



भाकृअनुप - केन्द्रीय बारानी कृषि अनुसन्धान संस्थान

ICAR - Central Research Institute for Dryland Agriculture

संतोषनगर, सैदाबाद-पोस्ट हैदराबाद ५०००५९ Santoshnagar, Saidabad P.O. Hyderabad 500



059 040-24530161,24530163,24530224 Fax:040-24531802 www.crida.in Email : store.crida@icar.gov.in

TENDER

F.No. 2-1/(11)/2017ST

Dated 14th November 2017

Tender Enquiry for “Supply, Transportation, Installation and commissioning of various sensors/parts for Automatic Weather Stations at respective locations in India” under Two bid system.

ICAR- CRIDA is a premier public funded Research Institute on Dryland Agriculture, Indian Council of Agricultural Research (ICAR), Ministry of Agriculture Farmers Welfare Government of India. The Director, CRIDA Santoshnagar, Hyderabad – 500 059, Telangana India, now Invites sealed tenders for **“Supply, Transportation, Installation and commissioning of various sensors/parts for Automatic Weather Stations at respective locations in India”**, in two bid system (technical bid and financial bid) from the eligible bidders/reputed manufacturers/ authorized dealers/suppliers.

GENERAL TERMS & CONDITIONS

- Download of Tender Document:** Tender Document with full details can be downloaded from CRIDA Website (<http://www.crida.in>) or the Government of India, Central Public Procurement Portal (<http://www.eprocure.gov.in>) and in such cases, participation in the tender will be subject to remittance of the prescribed **BID SECURITY** along with the Technical Bids.
- Bid Security: Bid Security (also known as Earnest Money)** is to be deposited by all the bidders except Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organization or the concerned Ministry or Department. The bidders should furnish bid security of Rs. 1,00,000/- (Rupees One Lakh only) along with their bids. The bid security will be accepted in the form of Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee from any of the Commercial Banks or payment online in an acceptable form. The bid security is normally to remain valid for a period of forty-five days beyond the final bid validity period. Bid securities of the unsuccessful bidders shall be returned.

Description of Item (Please see specifications at page Nos.7-9)	Tender cost Rs.	BID SECURITY (Rs.)
Supply, Transportation, Installation and commissioning of various sensors/parts for “Automatic Weather Stations at respective locations in India” under Two bid system.	Free if downloaded from website	1,00,000/-

- 4. Technical Bid & Financial Bid:** : The bidders should submit the bids consists of all technical specifications/details as well as item wise financial cost for the items quoted along with commercial terms and conditions. The original copy of tender should be sent to this Office in a sealed cover in a double envelope. The inner envelope should also be sealed. The outer cover should be super scribed Tender for “Supply, Transportation, Installation and commissioning of various sensors/parts for Automatic Weather Stations at respective locations in India”. The tenderer must place the two sealed envelopes clearly marked **‘TECHNICAL BID’** and **‘FINANCIAL BID’** by indicating the Draft number, date & amount of BID SECURITY on the envelop of ‘TECHNICAL BID’, failing

Tender Enquiry for Supply, Installation, Transportation and commissioning of "Automatic Weather Station Sensors"

which the tender will not be opened. **Financial Bid to indicate a warning “DO NOT OPEN WITH THE TECHNICAL BID”.**

- 5 **Performance Security:** The successful bidder is required to pay an amount equal to 10% of successful bid amount towards performance security deposit and the same will be released within one month from the date of expiry all contractual Obligations. No interest shall be paid on such Performance security deposit. Performance Security should remain valid for a period of sixty days beyond the date of completion of all contractual obligations. The Performance Security Deposit should be in the form of Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee from any of the Commercial Banks or payment online in an acceptable form and on which no interest will be paid.

6 **Important Dates:**

1.	Start date of down loading the Tender Document	14-11-2017	11:00hrs
2.	Last date for down loading of Tender Document or any addendum / corrigendum	12-12-2017	11:00hrs
3.	Last date and time for submission of Tenders	12-12-2017	12:00hrs
4.	Date and Time for opening of Technical Bids	12-12-2017	15:00hrs

- 6 **Submission:** Tender with proper superscription on the cover as for “**Supply, Transportation, Installation and commissioning of various sensors/parts for Automatic Weather Stations at respective locations in India**” should be submitted in the Office of the Director, CRIDA, Santoshnagar Hyderabad – 500 059, Telangana, on or before the due date and time as given in the tender document.
- 7 **Due Date:** Tenders received after due date and time will not be considered. The Institute will not be responsible for courier/postal delays.
- 8 **Delivery Schedule:** Unless otherwise specified, “Supply, Transportation, Installation and commissioning of various sensors, parts for “Automatic Weather Stations at respective locations in India” should be within 30 days from the date of issue of the Purchase Order. No 'part supply' is allowed. Specific mention should be made as to whether delivery will be from ready stock or will have to be imported / acquired and in the latter case the time required for delivery after purchase order is placed should be indicated clearly.
- 9 **Note:** The Envelope containing the tender, as well as all subsequent Communications should be addressed/delivered to:

The Director

Central Research Institute for Dryland Agriculture

Santoshnagar, Saidabad Hyderabad – 500 059, Telangana, India

- 10 All communications must be addressed to the above Officer by designation but not by name.
- 11 **Payment:** No advance payment is permissible. Payment will be made only after Supply, Installation, Transportation and commissioning of various sensors, parts for “Supply, Transportation, Installation and commissioning of various sensors/parts for Automatic Weather Stations at respective locations in India” of the spares work functioning is accepted by the indenter/ technical committee after successful functioning of the facility.
- 12 **Place of Delivery / Installation:** Supply, Transportation, Installation & Commissioning is to be done at different locations as per the list enclosed in schedule of requirements, the concerned Officer Incharge name and contact details will also be communicated along with order.
- 13 **Certification :** The spares to be supplied, installed and commissioned shall have to be 100% compatible with the exists systems of AWS and certified with concerned certifying authorities of AWS OEM for Electrical Operation, safety and other included components if any.
- 14 **Without the concerned technical details, compatibility of sensors, certification of parts, the bid received will not be accepted.**

- 15 **No part supply:** No part supply of material service is accepted. Bidding for only part of sensors supply/part of installation sties/ quote is considered as non qualified bid and summerly rejected.
- 16 **Shipment:** Supply is to be made securely packed at supplier's risk and transportation
- 17 **Company turnover:** At least thirty lakhs turnover per year is required. Document showing the firm/company's turnover per annum for the preceding **two financial years i.e. 2015-16 & 2016-17** certified by the Chartered Accountant
- 18 **Experience:** Minimum three experience in the AWS manufactures, supply, installation, commissioning & service experience in needed.
- 19 **Bank details for e-payment:** The bank details may be furnished along with tender for making e-payment to the successful bidder.
- 20 **ISO certification:** The ISO certification of the product (wherever applicable) may be furnished along with tender.
- 21 **Period of Validity:** The rates quoted shall be valid for a minimum period of **180 days** beyond the date of opening of tenders.
- 22 **Rates:** Rates should be quoted in the prescribed Price Schedule in Indian Rupees only.
- 23 **Specifications:** The supplier has to submit the compliance statement on the technical specifications in the prescribed format enclosed to this schedule.
- 24 **Liquidate Damage:** if you are failed to Supply, Transportation, Installation and commissioning of various sensors/parts for "Automatic Weather Stations at respective locations in India" and all or any of the goods or to perform the services within the delivery period specified above, a sum equivalent to **0.5%** of the contract price per week or part thereof off delay until actual delivery or performance shall be deducted from the bill up to a maximum deduction of **10%** of the contract price. Once the maximum is reached, we may consider termination of the contract.
- 25 **Indigenous items:** Articles of indigenous origin are required except where specified otherwise. Where indigenous make is not available foreign made articles can be quoted for, provided, payment is acceptable in Indian currency.
- 26 **Rate Contracts:** In case of any of the item mentioned in the schedule are covered by Rate Contract of DGS & D etc. the rate contract number and date of validity may be specified invariably. Supply of copy of the Rate Contract is more helpful.
- 27 **Income tax returns:** Previous 3 financial years
- 28 **Taxes/Duties:** GST/ Taxes if any are all included only and should be specified clearly.
- 29 While submitting the tender document the brochures, catalogues etc. must be invariably enclosed with technical bid along original equipment part/parts certified by OEM for accepted in the location AWS will also be contracted.
- 30 Institute is exempted from payment of Customs charges Vide Govt.of India, Ministry of Science and Technology, Deptt.of Scientific and Industrial Research, vide Letter No.**TU/V/RG-CDE(372)/2016, dated 18-10-2016 (Valid upto 31-08-2021).**
- 31 **Service Support and Warranty:** The Warranty requirement for the equipment spares or sensors shall be for 12 months from the date of satisfactory testing for data receipt. In the event of the equipment requiring any rectifications, the warranty will start from the date of successful rectification.
- 32 To avoid the compatibility and functioning /data calibration issues with the existing AWS, it is required that the same make/model/performance of sensors need to be supplied.
- 33 **Enquiry's on tender:** Any enquiry's regarding the tenders will not be entertained once the tenders are opened.
- 34 **Acceptance of tender:** Director, CRIDA reserves the right to accept or reject any of the tenders either in part or in full without assigning any reason thereof.
- 35 **Quantities:** Director, CRIDA reserves the right to reduce or increase the quantity at the time of placing the Purchase Order.

- 36 The Technical Bids are to be opened by the institute tender Committee in the first instance and will be evaluated technically by the Institute Technical Advisory Committee (TAC). At the second stage Financial Bids will be opened only for the technically qualified tenders for further evaluation before awarding the contract.
- 37 **Decision:** The Decision of the Director, CRIDA on any dispute in the matter will be final and legally binding.
- 38 **Jurisdiction:** All disputes including court proceedings shall be settled within the Hyderabad jurisdiction only.
- 39 **Rejection of tenders:** Tenders not complying with the above conditions are liable to be rejected.
- 40 **IMPORTANT NOTE:** The bidder should submit the Technical & Financial bid including specifications/details along with item wise price mentioned in the Technical bid. **The Technical bid must be accompanied with earnest money deposit in the form of Demand Draft. In any case the technical bid without Bid Security /Demand Draft will not be entertained. The bid should be sealed properly by the bidder and duly superscribed and submit to the above office at the date and time specified above.**
- 41 **Other conditions :**
- a. Late submission of tenders & unsigned tenders shall not be entertained at any cost after specified date & time as indicated. **The tenders without BID SECURITY amount will not be considered.**
 - b. In the event of the date & time specified for tender receipt being declared as a closed holiday for purchaser's office, the due date for submission of tenders will be the following working day at the specified timings. CRIDA does not hold any responsibility for postal delays.
 - c. The **Supply, Transportation, Installation and commissioning of various sensors/parts for "Automatic Weather Stations at respective locations in India"** at the locations specified as per supply order shall be transported to respective AWS site locations across India at your cost.
 - d. A certification is to be obtained from the Officer incharge of the concerned location of AWS, to that effect that sensors/parts of that AWS replaced and timely satisfactory data is attributed to the data sensor is of desired accuracy.
 - e. The tender document should invariably be filled in and duly signed by the authorized signatory by affixing the company/firm seal on every page of tender and the terms and conditions should strictly be followed before submitting the tender.
 - f. The bidders/representatives who are going to attend the technical bid/financial bid opening may invariably bring authorization letter issued by the respective company/ firm for the purpose.

Director, CRIDA reserves the right to accept or reject any or all the tenders. Decision of the Director will be final and legally binding. All disputes will be subject to Hyderabad Jurisdiction only.

(Stores & Purchase Officer)



भाकृअनुप - केन्द्रीय बारानी कृषि अनुसन्धान संस्थान

ICAR - Central Research Institute for Dryland Agriculture

संतोषनगर, सैदाबाद-पोस्ट हैदराबाद ५०००५९ Santoshnagar, Saidabad P.O. Hyderabad 500



059 040-24530161, 24530163, 24530224 Fax:040-24531802 www.crida.in Email : store.crida@icar.gov.in

CHECK LIST

Please give page numbers to the tender document and all enclosures and also verify the following documents before submission of the tender in the sequence listed below, to avoid rejection or disqualification of your tender.

PLEASE NOTE THAT ALL RELATED PHOTO COPIES MAY PLEASE BE ENCLOSED WITH THE TENDER DOCUMENT AS A PROOF

S.No.	List of the Documents to be enclosed with the Tender	Page No.	Enclosed (Yes/No)
1.	The tender document can also be downloaded with full details through CRIDA website (http://www.crida.in) or the Government of India, Central Public Procurement Portal (http://www.eprocure.gov.in) .		
2.	Bid Security : BID SECURITY should be drawn on any Commercial bank as indicated in the notice inviting tenders in favour of "ICAR UNIT – CRIDA A/c" BID SECURITY D.D.No. _____ Dated: _____ for Rs. _____ ; Bank _____		
3.	Following documents as indicated in the tender document printed on the tenderer's letterhead with date signature and seal.		
4.	Tender Form		
5.	Schedule of Requirement		
6.	Annexure for site locations		
7.	(a) Technical Bid		
	(b) Statement on Compliance of the Technical Specifications with compliance and technical literature of the product to be enclosed by bidder.		
8.	Financial Bid		
9.	The entire original tender document with seal and signature on each page at the time of submission of tender document(s) within the due date.		
10.	Document showing the firm/company's turnover be Rupees Thirty Lakhs per annum for the preceding two financial years i.e. 2015-16 & 2016-17 certified by the Chartered Accountant		
11.	Attested copies of past three years in the related field of work		
12.	Attested copies of Document regarding registration /Certificate of incorporation of the firm issued by the appropriate government to be enclosed.		
13.	Certificates of registration for GST issued by appropriate Government for the required services with the seal of the tenderer to be enclosed.		
14.	The firm should submit Income Tax returns of previous 3 financial years i.e., 2014-15, 2015-16 & 2016-17 along with the tender document.		
15.	NSIC/SSI certificates registered with NSIC (if applicable) to be enclosed		
16.	Any other document or information as required in the tender document.		
	Total pages of your entire Tender Document (Technical Bid) including Enclosures	No.of Total Pages : _____	

Certified that the above information is correct and the firm is willing to accept all the terms and conditions of the tender document.

Signature and Seal of the Bidder: _____

Business Address: _____

Tender Enquiry for Supply, Installation, Transportation and commissioning of "Automatic Weather Station Sensors"

4 TENDER FORM

(To be filled in by the Tenderer duly printed on their letter head)

Tenderer's Ref.No. _____ Date: _____

From: _____

Grams: _____

Phone No. _____

PIN _____

Fax No. _____

To

The Director

**Central Research Institute for Dryland Agriculture,
Santoshnagar, Saidabad, HYDERABAD – 500 059**

Ref: Your Tender Notice Advt. No. _____ dated-----.

Dear Sir,

I/We hereby offer for your requirements detailed in the schedule hereto or such portion thereof as you may specify in the Acceptance of Tender at the **rates given in the said schedule and agree to hold this offer for 180 days for acceptance**. I/We shall be bound by a communication of Acceptance dispatched within the prescribed time and also execute agreement required in this regard.

2. I/We have understood the Instructions to Tenderers and General Conditions of Contract governing such contracts placed by Indian Council of Agricultural Research and its Research Institutes and the Special Conditions of Contract, and have thoroughly examined the details indicated in the Schedule to Tender thereof and am/are fully aware of the goods and/or services required and my/our offer to supply/provide the goods and/or services strictly is in accordance with the requirements.

3. D.D.No. _____ Dt. _____ for Rs. _____ (in words) Rupees _____ only) drawn on (Bank) _____ is enclosed towards Earnest Money Deposit.

The following pages have been added to and form part of this tender.

Yours faithfully,

Signature of the Witness

Signature: _____

Name: _____

Name : _____

Address: _____

Address : _____

5. SCHEDULE OF REQUIREMENTS & FULL TECHNICAL SPECIFICATIONS WITH COMPLIANCE

(Should be submitted duly printed on the letterhead of the bidder separately for each item and option)

TECHNICAL SPECIFICATIONS – “Supply, Transportation, Installation and commissioning of various sensors/parts for Automatic Weather Stations at respective locations in India”

S.No	Name of the items	Qty	Existing Component
1)	AT/RH Sensors H-380 : Air Temperature & Relative Humidity Sensor Air Temperature Type: HydroClip2 Probe Temperature Range: -50°C to 100°C Accuracy: ± 0.5% @ -10°C to 70°C Resolution: 0.02% Typical RELATIVE HUMIDITY RH Range: 0 – 100% Resolution: Accuracy ± 0.5%	21 nos	Make: Rotronics (mfd and supplied by water log) Model:H-380 Compliance :same make Data Compliance: Refer. S.No.32
2)	Rainfall Sensors H-340: Rainfall Sensor with Tipping Bucket Resolution: 0.01 in. (@ 4 in. / hr.) Rate: 0 to 25 in. / hr. Calibrated @ 8.237 mL / tip = 0.01 in rainfall, Magnetic Reed Switch Type: Normally open encapsulated reed Rating: 200VDC max, 0.1A max, Contact Resistance: 0.2 ohms, Operating Temperature: -0 to +60 C	14 nos	Make: Water Log Model:H-340 Compliance :Same make Data Compliance: Refer. S.No.32
3)	Solar Radiation Sensors SP-110: Solar Radiation Sensor (Pyranometer) Radiation Range: 0 - 1750 W/m ² Cosine Response @ 45° zenith angle: ± 1% Cosine Response @ 75° zenith angle: ± 5% Absolute Accuracy: ± 5% Repeatability: ± 1% Sensitivity: Custom calibrated to exactly 5.00 W m ⁻² / mV Responsivity: 0.20 mV per W m ⁻² Operating Environment: -25°C to 55°C, 0 to 100% RH	3 Nos	Make: APOGEE Model:SP-110 Compliance :Same make Data Compliance: Refer. S.No.32
4)	US wind Sensors RMYOUNG 86000: Wind Speed (Ultrasonic anemometer) Wind Speed: 0 to 75 m/s (0 to 168 mph) Resolution: 0.01 m/s Threshold: <0.01 m/s Accuracy: ± 2% ± 0.1m/s (30 m/s), ± 3% (75 m/s) Response Time: < 0.25 seconds Wind Direction: 0 to 360 degrees Resolution: 0.1 degree Threshold: < 0.01 m/s Accuracy: ± 2 degrees Response Time: < 0.25 seconds Serial Output: RS-232 or RS-485, SDI-12 Formats: ASCII, ASCII polled, RMYT, NMEA Baud: 1200, 4800, 9600, 19200, 38400 Units: m/s, MPH, Knots, Km/hr Wind Format: Speed & Direction or U & V Status Indicator: Standard with ASCII & NMEA Output Update Rate: 0.1 to 20 Hz Power Requirement: 10 to 30 VDC, <20 mA typical	16 Nos	Make: RM YOUNG COMPANY Model: RM YOUNG 86000 (ultrasonic ANEMOMETER) Compliance : Same make Data Compliance: Refer. S.No.32

6. List of locations where Spares required to be replace

AWS Location					
S.NO	Location	AT-RH	WS	Solar Radiation	Rainfall
1	REDDIPALLI	✓	✓	✓	✓
2	YAGANTIPALLI	✓	✓	✓	✓
3	GADDIPALLI	x	x	✓	x
4	AMADALAVALASA	x	✓	✓	✓
5	PEDAVEGI	x	x	✓	x
6	DIBRUGARH	x	✓	✓	✓
7	GOLAGHAT	✓	x	✓	✓
8	MUZAFFARPUR	x	✓	✓	✓
9	NAWADA	x	✓	✓	✓
10	MANJHI	✓	✓	✓	✓
11	MAHASAMUND	✓	✓	✓	✓
12	ANAND	x	x	✓	✓
13	GOLAGAMDI	✓	✓	✓	✓
14	RAJKOT	✓	✓	✓	✓
15	CHAMBA	x	✓	✓	✓
16	KANGRA	x	x	✓	✓
17	BAJAURA	✓	✓	✓	✓
18	SIRMAUR	✓	✓	✓	✓
19	POONCH	✓	✓	x	✓
20	TUKKANATTI	x	✓	✓	✓
21	CHINTAMANI	✓	✓	✓	✓
22	THRISSUR	x	✓	x	✓
23	CHHATARPUR	x	x	✓	✓
24	BABHLESHWAR	✓	✓	✓	✓
25	NANDURBAR	✓	✓	✓	✓
26	NIASM	✓	x	✓	x
27	BARAMATI	✓	x	✓	x
28	ANDRO	x	x	✓	✓
29	SENAPATI	✓	✓	✓	✓
30	PORBA	✓	✓	✓	✓
31	BEHRAMPUR	✓	✓	✓	✓
32	KENDRAPARA	x	x	✓	✓
33	SONEPUR	✓	✓	✓	✓
34	FARIDKOT	✓	x	✓	✓
35	BHARATHPUR	x	x	✓	✓
36	JHUNJHUNU	✓	x	✓	✓
37	JODHPUR	✓	✓	✓	✓

38	UDAYPUR	x	x	✓	✓
39	NAMAKKAL	✓	✓	✓	✓
40	RAMANATHAPURAM	✓	✓	✓	✓
41	CHEBRI	x	✓	✓	✓
42	BAGHPAT	x	✓	✓	✓
43	CHITRAKOOT	✓	✓	✓	✓
44	UTTAR KASHI	✓	✓	✓	✓
45	COOCH BEHAR	x	✓	✓	✓
46	AURANGABAD	✓	x	✓	✓
47	GONDIA	✓	✓	x	✓
48	VALSAD	✓	✓	✓	✓
49	BILASPUR	x	x	✓	✓
50	SATNA	✓	✓	✓	✓
51	GANJAM	x	✓	✓	✓

Note :

Signature and Seal of the Bidder: _____

Business Address: _____

7(a) . Technical Bid(on Letter head)

1	Name of the agency	
2	Full address with PIN Code No. And Telephone No	
3	Constitution of the Firm/Agency (Attached copy)	
	a) Indian Companies Act, 1956	
	b) Indian Partnership Act, 1932 (Please give names of partners)	
	c) Any other Act, if not, the owners	
4	i) For Partnership firms whether registered under the Indian Partnership Act, 1932, please state further whether by the partnership agreement to arbitration has been conferred on the partner who has signed the Tender.	
	ii) If answer to the above is in negative whether there is any general power of attorney executed by all the partners of the firm authorizing the partner who has signed the Tenders to refer dispute condemning business of the partnership to arbitration.	
	iii) If the answer to above is in point one and two is affirmative please furnish a copy of either the partnership agreement or the general power of attorney as the case may be. The copy should be attested by a Notary Public or its execution would be admitted by affidavit on a properly stamped paper by all partner	
5	Name and Full Address of your Banker's	
6	Your Permanent Income Tax No./Circle/Ward	
7	Date of establishment of the agency/firm/company	
8	Any other relevant information	
9	Bid Security Deposited: (Write draft No./date/issuing bank details)	
10	Document regarding registration /Certificate of incorporation of the firm issued by the appropriate government to be enclosed.	

11	Certificates of registration for GST issued by appropriate Government for the required services with the seal of the tenderer to be enclosed.		
12	The firm should submit Income Tax returns of previous 3 financial years i.e., 2014-15, 2015-16 & 2016-17 along with the tender document.		
13	Name and Address of the firm's representative and whether the firm would be representing at the opening of the Tenders		
14	Name of the Permanent Representative to be visiting CRIDA regarding the contract		
15	AT/RH Sensors H-380 : Air Temperature & Relative Humidity Sensor Air Temperature Type: HydroClip2 Probe, Temperature Range: -50°C to 100°C, Accuracy: ± 0.5% @ -10 °C to 70°C, Resolution: 0.02% Typical RELATIVE HUMIDITY RH Range: 0 – 100%, Resolution: Accuracy ± 0.5%,		21 nos
	Make:	Existing component	Component quoted by bidder
		Rotronics (mfd. and supplied by water log)	
	Model:	H-380	
	Compliance :	Same make	
	Standard:		
	Data Compliance :	Refer serial number 32	
16	Rainfall Sensors H-340: Rainfall Sensor with Tipping Bucket Resolution: 0.01 in. (@ 4 in. / hr.), Rate: 0 to 25 in. / hr., Calibrated @ 8.237 mL / tip = 0.01 in rainfall, Magnetic Reed Switch, Type: Normally open encapsulated reed, Rating: 200VDC max, 0.1A max, Contact Resistance: 0.2 ohms, Operating Temperature: -0 to +60 C		14 nos
	Make:	Existing component	Component quoted by bidder
		Water Log	
	Model:	H-340	
	Compliance :	Same make	
	Standard :		
	Data Compliance :	Refer serial number 32	

17	Solar Radiation Sensors SP-110: Solar Radiation Sensor (Pyranometer) Radiation Range: 0 - 1750 W/m ² , Cosine Response @ 45° zenith angle: ± 1%, Cosine Response @ 75° zenith angle: ± 5%, Absolute Accuracy: ± 5%, Repeatability: ± 1% Sensitivity: Custom calibrated to exactly 5.00 W m ⁻² / mV, Responsivity: 0.20 mV per W m ⁻² Operating Environment: -25°C to 55°C, 0 to 100% RH		3 Nos
	Make:	Existing component	Component quoted by bidder
		APOGEE	
	Model:	SP-110	
	Compliance :	Same make	
	Standard :		
	Data Compliance :	Refer serial number 32	
18	US wind Sensors RMYOUNG 86000: : Wind Speed (Ultrasonic anemometer) Wind Speed: 0 to 75 m/s (0 to 168 mph) Resolution: 0.01 m/s Threshold: <0.01 m/s Accuracy: ± 2% ± 0.1m/s (30 m/s), ± 3% (75 m/s) Response Time: < 0.25 seconds Wind Direction: 0 to 360 degrees Resolution: 0.1 degree Threshold: < 0.01 m/s Accuracy: ± 2 degrees Response Time: < 0.25 seconds Serial Output: RS-232 or RS-485, SDI-12 Formats: ASCII, ASCII polled, RMYT, NMEA Baud: 1200, 4800, 9600, 19200, 38400 Units: m/s, MPH, Knots, Km/hr Wind Format: Speed & Direction or U & V Status Indicator: Standard with ASCII & NMEA Output Update Rate: 0.1 to 20 Hz Power Requirement: 10 to 30 VDC, <20 mA typical		16 Nos
	Make:	Existing component	Component quoted by bidder
		RM YOUNG COMPANY	
	Model:	RM YOUNG 86000 (ultrasonic ANEMOMETER)	
	Compliance :	Same make	
	Standard :		
	Data Compliance :	Refer serial number 32	

Date: _____

Place: _____

AUTHORISED SIGNATORY

Please add supplementary pages to be numbered wherever needed by the Tenderer.

Note : Signature and Seal of the Bidder: _____

Business Address: _____

Tender Enquiry for Supply, Installation, Transportation and commissioning of "Automatic Weather Station Sensors"

8. FINANCIAL BID

(To be enclosed in a separate envelope and sealed)

(To be filled in by the Tenderer duly printed on their letter head)

Schedule	Description of the goods offered	No.of units	Unit Rate (Rs.)	Amount (Rs.)
Supply of " Automatic Weather Station Sensors"				
1	AT/RH Sensors H-380 : Air Temperature & Relative Humidity Sensor Air Temperature Type: HydroClip2 Probe, Temperature Range: - 50 ^o C to 100 ^o C, Accuracy: ± 0.5% @ -10 ^o C to 70 ^o C, Resolution: 0.02% Typical RELATIVE HUMIDITY RH Range: 0 – 100%, Resolution: Accuracy ± 0.5%,	21 nos		
2	Rainfall Sensors H-340: Rainfall Sensor with Tipping Bucket Resolution: 0.01 in. (@ 4 in. / hr.), Rate: 0 to 25 in. / hr., Calibrated @ 8.237 mL / tip = 0.01 in rainfall, Magnetic Reed Switch, Type: Normally open encapsulated reed, Rating: 200VDC max, 0.1A max, Contact Resistance: 0.2 ohms, Operating Temperature: -0 to +60 C	14 Nos		
3	Solar Radiation Sensors SP-110: Solar Radiation Sensor (Pyranometer) Radiation Range: 0 - 1750 W/m ² , Cosine Response @ 45° zenith angle: ± 1%, Cosine Response @ 75° zenith angle: ± 5%, Absolute Accuracy: ± 5%, Repeatability: ± 1% Sensitivity: Custom calibrated to exactly 5.00 W m ⁻² / mV, Responsivity: 0.20 mV per W m ⁻² Operating Environment: -25 ^o C to 55 ^o C, 0 to 100% RH	3 Nos		
4	US wind Sensors RMYOUNG 86000: : Wind Speed (Ultrasonic anemometer) Wind Speed: 0 to 75 m/s (0 to 168 mph) Resolution: 0.01 m/s Threshold: <0.01 m/s Accuracy: ± 2% ± 0.1m/s (30 m/s), ± 3% (75 m/s) Response Time: < 0.25 seconds Wind Direction: 0 to 360 degrees Resolution: 0.1 degree Threshold: < 0.01 m/s Accuracy: ± 2 degrees Response Time: < 0.25 seconds	16 Nos		

Tender Enquiry for Supply, Installation, Transportation and commissioning of "Automatic Weather Station Sensors"

	Serial Output: RS-232 or RS-485, SDI-12 Formats: ASCII, ASCII polled, RMYT, NMEA Baud: 1200, 4800, 9600, 19200, 38400 Units: m/s, MPH, Knots, Km/hr Wind Format: Speed & Direction or U & V Status Indicator: Standard with ASCII & NMEA Output Update Rate: 0.1 to 20 Hz Power Requirement: 10 to 30 VDC, <20 mA typical			
Transportation of " Automatic Weather Station Sensors"				
1	AT/RH Sensors H-380 : Air Temperature & Relative Humidity Sensor Air Temperature Type: HydroClip2 Probe, Temperature Range: -50°C to 100°C, Accuracy: $\pm 0.5\%$ @ -10°C to 70°C, Resolution: 0.02% Typical RELATIVE HUMIDITY RH Range: 0 – 100%, Resolution: Accuracy $\pm 0.5\%$,	21 nos		
2	Rainfall Sensors H-340: Rainfall Sensor with Tipping Bucket Resolution: 0.01 in. (@ 4 in. / hr.), Rate: 0 to 25 in. / hr., Calibrated @ 8.237 mL / tip = 0.01 in rainfall, Magnetic Reed Switch, Type: Normally open encapsulated reed, Rating: 200VDC max, 0.1A max, Contact Resistance: 0.2 ohms, Operating Temperature: -0 to +60 C	14 Nos		
3	Solar Radiation Sensors SP-110: Solar Radiation Sensor (Pyranometer) Radiation Range: 0 - 1750 W/m ² , Cosine Response @ 45° zenith angle: $\pm 1\%$, Cosine Response @ 75° zenith angle: $\pm 5\%$, Absolute Accuracy: $\pm 5\%$, Repeatability: $\pm 1\%$ Sensitivity: Custom calibrated to exactly 5.00 W m ⁻² / mV, Responsivity: 0.20 mV per W m ⁻² Operating Environment: -25°C to 55°C, 0 to 100% RH	3 Nos		
4	US wind Sensors RMYOUNG 86000: : Wind Speed (Ultrasonic anemometer) Wind Speed: 0 to 75 m/s (0 to 168 mph) Resolution: 0.01 m/s Threshold: <0.01 m/s Accuracy: $\pm 2\% \pm 0.1\text{m/s}$ (30 m/s), $\pm 3\%$ (75 m/s) Response Time: < 0.25 seconds Wind Direction: 0 to 360 degrees Resolution: 0.1 degree Threshold: < 0.01 m/s	16 Nos		

Tender Enquiry for Supply, Installation, Transportation and commissioning of "Automatic Weather Station Sensors"

	Accuracy: ± 2 degrees Response Time: < 0.25 seconds Serial Output: RS-232 or RS-485, SDI-12 Formats: ASCII, ASCII polled, RMYT, NMEA Baud: 1200, 4800, 9600, 19200, 38400 Units: m/s, MPH, Knots, Km/hr Wind Format: Speed & Direction or U & V Status Indicator: Standard with ASCII & NMEA Output Update Rate: 0.1 to 20 Hz Power Requirement: 10 to 30 VDC, <20 mA typical			
Installation and Commissioning of " Automatic Weather Station Sensors"				
1	AT/RH Sensors H-380 : Air Temperature & Relative Humidity Sensor Air Temperature Type: HydroClip2 Probe, Temperature Range: -50°C to 100°C, Accuracy: $\pm 0.5\%$ @ -10°C to 70°C, Resolution: 0.02% Typical RELATIVE HUMIDITY RH Range: 0 – 100%, Resolution: Accuracy $\pm 0.5\%$,	21 nos		
2	Rainfall Sensors H-340: Rainfall Sensor with Tipping Bucket Resolution: 0.01 in. (@ 4 in. / hr.), Rate: 0 to 25 in. / hr., Calibrated @ 8.237 mL / tip = 0.01 in rainfall, Magnetic Reed Switch, Type: Normally open encapsulated reed, Rating: 200VDC max, 0.1A max, Contact Resistance: 0.2 ohms, Operating Temperature: -0 to +60 C	14 Nos		
3	Solar Radiation Sensors SP-110: Solar Radiation Sensor (Pyranometer) Radiation Range: 0 - 1750 W/m ² , Cosine Response @ 45° zenith angle: $\pm 1\%$, Cosine Response @ 75° zenith angle: $\pm 5\%$, Absolute Accuracy: $\pm 5\%$, Repeatability: $\pm 1\%$ Sensitivity: Custom calibrated to exactly 5.00 W m ⁻² / mV, Responsivity: 0.20 mV per W m ⁻² Operating Environment: -25°C to 55°C, 0 to 100% RH	3 Nos		
4	US wind Sensors RMYOUNG 86000 : : Wind Speed (Ultrasonic anemometer) Wind Speed: 0 to 75 m/s (0 to 168 mph) Resolution: 0.01 m/s Threshold: <0.01 m/s Accuracy: $\pm 2\% \pm 0.1$ m/s (30 m/s), $\pm 3\%$ (75 m/s) Response Time: < 0.25 seconds	16 Nos		

Tender Enquiry for Supply, Installation, Transportation and commissioning of "Automatic Weather Station Sensors"

	Wind Direction: 0 to 360 degrees Resolution: 0.1 degree Threshold: < 0.01 m/s Accuracy: ± 2 degrees Response Time: < 0.25 seconds Serial Output: RS-232 or RS-485, SDI-12 Formats: ASCII, ASCII polled, RMYT, NMEA Baud: 1200, 4800, 9600, 19200, 38400 Units: m/s, MPH, Knots, Km/hr Wind Format: Speed & Direction or U & V Status Indicator: Standard with ASCII & NMEA Output Update Rate: 0.1 to 20 Hz Power Requirement: 10 to 30 VDC, <20 mA typical			
	Applicable Taxes			
a.	Customs Duty, if any	_____ %		
b.	GST	_____ %		
Grand Total				

(Shall be submitted by bidder on their letter head)

Gross total cost: Rs. _____ (in figures) Rupees _____
(in words)

We agree to supply, Transportation, Installation & Commissioning of the above “**Automatic Weather Station Sensors**” in accordance with the technical specifications for a total contract price of Rs.....
(in figures) (Rupees (in words)
within the period specified in the Invitation for Quotations.

We also confirm that the warranty as specified in the Schedule of Requirements / Technical Specifications shall apply to the offered goods / equipment.

Signature: _____

Name: _____

Date: _____