to supplied portable monitoring station and interfacing to be shown for FACP panel configuration, maintenance status, detector configuration.

- d) The FDA panels supplied shall be connected through MODBUS TCP/IP to existing Schneider Vijeo citect SCADA system through LAN network and FACP status, detector status, fire alarms, zone details shall be displayed.
- e) Detailed QAP shall be provided by party for review and approval of department after placement of PO.

SECTION B-2

Scope, details and technical Specifications of Replacement, Erection, Commissioning, testing of detectors and FDA panels for SLP facilities and FCCII

7. ERECTION SCOPE

- 7.1. The existing FACP, AA detectors, AA IS detectors, MCPs, hooters, Fault isolators, zener barriers, switch monitor, remote indicators etc need to be replaced with items supplied. The erection quantity is mentioned in Table III.
- 7.2. The department approved Preliminary design of Analogue Addressable Fire Detection and Alarm System along with the necessary drawings and wiring diagram showing configuration, the layout of sensors with all its interfaces for all facilities shall be used for configuration and interfacing to existing FM200 fire suppression system and UV/UV/IR detectors by the party.
- 7.3. The existing configuration of fire detection and alarm system shall be considered and replacement activities shall be done in organised and qualified manner with as minimum as possible interruption to ongoing activities as the facilities are utilized /involves launch related activities.
- 7.4. The existing detector and devices arrangement is provided in Section-D. The same shall be considered tentatively for erection scope
- 7.5. The micro-level work plan shall be prepared by the party for each facility and approval shall be obtained from the department so that as and when clearance is provided, the work can be started as per approved plan.
- 7.6. Prior to taking up the erection and commissioning activity, each facility shall be assessed by the party for the modifications that need to be carried out in terms for installing detectors, mounting base and FACP, etc to accommodate the supplied new components, testing healthiness of existing cables, provide required anchoring for detector base and cables, downloading configuration from existing FACP, preparation of detailed drawings, interfaces to control station, cleaning and testing of new detectors etc, performing end to end testing, preparation of test report in department approved formats.
- 7.7. In case of unworthiness of any existing cable, the same shall be replaced with new cable by the party. The new cable will be supplied by the department
- 7.8. Any pre-works are required for replacement, the same shall also be included in work plan. The replacement of existing fire detection system for each facility shall be taken up based on clearance from department. The Supplier has to submit the 'brief step-by-step operation procedure' as conceived by the designer for approval at detailed design stage itself.
- 7.9. Minor civil works, as required for opening, closing & finishing the openings, grounding of equipment's etc, including the supply of cement, gravel & sand etc. as required, are in party's scope
- 7.10. After pre-works, the existing system components shall be replaced by supplied components as mentioned in Table III. The completion schedule of each facility shall follow approved work plan.
- 7.11. The FACP configuration for each facility shall be done and downloaded to portable configurator.
- 7.12. After installation of components, erection, commissioning of fire alarm and detection system, interfacing to Schneider Electric Vijeo citect at centralized control station at approx. 800m distance through MODBUS TCP/IP and end to end testing shall be done by party. The interfaces to fire quenching FM200, UV, UV/IR instrumentation shall also be done. The test report shall be provided.

- 7.13. The entire documentation of MODBUS TCP/IP addressing, data, commands formats etc that is applicable for the FACP shall be provided.
- 7.14. After completion of testing, the test confirmation shall be shown through the panel software in portable configurator (laptop).
- 7.15. Operation manual shall include all minute activities and checkpoints in very detailed manner. The manual also shall include trouble shooting, possible causes and remedial measures to be adopted. Procedure should be well detailed and it should identify all checkpoints before carrying out any operation. For each operation, a checklist has to be made for systematic check-up and operation.
- 7.16. After testing and commissioning the updated document shall be submitted for final clearance and approval. Permanent physical identification, which are legible, clearly visible at any stage of operation etc. and markings shall be given on the system where the operator has to carry out his work.
- 7.17. Proper engineering practices such as proper ferruling, wiring termination, tagging of all system components/detectors etc shall be followed for erection, commissioning and testing activities.
- 7.18. All the tools, measuring instruments, consumables required for the erection, commissioning and testing work shall be brought by the party.
- 7.19. **Erection and commissioning work shall go parallel in the facilities where clearance for start of work is given by department. Hence independent teams for installation, wiring, cabling etc., and all required tools eg: for wiring, cabling, etc shall be deployed for parallel execution of work.**
- 7.20. **A Site engineer shall be deputed who will act as focal point for execution of all works.**
- 7.21. The procedure to be followed for any fire alarm, false alarm and any fire conditions shall be prepared and displayed in laminated display boards near to the panel by the party.
- 7.22. The blue prints of Fire alarm and detection system of the newly installed FACP, detectors, other accessories and its interface to existing FM 200 fire suppression system and its components shall be provided.
- 7.23. Soft copy of all the As-built final drawings shall be provided in Autocad format in a pen drive and compact disk.
- 7.24. Five sets of Documents (hard copy) to be provided on completion of erection works.
- a. FACP installation, commissioning, and user manual
 - b. MODBUS TCP/IP documentation
 - c. Datasheet / detailed user and maintenance Manual, certification / listing / approval of all addressable detectors and non-addressable devices
 - d. Detailed Operation and Maintenance document
 - e. Spare part list for FACP and all supply items
 - f. As built drawings of Fire alarm and detection system with detector /module identification number
 - g. Wiring diagram of FACP's, detectors and components
 - h. Installation diagrams.
 - i. Test Certificate of all supply items
 - j. Inspection report of all supply items

k. OEM confirmation for product compatibility and spare availability for 10years

Detailed Operation and Maintenance document shall include but shall not be limited to the following:

01. Block diagram of Fire detection system with fire suppression system
02. Applicable drawings
03. List of all bought out items, detailed specifications and catalogues
04. History of the system
05. List of tools
06. List of consumables and maintenance schedules
07. List of spares
08. Systematic health checks procedure.
09. Work prior to starting maintenance
10. Step by step procedure for dismantling of a sub-system
11. Step by step procedure for carrying of repair
12. Step by step procedure for re-assembling
13. Test results
14. Final report

Table III – ERECTION SCOPE OF FIRE DETECTION AND ALARM SYSTEMS AVAILABLE IN FACILITIES OF SECOND LAUNCH PAD AREA (in nos)

Sl. NO.	NAME OF THE FACILITY	Fire detection and alarm control panel and accessories (in erection scope) in nos				Interfacing and testing	Addressable (in erection scope) in nos					Non-Addressable (in erection scope) in nos			Total addressable detectors	Total non-addressable devices	Grand Total
		FAC P	Loop driver card	4 way Relay card	Network card	FM 200 release system instrumentation (in lot)	Multi sensor detector	Photo electric detector	Heat detector	Manual call point	Duct Detector	Fault Isolator	Loop soun der	Remote indicator			
1.	GLR & PUMP ROOM	1	1	1	1	1	22	20	4	2	0	3	3	12	48	18	66
2.	SECURITY & COMMUNICATION	1	1	1	1	1	6	6	0	1	0	1	2	2	13	5	18
3.	SLP - SUB STATION	1	1	4	1	1	25	24	32	5	2	5	4	13	88	22	110
4.	VAB SUBSTATION	1	1	1	1	1	10	10	10	2	0	2	2	0	32	4	36
5 a	VAB	1	2	6	1	1	27	27	0	6	0	3	6	20	60	29	89
6.	FILLING CONTROL CENTRE II	1	2	0	1	0	49	76	19	5	3	4	3	40	152	47	199
7.	NITROGEN SUPPLY SYSTEM	1	1	2	1	1	23	23	0	1	2	3	2	26	49	31	80
8.	LOX STORAGE	1	1	2	1	1	18	16	12	2	2	3	3	14	50	20	70
9.	N2O4 INSTRUMENTATION	1	1	1	1	1	10	9	0	1	1	1	2	11	21	14	35
10.	N2O4 STORAGE	1	1	1	1	1	4	4	50	3	0	4	3	0	61	7	68
11.	N2O4 OFT	1	1	1	1	1	1	1	21	2	0	2	2	0	25	4	29
12.	LCR / CPB	1	2	5	1	1	49	47	28	4	5	6	5	52	133	63	196
13.	UH 25 INSTRUMENTATION	1	1	1	1	1	10	9	0	1	1	1	2	11	21	14	35
14.	CGSS BLDG	1	2	3	1	1	41	33	6	4	3	4	5	35	87	44	131
15 a	LH2 STORAGE	1	2	2	1	1	11	11	0	1	2	2	2	10	25	14	39
TOTAL		15	20	31	15	14	306	316	182	40	21	44	46	246	865	336	1201
IIC AREA																	

SI. NO	NAME OF THE FACILITY	FACP (in erection scope)				FM 200 release system instrumentation (in lot) Interfacing and test scope	Intrinsic safe addressable (in erection scope)					Non-Addressable (in erection scope)				Only interfacing and test scope in nos		Total addressable detectors and modules	Total non-addressable devices	Total
		NO. OF PANELS	Loop driver card	4 way Relay card	Network card		Mult i sensor detector	Photo electric detector	Heat detector	Manual call point	Switch monitor	Fault Isolator	Flame proof Hooter	Zener Barrier	Protocol translator	U V	UV / IR			
15 b	LH2 STORAGE	same 15a				same 15a	0		91	2	10	8	2	7	6	6	2	103	31	134
5 b	VAB	same 5a				same 5a	38		0	13	13	6	3	5	3	0	0	64	17	81
16.	UH 25 OFT BLDG	1	1	1	1	1	2		21	2	2	2	1	3	2	0	0	27	8	35
17.	UT	1	1	3	1	1	18		0	8	8	2	2	2	1	0	0	34	7	41
18.	UH 25 STORAGE	1	1	1	1	1	8		50	2	4	6	1	5	4	0	2	64	18	82
TOTAL		3	3	5	3	3	66		162	27	37	24	9	22	16	6	4	292	81	373

8. QUALITY OF MATERIALS AND WORKMANSHIP

All equipment/systems, materials and articles incorporated in the work should be with due validity, free from defects and of the most suitable grade for the purpose intended. All work under this PO shall be performed in a skilful and workman-like manner and shall be consistent with the best practices of the industry.

If at any time SDSC SHAR notifies that any such equipment/systems, material, article or workmanship fails to meet the foregoing standards, the contractor shall promptly take all the remedial steps required to meet those standards.

SECTION B-3

Scope, details and technical Specifications of Non-comprehensive preventive maintenance and testing of
FDA system for SLP facilities and FCCII

Quarterly non-comprehensive preventive maintenance and testing works
Specifications for Quarterly non-comprehensive preventive maintenance and testing works
Automatic Fire/Smoke Detection and Alarm System in Second Launch Pad Facilities and Launch
Vehicle Propellant Filling Control Centre -2 at SHAR Centre, Sriharikota.

Period: 1 Year (Total: 4 visits, Quarterly basis)

Scope of work:

1. Servicing and undertaking preventive maintenance for a period of one year on quarterly basis (after successful completion of supply, installation, commissioning and testing as per Section B-1 and B-2) for:
 - i. Analogue addressable fire/smoke detection and alarm systems in Second launch pad facilities and launch vehicle filling control centre -2 (FCC-2) at SDSC SHAR in the facilities indicated in Table IV. Auto gas suppression system (FM 200) panel and alarm signals at above facilities.
 - ii. Centralized safety console meant for all SLP facilities (Sl.no:1 to 18 of Table IV) located at safety control room, which is located approx. 800m from each facility.
 - iii. Security repeater panel located near safety control room of SLP.

Note: The necessary man power, tools, consumables like *smoke generator for testing detectors, and test instruments etc.* for maintenance of the system is in the scope of party

2. During the contract period 4 quarterly visits shall be made. Each quarterly visit shall be completed within 3 weeks' time for all the facilities indicated in enclosed list. (Contractor shall depute the required personnel for the same)
3. During quarterly maintenance if any spare parts are required by service agency for replacement, the same will be provided by department beyond warranty period.
4. **The unit price of spare part list of supplied FACP panel shall be provided by the party along with the quote**
5. The standard operation procedure (SOP) and report format for system maintenance of each facility shall be submitted and department approval shall be taken prior to start of work.
6. Further in due course of time, in case of any changes required in SOP due to technical requirements, the same shall be incorporated based on department demand.
7. **During the contractor period false alarms/emergency calls should be attended immediately on receipt of information either from purchase section or from user group.**
8. During every quarterly visit scope of work shall include but not limited to the following:
 - Check the health of Fire alarm control panel.
 - Complete check-up of wiring, Fire alarm control panel, Simulation checks of smoke/heat and UV/UVIR detectors & remote indicators junction box etc. Simulation checks of safety interlocks including AHU tripping from panels.
 - Functional checks of Main/Redundant UPS and DC regulated power supply change over circuit.
 - End to end functional checks and verification of FM200 suppression system instrumentation and interfaces
 - Testing/Simulation checks of alarms at facility fire alarm panel, Centralized safety control room, repeater panels, Event logging details shall be furnished
 - After completion of all tests, system normalization shall be carried out in facilities after obtaining department clearance
 - Test report and detector sensitivity verification report documentation shall be provided

Table IV - FIRE DETECTION AND ALARM SYSTEMS AVAILABLE IN FACILITIES OF SECOND LAUNCH PAD AREA (in NCMC scope) in no's

Sl. NO.	NAME OF THE FACILITY	Fire detection and alarm control panel and accessories (in NCMC scope) in no's				FM 200 release system instrumentation (in lot) (NCMC scope)	Addressable (in NCMC scope)					Non-Addressable (in NCMC scope)			Total addressable detectors	Total non-addressable devices	Grand Total
		NO. OF PANELS	Loop card	4 way Relay card	Network card		Multi sensor detector	Photo electric detector	Heat detector	Manual call point	Duct Detector	Fault Isolator	Loop sounder	Remote indicator			
1.	GLR & PUMP ROOM	1	1	1	1	1	22	20	4	2	0	3	3	12	48	18	66
2.	SECURITY & COMMUNICATION	1	1	1	1	1	6	6	0	1	0	1	2	2	13	5	18
3.	SLP - SUB STATION	1	1	4	1	1	25	24	32	5	2	5	4	13	88	22	110
4.	VAB SUBSTATION	1	1	1	1	1	10	10	10	2	0	2	2	0	32	4	36
5 a	VAB	1	2	6	1	1	27	27	0	6	0	3	6	20	60	29	89
6.	FILLING CONTROL CENTRE II	1	2	0	1	0	49	76	19	5	3	4	3	40	152	47	199
7.	NITROGEN SUPPLY SYSTEM	1	1	2	1	1	23	23	0	1	2	3	2	26	49	31	80
8.	LOX STORAGE	1	1	2	1	1	18	16	12	2	2	3	3	14	50	20	70
9.	N2O4 INSTRUMENTATION	1	1	1	1	1	10	9	0	1	1	1	2	11	21	14	35
10.	N2O4 STORAGE	1	1	1	1	1	4	4	50	3	0	4	3	0	61	7	68
11.	N2O4 OFT	1	1	1	1	1	1	1	21	2	0	2	2	0	25	4	29
12.	LCR / CPB	1	2	5	1	1	49	47	28	4	5	6	5	52	133	63	196
13.	UH 25 INSTRUMENTATION	1	1	1	1	1	10	9	0	1	1	1	2	11	21	14	35
14.	CGSS BLDG	1	2	3	1	1	41	33	6	4	3	4	5	35	87	44	131
15 a	LH2 STORAGE	1	2	2	1	1	11	11	0	1	2	2	2	10	25	14	39
TOTAL		15	20	31	15	14	306	316	182	40	21	44	46	246	865	336	1201

IIC AREA																				
SI. NO	NAME OF THE FACILITY	FACP (in NCMC scope)					FM 200 release system instrumentation (in lot) (NCMC scope)	Intrinsic safe addressable (in NCMC scope)				Non-Addressable (in NCMC scope)				(in NCMC scope)		Total addressable detectors and modules	Total non-addressable devices	Total
								Photo electric detector	Heat detector	Manual call point	Switch monitor	Fault Isolator	Flame proof Hooter	Zener Barrier	Protocol translator					
		NO.OF PANELS	Loop card	4 way Relay card	Network card	UV										UV / IR				
15 b	LH2 STORAGE	same 15a					0	91	2	10	8	2	7	6	6	2	103	31	134	
5 b	VAB	same 5a					38	0	13	13	6	3	5	3	0	0	64	17	81	
16.	UH 25 OFT BLDG	1	1	1	1	1	2	21	2	2	2	1	3	2	0	0	27	8	35	
17.	UT	1	1	3	1	1	18	0	8	8	2	2	2	1	0	0	34	7	41	
18.	UH 25 STORAGE	1	1	1	1	1	8	50	2	4	6	1	5	4	0	2	64	18	82	
TOTAL		3	3	5	3	3	64	162	27	37	24	9	22	16	6	4	292	81	373	

SECTION-C
FORMATS TO BE FILLED BY THE SUPPLIER

CHECKLIST TO BE FILLED BY TENDERER

Sl No	Description	Supplier has to confirm his compliance.(Yes / No)
1	All the tender document, technical specifications mentioned and Section B-1, B-2 and B-3 shall be read and complied. The supplier shall specifically sign on each page of the specification and shall be uploaded. All the relevant technical datasheets to support the quoted specifications shall be uploaded.	*
2	The scope of supply is fully understood by the tenderer	*
3	Confirm all the technical specifications and supply terms & conditions are acceptable	*
4	Confirm the specification of items required to be supplied can be met by the tenderer	*
5	All the parts comprising an individual item shall be considered and shall be quoted in priced bid format enclosed	*
6	Cost shall be inclusive of transportation, taxes as applicable	*
7	Filled Exceptions and deviations if any are attached in format as mentioned in Annexure II by the tenderer	*
8	Filled acceptance of terms and conditions by the tenderer in format as mentioned in Annexure III attached	*
9	Filled bid evaluation criteria compliance statement by the tenderer in format as mentioned in Annexure IV attached	*

*To be filled by the bidder

Signature of Authorized Person with Seal

TO BE SUBMITTED ALONGWITH TECHNO-COMMERCIAL BID

Annexure -II

FILE REF NO : _____

NAME OF TENDERER : _____

EXCEPTIONS AND DEVIATIONS

In line with Proposal Document, Bidder may stipulate Exceptions and deviations to the Proposal conditions if considered unavoidable.

S.No	Reference in Specification		Department Specification	Offered Specification	Deviation with detailed justification
	Page No.	Clause No.			

NOTE :

- ✓ Any deviations taken by the Bidder to the stipulations of the Proposal document shall be brought out strictly as per this format and enclosed along with the bid.
- ✓ Any deviations not brought out as per this Proforma and written elsewhere in the Proposal document shall not be recognized and the same is treated as null and void.
- ✓ Any willful attempt by the Bidders to camouflage the deviations by giving them in the covering letter or in any other documents that are enclosed may render the Bid itself non-responsive.

Signature of Authorized Person with Seal

TO BE SUBMITTED ALONGWITH TECHNO-COMMERCIAL BID

Annexure –III

ACCEPTANCE OF TERMS AND CONDITIONS BY THE VENDOR

We hereby agree to all the terms and conditions as given in Tender Notice No. _____ dated: _____ for Supply, Replacement, Erection, Commissioning and non-comprehensive preventive maintenance of detectors and FDA panels for SLP facilities and FCCII (as per the specifications and terms and conditions indicated in the RFP and tender) at SDSC SHAR, Sriharikota.

Company Seal

Signature of Authorized Person with Seal

Place : _____

Date : _____

BID EVALUATION CRITERIA COMPLIANCE STATEMENT

The broad guidelines for evaluation of Bids will be as follows:

S.No	Description	Bidder Compliance Acceptable / Not acceptable
1	In respect of Two-Bid system, the techno-commercial bids forwarded by the Bidders will be evaluated by the Department with reference to the technical specifications and commercial terms as mentioned in the RFP. The compliance of techno-commercial bids would be determined on the basis of the parameters specified in the RFP. The Price Bids of only those Bidders will be opened whose techno-commercial bids would clear the techno-commercial evaluation.	
2	During evaluation, SDSC SHAR may request Bidder for any clarification on the bid, additional documents. The department reserves the right to evaluate the tenderer in case of need or as per department's requirement. The tenderer shall co-operate for the vendor evaluation.	
3	Bidder must provide the point-by-point compliance to the technical specifications along with deviations. The tender can be rejected if the deviations are not acceptable to the Department.	
4	The bidders shall quote for all supply items and erection, commissioning, testing works and non-comprehensive maintenance works mentioned in the tender. Incomplete offer will be rejected.	
5	Performance of Bidder on similar nature of supply executed/ under execution shall be taken into consideration before selecting the Bidder for opening his price bid.	
6	The delivery period is given in the proposal document. Bidder is required to confirm the Delivery period unconditionally.	
7	SDSC SHAR reserves the right to reject any bid if technically/commercially not meeting the requirement/terms & conditions. Such decisions by the SDSC SHAR shall bear no liability whatsoever consequent upon such decision.	
8	Overall technically suitable lowest offer including transportation charges, taxes, duties as applicable will be taken for arriving at the lowest offer and awarding the purchase order/ contract as per the procedures.	
9	Confirmation from bidder for execution of full scope of work (including supply and erection , commissioning and testing works and non-comprehensive maintenance works)	
10	If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price will prevail and the total price will be corrected. If there is a discrepancy between words and figures, the amount in words will prevail for calculation of price.	

Signature of Authorized Person with Seal

BIDDER'S ELIGIBILITY CRITERIA COMPLIANCE STATEMENT

S.No	Description	Vendor Compliance with supporting documents as applicable
1.	The tenderer has to furnish the make, model no, manufacturing, assembly and testing facilities address etc. of quoted items along with techno-commercial bid.	
2.	The tenderer should have executed supply, erection and commissioning of Fire detection panel with detectors in the last three years for a value not less than worth of ₹160 lakhs in a single order / at least two orders of worth ₹120 lakhs each / at least three orders of worth ₹80 lakhs each. The tenderer shall also submit reference POs for annual maintenance contract of Fire detection and alarm detection system performed in last three years. Documentary evidence shall be provided along with the techno-commercial bid. (The relevant purchase orders and corresponding work completion certificates indicating the reference PO shall be provided. Non submission of the same shall lead to disqualification of the offer.)	
3.	The tenderer's average annual financial turnover shall be not less than ₹250 lakhs per year during last three Financial years ending with 31.03.2024. Documentary evidence for the same shall be provided along with the techno-commercial bid.	
4.	<u>Pre bid Meeting:</u> To facilitate proper understanding of the requirements and assessing the site conditions, a Pre bid meeting (which will be conducted preferably within 10 days of tender release) will be scheduled in SDSC SHAR and bidders who are interested in this tender shall attend the same and get any clarifications if required. Interested bidders shall contact the mentioned mail-id for knowing the date and time of the pre bid meeting.	
5.	The department reserves the right to evaluate the tenderer in case of need or as per department's requirement. The tenderer shall co-operate for the vendor evaluation.	
6.	The tenderer must provide a self-declaration that they have not been black listed by any Govt. Department/PSU.	

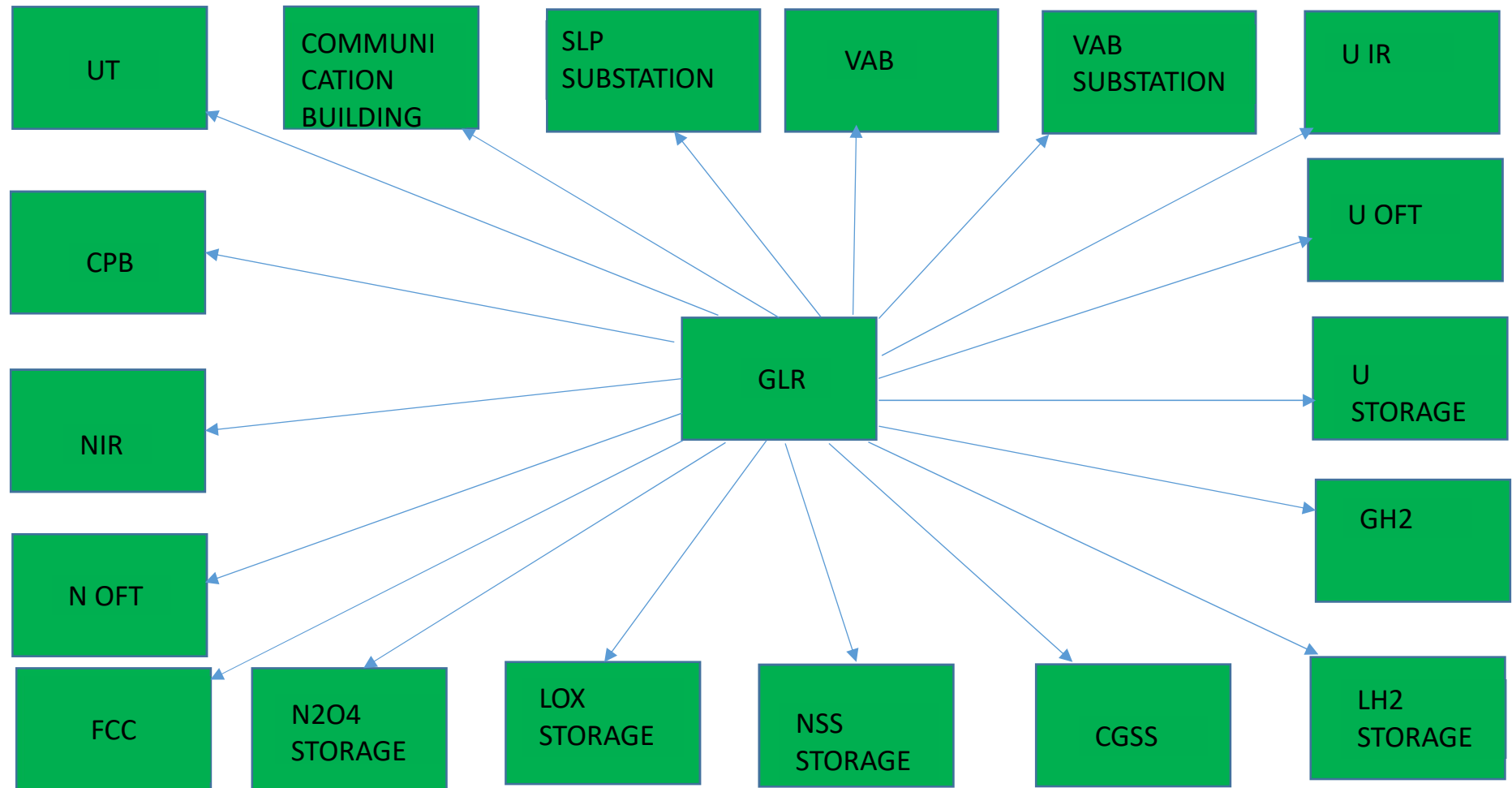
Signature of Authorized Person with Seal

COMPLIANCE TO APPROVED MAKES

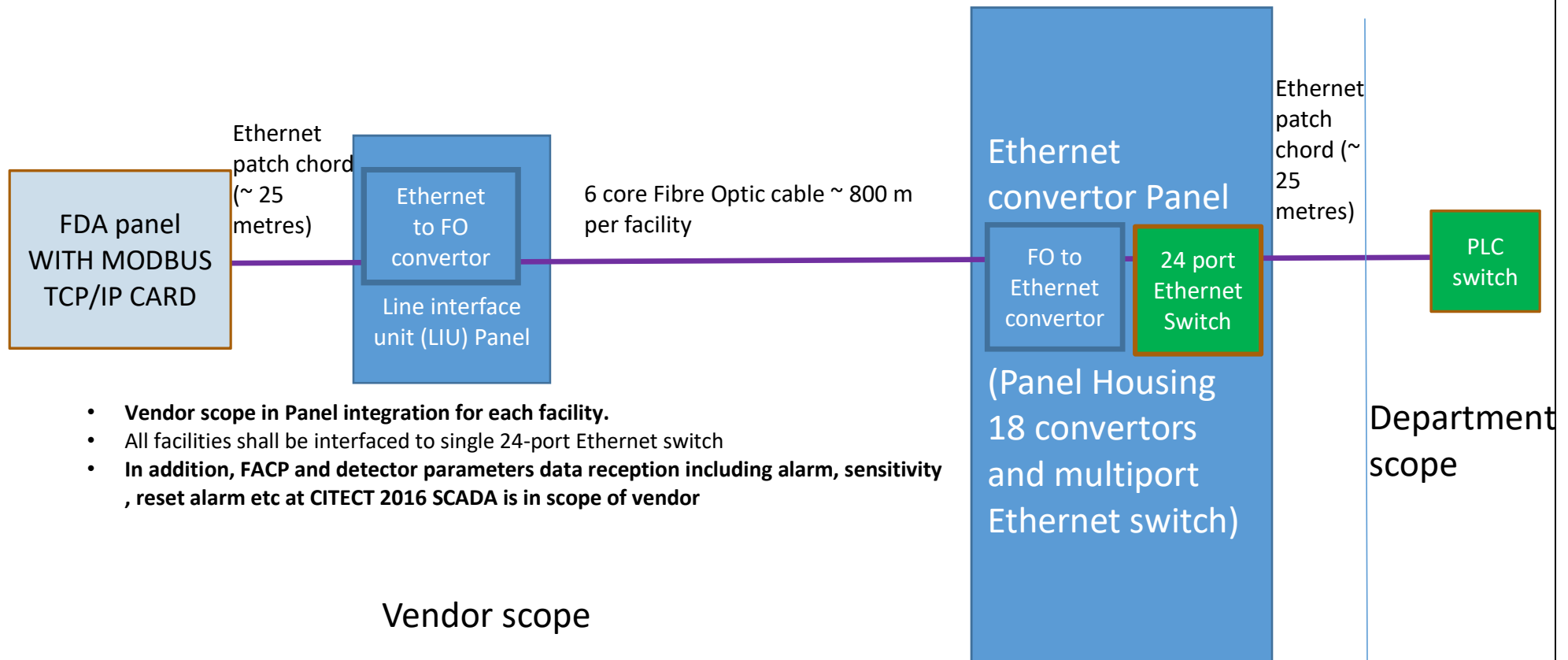
S.No	Items	List of approved makes	Make and Model no of all items quoted / included shall be mentioned	Technical datasheets attached Yes / No
I.	a. Fire detection alarm and control panel FACP with all its accessories	Morley / Edwards / Hochiki / Siemens / make compatible with addressable intelligent detectors approved make mentioned in IV.		
	b. Loop driver card			
	c. Hardware and software required for Integration of supplied FACP with existing centralized control monitoring station with Schneider electric Citect 2016 SCADA software through MODBUS TCP/IP Protocol as mentioned in Annexure VII (The centralized control station is approx. 800m from each facility and all FACP shall be interfaced to control station through fibre optic link)	Compatible with approved FACP		
II.	Programmable Relay card with 4 relays	Morley (Honeywell) / Edwards / Hochiki / Siemens / make compatible with approved FACP		
III.	Portable FACP configurator with printer	Configurator: HP/DELL/Equivalent Printer: HP		
IV.	Detectors / Devices / Modules compatible to FACP quoted	Edwards / Hochiki / Siemens /Apollo / Morley (Honeywell) / make compatible with fire alarm control panel approved make mentioned in SI.No I.		
a.	Addressable Multi sensor detector			
b.	Addressable Photo electric detector			
c.	Addressable Heat detector			
d.	Addressable Intrinsic safe Photo electric detector			
e.	Addressable Intrinsic safe Heat detector			
V.	Addressable Duct detector			
VI.	Addressable Manual call point			
a.	Non-Intrinsic/ Standard type			
b.	Intrinsic safe type			
VII.	Loop sounder			
VIII.	Fault Isolator			
IX.	Response / Remote indicator			
X.	IS Flameproof Hooter			
XI.	Addressable Switch monitor			
XII.	Zener barrier			
XIII.	Protocol translator			

Annexure VII

FDA panel integration at facilities to GLR (through optic link)



CONFIGURATION OF INTERFACING A SINGLE FACP TO REMOTE SCADA



- **Vendor scope in Panel integration for each facility.**
- All facilities shall be interfaced to single 24-port Ethernet switch
- **In addition, FACP and detector parameters data reception including alarm, sensitivity , reset alarm etc at CITECT 2016 SCADA is in scope of vendor**

Vendor scope

Deliverables for FACP integration to centralized monitoring station

- Industrial grade Ethernet to FO convertor – 36 nos (MOXA, IMC-101-S-SC Industrial media convertor or equivalent)
- Line interface units at FACP and PLC side
- Industrial grade 24 Port Ethernet switch – 1 no
- Panel for accommodating 18 nos FO convertor and 1 nos 24-port Ethernet switch at GLR
- Patch chords for FACP to FO convertor and ethernet switch to PLC switch;
- Minimum 6 core Industrial grade fibre optic cable for interfacing all FACP panel to GLR – 14.5 kms

Section – D

Fire Alarm Detection System – Detector and Modules arrangement

**FACILITIES AND DETECTOR ARRANGEMENT
STANDARD TYPE ADDRESSABLE DETECTORS**

Sl. No	Location	Area Description F/C – False ceiling F/F – False flooring		MSD	PED	HD	ADD MCP	DD	FI	LS	RI	ZONE NO
1	GLR & Pump Room	Pump Bay		6	6	4	1	-	1	1	-	1
		Control Room	Above F/C	4	4	-	-	-	-	-	8	2
			Below F/C	2	2	-	-	-	1	-	-	
			Below F/F	2	2	-	-	-	-	-	4	
		Compressor Bay		4	4	-	1	-	1	1	-	3
		Panel Room		2	1	-	-	-	-	-	-	4
		Lobby		1	-	-	-	-	-	-	-	5
		Maintenance Room		1	1	-	-	-	-	1	-	
		Sub Total		22	20	4	2	0	3	3	12	5
2	Security & Communication	CCTV Communication Room	On Ceiling	2	2	-	1	-	-	1	-	-
			Below F/F	1	1	-	-	-	-	-	2	1
		Telephone Exchange Room		1	1	-	-	-	-	-	-	2
		Documentation Room		1	1	-	-	-	-	-	-	4
		Lobby (Corridor)		1	1	-	-	-	1	1	-	3
		Security Room		-	-	-	-	-	-	-	-	-
		Sub Total		6	6	0	1	0	1	2	2	4
3	SLP-Sub Station	Transformer Room 2.5 MVA(1)		1	1	2	-	-	-	-	-	1
		Transformer Room 2.5 MVA(2)		1	1	2	-	-	-	-	-	2
		Transformer Room 2.5 MVA(3)		1	1	2	-	-	-	-	-	3
		Transformer Room 2.5 MVA(4)		1	1	2	-	-	-	-	-	4
		Transformer Room 630 KVA (5)		1	1	-	-	-	-	-	-	5
		Transformer Room 630 KVA (6)		1	1	-	-	-	1	-	-	6
		Battery Room (3)		-	-	6	-	-	-	1	-	7

**FACILITIES AND DETECTOR ARRANGEMENT
STANDARD TYPE ADDRESSABLE DETECTORS**

Sl. No	Location	Area Description F/C – False ceiling F/F – False flooring	MSD	PED	HD	ADD MCP	DD	FI	LS	RI	ZONE NO
		HT & LT Panel Room	7	7	-	1	-	2	1	-	8
		D.G.Room / D.G.Panel Room	3	2	6	2	-	-	-	-	9
		Microprocessor Panel Room	1	1	-	-	-	-	-	1	10
		Battery (UPS) Room (2)	-	-	6	-	-	1	1	-	11
		UPS Room	Above F/C	6	6	-	2	-	-	12	12
			Below F/C	2	2	-	1	-	-	-	13
		Battery (UPS) Room (1)	-	-	6	1	-	1	1	-	-
		Sub Total	25	24	32	5	2	5	4	13	13
4	VAB-Sub Station	Switch Gear Room	6	6	-	2	-	1	1	-	1
		Transformer Room (1)	1	1	2	-	-	-	-	-	2
		Transformer Room (2)	1	1	2	-	-	1	-	-	3
		Battery Room	-	-	6	-	-	-	1	-	4
		Transformer Room (3)	1	1	-	-	-	-	-	-	5
		Transformer Room (4)	1	1	-	-	-	-	-	-	6
		Sub Total	10	10	10	2	0	2	2	0	6
5a	VAB	CTR+JB room	Above F/C	7	7	-	-	-	-	14	1
			Below F/C	7	7	-	1	-	2	1	-
			Below F/F	3	3	-	-	-	-	6	-
		Electrical Panel Room - 4.3M	1	1	-	1	-	-	1	-	2
		Electrical Panel Room(A) - 8.6 M	1	1	-	1	-	-	-	-	3
		MV Panel Room (A) - 8.6 M	1	1	-	-	-	-	1	-	4
		Above F/C	-	-	-	-	-	-	-	-	13
		Electrical Panel Room (B) - 8.6 M	2	2	-	1	-	-	1	-	14
		MV Panel Room (B) - 8.6 M	1	1	-	-	-	1	-	-	15
		Corridor	-	-	-	-	-	-	-	-	-
		Sub Total	23	23	0	4	0	3	4	20	7

**FACILITIES AND DETECTOR ARRANGEMENT
STANDARD TYPE ADDRESSABLE DETECTORS**

Sl. No	Location	Area Description F/C – False ceiling F/F – False flooring		MSD	PED	HD	ADD MCP	DD	FI	LS	RI	ZONE NO
	AHU 60M, 64M, Lift M/c room	AHU Room A 60M		-	-	-	-	-	-	1	-	9
		Electrical Panel room A 64m		2	2	-	1	-	-	1	-	10
		AHU Room A 68M		-	-	-	-	-	-	-	-	11
		Lift Machine room		-	-	-	-	-	-	-	-	12
		AHU Room B 60M		-	-	-	-	-	-	-	-	20
		Electrical Panel room B 64m		2	2	-	1	-	-	-	-	21
		AHU Room B 68M		-	-	-	-	-	-	-	-	22
		EOT crane		-	-	-	-	-	-	-	-	23
		Sub Total		4	4	0	2	0	0	2	0	8
6	Filling Control Centre II	Ground Floor	Above F/C	20	20			3			40	1
			Below F/C	20	14	5	2		2	2		
			Below F/F		15							
		First Floor	Above F/C									2
			Below F/C	5	12	5	1			1		
			Below F/F									
		LSSF Building	Above F/C		6				2			3
			Below F/C	4	6	9	2					
			Below F/F		3							
		Sub Total		49	76	19	5	3	4	3	40	3
7	Nitrogen Supply System	Corridor	Above F/C	2	2	-	-	-		-	4	1
			Below F/C	1	1	-	1	-	1	1		
		Electrical Panel Room		1	1	-	-	-				2
		SPTA Room	Above F/C	2	2	-	-	2			6	3
			Below F/C	2	2	-	-	-			-	
		Control Room	Above F/C	3	3	-	-	-		1	6	4
			Below F/C	3	3	-	-	-			-	

**FACILITIES AND DETECTOR ARANGEMENT
STANDARD TYPE ADDRESSABLE DETECTORS**

Sl. No	Location	Area Description F/C – False ceiling F/F – False flooring		MSD	PED	HD	ADD MCP	DD	FI	LS	RI	ZONE NO
			Below F/F	1	1	-	-	-	1		2	
		Vacuum Pump Room	Above F/C	2	2	-	-	-			4	5
			Below F/C	2	2	-	-	-	1		-	
		Pneumatic Board Room	Above F/C	2	2	-	-	-			4	6
			Below F/C	2	2	-	-	-			-	
		Sub Total		23	23	0	1	2	3	2	26	6
8	Lox Storage	Lobby / Corridor		1	-	-	1	-	1	1	-	1
		AHU Room-2		-	-	-	-	1	-	-	1	
		Control room	Above F/C	3	3	-	-	-	-	-	6	2
			Below F/C	3	3	-	-	-	-	-	-	
			Below F/F	1	1	-	-	-	-	-	2	
		Pump room		3	2	12	1	-	1	1	-	3
		Pneumatic Board Room		1	1	-	-	-	-	-	-	4
		AHU Room-1		-	-	-	-	1	-	-	1	5
		SPTA Room	Above F/C	2	2	-	-	-	1	-	4	
			Below F/C	2	2	-	-	-	-	-	-	
		Elec.Panel Room		2	2	-	-	-	-	1	-	6
		Sub Total		18	16	12	2	2	3	3	14	6
9	N2O4 Instrumentation	AIR Lock Room/AHU Room		1		-	1	1	1	1	1	1
		Panel Room		1	1	-	-	-	-	1	-	2
		Instrumentation Room	Above F/C	4	4	-	-	-	-	-	8	3
			Below F/C	3	3	-	-	-	-	-	-	
			Below F/F	1	1	-	-	-	-	-	2	
		Sub Total		10	9	0	1	1	1	2	11	3
10	N2O4 Storage	Electrical Panel Room		1	1	-	-	-	1	1	-	1
		SPTA Room		1	1	-	1	-	-	-	-	3
		Pressurisation Room		1	1	-	-	-	-	1	-	4
		Drain Tank PIT		-	-	6	-	-	-	-	-	2

**FACILITIES AND DETECTOR ARRANGEMENT
STANDARD TYPE ADDRESSABLE DETECTORS**

Sl. No	Location	Area Description F/C – False ceiling F/F – False flooring		MSD	PED	HD	ADD MCP	DD	FI	LS	RI	ZONE NO
		Tank Bay		-	-	18	1	-	1	-	-	5
				-	-	12	-	-	1	-	-	6
		Pump Bay		1	1	14	1	-	1	1	-	7
		Sub Total		4	4	50	3	0	4	3	0	7
11	N2O4 OFT Buliding	MV/MCC Room		1	1	-	-	-	1	1	-	1
		N2 Gas pressurisation Room		-	-	6	1	-	-	1	-	2
		L40and GS2/PS4 OFT Room		-	-	9	-	-	-	-	-	3
		PS4 Pressurisation Room		-	-	6	1	-	1	-	-	4
		Sub Total		1	1	21	2	0	2	2	0	4
12	LCR / CPB	Corridor/AHU 1 & 3	Above F/C	3	2	-	-	2	-	1	7	1
			Below F/C	2	3	-	1	-		-	-	
			Below F/F	1	1	-	-	-	-	-	2	
		SPTA Room (Cryo)		1	1	-	-	-	-	-	-	2
		Local Control Room	Above F/C	10	9	-	-	2	-	-	19	3
			Below F/C	7	8	-	1	-	2	-	-	
			Below F/F	3	3	-	-	-	-	-	6	
		Electrical Panel Room		3	2	-	1	-	-	1	-	4
		Checkout Room	Above F/C	4	4	-	-	1	-	-	8	1
			Below F/C	3	3	-	-	-	1	-	-	
			Below F/F	1	1	-	-	-	-	-	2	
		JB Room	Above F/C	2	2	-	-	-	1	1	4	2
			Below F/C	2	1	-	-	-	-	-	-	
			Below F/F	1	1	-	-	-	-	-	2	
		SPTA Control System	Above F/C	1	1	-	-	-	-	1	2	3
			Below F/C	1	1	-	-	-	-	-	-	
		Pneumatic Board Room		2	2	16	-	-	1	-	-	4
		LOX Cooler Room		2	2	12	1	-	1	1	-	5
		Sub Total		49	47	28	4	5	6	5	52	9

**FACILITIES AND DETECTOR ARRANGEMENT
STANDARD TYPE ADDRESSABLE DETECTORS**

Sl. No	Location	Area Description F/C – False ceiling F/F – False flooring		MSD	PED	HD	ADD MCP	DD	FI	LS	RI	ZONE NO
13	UH25 Instrumentation	AIR Lock Room/AHU Room		1	-	-	1	1	1	1	1	1
		Panel Room		1	1	-	-	-	-	-	-	2
		Instrumentation Room	Above F/C	4	4	-	-	-	-	-	8	3
			Below F/C	3	3	-	-	-	-	1	-	
			Below F/F	1	1	-	-	-	-	-	2	
		Sub Total		10	9	0	1	1	1	2	11	3
14	Compressed Gas Supply System CGSS	Corridor		1	1	-	2	-	1	1	-	1
		SPTA-He	Above F/C	1	-	-	-	-	-	1	1	2
			Below F/C	1	-	-	-	-	-	-	-	-
		SPTA-N2	Above F/C	1	-	-	-	-	-	-	1	3
			Below F/C	1	-	-	-	-	-	-	-	-
		SPTA-Air	Above F/C	1	-	-	-	-	-	-	1	4
			Below F/C	1	-	-	-	-	-	-	-	-
		Control room - Compressor	Above F/C	1	1	-	-	-	-	1	2	5
			Below F/C	1	1	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	2	-
		Compressor bay		6	6	2	1	-	1	-	-	6
		MV panel room		2	2	-	-	-	-	1	-	7
		Control panel room	Above F/C	5	4	-	-	-	-	-	9	1
			Below F/C	5	4	-	-	-	1	-	-	-
			Below F/F	2	2	-	-	-	-	-	4	-
		Charging unit room		-	-	4	-	-	-	1	-	2
		Pneumatic Board Room	Above F/C	6	6	-	-	1	-	-	13	3
			Below F/C	6	6	-	1	-	1	-	-	-
		AHU room 1 & 2		-	-	-	-	2	-	-	2	4
		Sub Total		41	33	6	4	3	4	5	35	11
15a	LH2 Building	Corridor		1	1	-	1	-	1	1	-	1

**FACILITIES AND DETECTOR ARANGEMENT
STANDARD TYPE ADDRESSABLE DETECTORS**

Sl. No	Location	Area Description F/C – False ceiling F/F – False flooring		MSD	PED	HD	ADD MCP	DD	FI	LS	RI	ZONE NO
		Electrical Panel Room		1	1	-	-	-	-	-	-	2
		Control Room	Above F/C	3	3	-	-	-	-	1	6	3
			Below F/C	3	3	-	-	-	-	-	-	
			Below F/F	1	1	-	-	-	-	-	2	
		SPTA rooms and AHU rooms		2	2	-	-	2	1	-	2	4
		Sub Total		11	11	0	1	2	2	2	10	4

	INTRINSIC TYPE ADDRESSABLE DETECTORS HAZARDOUS IIC AREA													
Sl. No	Location	Area Description			ADD PED	ADD HD	ADD MCP	UV /I R	FI	FLP Hoote r	ZB	PT	SM	ZON E NO
5b	VAB	CTR+JB room	Above F/C	-	-	-	-	-	-	-	-	-	-	-
			Below F/C	-	-	-	-	-	-	-	1	1	-	-
			Below F/F	-	-	-	-	-	-	-	-	-	-	-
		Electrical Panel Room -4.3M		-	-	-	-	-	-	-	-	-	-	
		Electrical Panel Room(A) -8.6 M		-	-	-	-	-	-	-	-	-	-	-
		MV Panel Room (A) - 8.6 M		-	-	-	-	-	-	-	1	1	-	-
		AHU Room (B) - 4.3 M		2	2	-	1	-	-	-	-	-	1	13
		Electrical Panel Room (B) - 8.6 M		-	-	-	-	-	-	-	-	-	-	-
		MV Panel Room (B) - 8.6 M		-	-	-	-	-	-	-	-	-	-	-
		Corridor		-	-	-	-	-	2	1	1	1	-	-
		Sub Total		2	2	0	1	0	2	1	3	3	1	1
	AHU Rooms	AHU Room A 13M		1	1	-	1	-	-	-	-	-	1	5
		AHU Room A 27.2M		1	1	-	1	-	-	-	-	-	1	6
		AHU Room A 34.6M		1	1	-	1	-	-	1	-	-	1	7
		AHU Room A 56M		1	1	-	1	-	-	-	-	-	1	8
		AHU Room A1 56M		1	1	-	-	-	-	-	-	-	-	24
	AHU Rooms	AHU Room B 13M		1	1	-	1	-	-	-	-	-	1	16
		AHU Room B 27.2M		1	1	-	1	-	-	-	-	-	1	17
		AHU Room B 34.6M		1	1	-	1	-	-	1	-	-	1	18
		AHU Room B 56M		1	1	-	1	-	-	-	-	-	1	19
		AHU Room B1 56M		1	1	-	-	-	-	-	-	-	-	25
		Sub Total		10	20	0	8	0	0	2	0	0	8	10
	AHU 60, 64, Lift M/c room	AHU Room A 60M		1	1	-	1	-	-	-	-	-	1	9

INTRINSIC TYPE ADDRESSABLE DETECTORS HAZARDOUS IIC AREA													
Sl. No	Location	Area Description		ADD PED	ADD HD	ADD MCP	UV /I R	FI	FLP Hoote r	ZB	PT	SM	ZON E NO
		Electrical Panel room A 64m	-	-	-	-	-	2	-	1	-	-	10
		AHU Room A 68M	1	1	-	1	-	-	-	-	-	1	11
		Lift Machine room	1	1	-	-	-	-	-	-	-	-	12
		AHU Room B 60M	1	1	-	1	-	-	-	-	-	1	20
		Electrical Panel room B 64m	-	-	-	-	-	2	-	1	-	-	21
		AHU Room B 68M	1	1	-	1	-	-	-	-	-	1	22
		EOT crane	2	2	-	-	-	-	-	-	-	-	23
		Sub Total	7	7	0	4	0	4	0	2	0	4	8
15 b	LH2 Storage	Gas Analyser room	-	-	6	-	-	1	-	-	-	-	1
		Vacum pump room	-	-	5	1	-	6	1	7	6	1	2
		Storage bay	-	-	-	1	8	-	1	-	-	9	3
		Transformer Room 2.5 MVA(4)	-	-	20	-	-	1	-	-	-	-	4
		Transformer Room 630 KVA (5)	-	-	20	-	-	-	-	-	-	-	5
		Transformer Room 630 KVA (6)	-	-	20	-	-	-	-	-	-	-	6
		Battery Room (3)	-	-	20	-	-	-	-	-	-	-	7
		Sub Total	0	0	91	2	8	8	2	7	6	10	7
16	UH25 OFT Buliding	MV/MCC Room	1	1	-	-	-	2	1	2	1	-	1
		N2 Gas pressurisation Room	-	-	6	1	-	-	-	-	-	1	2
		L40and GS2/PS4 OFT Room	-	-	9	-	-	-	-	1	1	-	3
		PS4 Pressurisation Room	-	-	6	1	-	-	-	-	-	1	4
		Sub Total	1	1	21	2	0	2	1	3	2	2	10
17	UT Building	Checkout Room-EL+34M	1	1	-	1	-	-	1	-	-	1	6
		Checkout Room-EL+38M	1	1	-	1	-	-	-	-	-	1	7

INTRINSIC TYPE ADDRESSABLE DETECTORS HAZARDOUS IIC AREA													
Sl. No	Location	Area Description		ADD PED	ADD HD	ADD MCP	UV /I R	FI	FLP Hoote r	ZB	PT	SM	ZON E NO
		Checkout Room-EL+42M	1	1	-	1	-	-	-	-	-	1	8
		Lift Machine Room-EL+67.3M	1	1	-	-	-	-	-	-	-	-	9
		22M	-	-	-	1	-	-	-	-	-	1	10
		Sub Total	4	4	0	4	0	0	1	0	0	4	
	UT - GA, Vacuum pump, Ground floor	Ground Floor	-	-	-	1	-	2	1	2	1	1	5
		Checkout Room-EL-10M	1	1	-	-	-	-	-	-	-	1	1
		GA Room-EL-18M	1	1	-	1	-	-	-	-	-	1	2
		Vac Pump Room-EL-18M	1	1	-	1	-	-	-	-	-	-	3
		GA Room 22M	1	1	-	-	-	-	-	-	-	1	4
		Gas check Room-EL-22M	1	1	-	-	-	-	-	-	-	-	5
		-EL 65M	-	-	-	1	-	-	-	-	-	-	11
		Sub Total	5	5	0	4	0	2	1	2	1	4	
18	UH25 Storage	Electrical Panel room	1	1	-	-	-	6	1	5	4	-	1
		SPTA room	1	1	-	-	-	-	-	-	-	-	3
		Pressurisation Room	1	1	-	-	-	-	-	-	-	-	4
		Drain Tank Pit	-	-	6	-	-	-	-	-	-	-	2
		Tank Bay	-	-	18	1	-	-	-	-	-	1	5
			-	-	12	-							1
		Pump Bay	1	1	14	1	2	-	-	-	-	3	2
		Sub Total	4	4	50	2	2	6	1	5	4	4	22

CONDITIONS FOR QUOTATION

- a. Party shall quote for Supply of Items and Erection works separately in the formats provided.
- b. The supply of erection hardware shall be as per preferred makes or approved makes. The make and model no of selected FDA panel its accessories like batteries, detectors etc, shall be indicated clearly. Party shall provide the technical catalogue, OEM documentation supporting the specifications quoted, without which the offer will not be considered.
- c. The party shall agree to perform additional test procedures, provide test data, if any required to approve the quoted make at no extra cost.
- d. Quantities mentioned in the technical specifications (supply Items, erection and maintenance works) may vary by up to maximum of 15% extra during implementation. Tenderer shall confirm that there will be no change in unit price on this account for the extra supply / work.
- e. Party should quote for the total works (full supply and erection, commissioning work and non-comprehensive maintenance works); **Partial offers are liable for rejection.**
- f. Proof for valid approval /listing (listing No., validity etc.) / applicable certification of detectors and accessories including control panel shall be submitted along with offer
- g. Party should deploy the necessary tools and instruments required to carry out the above works to site.
- h. Tenderer shall clearly indicate the items, if any, excluded from his scope of work, failing which it will be deemed that the scope of work is in conformity with the requirements of the Technical specifications.

10. CONDITIONS FOR SUPPLY

- a. The manufacture year of the supply items shall be of PO year or later. The document indicating the manufacture year shall be provided from the OEM.
- b. OEM confirmation for product compatibility and spare availability for 10 years
- c. **Warranty period:** One Year from the date of successful commissioning and testing of system

11. CONDITIONS FOR ERECTION, COMMISSIONING AND TESTING WORKS

- a. Sriharikota is an island and situated around 100 kms north of Chennai and the work spot (First launch Pad / PSLV complex) is located at about 10 kms from main entrance gate. Transportation for the working personnel to and from work spot has to be arranged by the contractor.
- b. Contractor shall take enough care to ensure to progress the work without any damage of material and personnel.
- c. It is the sole responsibility of contractor to ensure all safety norms to his personnel during transportation between work spot.
- d. The execution of work shall be carried out as per the guideline given by Dept. engineers.
- e. Accommodation & Transportation shall be arranged by the contractor.
- f. Insurance for the working personnel shall be the responsibility of the contractor.
- g. Qualification checks for the Instrumentation system to be carried out along with the department personnel's.
- h. Material handling support will be arranged by the department for the transportation of supplied items from stores to site free of cost. The required labour shall be supplied for shifting by the contractor.

- i. For internal movement of panels, detectors during erection and commissioning, material handling and crane support will be provided by the department free of cost with written request from the tenderer.
- j. Tenderer can take back the erection, testing & calibration equipments, tools brought by him to the site after completion of all the activities included under his scope of work. However, dept. permission shall be required for withdrawal of these equipment from site.
- k. Tenderer's responsibility shall include adherence to all the rules, regulations & requirements of statutory bodies of State of Andhra Pradesh & Govt. of India, as applicable.
- l. No claims of extra payment on grounds of any special local working conditions shall be entertained after acceptance of work.

12. CONDITIONS FOR NCMC

- a. SDSC SHAR is located at 100 KM north side of Chennai and working place is about 10 KM from the main gate of centre you have to make your own transport arrangements.
- b. Accommodation may be provided by the department subject to availability on charge basis. Transportation to site and back shall be responsibility of contractor. In case contractor uses two wheeler / four wheelers, valid driving license and vehicle documents shall be available.
- c. Service contractor should bring the necessary man power, tools, consumables like smoke generator for testing detectors, and test instruments etc. for maintenance of the system. The test instruments shall have calibration validity and calibration certificate. The smoke generator shall be with valid shelf life.
- d. Party has to bring necessary support equipment/ instruments for end-to-end simulation/ testing of the system.
- e. The service engineers, technicians shall be qualified to handle the system. The AMC team shall have a site supervisor who will be the focal point for all the AMC activities. The team shall have minimum 3 years of experience in maintaining fire detection and alarm system and fire suppression system like (FM200, CO2 Halon etc.). The credentials of personnel including the technicians and helpers allotted for the work shall be provided prior to first visit for department approval. In case of any change in personnel allotted for work, the same shall be intimated and credentials of new personnel need to be submitted for approval prior to the visit.
- f. Frequent change of service engineers, technicians allotted for the site from visit to visit will not be entertained.**
- g. A checklist for service, maintenance and trouble free performance of system is attached and the same shall be followed during maintenance.
- h. Service engineers shall provide the list of spares required for the next visit.
- i. Service engineer shall ensure satisfactory performance of system before leaving the site. The maintenance shall be carried out without hindrance to on-going activities at various facilities.
- j. Payment for each visit will be made on submission of certificate of completion of work, duly certified by the department engineers.
- k. Service calls sheets indicating maintenance done and the condition of the fire detection and alarm system duly signed by the service engineer shall be handover to the focal point after every visit.
- l. In the event of damages to our property or personnel injury to our personnel due to negligence of your employees, the responsibility shall solely rest with contractor.

- m. SDSC SHAR will not responsible for any injury to your personnel, damage to your property caused at site.
- n. The FDA system is linked with fire suppression system (FM200) system. Contractor should ensure the availability of the department personnel while under taking maintenance.
- o. Contractor has to adhere safety regulations enforced by safety officer of SDSC SHAR.
- p. Contractor shall make each quarterly visit on previous agreed dates / prior to previous validity expiry date. First quarterly visit shall be planned upon completion of three months from date of successful commissioning and testing of all systems. However, minimum 10 days advance intimation shall be sent by party and specific clearance shall be obtained from focal point prior to each visit in order to ensure site availability and requisite entry permits.
- q. In case of non-availability of work front clearance for any facility during any visit, the same shall be taken up within 10 days upon receiving clearance from department.
- r. **Note: Party shall replace, install and test devices without any extra cost if any supplied devices found faulty during warranty period.** However, after warranty period, department will provide devices if any devices found faulty during NCMC for replacement.
- s. Due to non-availability of work front clearance, if 4 visits could not be completed within a year accordingly PO extension will be sought accordingly to consume balance visits.
- t. This being an emergency system, any fault in the system shall be rectified as per the rectification time given below, failing which penalty shall be applied as under:

Sl.No.	Description	Rectification time	Penalty
(a)	Any defects resulting in total failure of the system	12 hours	Rs.1000/- per day
(b)	Any defects in independent devices, components, which may not result in total failure of the system	24 hours	Rs.500/- per day subject to maximum of 25% of the prevailing NCMC charges on a) & b)