



NATIONAL CENTRE FOR EARTH SCIENCE STUDIES
 (An Institution under the Ministry of Earth Sciences, Govt. of India)
 P.B. No. 7250, Akkulam, Thiruvananthapuram-695 011, Kerala.
PURCHASE DIVISION

Our Ref : PUR-PROC/341/2019-PUR-NCESS
 (To be quoted in all correspondence)

Dt. 03.12.2019

Phone : (0471) 2511531
 FAX: (0471) 2442280
 E-mail: purchase@ncess.gov.in
ncesspurchase@gmail.com
 website : ncess.gov.in

Sub: e-Procurement Tender

Dear Sirs,

Please send your offer along with descriptive catalogue/ pamphlet for the following items not later than **07.01.2020 on 06.00 PM (Tender Opening at 11.00 A.M on 09.01.2020)**. The terms and conditions governing the tender are given at the bottom.

<i>Sl. No</i>	<i>DESCRIPTION</i>	<i>QUANTITY REQUIRED</i>
1	All in one weather sensor/station and accessories <i>Specifications attached separately</i>	2 Nos

INSTRUCTIONS TO THE TENDERERS AND TERMS AND CONDITIONS

- The quotation should be submitted by e-procurement in PDF format by 'logging on' in the website eprocure.gov.in/eprocure/app. The total file size of the documents submitted should not exceed 20 MB.
- In place of a Bid security, the bidders must sign a Bid securing declaration along with the bid saying that "We accept that if we withdraw or modify our Bids during the period of validity, or if we are awarded the contract and we fail to sign the contract, or to submit a performance security before the deadline defined in the request for bids document, we will be suspended for the period of time decided by NCESS from being eligible to submit Bids for contracts with NCESS". **The bids without this declaration or Udyog Aadhar Memorandum /NSIC will be rejected.**
- The material should be delivered at NCESS or installed at the specified location and so the quotation should include all the charges for the delivery at NCESS/installation.
- It should be clear whether the quoted amount is inclusive of tax or not. If the tax is extra, the current tax rates should be specifically mentioned. We are eligible for Excise Duty Exemption through DSIR registration and its certificates will be provided in our formats.
- In INR orders, the Customs Duty Exemption Certificate will be given to the supplier upon request. But the entire responsibility of customs clearance and delivery at NCESS will rest with the supplier. High sea sale is not accepted and should not be quoted.
- The bid should contain the Bid securing declaration, Authorization from manufacturer, Details of Service Centre, Technical details with make, model and specification of each component, Technical Compliance statement, List of Customers, Brochures etc., wherever applicable.
- The offer should be valid for 120 days from the due date of opening of tender.
- The Purchaser reserves right to accept any tender in part or full without assigning any reasons. The enquiry is not a commitment and the purchaser reserves the right to reject or cancel any or all offers.
- Catalogue/Brochure/Manual should be submitted along with the offer wherever necessary.
- Warranty / Guarantee Clause needs to be mentioned necessarily wherever applicable.
- All foreign bank charges will be to the account of beneficiary.
- The purchase will be made on credit basis and the payment will be made after supply and acceptance, by bank transfer.

13. In the case of imports, both FCA and CIF/CIP Trivandrum airport prices may be quoted. 90% payment will be made against proof of dispatch documents by LC or wire transfer and balance 10% will be released against acceptance of goods and the receipt of bank guarantee.
14. In the event of placement of order, supplier / Indian agent shall provide a Performance Bank guarantee for 10% of the order value valid for warranty period + 60 days.
15. Any further changes in the details, like the date of opening or specification, will be posted on our web site only.

Yours faithfully,

Sd/-

Deputy Manager (Purchase)

All in one weather sensor/station and accessories

General Specifications:

- (i) All Sensors should be integrated into one unit, with no moving parts.
- (ii) It should be compact in design for smooth relocation and should use low power for installation in the remote areas.
- (iii) It should have communication hardware for transmission of collected data to the NCESS server.
- (iv) It should be able to measure weather variables Solar radiation, Rainfall, Relative Humidity, Air Temperature, Wind speed and Wind direction and Atmospheric pressure.

Sensor Specifications

- (a) Temperature and relative humidity sensors
 - 1. Measurement of near surface air temperature and relative humidity.
 - 2. Relative Humidity (RH) range: 0 to 100%
 - 3. RH accuracy: +/- 5 % or better
 - 4. Temperature range: -10° to +50°C or better
 - 5. Temperature accuracy should be +/- 0.60 °C or better.
- (b) Atmospheric Pressure sensor
 - 6. Measuring the atmospheric pressure near surface
 - 7. Range: 700 – 1050 hPa or better
 - 8. Accuracy: +/- 0.1 kPa or better
- (c) Wind speed and wind direction sensor
 - 9. Wind speed measurement range: 0 to 30 m/s or greater
 - 10. Wind speed sensor accuracy: 2 m/s or better
 - 11. Wind speed resolution: 0.2 m/s or better
 - 12. Wind direction measurement range: 0-359°
 - 13. Wind direction accuracy: +/- 5° or better
- (d) Rainfall Sensor
 - 13. Measurement range- 0-200 mm/hr or greater.
 - 14. Accuracy - +/- 5% of the measurement or better.
 - 15. Resolution should be 0.1 mm or better.
- (e) Solar Radiation sensor
 - 16. Range: 0 to 1200 W/m² or greater
 - 17. Measurement Spectrum wavelength: 400-1000 nm or better.
 - 18. Accuracy: +/-5% of the measurement.
- (f) Dimension of the Weather sensor/Station
 - All in one compact weather sensor should have following dimensions -
 - 19. Diameter Range - 5 cm to 25 cm.
 - 20. Height Range – 20 to 50 cm

Other Specifications

- 21. Data logger(s) should support all sensors: pressure sensor, temperature and humidity sensors, wind speed and direction sensors, solar radiation and rainfall sensor. Adequate channels are required to augment all sensors.
- 22. Data logger should support communication with PC/laptop.
- 23. Data values stored in tables with time-stamp and record number.
- 24. Data logger should have an in-built storage facility to store the collected data and operate in remote locations without using PC/laptop or alternate Storage options, for the period of at least 3 months.
- 25. Suitable solar and/or battery supply unit should be provided, which should have longer battery life.

- 26. The power supply should, supply both sensor and datalogger, and should be able to supply power in severe weather conditions as well.

27. Weather Sensor and datalogger Set-up should be able to transmit the collected data in real time through either cloud and/or static app to the NCESS server.

Warranty

28. Minimum three-year comprehensive onsite warranty for the entire setup (including sensors, datalogger, power supply system).

Conditions

29. Provide user list of similar systems installed within India/abroad.

30. The offer should be submitted only by manufacturer or their exclusive agent with certificate of exclusivity.

31. The quoted costs should include the cost of packing, forwarding, freight, insurance and installation charges, whichever is applicable.

32. The specifications mentioned below are most preferred & any deviation or equivalent configuration shall be mentioned in the technical compliance statement.

33. The detailed specification of the product along with pictures/diagrams should be provided along with the quote.

34. All mounting hardware/sensor cables/accessories should be provided for continuous operation of all sensors.

35. All mounting hardware/sensor cables/accessories should be provided for connecting sensors, dataloggers, communication hardware with each other.

36. All software/algorithms should be provided for sensor visualization or retrieval (if required).

37. Should provide on-site installation and demonstration.

38. User manuals of all sensors should be given.

39. Essential tools/utilities/enclosures should be provided for the entire setup for regular operations and maintenance.

40. Final sensor output should be in ASCII/excel/CSV/similar common format.

1. Technical Compliance Statement.

Required Specification	Specification Offered with make and model	Whether complied
<p>1 All in one weather sensor/station and accessories 2 Nos</p> <p>General Specifications:</p> <p>(i) All Sensors should be integrated into one unit, with no moving parts. (ii) It should be compact in design for smooth relocation and should use low power for installation in the remote areas. (iii) It should have communication hardware for transmission of collected data to the NCESS server. (iv) It should be able to measure weather variables Solar radiation, Rainfall, Relative Humidity, Air Temperature, Wind speed and Wind direction and Atmospheric pressure.</p> <p>Sensor Specifications</p> <p>(a) Temperature and relative humidity sensors</p> <ol style="list-style-type: none"> 1. Measurement of near surface air temperature and relative humidity. 2. Relative Humidity (RH) range: 0 to 100% 3. RH accuracy: +/- 5 % or better 4. Temperature range: -10° to +50°C or better 5. Temperature accuracy should be +/- 0.60 °C or better. <p>(b) Atmospheric Pressure sensor</p> <ol style="list-style-type: none"> 6. Measuring the atmospheric pressure near surface 7. Range: 700 – 1050 hPa or better 8. Accuracy: +/- 0.1 kPa or better <p>(c) Wind speed and wind direction sensor</p> <ol style="list-style-type: none"> 9. Wind speed measurement range: 0 to 30 m/s or greater 10. Wind speed sensor accuracy: 2 m/s or better 11. Wind speed resolution: 0.2 m/s or better 12. Wind direction measurement range: 0-359° 13. Wind direction accuracy: +/- 5° or better <p>(d) Rainfall Sensor</p> <ol style="list-style-type: none"> 13. Measurement range- 0-200 mm/hr or greater. 14. Accuracy - +/- 5% of the measurement or better. 15. Resolution should be 0.1 mm or better. <p>(e) Solar Radiation sensor</p> <ol style="list-style-type: none"> 16. Range: 0 to 1200 W/m² or greater 17. Measurement Spectrum wavelength: 400-1000 nm or better. 18. Accuracy: +/-5% of the measurement. <p>(f) Dimension of the Weather sensor/Station</p> <p>All in one compact weather sensor should have following dimensions -</p> <ol style="list-style-type: none"> 19. Diameter Range - 5 cm to 25 cm. 20. Height Range – 20 to 50 cm <p>Other Specifications</p> <ol style="list-style-type: none"> 21. Data logger(s) should support all sensors: pressure sensor, temperature and humidity sensors, wind speed and direction sensors, solar radiation and rainfall sensor. Adequate channels are required to augment all sensors. 22. Data logger should support communication with PC/laptop. 		

- 23. Data values stored in tables with time-stamp and record number.
- 24. Data logger should have an in-built storage facility to store the collected data and operate in remote locations without using PC/laptop or alternate Storage options, for the period of at least 3 months.
- 25. Suitable solar and/or battery supply unit should be provided, which should have longer battery life.
- 26. The power supply should, supply both sensor and datalogger, and should be able to supply power in severe weather conditions as well.
- 27. Weather Sensor and datalogger Set-up should be able to transmit the collected data in real time through either cloud and/or static app to the NCESS server.

Warranty

- 28. Minimum three-year comprehensive onsite warranty for the entire setup (including sensors, datalogger, power supply system).

Conditions

- 29. Provide user list of similar systems installed within India/abroad.
- 30. The offer should be submitted only by manufacturer or their exclusive agent with certificate of exclusivity.
- 31. The quoted costs should include the cost of packing, forwarding, freight, insurance and installation charges, whichever is applicable.
- 32. The specifications mentioned below are most preferred & any deviation or equivalent configuration shall be mentioned in the technical compliance statement.
- 33. The detailed specification of the product along with pictures/diagrams should be provided along with the quote.
- 34. All mounting hardware/sensor cables/accessories should be provided for continuous operation of all sensors.
- 35. All mounting hardware/sensor cables/accessories should be provided for connecting sensors, dataloggers, communication hardware with each other.
- 36. All software/algorithms should be provided for sensor visualization or retrieval (if required).
- 37. Should provide on-site installation and demonstration.
- 38. User manuals of all sensors should be given.
- 39. Essential tools/utilities/enclosures should be provided for the entire setup for regular operations and maintenance.
- 40. Final sensor output should be in ASCII/excel/CSV/similar common format.