

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
VIKRAM SARABHAI SPACE CENTRE (VSSC)
THIRUVANANTHAPURAM**

Tender for Evapotranspiration Sensor

Bids to be submitted online

Tender No.: VSSC/PURCHASE UNIT II (AVN)/VS202400488701 dated 20-05-2025

A. Tender Details

Tender No :	VSSC/PURCHASE UNIT II (AVN)/VS202400488701
Tender Date :	20-05-2025
Tender Classification:	GOODS
Purchase Entity :	PURCHASE UNIT II (AVN)
Centre :	VIKRAM SARABHAI SPACE CENTRE (VSSC)

Evapotranspiration Sensor

Evapotranspiration Sensor

A.1 Tender Schedule

Bid Submission Start Date :	19-05-2025 10:00
Bid Clarification Due Date :	02-06-2025 11:00
Bid Submission Due Date :	19-06-2025 14:00
Bid Opening Date :	19-06-2025 15:00

B. Tender Attachments

NA

Instructions To Vendors

1. Mandatory Declaration to be attached by bidders regarding restrictions on procurement from the bidder of a country which shares a land border with India.

1. (In the Letter Head of the Bidder) - The below matter may be submitted in your letter Head

2. As per the provision of Office Memorandum N0. F.N0. 6/18/2019- PPD dtd. 23.07.2020 (i.e., Rule No. 144 (xi) of GFR) and its Amendments dtd 23.02.2023, issued by Department of Expenditure, Ministry of Finance. I hereby declare and certify the following.

3. (1)I have read the clause regarding restrictions on procurement from the bidder of a country which shares a land border with India.

4. (2)I certify that this bidder is not from such a country or, if from such a country. I have registered with the Department for Promotion of Industry and Internal Trade.

Bidder from a country which shares a land border with India for the purpose of the Order means:

(2.1)An entity incorporated, established or registered in such a country; or

(2.2)A subsidiary of an entity incorporated established or registered in such a country; or

(2.3)An entity substantially controlled through entities incorporated established or registered in such a country; or

(2.4)An entity whose beneficial owner is situated in such a country; or

(2.5)An Indian (or other) agent of such an entity; or

(2.6)A natural person who is a citizen of such a country; or

(2.7)A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.

5. (3)I hereby certify that I am not an agent as defined in the order who procures and supplies finished goods from an entity from a country which shares a land border with India, regardless of the nature of legal or commercial relationship with the producer of the goods.

6. (4)I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered.

7. Date:

8. (Authorised Signatory)

(Seal)

2. PROFORMA FOR INSTRUCTIONS TO TENDERERS AND TERMS AND CONDITIONS OF TENDER

1. a All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer.

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 nonacceptance 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 dimensional details are available the same should also be indicated in your offer.

d Specifications Stores offered should strictly confirm to our specifications. Deviations, if any, should be clearly indicated by the tenderer in his quotation. The tenderer should also indicate the Make and Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary, along with the quotations. Test Certificates, wherever necessary, should be forwarded along with supplies. Wherever options have been 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.

2. a All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer.

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3. ACCEPTANCE OF STORES

a The stores shall be tendered by the Contractor for inspection at such places as may be specified by the purchaser at the Contractors own risk, expense and cost.

b It is expressly agreed that the acceptance of the stores Contracted for, is subject to final approval by

the purchaser, whose decision shall be final.

c If, in the opinion of the purchaser, all or any of the stores do not meet the performance or quality requirements specified in the Purchase Order, they may be either rejected or accepted at a price to be fixed by the purchaser and his decision as to rejection and the prices to be fixed shall be final and binding on the Contractor.

d If the whole or any part of the stores supplied are rejected in accordance with Clause No. c above, the purchaser shall be at liberty, with or without notice to the Contractor, to purchase in the open market at the expense of the Contractor stores meeting the necessary performance and quality Contracted for in place of those rejected, provided that either the purchase, or the agreement to purchase, from another supplier is made within six months from the date of rejection of the stores as aforesaid.

4. Arbitration

In the event of any disputes, differences or claims arising out of or relating to the interpretation and application of the Contract, such disputes or differences or claims shall be settled amicably by mutual consultations of the good Offices of the respective Parties and recognizing their mutual interests attempt to reach a solution satisfactory to both the parties. If such a resolution is not possible, within 30 days from the date of receipt of written notice of the existence of such disputes, then the unresolved disputes or differences or claims 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 Amendment Act 2015 as amended from time to time. The arbitration shall be conducted in Bengaluru in the Arbitration and Conciliation Centre Bengaluru, Domestic and International, as per its rules and regulations. The expenses for the Arbitration shall be shared equally or as may be determined by the Arbitrator. The considered and written decision of the Arbitrator shall be final and binding between the Parties. The applicable language for Arbitration shall be English only. Work under the Contract shall be continued by the CONTRACTOR during the pendency of arbitration proceedings, without prejudice to a final adjustment in accordance with the decision of the Arbitrator unless otherwise directed in writing by the DEPARTMENT or unless the matter is such that the works cannot be possibly continued until the decision whether final or interim of the Arbitrator is obtained.

5. As a Government of India Department, this office is exempted from payment of Octroi and similar local levies. Tenderers shall ensure that necessary Exemption Certificates are obtained by them from the Purchase Officer concerned to avoid any payment of such levies.

6. a Your offer should be valid for 90 days from the date of opening of the tender.

b Prices are required to be quoted according to the units indicated in the annexed tender form. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.

7. c The term Purchase Order shall mean the communication signed on behalf of the Purchaser by an Officer duly authorised intimating the acceptance on behalf of the Purchaser on the terms and

conditions mentioned or referred to in the said communication accepting the tender or offer of the Contractor for supply of stores or plant, machinery or equipment or part thereof.

8. DESPATCH The Contractor is responsible for obtaining a clear receipt from the Transport Authorities specifying the goods despatched. The consignment should be despatched with clear Railway Receipt or Lorry Receipt. If sent in any other mode, it shall be at the risk of the Contractor. Purchaser will take no responsibility for short deliveries or wrong supply of goods when the same are booked on said to contain basis. Purchaser shall pay for only such stores as are actually received by them in accordance with the Contract.

9. Force Majeure

Neither the Purchaser nor the Contractor shall be considered default of the performance of their obligations under this contract if such performance is prevented or delayed for any causes beyond the reasonable control of the parties to the contract affected, such as Acts of God, war, riots, civil commotion, illegal strikes, legal lockouts, epidemics, fire accidents, floods, earthquakes, proclamation or regulation or ordinance of any Government thereof, provided notice in writing of any such cause with necessary proof that the obligation under the contract is thereby affected or prevented or delayed, is given within 14 days from the happening of the event. As soon as the cause of force majeure has ceased to exist, the party whose ability to perform his obligation has been affected shall notify the other party of the actual delay that has occurred due to such force majeure conditions.

10. FOREIGN VENDORS ARE NOT PERMITTED TO QUOTE

- a. Only Class I and Class II Local suppliers as per Make in India Policy are eligible to participate in the bid in line with Public Procurement (Preference to Make in India) Order, 2017 dtd 19.07.2024 and its amendments.
- b. The percentage of local content should be specifically mentioned in the offer, without which it will be summarily rejected.
- c. Preference will be given to Class I Local supplier and in their absence, Class II Local supplier will be considered.

11. GUARANTEE AND REPLACEMENT

- a. The Contractor shall guarantee that the stores supplied shall comply fully with the specifications laid down, for material, workmanship and performance.
- b. For a period of twelve months after the acceptance of the stores, if any defects are discovered therein or any defects therein found to have developed under proper use, arising from faulty stores design or workmanship, the Contractor shall remedy such defects at his own cost provided he is called upon to do so within a period of 14 months from the date of acceptance thereof by the purchaser who shall state in writing in what respect the stores or any part thereof are faulty.
- c. If, in the opinion of the purchaser, it becomes necessary to replace or renew any defective stores such replacement or renewal shall be made by the Contractor free of all costs to the purchaser, provided the notice informing the Contractor of the defect is given by the purchaser in this regard within

the said period of 14 months from the date of acceptance thereof.

d Should the Contractor fail to rectify the defects, the purchaser shall have the right to reject or repair or replace at the cost of the Contractor the whole or any portion of the defective stores.

e The decision of the Purchaser notwithstanding any prior approval or acceptance or inspection thereof on behalf of the Purchaser, as to whether or not the Stores supplied by the Contractor are defective or any defect has developed within the said period of 12 months or any other period or as to whether the nature of defects requires renewal or replacement, shall be final, conclusive and binding on the Contractor.

f To fulfill guarantee conditions outlined in a to e above, the Contractor shall, at the option of the Purchaser, furnish a Bank Guarantee as prescribed by the Purchaser

12. Liquidated Damages

The Delivery Date mentioning in the Contract or Order will be the essence of the Contract. You shall strictly adhere to the delivery schedule mentioned in your quotation. Please confirm acceptance of LD clause and that you will strictly adhere to the delivery schedule.

13. PACKING FORWARDING AND INSURANCE The Contractor will be held responsible for the stores being sufficiently and properly packed for transport by rail, road, sea or air to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packages shall be done by and at the expense of the Contractor. The purchaser will not pay separately for transit insurance, all risks in transit being exclusively of the Contractor and the Purchaser shall pay only for such stores as are actually received in good condition in accordance with the Contract.

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

15. PRICES Tender offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotation with a reasonable ceiling should be submitted. Such offers should invariably be supported by the base price taken into account at the time of tendering and also the formula for any such variations.

16. REJECTED STORES

Rejected stores will remain at destination at the Contractors risk and responsibility. If instructions for their disposal are not received from the Contractor within a period of 14 days from the date of receipt of the advice of rejection, the purchaser or his representative has, at his discretion, the right to scrap or sell or consign the rejected stores to Contractors address at the Contractors entire risk and expense, freight being payable by the Contractor at actuals.

17. Sales Tax and or other duties or levies legally leviable and intended to be claimed should be mentioned in the price bid template. If nothing is mentioned, then it will be presumed that the rate quoted is inclusive of all taxes and duties.

18. **SECURITY DEPOSIT** Wherever, the Purchase Order value is Rs. 5.00 Lakhs or more, on acceptance of the tender, the Contractor shall, at the option of the Purchaser and within the period specified by him, deposit with him, in cash or in any other form as the Purchaser may determine, security deposit not exceeding three percent of the value of the Contract as the Purchaser shall specify. If the Contractor is called upon by the Purchaser to deposit, Security and the Contractor fails to provide the security within the period specified, such failure shall constitute a breach of the Contract, and the Purchaser shall be entitled to make other arrangements for the repurchase of the stores Contracted at the risk of the Contractor in terms of Sub-Clause ii and iii of clause regarding Delivery. b hereof and or to recover from the Contractor, damages arising from such cancellation.

19. TERMS AND CONDITIONS OF TENDER

20. **TEST CERTIFICATE** Wherever required, test certificates should be sent along with the despatch documents.

21. The authority of the person signing the tender, if called for, should be produced.

22. The Purchaser reserves the right to place order on the successful tenderer for additional quantity up to 25percent of the quantity offered by them at the rates quoted.

23. 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 portions of the quantity offered and the tenderers shall supply the same at the rates quoted.

24. The tenderer should supply along with his tender, the name of his bankers as well as the latest Income Tax clearance certificate duly countersigned by the Income Tax Officer of the Circle concerned under the seal of his office, if required by the Purchaser.

25. The term Contractor shall mean, the person, firm or company with whom or with which the order for the supply of Stores is placed and shall be deemed to include the Contractors successors, representative, heirs, executors and administrators unless excluded by the Contract.

26. The term Purchaser shall mean the President of India or his successors or assigns.

27. The term Stores shall mean what the Contractor agrees to supply under the Contract as specified in the Purchase Order including erection of plants & machinery and subsequent testing, should such a condition is included in the Purchase Order.

28. GeM Seller Registration:

All vendors shall register themselves in GeM Portal (gem.gov.in) and provide GeM Seller unique ID in the tender documents.

C. Bid Templates

C.1 Technical Bid - Evapotranspiration Sensor

1. Evapotranspiration Sensor

Item specifications for Evapotranspiration Sensor

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Measured parameters	Evapotranspiration sensor is used to measure sensible heat flux, latent heat flux, vertical velocity, virtual temperature, and, humidity, which are necessary for energy budget calculation. This sensor works by directly measuring vertical transport of water vapour and heat.	Yes / No / Explain		
2	Sampling frequency	1-10 Hz	Yes / No / Explain		
3	Air temperature measurement range	10-50 deg. C or wider	Yes / No / Explain		
4	Air temperature accuracy	±0.5 °C	Yes / No / Explain		
5	Relative Humidity range	20 to 100% or wider	Yes / No / Explain		
6	Relative Humidity accuracy at 25 deg.C	±5%of the measurement	Yes / No / Explain		
7	Atmospheric pressure range	900 to 1050 hPa	Yes / No / Explain		
8	Atmospheric pressure accuracy	±1.0 hPa or lower	Yes / No / Explain		
9	H2O Mole Fraction operating range	5 - 50 mmol/mol or wider	Yes / No / Explain		
10	H2O Mole fraction accuracy	2% or lower of measurement > 5 mmol/mol	Yes / No / Explain		

11	Warranty	Standard one-year warranty should be provided	Yes / No / Explain		
12	AMC	3 years AMC (non-comprehensive) post warranty. On call visit in breakdown and 1 preventive visits per year. The quote for 3 years AMC (non-comprehensive) post warranty should be provided.	Yes / No / Explain		
13	Data acquisition system	A compatible data logger for acquisition of data from the above sensor with all-weather proof with data storage must be provided.	Yes / No / Explain		
14	Hardware and cable	Necessary hardware or a tripod of 2 meters for mounting and installation along with data cable of sufficient (minimum 25m) length.	Yes / No / Explain		
15	Software	Software for collection, display, processing and analyzing: Evapotranspiration; Latent Heat Flux; Sensible Heat Flux; Atmospheric Pressure; Air Temperature; Relative Humidity and necessary supporting parameters	Yes / No / Explain		
16	Software charges if any	Software charges if at any is to mention explicitly	Yes / No / Explain		
17	Installation	Installation should be at TERLS, VSSC, Thumba	Yes / No / Explain		

Common Specifications (Applicable for all items)

Sl No	Specification	Value	Compliance	Offered Specification	Remark
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1	Accessories, spares and mountings	All mounting hardware/sensor cables/accessories should be provided for continuous operation of the sensors including tripod, solar panel and battery	Yes / No / Explain		
2	User manuals/brochures	Detailed brochures/user manuals of all sensors should be provided along with the quote.	Yes / No / Explain		
3	Calibration	Sensors should be calibrated before installations and calibration certificate (including details of calibration) should be provided	Yes / No / Explain		
4	Software	Softwares required for data collection, display, processing and analysis should be provided. Software charges (if any) should be mentioned explicitly along with the quote.	Yes / No / Explain		

Supporting Documents required from Vendor

1. Your quote in PDF format

2. Local Content Self Certification (With percentage of local content and Class)

3. Declaration regarding Land Border Sharing (Mandatory)

4. Quote for Non Comprehensive AMC for 3 years

5 additional documents can be uploaded by the vendor

C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	All necessary cables are to be supplied	Yes / No / Explain	
2	Quotation for 3 years of Non-Comprehensive AMC	Yes / No / Explain	
3	Installation and training required.	Yes / No / Explain	
4	1 year Warranty	Yes / No / Explain	
5	This tender is proposed as a DOMESTIC PUBLIC TENDER. This tender is restricted only to Class-I and Class-II Local Suppliers as defined under DPIIT Order dtd 04/06/2020- Preference to Make in India Order-2017 Revision. Non-Local Suppliers need not quote. Foreign OEMs/Agents quoting on behalf of Foreign OEMs are not permitted to quote. High Sea Sales Quotes not permitted.	Yes / No / Explain	
6	The vendor has 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.	Yes / No / Explain	
7	As per Public Procurement (Preference to Make in India) Order, 2017 dtd 19.07.2024 and its amendments. Foreign vendors are not permitted to quote 1. Only Class -I and Class-II Local suppliers as per make in India policy are eligible to participate in the bid. 2. The percentage of local content should be specifically mentioned in the offer, without which will be summarily rejected 3. Preference will be given to Class-I Local Supplier and in their absence, class-II Local supplier will be considered.	Yes / No / Explain	
8	Currency of Quoting: This is a domestic tender and the currency of the bid should be in Indian Rupee only.	Yes / No / Explain	

9	Purchase preference to eligible vendors are applicable as per extant notifications issued by the Government of India. The Class-I/Class-II Local suppliers, at the time of submitting their offer, shall also indicate percentage of local content and provide self certification that the item (s) offered meets the local content requirement for Class-I/Class-II Local Suppliers as the case may be. They shall also give details of location (s) at which the local value addition is made.	Yes / No / Explain	
10	In cases if the item(s) offered exceed Rs. 10 Crores, the Class-I/Class-II Local Suppliers shall provide a Certificate from the statutory auditor or cost auditor of the company (in 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 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.	Yes / No / Explain	
11	GST extra as applicable. Please quote applicable G.S.T rates with HSN code. Your GST Reg.No. and details shall be furnished in your quotation.	Yes / No / Explain	
12	Delivery Terms [Normal delivery terms - FOR VSSC]	Yes / No / Explain	
13	Delivery Period [Please Specify the period, LD shall be applicable in case of delayed delivery].	Yes / No / Explain	
14	Mention the time required for supply and installation	-	
15	Payment [Within 30 days after receipt and acceptance of Item at our Stores].	Yes / No / Explain	
16	Liquidated Damages @ 0.5% per week subject to maximum of 10% of order value is applicable beyond the promised delivery schedule.	Yes / No / Explain	
17	Warranty [Minimum 01 year required.]	Yes / No / Explain	

18	Performance Bank Guarantee for 3% of order value valid 2 months beyond the Warranty Period to be provided.	Yes / No / Explain	
19	Security Deposit: In case order value exceeds Rs. 5 lakhs Successful Tenderer shall submit Security Deposit equivalent to 3% of the order value valid for a period of 60 days beyond the date for completion of the Purchase Order. 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 or Fixed Deposit receipts from Nationalised/Scheduled Banks. No exemption is applicable for MSE vendors from submission of Security Deposit. In case PSU/Autonomous bodies/Central Government organisations, Indemnity Bond shall be accepted. Wherever SD and PBG are involved, the same can be submitted in consolidated SD cum PBG, valid till completion of warranty obligations under the contract. Necessary formats will be issued to the successful tenderer along with Purchase order.	Yes / No / Explain	
20	Quote Validity: Minimum 90 days from the date of Tender opening.	Yes / No / Explain	
21	GeM Seller Unique ID	Yes / No / Explain	
22	PO ordering address in full with Contact Persons Name, E-mail id, Phone No. [also attach your Quotation in PDF format].	Yes / No / Explain	
23	Confirm the percentage of local content in the item and attach documentary proof for the same.	Yes / No / Explain	
24	As per the provisions of Office Memorandum No. F. No. 6/18/2019-PPD dtd. 23.07.2020 (i.e., Rule No. 144 (xi) of GFR) and its Amendments, issued by Department of Expenditure, Ministry of Finance. I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered.	Yes / No / Explain	

25	Quotation for 3 years of Non-Comprehensive AMC shall be provided. Please note that the same will not be considered for determining L1.	Yes / No / Explain	
26	If any of the bidders submit any forged or false documents along with the Tender, such tenders will be summarily rejected and such bidders will be blacklisted for all future tenders.	Yes / No / Explain	
27	Bidder shall mandatorily furnish declaration regarding Land Border sharing in the document sought with all terms and conditions given in Instructions to Vendors in your letter head duly signed by authorized signatory with company seal.	Yes / No / Explain	
28	Any other terms.	Yes / No / Explain	

C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Remark
1	Evapotranspiration Sensor	1.00 Unit		-		

Common charges (Applicable for all items)

Customs Duty	
IGST	