



**WADIA INSTITUTE OF HIMALAYAN GEOLOGY**  
(An Autonomous Institution of Department of Science & Technology Government of India)  
**33, GENERAL MAHADEO SINGH ROAD,**  
**DEHRA DUN- 248001 (INDIA)**

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Limited Tender Document  
**TECHNICAL BID DUE TO OPEN ON:-29-01-2021**

NoS-2/200-P(Portable Meteorological Station)WIHG 2020-21 /15

Dated : 29-12-2020

**Sub: INVITATION OF TENDER**

Dear Sirs,

We intend to purchase (Portable Meteorological Station) as per the details/specifications(Annexure-1) You are requested to submit your sealed tender/quotation/s along with Compliance statement(Annexure-2) and technical leaflets /Brochures for the same on your own letterhead. **Bids without Compliance statement and technical leaflets / Brochure will summarily be rejected.-**

| Sl. No | Description of Items   | Quantity |
|--------|--|----------|
| 1      | Portable Meteorological Station<br>Specification As Per Annexure-1 | 02 Nos.  |

**TERMS AND CONDITIONS**

- 1 Detailed terms & conditions of supply **MUST** be mentioned in your offer.
- 2 Two years on site comprehensive warranty against any manufacturing defects from the date of satisfactory installation commissioning and final acceptance of supply **MUST** be available on the offered system. The warranty clause on these lines **MUST** be clearly mentioned on both technical and commercial bids. Offers with other warranty clauses will not be considered. After sales- service facilities in India should also be available. Details of warranty/guarantee and the after-sales service facilities available in India must be specifically mentioned in your offer, failing which the offer is liable to be rejected.
- 3 The sealed tenders/quotations/offers are to be submitted in **two parts** as under:-  
The technical and commercial bids should be submitted on your own letterhead in separate sealed envelope **Your technical bid should be submitted in one of the sealed covers super scribed "Portable Meteorological Station" due to open on 29-01-2021** the other sealed envelope should contain your commercial bid and should be super scribed "Portable Meteorological Station" due to open on 29-01-2021 both these sealed envelopes should be submitted in a third sealed cover super scribed "Portable Meteorological Station" due to open on 29-01-2021.

Continued on page -2

The undermentioned documents/details **MUST** be submitted with your technical offer.

- a) Relevant Technical Literature
  - b) Details of training and after-sales-service facilities available.
  - c) Details of warranty (elaborative as per term No. '2').
  - d) Details of users and copies of the user certificates of the proposed model/make of "Portable Meteorological Station"
  - e) **Details of para-wise/item wise compliance statement (Annexure-2)**
- 4 For Indigenous Indian supply rates, **MUST** be for delivery on F.O.R. Dehra Dun basis. Only GST@ 5%as applicable, will be paid extra by us.( Against Certificate issued by the head of the institution) You may take note of Govt Notification No47/201Integrated Tax (rate) dated14th November 2017
- 5 Being a Research & Development Institution, we are exempted from payment of excise duty and are entitled for payment of basic custom duty on concessional rates. Therefore, suppliers are advised to quote their rates accordingly.
6. **Earnest Money Deposit:**
- (i) **For Indigenous Original Equipment Manufacturer or Their Authorized Dealer -:** Notwithstanding anything contained in rule 171 of GFRs 2017 or any other Rule or any provision contained in Procurement Manuals, no provision regarding bid security is being kept with this bid document . However, the bidders are required to submit Bid Security Declaration as notified by Procurement policy, Department of Expenditure, Ministry of Finance, Government of India vide there Office Memorandum no. F.9/4/2020-PPO dated 12-11-2020(.A copy of the Format is enclosed as annexure-3)
  - ii) **For Overseas Original Equipment Manufacturer or Their Authorized Dealer-:** The bid should be accompanied by FDR /Bank Guarantee towards earnest money for an amount of Rs 40,000(Rupees Forty Thousand only) or its equivalent foreign currency. **The EMD MUST be submitted with the Technical bid** in the shape of **FDR/Bank Guarantee in the name of the Director, Wadia Institute of Himalayan Geology, Dehradun (India)**, failing which the offer will not be considered. The Bank Guarantee shall remain in force up to and including forty five (45) days after the bid validity.
7. For Indigenous suppliers 100% payment will be made **after** satisfactory installation commissioning and final acceptance of supply.
- 8 100% payment to overseas suppliers will be made by us through wire/Telegraphic Transfer. However, 80% payment will be released on receipt of consignment and the balance 20% payment will be released **after** satisfactory installation/commissioning and acceptance of supply.
- 9 Commercial offer from overseas manufacturers/suppliers **MUST** be submitted on the following lines and must be for supply on f.o.b. basis:
- (a) Ex-works cost.
  - (b) (-) Less Indian Agent's Commission, if any, payable in Indian currency after satisfactory Installation and acceptance of supply.
  - (c) Net ex-works cost.
  - (d) f.o.b. charges up to international airport of dispatch in supplier's countries
  - (e) Net f.o.b. cost
- 10 All the equipments must be supplied at Wadia Institute of Himalayan Geology Dehradun, but installation will be done at remote glacier sites, (approximately 3600-4200 m asl and about 15-20 km trek from road head by the vendor.

11. Delivery period required by you **MUST** be clearly mentioned in your offer.
12. Your offer must be valid for a minimum period of **one hundred twenty days** from the date of opening of technical bids and validity period must be mentioned in your offer. Air-freight charges on imported consignment will be paid by us in India in Indian currency. Insurance of the imported consignment will also be arranged by us.
13. Your offer must reach us by 13.00 hrs. on.29-01-2021. in their own interest, the tenderers must ensure that their tender reaches us in time. Tender will be opened at 15.00 hrs. on the same day. Late tenders or delayed tenders will not be considered. In case the due date happens to be a closed day because of any of the reasons, tenders will be opened at 3 p.m. the next working day.
14. In case Indian Agents submit offer on behalf of their overseas principals, proper Authorization Certificate from the principals on their (Principals) letterhead must be submitted in original with the technical bid, failing which the offer will not be considered
15. **Security Deposit:** - The tenderer will have to submit security deposit @3% of order value. In the shape of FDR/Bank Guarantee till the completion of warranty period
16. Risk Purchase Clause: - If the supplier fails to supply the goods in correct quality and quantity within the stipulated delivery period, liquidated damages @1% per week for a maximum period of ten weeks will be deducted from the balance payment of the supplier. If the ordered materials are not supplied even after the delay of said period of ten weeks, termination/cancellation of the order will be considered and in such a situation, the purchaser will have the right to forfeit the security deposit of the tenderer and procure the material(s) or services from elsewhere upon such terms and in such manner as it deems appropriate and the supplier shall be liable to pay the purchaser for any excess costs for such similar goods or services.
17. Résolution of Disputes: All disagreements, disputes, différences that may arise between Wadia Institute of Himalayan Géology and your firm/agency which cannot be resolved through mutual négociations shall be referred to an arbitrator appointed in accordance with the provisions of relevant Indian International Law as the case may be. The venue of the proceedings and arbitration shall be Dehradun, INDIA.
18. Amendement(s) in the tender documents required if any, will be made availabel in our Web site and accordingly, the prospective bidders are required to keep themseleves updated till four days of tender opening.
19. The Director, Wadia Institute of Himalayan Geology, Dehra Dun (India) reserves the right to reject any or all tenders in public interest without assigning any reason .

Yours faithfully,



(M.K Biswas)

Store & Purchase Officer, for Director

1. Portable Meteorological Station for glaciology with following specifications:
- Data Acquisition System/ Data Logger:**
- The Data logger should be microprocessor based and configurable in the field as per requirement with consistent performance for at least 5 years
  - Processor: 18-bit or better on higher end
  - The units and frequency (30 min, 1 hr) of measurements should be user definable.
  - A suitable in-built charge controller having over and under voltage protection should be provided
  - Facility to display and view data directly on a display screen with ability to configure through keypad
  - The system should have facility to continuously store ~1,00,000 data points
  - The data logger should be compact and have multiple I/O channels
    - a. 8 single ended or 4 differential analog channels or more
    - b. Range: 0-5 V, 0-100 mV, 0-20 mA
    - c. Should be individually configurable
    - d. Accuracy: 0.02% of the reading or better
    - e. 4 digital I/P and 2 digital O/P
  - Data logger should have multiple communication facility including RS 232, SDI – 12, Ethernet (Compact flash), USB, GSM, GPRS etc.
  - It should have the provision for communication through V-SAT
- The enclosure should be made of composite material for protection from dust and moisture (rain, snow, dew, etc.) and any other physical or electronic damage
- Air Temperature and Relative Humidity Sensors with Radiation Shield:**
- Air Temperature Sensor:**
- Temperature Measurement Range: -40°C to +50°C or better
  - Accuracy:  $\pm 0.2^\circ\text{C}$  or better
- Relative Humidity Sensor:**
- Range: 0 to 100% RH
- Accuracy:  $\pm 2\%$  (RH<90%) and  $\pm 5\%$  (RH>90%)
- Wind Speed and Direction Sensors (Ultrasonic type)**
- Wind Speed:**
- Range: 0-75 m/s or better
  - Accuracy:  $\pm 2\%$  of reading or better
  - Resolution: 0.1 m/s or better
- Wind Direction:**
- Range: 0-360°
  - Accuracy:  $\pm 3^\circ$  or better
  - Resolution: 1° or better
- Barometric pressure Sensors:**
- Range: 300 to 1100 mb (hPa) or better
  - Accuracy: 1.5% or better
- Precipitation Gauge (Weighing type)**
- Should be able to measure solid, liquid and mixed phase precipitation
  - Collection/Measuring area: 200 cm<sup>2</sup>
  - Collection Volume: 1500 mm
  - Intensity threshold: 0.1 mm/min
  - Measuring Range: 0-50 mm/min
- Power System:**
- Battery pack & Solar panels with sufficient backup to operate continuously in cold remote environments throughout the year
  - Max 80 Watts of solar panel and 100 AH battery with enclosure for weather protection.
- Portable Tripod:**
- The tripod will be equipped with data acquisition, power system along with meteorological sensors
  - Vertical Load Limit: 30 kg or more
  - Portability: Collapsible
  - Weight with Mast: less than 30 kg
  - Tripod should be extended up to minimum of 3 to 3.5m

**Accessories:****Tool-Kit:**

- A set of complete tool-kit along with carrying box for each AWS should be provided by the vendor
- The tool kit should have all the equipment to open or re-fix the sensors, mountings and tripod
- Electronic kit for onsite repairing/replacement/troubleshooting of sensors and data logger (including terminal emulator and communications log)

**Software:**

- Versatile software that supports data logger programming, diagnosis, variety of telecommunication options, manual data collection and data display (Real-time or old data)
- Time-series graphs for up to two elements from a data file
- Software should be compatible with Windows 7, 8, 10 or better

**Warranty and Annual Maintenance Charges (AMC):****Warranty:**

- 2 years on-site comprehensive warranty from date of supply, installation and acceptance against any manufacturing defects

**AMC:**

- Estimated cost of AMC for 3 years (after the initial warranty) of the system and essential spares and consumables after warranty period has to be provided
- Calibration check of the Data Logger including all the sensors during warranty and AMC period for every year at the field site has to be ensured by the vendor

**Environmental Requirements:**

The Data Acquisition System, Sensors, Cables, Power System, mounting & fitting accessories and all other parts of the AWS should be able to operate at optimal efficiency and withstand the following environmental conditions:

- Operating Temperature range:  $-40^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$  or better
- Since, the system has to operate under stringent weather conditions i.e. snow bound regions; the system should be rugged and hermetically sealed to avoid ingress of snow and moisture.
- All the electronic components should have low power consumption and should be reverse polarity protected.
- All parts of system including complete tool-kit must be completely weather proof (rugged) and rust proof.

**Terms and Conditions:**

- Only integrated systems will be acceptable. System should be rugged, and all parts including accessories of mounting arrangements should adhere to the environmental specifications given.
- In case of any manufacturing defect or non-compliance with specifications during field observations, the component has to be replaced with higher standard and original spare parts certified by the manufacturer.
- Full literature/leaflet/catalogues or brochure relevant to the offered models and complete manual guide for the installation of sensors and tripod are to be enclosed with the technical bid.
- Technical compliance statement must be enclosed with tender offer.
- Separate price of each component with all including taxes should be mentioned, clearly. Wherever installation/commissioning charges and statutory levies are involved, such charges may be indicated separately.
- All the equipments must be supplied at Wadia Institute of Himalayan Geology (WIHG), Dehra Dun, but installation will be done at remote glacier sites, (approximately 3600 – 4200 m asl and about 15 – 20 km trek from road head) by the vendor.

| Compliance Statement of Portable Meteorological Station for glaciology  | Compliance | Remarks |
|---|------------|---------|
| <p>1. Portable Meteorological Station for glaciology with following specifications:</p> <p><b>Data Acquisition System/ Data Logger:</b></p> <ul style="list-style-type: none"> <li>▪ The Data logger should be microprocessor based and configurable in the field as per requirement with consistent performance for at least 5 years</li> <li>▪ Processor: 18-bit or better on higher end</li> <li>▪ The units and frequency (30 min, 1 hr) of measurements should be user definable.</li> <li>▪ A suitable in-built charge controller having over and under voltage protection should be provided</li> <li>▪ Facility to display and view data directly on a display screen with ability to configure through keypad</li> <li>▪ The system should have facility to continuously store ~1,00,000 data points</li> <li>▪ The data logger should be compact and have multiple I/O channels <ul style="list-style-type: none"> <li>a. 8 single ended or 4 differential analog channels or more</li> <li>b. Range: 0-5 V, 0-100 mV, 0-20 mA</li> <li>c. Should be individually configurable</li> <li>d. Accuracy: 0.02% of the reading or better</li> <li>e. 4 digital I/P and 2 digital O/P</li> </ul> </li> <li>▪ Data logger should have multiple communication facility including RS 232, SDI – 12, Ethernet (Compact flash), USB, GSM, GPRS etc.</li> <li>▪ It should have the provision for communication through V-SAT</li> </ul> <p>The enclosure should be made of composite material for protection from dust and moisture (rain, snow, dew, etc.) and any other physical or electronic damage</p> <p><b>Air Temperature and Relative Humidity Sensors with Radiation Shield:</b></p> <p><b>Air Temperature Sensor:</b></p> <ul style="list-style-type: none"> <li>▪ Temperature Measurement Range: -40°C to +50°C or better</li> <li>▪ Accuracy: <math>\pm 0.2^\circ\text{C}</math> or better</li> </ul> <p><b>Relative Humidity Sensor:</b></p> <ul style="list-style-type: none"> <li>▪ Range: 0 to 100% RH</li> </ul> <p>Accuracy: <math>\pm 2\%</math> (RH&lt;90%) and <math>\pm 5\%</math> (RH&gt;90%)</p> <p><b>Wind Speed and Direction Sensors (Ultrasonic type)</b></p> <p><b>Wind Speed:</b></p> <ul style="list-style-type: none"> <li>▪ Range: 0-75 m/s or better</li> <li>▪ Accuracy: <math>\pm 2\%</math> of reading or better</li> <li>▪ Resolution: 0.1 m/s or better</li> </ul> <p><b>Wind Direction:</b></p> <ul style="list-style-type: none"> <li>▪ Range: 0-360°</li> <li>▪ Accuracy: <math>\pm 3^\circ</math> or better</li> <li>▪ Resolution: 1° or better</li> </ul> <p><b>Barometric pressure Sensors:</b></p> <ul style="list-style-type: none"> <li>▪ Range: 300 to 1100 mb (hPa) or better</li> <li>▪ Accuracy: 1.5% or better</li> </ul> <p><b>Precipitation Gauge (Weighing type)</b></p> <ul style="list-style-type: none"> <li>▪ Should be able to measure solid, liquid and mixed phase precipitation</li> <li>▪ Collection/Measuring area: 200 cm<sup>2</sup></li> <li>▪ Collection Volume: 1500 mm</li> <li>▪ Intensity threshold: 0.1 mm/min</li> <li>▪ Measuring Range: 0-50 mm/min</li> </ul> |            |         |

**Power System:**

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|  |   |  |  |
|--|---|--|--|
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**Form of Bid-Securing Declaration**

Bid No.:

To

The Director,  
Wadia Institute of Himalayan Geology,  
Dehradun

We, the undersigned, declare that:

We understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration.

We accept that we will automatically be suspended from being eligible for bidding in any contract with the Wadia institute of Himalayan Geology, if we are in breach of our obligation(s) under the bid conditions, because we:

- a) have withdrawn our Bid during the period of one month bid validity specified in the letter of bid: or
- b) having been notified of the acceptance of our bid by Wadia Institute of Himalayan Geology the during the period of bid validity, (i) fail or refuse to execute the contract, if required, or  
(ii) fail or refuse to furnish the Security deposit, in accordance with tender condition

We understand this Bid-Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder: or

(ii) Twenty-eight days after the expiration of our bid.

Signed:

Name:

Duly authorized to sign the bid for and on behalf of:

Date:

