## OFFICE OF THE REGISTRAR :: DIBRUGARH UNIVERSITY DIBRUGARH :: ASSAM PIN: 786 004



#### **TENDER DOCUMENT**

## FOR

#### NAME OF THE WORK:

Supply, Installation and Commissioning of Trace Level SO<sub>2</sub> and NO<sub>X</sub> Analyzer at Centre for Atmospheric Studies, Dibrugarh University under ISRO-GBP Environmental Observatories Project.

RE-e-TENDER No: DU/NIT-2022/File-V/145 Dated 30.09.2020

# **CUT-OUT SLIP**

NAME OF THE WORK: Supply, Installation and Commissioning of Trace Level SO<sub>2</sub> and NO<sub>x</sub> Analyzer at Centre for Atmospheric Studies, Dibrugarh University under ISRO-GBP Environmental Observatories Project.

## RE-e-TENDER No: DU/NIT-2022/File-V/145 dated 30.09.2022

SUBMISSION DUE DATE & TIME : 21.10.2022 up-to 05.30 P.M.

FROM:

TO:

NAME: ADDRESS THE REGISTRAR DIBRUGARH UNIVERSIITY DIBRUGARH, ASSAM

(To be pasted on the outer envelope containing "Technical"& "Commercial" bids



#### **OFFICE OF THE REGISTRAR :: DIBRUGARH UNIVERSITY :: DIBRUGARH**

No. DU/NIT-2022/File- V/145

#### Date: 30.09.2022

#### **RE-e-TENDER NOTICE**

Open tenders are invited through e-tendering process from Manufacturers of nationally / internationally reputed brand or its authorized dealer / distributor for the Supply, Installation and Commissioning of Trace Level SO<sub>2</sub> and NO<sub>x</sub> Analyzer at Centre for Atmospheric Studies, Dibrugarh University under ISRO-GBP Environmental Observatories Project. For details please visit the website https:// assamtenders.gov.in.

Detailed specification of the items, terms & conditions *etc.* are given as Annexure at Part-B. Last date of submission of Tender as per annexure at Part-B with all relevant papers is 21.10.2022 up-to 05:30 *PM* to be submitted at the office of the Registrar, Dibrugarh University, Dibrugarh, Assam.

Availability of Bid papers	From 30.09.2022
Last date for receipt of Bid	21.10.2022 upto05:30 P.M.
Time & Date of opening of Bid	25.10.2022 at 02:30 P.M.
Place of opening of Bid	Office of the Registrar, DU
Cost of Tender Document	1000/- Non refundable
EMD	Rs. 50,000.00

The tender should be separately submitted in 02 (two) parts, *i.e.*, **Part - I** TECHNICAL BID and **Part – II** FINANCIAL BID. The technical bid shall be opened on the above-mentioned date and time and the financial bid of only those bidders who qualify in technical bid shall be opened on the same date or at a later date which shall be intimated to the tenderer whose technical bids are found to be valid. Dibrugarh University reserves all the rights to reject any or all the tenders without assigning any reason thereof.

The Bidder shall submit both technical and financial bids on-line at assamtenders.gov.in portal. One hard copy of technical bid along with supporting documents and clearly marked as **"HARD COPY of Technical bid"** shall have to be submitted at the office of the Registrar, D.U. **Hard copy of Financial Bid or Cost of Tender Document/EMD as Draft/Cheque etc, will not be sent to Dibrugarh University under any circumstance.** In the event of discrepancy between online & manual technical bid, sending of hard copy of financial bid or sending of Cost of Tender Document/EMD as Draft/Cheque etc the bid will be disqualified.

Sd/-**Registrar i/c** Dibrugarh University

Copy to:

- 1. The Chairperson, Tender Opening Committee, D.U., for information.
- 2. The Deputy Registrar (F&A) i/c, D.U. for information.
- 3. The Programmer, D.U., with a request to upload the NIT at D.U. website.
- 4. Office File

Sd/-Registrar i/c Dibrugarh University

#### PART A - TERMS AND CONDITIONS

## A1. General Information

The tender bids duly complete in all respects, along with the necessary documents should be submitted to the Registrar, Dibrugarh University. The Technical Bids so received shall be opened on 25.10.2022at 02:30 *P.M.* in the Office of the Registrar, Dibrugarh University in the presence of the representatives of the bidders. The Financial bids of the Tenderers shall be opened on the same date or at a later date to be intimated to the tenderers whose Technical Bids are found to be valid. Right to reject any or all Tenders, without assigning any reason thereof is reserved by Dibrugarh University.

## A2. Terms and Conditions of Supply:

- 1. All the manufacturers/ authorized dealers should also give a brief profile about their company and the facilities available with them of the quoted items. Their turnover and important firms/ Government Institutes/ P.S.U.s *etc.* to which they are supplying quoted items, should also be mentioned.
- 2. The last date and time for the submission of the bids is 21.10.2022 up-to 5:30 P.M and the bids shall be valid for 90 days.
- 3. Technical specifications of the instruments/equipments are given in **Annexure-I** to these papers (Part B).
- 4. Supplier should read carefully and understand all the instructions and terms and conditions, *etc.* before participating in the bid.
- 5. Suppliers shall mandatorily submit the following documents in their 'Technical Bid':
  - i) **A Brief Profile of the Company/Firm** along with their addresses and contact details of a responsible representative for any query/correspondence.
  - ii) A duly filled and signed Check-List as shown in Annexure-II
  - iii) VAT/TIN/GST Registration Certificate.
  - iv) PAN Card
  - v) Proof of submission of Tender Fee/EMD at assamtenders.gov.in or Documentary proof justifying its exemption (e.g., MSME/NSIC/SSI/etc.).
  - vi) **Detailed Technical Specifications** of each item/service/work offered by the Supplier. The document should be duly superscribed as **"Offered Technical Specifications"**.
  - vii) Technical compliance sheet in a tabular format as shown in Annexure-III and duly superscribed as "Technical Compliance Sheet."
  - viii) **Technical Literature** regarding the offered products including Brochures/Datasheets/ Pictures/Sketch/Diagrams *etc* with a cover page duly superscribed as **"Technical Literature"**.
  - **ix**) Valid Authorization from Original Equipment Manufacturer (OEM) or Declaration in case OEM itself is the bidder.
- 6. Please read carefully that the Supplier shall submit their 'Financial Bid' ONLINE ONLY in the BoQ format uploaded to the assamtenders.gov.in portal against this particular tender. They SHOULD NOT send hardcopy of price bid to the University under any circumstance. Defying this clause will lead to DISQUALIFICATION of their bid. In the Commercial Bid rates should be mentioned as per BoQ. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BoQ file, open it and complete the unprotected cells with their respective financial quotes, GST as applicable (total GST per item to be inserted in BoQ) and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the file name. If the BoQ file is found to be illicitly modified by the bidder, the bid will be rejected.
- 7. The Technical Bid shall be opened, on 25.10.2022 at 02:30 P.M. or on the next working day if the offices of the University remain closed due to any reason.

- 8. The delivery and installation should be completed within 30 days or as specified while placing of the order. No extension shall be granted to the vendors for the period of delivery, under any circumstances.
- 9. If the supplier fails to deliver the article as per the delivery schedule, the University shall be free to procure the balance/undelivered supply, at the risk and cost of the supplier, from other such suppliers.
- 11. The goods, articles, materials supplied by the supplier shall be accepted after inspection by an Officer authorized by the competent authority. No articles/materials which do not conform to the specifications laid down in the Terms and Conditions or damaged in transit shall be accepted.
- 12. The bills of the suppliers shall be paid by the University after all the equipment/accessories have been received, inspected, installed and commissioning as above.
- 13. The warranty period shall be for minimum *01 (One)* year or may be more as mentioned in the Tender Document.
- 14. In the event of any breach of the Terms and Conditions of the supply, the University may terminate the contract placed with the supplier and forfeit the Security Deposit of the supplier.
- 15. Copy of product literature and catalogue, testing report, Bureau of Energy Efficiency (BEE) rating, ISO certificate *etc*.
- 16. The quantity of item (s) may be increased or decreased at the time of placing order as per requirement.
- 17. Tenderers are advised to study all Technical and Commercial aspects, instructions, forms, terms and specifications carefully in the tender document. Failure to furnish all information required in the Tender Document or submission of a bid not substantially responsive to the Tender document in every respect will be at the tenderer's risk and may result in the rejection of the bid.
- 18. No advance payment or payment against Proforma invoice will be made. Payment will be made after receipt of materials in good condition.

#### Scope of the Work:

The bidder is required to undertake the following scope of work for setting up of Trace Gas Analyzer in Dibrugarh University:

- 1. The bidder should ensure proper installation of the Equipment in Dibrugarh University. Tender Committee may certify the successful installation with the certification of concerned Head of the Department.
- 2. Supply, Installation, Commissioning and Maintenance of infrastructure/equipment/accessories as per the Technical Specification mentioned in the document.
- 3. Provide training on use of supplied equipment/accessories, operations of all the hardware installed in the University to all the Teachers and also provide subsequent refreshers training as and when required.

- 4. All equipment/accessories shall be delivered and installed at location/site of Dibrugarh University.
- 5. The bidder shall bear all the cost for the supply, installation and maintenance to the respective locations.
- 7. Bidders may note that bids are to be submitted as per the instructions laid out of this tender document. The selection of successful bidder would be in two steps:
  - Technical Bid
  - Financial Bid

#### **Bid Opening and Evaluation of Bids**

#### **Opening of Bids**

i) The Technical Documents shall be opened, on 25.10.2022 at 02:30 P.M. or on the next working day if the offices of the University remain closed due to any reason.

#### **Evaluation of Bids**

A two-stage procedure will be adopted in evaluating the proposals with the Eligibility criteria evaluation and technical evaluation completed entirely prior to any financial proposals being opened. Eligibility criteria and Technical Evaluation documents will be evaluated to ensure that all the stated criterions are met.

Bidders need to fulfill all the Qualification conditions mentioned in the request for proposal (RFP). The concern committee will examine the Bids to determine whether the bidders meet the eligibility criteria as per invitation of bid, whether the Bid format conforms to the RFP requirements, and whether the Bids are generally in order.

**Note:**No bidder will try to influence directly or indirectly the members of the Technical Committee, and if found doing so, that bid shall summarily be rejected.

Summary:

I) The bidder has to be eligible in all parameters as laid out in the eligibility criteria.

II) Those found eligible shall be evaluated on Technical requirements as per the marks detailed at Table- of pageno-11. The bidders securing more than 40 marks should be invited for the 10 marks presentation.

III) The total marks secured in technical evaluation including presentation shall be taken as a score of 70 %.

IV) The balance of 30% shall be calculated by the financial evaluation.

V) The Score calculation is reflected at QCBS

#### **Evaluation of Technical Bids**

The bidder must possess the requisite experience, strength and capability in providing the services necessary to meet the requirements as described in the bid documents.

As part of Technical Evaluation committee shall request qualified bidders to make a Technical solution presentation (which will carry10Marks) to an Evaluation Committee to be constituted for the purpose.

#### **Evaluation of Financial Bids**

The Technically qualified bidders shall be intimated about the date and time of financial bid opening through email. The Financial bids of thus short-listed bidder shall be opened publicly in the presence of up to two representatives from the respective bidders.

Department shall however not bind itself to accept the lowest and / or any bids and reserves the rights to accept / reject any bids, wholly or in part without assigning any reason. A Quality and Cost Based Selection methodology (QCBS) (detailed in section) will be employed. Note: Technical evaluation shall comprise of two parts

- Eligibility Criteria

- Technical capacity evaluation

#### **QCBS (Quality and Cost Based Selection)**

The bid will be evaluated on QCBS methodology in the ratio 70:30 i.e. 70% weightage will be

given to the technical evaluation and 30% weightage will be given to the financial bid.

The evaluation will consist of the following phases

- i. Evaluation of Eligibility Criteria and Evaluation of Technical bids (of eligible bidders in prequalification)
- ii. Evaluation of Financial bids (of Technically qualified bidders)
- iii. Combined evaluation of Technical & Financial bid

**Technical Score calculation:** The bidder with highest qualifying technical score (T1) will be awarded 100% score. Technical Scores for other than T1 bidders will be evaluated using the following formula:

Technical Score of the Bidder Normalized Technical Score = ------ X 100 of a Bidder (Tn) Technical Score of T1

Note: The score value is adjusted up to two decimal places.

*Example:* The bidder with the Highest Technical Score will be awarded 100 and other bidders will be awarded on percentile basis.

If the bidder with highest technical score is 90, then the T1 bidder will get (Tmax) 100. A bidder awarded 80 as technical score will get  $(80/90) \times 100 = 88.88$ 

**Financial Score calculation:** The bidder with lowest qualifying financial bid (L1) will be awarded 100% score. Financial Scores for technically qualified bidders other than L1 bidders will be evaluated using the following formula:

Commercial Bid of L1Normalize Financial Score of= ------ X 100a BidderCommercial Bid of the Bidder

Note: The score value is adjusted up to two decimal places.

Example: If F1 is INR 110 and F2 is INR 120, then F1 will receive (Fmax) 100 and F2 will receive  $[110/120] \times 100 = 91.67$ 

#### **Calculation of Composite Bid Score:**

Technical and financial scores secured by each bidder will be added using weight age of 70% and 30% respectively to compute a Composite Bid Score.

The bidder securing the highest Composite Bid Score will be adjudicated as the most responsive Bidder for award of the Project.

The Composite Bid score will be calculated as follows: Bn = (0.70 x Tn) + (0.30 x Fn) Tn = Technical score of the bidder (out of maximum of 100 marks) Fn = Financial score of the bidder (out of maximum of 100 marks) Bn = Composite Bid score of the bidder

In the event the composite bid scores are 'tied', the bidder securing the highest technical score will be adjudicated as the Best Value Bidder for the award of the Project.

Sl.	Eligibility Criteria	Required Details to be submitted		
No				
1	Non refundable bid document fee Rs.1000/- (One Thousand) only	Proof of submission of Tender Fee at assamtenders.gov.in or Documentary proof justifying its exemption (e.g., MSME/NSIC/SSI/etc.).		
2	EMD of Rs. 50000/- (Fifty Thousand only)	Proof of submission of EMD at assamtenders.gov.in or Documentary proof justifying its exemption (e.g., MSME/NSIC/SSI/etc.).		
3	The bidder should be profit making in the last three financial years and should have a positive net worth as on 1.1. 2021	Incorporation Certificate, Audited Balance Sheets of last 3 Financial year (2017-18, 18- 19,19-20,		
4	Goods and Service Tax Registration Certificates of Bidder/Prime Bidder issued by the concerned departments.	Copies of PAN, GST Certificates with registration number to be uploaded at https://assamtenders.gov.in		
5	Bidder should have relevant experience and previous proof of successful completion of similar project in the govt. sector would be added advantage.	Work order and experience letters to be uploaded at https://assamtenders.gov.in		
6	The bidder should not be blacklisted by govt. of India, State Govt. or UT	Submit an undertaking.		
7	The bidder should have minimum of 5 years experience of dealing in Trace Gas Analyzer	Proof should be submitted with Technical Bid.		

#### **Eligibility Criteria**

International Certification & Accreditation / Quality Certification will be added advantage. Relevant documents shall have to be submitted with the bid.

#### **DESCRIPTION OF THE SELECTION PROCESS**

#### **STEP 1: RESPONSIVENESS OF BID**

The Bids submitted by Bidders shall be initially scrutinized to establish "Responsiveness". A Bid may be deemed "Non-responsive" if it does not satisfy any of the following conditions:

- a. If the Tender cost of Rs. 1000/-(non refundable) is not submitted. (The Firm(s) who are registered with MSME, National Small Industries Corporation (NSIC) /OR Small Scale Industries (SSI) are exempted to submit the Tender Cost/EMD.).
- b. It is not received by due date and time as specified in this bid document.
- c. Conditional offers or if It does not contain sufficient information for it to be evaluated and/or is not in the formats specified
- d. It is not signed and /or sealed with stamp impression.
- e. If the Earnest Money Deposit of Rs. 50,000/- (Fifty Thousand only) not submitted. (The Firm(s) who are registered with MSME, National Small Industries Corporation (NSIC) /OR Small Scale Industries (SSI) are exempted to submit the Tender Cost/EMD.).

The Bid shall be considered to be substantially responsive if it conforms to the preceding requirements without material deviation or reservation.

A bid once declared as "non-responsive" and rejected, cannot be made responsive by the bidder having corrected or withdrawn the non-conforming deviation or reservation

## STEP 2: The "Responsive" Bids shall be evaluated in the following steps

## **EVALUATION OF CAPABILITY OF BIDDERS**

#### A) TECHNICAL BIDS:

In this stage the capability of the Bidder in undertaking the Project would be assessed. The Bidders would be evaluated on parameters as defined in the Evaluation process section of this NIT.

The evaluation of the Bids shall be done by a Selection committee constituted by DU. The Bids will be evaluated based on a preset evaluation criteria outlined below. The bidder scoring the maximum marks would be considered as qualified & eligible and may be invited for discussions and presentation, if required. The distribution of marks is given in the evaluation criteria.

The evaluation shall be strictly based on the information and supporting documents provided by the bidders in the Bids. It is the responsibility of the bidders to provide all supporting documents necessary to fulfill the eligibility criteria.

In case, information required by DU is not provided by bidder, DU shall proceed with evaluation based on information provided and shall not request the bidder for further information. Hence, responsibility for providing information as required in this form

Sl. No	Head	Marks
1	Financial Stability of the Vendor based on –	10
	a. Annual Turn Over (FY 2017-2018, 2018-2019,	
	2019-2020)	
	b. Solvency ( The applicant should be solvent	
	during the last three financial years (FY 2017-	
	2018, 2018-2019, 2019-2020)	
2	Staff Resource Including Personal Details	10
	Key staff members with skills & competencies to	
	manage the equipment.	
3	Details of execution strategy /methodology of the Project	10
	Experience in successfully installing Trace Cas Analysers in India	25
4	Experience in successfully installing frace Gas Analysets in mula	23
	• More than 10 years 15 Marks	
	• less than 5 years - 15 Warks	
~	• less than 5 years - 5 what ks	10
5	Presence in India and successful execution of any kind of education	10
	service related contract in any of the Indian states	
6	Successful installation and commissioning of Trace Gas Analysers in	15
	minimum 5 institutions in India	
7	Presentation on implementation methodology	10
8	National and International Recognition if any	10
	Total -	100

The bidder should obtain minimum marks of seventy (70) as aggregate in the evaluation criteria of technical bids to have qualified for the next stage of financial bids. There shall be a presentation from the firms on their expertise, execution strategy, experience in this field and content of curriculum.

 $\Box$  In case of less number of bidders, DU reserves the absolute right to award the contract to the best bidder.

## **B) FINANCIAL BIDS:**

 $\Box$ Financial bids of only those bidders will be opened who are found suitable and eligible as per technical bids. The bidder will have to submit Rates, inclusive of all duties, taxes and other levies, in Rupees.

 $\Box$  The Authority is not bound to accept the lowest rate quoted by the Bidder. The authority reserves the right for cancellation of any tender or all the tenders without assigning any reason thereof.

## **Evaluation of Quotation**:

A Tender Committee constituted for the said purpose will evaluate and compare quotations determined to be substantially responsive *i.e.* are properly signed and confirm to terms, conditions, specifications and qualifying conditions.

#### Award of Contract:

The contract is to be awarded on the basis of Quality and Cost Based Selection (QCBS) with technical weightage being 70 % and financial weightage being 30%.

#### **Payment Terms**:

Payment shall be made up subject to satisfactory supply and installation and commissioning of the equipment and accessories. No payment will be made for any damaged goods supplied.

#### Note:

The University reserves the right to:

- i. Accept/reject any/all tenders without assigning any reason thereof.
- ii. Revise the quantities at the time of placing the order without change in the rate quoted by the bidder.
- iii. Add/modify/relax or waive any of the conditions stipulated in the tender document whenever deemed necessary
- iv. Award the contract to one or more tenderers for the items covered by the tender.

Sd/-**Registrar i/c** Dibrugarh University

#### PART-B

#### TECHNICALSPECIFICATIONS

#### **GENERAL REQUIREMENTS:**

- 1. The analyzer should have suitable internal/supporting pump for sampling.
- 2. The analyzer should be factory calibrated. Calibration certificate must be provided.
- 3. Calibration gases should be NIST traceable.

#### Trace Level Nitrogen Oxide Analyzer

Specifications	
Principle	Chemiluminescence
Mounting	19" Rack Mounted
	0-5, 10, 20, 50, 100, 200, 500, 1000 ppb
Preset ranges	0-5, 10, 20, 50, 100, 200, 500, 1000, 2000 μg/m <sup>3</sup>
Custom ranges	0-5 to 1000 ppb
	0-5 to 2000 μg/m <sup>3</sup>
Zero noise	≤ 25 ppt RMS (120 second averaging time)
Lower detectable limit	≤ 50 ppt RMS (120 second averaging time)
Zero drift (24 hour)	≤ 0.025 ppb per day
Span drift (24 hour)	+/-1% full scale
	60 seconds (10 second averaging time)
Response time	90 seconds (60 second averaging time)
	300 seconds (300 second averaging time)
Precision	+/-0.4 ppb (500 ppb range)
Linearity	+/-1% full scale
Sample flow rate	1 LPM
	59°F to 95°F (15° to 35°C) performance, or
Operating temperature	41°F to 104°F (5°to 40°C) operating
Power requirements	220-240 VAC +/-10% @ 300W
	Selectable voltage, RS232/RS485, TCP/IP, 10 StatusRelays, and
Outputs	Power Fail Indication
Approvals and Certifications	USEPA

### Specification for calibration gas NO + NO2 mixture

- 1. NO: 5 ppm , NO2 : 10 ppm
- 2. Analytical accuracy: +/- 2 % or better
- 3. Blending tolerance: +/- 5% or better
- 4. Stability: 1 year or more
- 5. Cylinder size : 10 litre or higher (Aluminium)
- 6. Balance: N2 (Nitrogen)
- 7. Pressure: ~2015 psi
- 8. Gas Purity of N2: 99.999% or better
- 9. Certificates regarding accuracy and blending tolerance should be provided.

Enhanced Trace Level SO <sub>2</sub> Analyzer				
Specifications				
Principle	UV Fluorescence			
Mounting	19" Rack Mounted			
	0-10, 20, 50, 100, 200, 500 and 1000 ppb; 0-20, 50,			
Preset ranges	100, 200, 500, 1000 and 2000 mg/m3			
Custom ranges	0-10 to 1000 ppb; 0-20 to 2000 mg/m3			
Zero noise	0.025 ppb RMS (300 second averaging time)			
Lower detectable limit	0.05 ppb (300 second averaging time)			
Zero drift (24 hour)	<= 0.2 ppb per day			
Span drift (24 hour)	+/-1% of full scale			
Response time	80 seconds (10 second average time)			
Precision	1% of reading or 0.2 ppb (whichever is greater)			
Linearity	+/-1% of full scale			
Sample flow rate	0.5 liters/min			
Interferences	< lower detectable limit except for the following: NO:			
	reads < 3 ppb when tested at 500 ppb. M-Xylene: reads <1 ppb when			
	tested at 200ppb; H2O: reads <2% of reading when tested at 2% H2O			
	absolute			
Requirement	Analyzer should contain Internal zero assembly			
	Performance specifications based on operation within 20°-30°C (per U.S.			
Operating temperature	EPA Guidelines). Instrument may be safely operated over the range of 0°-			
	45°C			
Power requirements	220-240 VAC +/-10%@165W			
	Selectable voltage, RS232/RS485, TCP/IP, 10 status relays, and power fail			
Outputs	Indication			
Approvals and Certifications	USEPA			

#### **Specification for calibration cylinder of SO2**

- 1. Concentration level of SO2: 1 ppm or lower
- 2. pressure: ~2015 psi
- 3. Blending Tolerance: 5% or better
- 4. Analytical Accuracy: 5% or better
- 5. Balance: N2 (Nitrogen)
- 6. Gas Purity of N2: 99.999% or better
- 7. Cylinder size: ~ 15 litres
- 8. Cylinder type: Aluminum
- 9. Stability Period: 24 months or better (please check with the vendor, sometimes they may provide stability for 1 year)

10. Certificates regarding accuracy and blending tolerance should be provided.

#### Notes for Bidders/Bidder's Scope:

- 1) 10Ltr Aluminum Gas Cylinders with Double Stage SS316 Regulators with
  - Span Calibration Gas NO + NOx
  - Span Calibration Gas SO<sub>2</sub>
- 2) Supervision for Startup, Calibration sand Commissioning of offered analyzers.
- 3) Warranty: 12 months from Commissioning or 18 months from supply, whichever is earlier for the offered analyzers.

#### Dibrugarh University Scope:

- 1) Zero Air Generator is available at Site
- 2) Sample Handling System having Glass Manifold fitted to draw ambient air and having Moisture removal system is available at site
- 3) 19 inch Modular Designed Racks are available at site for mounting of Analyzers
- 4) UPS Supply is available at site for powering the Analyzers
- 5) Multi Gas Calibrator is available at site
- 6) RS232/RS485 or TCP/IP connection to PC available at site.

Ssignature	:	Date
Name	•••••••••••••••••••••••••••••••••••••••	
Address & Mo	bile No	

Supply, Installation and Commissioning of Trace Level SO<sub>2</sub> and NO<sub>X</sub> Analyzer at Centre for Atmospheric Studies, Dibrugarh University under ISRO-GBP Environmental Observatories Project.

Sl. No	Particulars	Mention 'Yes'/ 'No'
1	Whether "Technical Bid" & "Financial Bids" submitted separately and	
1.	the respective envelopes superscribed properly	
2.	Whether Tender Fee submitted? (if applicable).	
3.	Whether EMD submitted? (if applicable)	
1	Whether MSME/NSIC/SSI certificate submitted? (in case of seeking	
4.	Exemption)	
5.	Whether copy of PAN submitted?	
6.	Whether valid Trade License submitted?	
7.	Whether GST regn. Certificate provided?	
8.	Whether dealership/OEM certificate provided?	
9.	Whether detailed compliance sheet submitted?	
10.	Whether technical specification/ Literature provided?.	

## **TECHNICAL BID - CHECK LIST**

Date: Place:

## SEAL AND SIGNATURE OF PROPRIETOR/MANAGER/ REPRESENTATIVE OF THE FIRM ON BEHALF OF THE FIRM

## FORM -A TENDER Letter Performa

To,

The Registrar Dibrugarh University Rajabheta, District-Dibrugarh Assam, Dibrugarh - 786004

## Sub: Tender for Supply, Installation and Commissioning of Trace Level SO<sub>2</sub> and NO<sub>x</sub> Analyzer at Centre for Atmospheric Studies, Dibrugarh University under ISRO-GBP Environmental Observatories Project.

Sir,

The undersigned have read and examined in detail all the TENDER documents pertaining to your assignment-do hereby expresses the interest to do the work as specified in the scope of work in TENDER document and agreed to all terms and conditions as specified in the scope of work in TENDER document.

Sl. No	Description	Response
1.	Name of the Vendor	
2.	Address	
3.	Name, designation of the person to whom	
	all references shall be made.	
4.	Telephone (with STD code)	
5.	Mobile No. of the contact person	
6.	E-mail of the contact person	
7.	Fax No. (with STD code)	

We have enclosed the required documents as per Form A.

I/We hereby declare that my/our proposal/bid is made in good faith and the information contained is true and correct to the best of my/our knowledge andbelief.

Thanking you,

Yours faithfully,

(Signature of the Applicant) Name: Designation: Seal: Date: Witness by –Signature: Name: Address Date: Place

## FORM-B

#### **DETAILS OF EXPERIENCE**

Sl. No.	Name and Address of the client	Date of start of the work	Date of completion	Quantity	Cost of the Project
1.					
2.					
3.					
4.					
5.					

**Note:** Please also note that copies of work orders and satisfactory completion certificate from the customers shall be required to be submitted for all the references mentioned above. If required, you are free to attach extra sheets.

#### <u>Proforma – I</u>

#### **Declaration Regarding NON – Blacklisting**

То

Date :

The Registrar Dibrugarh University Dibrugarh-786004

### Sub : Tender for Supply, Installation and Commissioning of Trace Level SO<sub>2</sub> and NO<sub>X</sub> Analyzer at Centre for Atmospheric Studies, Dibrugarh University under ISRO-GBP Environmental Observatories Project.

Dear Sir,

.

In response to your TENDER ref. No....., , as a Proprietor/ Director/ Owner of M/S...., I/We hereby declare that our firm is not blacklisted by Government of India under taking Organization or any Education Institution/University as well as there are no criminal cases against company.

Also our Company is having clean legal records. Also there are no open legal cases / petitions in any of the courts / high courts related to our service.

Thanking you;

Signature of Authorized Signatory with Name, Designation & Seal

## <u>PROFORMA – II</u>

## **BIDDER'S AUTHORISATION CERTIFICATE**

To,

The Registrar Dibrugarh University Dibrugarh-786004

### Sub : Tender for Supply, Installation and Commissioning of Trace Level SO<sub>2</sub> and NO<sub>X</sub> Analyzer at Centre for Atmospheric Studies, Dibrugarh University under ISRO-GBP Environmental Observatories Project.

Dear Sir,

•

		•••••		, is	hereby a	uthorized to	sign rel	evant tender	documents o	n
behalf	of	the	e Con	npany	in	dealing	with	TENDE	R c	۶f
reference	•••••					dated	. He/She	is also autho	orized to atten	d
meetings	and	submit	Technical	and co	ommercial	l information	as may	be required	by you in th	e
course of	proce	essing al	bove said to	ender.						

Thanking you,

The Specimen signature of the authorized person is as:-

#### AUTHORIZED SIGNATORY

Name: Seal:

# Annexure III

# **COMPLIANCE SHEET**

Specification		Compliance Please respond in YES/NO/Remarks (if any)
GENERAL REQUIREMEN	ITS:	
1. The analyzer sho	ould have suitable internal/supporting pump for sampling.	
2. The analyzer sho	ould be factory calibrated. Calibration certificate must be	
provided.		
3 Calibration gase	s should be NIST traceable	
Trace Level Nitrogen	Oxide Analyzer	
Specifications	•	
Principle	Chemiluminescence	
Mounting	19" Rack Mounted	
	0-5, 10, 20, 50, 100, 200, 500, 1000 ppb	
Preset ranges	0-5, 10, 20, 50, 100, 200, 500, 1000, 2000 μg/m <sup>3</sup>	
Custom ranges	0-5 to 1000 ppb	
	0-5 to 2000 μg/m <sup>3</sup>	
Zero noise	≤ 25 ppt RMS (120 second averaging time)	
Lower detectable limit	≤ 50 ppt RMS (120 second averaging time)	
Zero drift (24 hour)	≤ 0.025 ppb per day	
Span drift (24 hour)	+/-1% full scale	
	60 seconds (10 second averaging time)	
Response time	90 seconds (60 second averaging time)	
	300 seconds (300 second averaging time)	
Precision	+/-0.4 ppb (500 ppb range)	
Linearity	+/-1% full scale	
Sample flow rate	1 LPM	
	59°F to 95°F (15° to 35°C) performance, or	
Operating temperature	41°F to 104°F (5°to 40°C) operating	
Power requirements	220-240 VAC +/-10% @ 300W	
Outputs	Selectable voltage, KS232/KS485, ICP/IP, 10 Status	
Outputs	Relays, diu Dower Fail Indication	
Approvals and		
Certifications		

Specification for calibration gas NO + NO2 mixture		Compliance
		Please respond in YES/NO/Remarks (if any)
1.	NO: 5 ppm , NO2 : 10 ppm	
2.	Analytical accuracy: +/- 2 % or better	
3.	Blending tolerance: +/- 5% or better	
4.	Stability: 1 year or more	
5.	Cylinder size : 10 litre or higher (Aluminium)	
6.	Balance: N2 (Nitrogen)	
7.	Pressure: ~2015 psi	
8.	Gas Purity of N2: 99.999% or better	
9.	Certificates regarding accuracy and blending	
	tolerance should be provided.	
	-	

Enhanced Trace Level S	Compliance Please respond in YES/NO/Remarks (if any)	
Specifications		× • • • •
Principle	UV Fluorescence	
Mounting	19" Rack Mounted	
<u>_</u>	0-10, 20, 50, 100, 200, 500 and 1000 ppb; 0-20, 50,	
Preset ranges	100, 200, 500, 1000 and 2000 mg/m3	
Custom ranges	0-10 to 1000 ppb; 0-20 to 2000 mg/m3	
Zero noise	0.025 ppb RMS (300 second averaging time)	
Lower detectable limit	0.05 ppb (300 second averaging time)	
Zero drift (24 hour)	< = 0.2 ppb per day	
Span drift (24 hour)	+/-1% of full scale	
Response time	80 seconds (10 second average time)	
Precision	1% of reading or 0.2 ppb (whichever is greater)	
Linearity	+/-1% of full scale	
Sample flow rate	0.5 liters/min	
Interferences	< lower detectable limit except for the following: NO:	
	reads < 3 ppb when tested at 500 ppb. M-Xylene: reads	
	<1 ppb when	
	tested at 200ppb; H2O: reads <2% of reading when tested	
Requirement	at 2% H2O absolute	
	Analyzer should contain Internal zero assembly	
	Performance specifications based on operation within 20°-	
Operating temperature	30°C (per U.S. EPA Guidelines). Instrument may be safely	
	operated over the range of 0°-45°C	
Power requirements	220-240 VAC +/-10% @165W	
	Selectable voltage, RS232/RS485, TCP/IP, 10 status	
Outputs	relays, and power fail Indication	
Approvals and Certifications	USEPA	

Specification for calibration cylinder of SO2	Compliance
	Please respond in YES/NO/Remarks (if any)
1. Concentration level of SO2: 1 ppm or lower	
2. pressure: ~2015 psi	
3. Blending Tolerance: 5% or better	
4. Analytical Accuracy: 5% or better	
5. Balance: N2 (Nitrogen)	
6. Gas Purity of N2: 99.999% or better	
7. Cylinder size: ~ 15 litres	
8. Cylinder type: Aluminum	
9. Stability Period: 24 months or better (please check with	
the vendor, sometimes they may provide stability for 1	
year)	
10. Certificates regarding accuracy and blending tolerance	
should be provided.	

Signature	:	Date
Name	·	
Address	·	
Mobile No		