



WADIA INSTITUTE OF HIMALAYAN GEOLOGY
(भारत सरकार के विज्ञान और प्रौद्योगिकी विभाग का एक स्वायत्तशासी संस्थान)
(An Autonomous Institution of Department of Science & Technology)
GOVERNMENT OF INDIA.
33, जनरल महादेव सिंह मार्ग
देहरादून - 248 001 (भारत)
DEHRA DUN - 248001 (INDIA)

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OPEN TENDER DOCUMENT

TECHNICAL BID DUE TO OPEN ON-19-04-2021

No: S-2/111-P (Environmental & Meteorological Observatory) WIHG/2020-2021 Dated-26 -03-2021

Sub: INVITATION OF TENDER

To

Dear Sirs,

We intend to establish real-time environmental & Metrological observatory, for this we need the(Following sets of sensors/instruments within a 4x4meter fencing with multichannel data logging system) as per the details/specifications(Annexure-1) .You are requested to submit your sealed tender/quotation/proforma invoice, along with Compliance Statement (Annexure -2) Bids without Compliance statement and Technical Literature will be Summarily Rejected.

Sl. No	Description of Items	Quantity	EMD Amount (Rs.)
1	Items for environmental and meteorological observatory Specifications as per Annexure '1'	1 No.	86,000.00

TERMS AND CONDITIONS

- 1 Detailed terms & conditions of supply must be mentioned in your offer.
- 2 On site comprehensive Warranty for minimum period of **Two years** against any malfunctioning 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.

Continued on page-2

- 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 envelopes. **Your technical bid should be submitted in one of the sealed covers super scribed "Items for Environmental and Meteorological observatory" due to open on 19 -04-2021. The other sealed Envelope should contain your commercial bid and should be super scribed "Items for environmental and meteorological observatory "Both these sealed envelopes should be submitted in a third sealed cover super scribed " Items for Environmental and Meteorological observatory "due to open on 19-04-2021.**
- 4 **The undermentioned documents/details must be submitted with your technical offer.**
- Demand Draft towards Earnest money if applicable.
 - Details of training (if any) and after-sales-service facilities available.
 - Details of warranty (elaborative as per term No. '2').
 - Details of users and copies of the user certificates of the proposed model/make of **"(Items for Environmental and Meteorological observatory)**
 - Details of para-wise/item wise compliance statement must be enclosed as(Annexure-2)
- 5 Rates quoted by Indian suppliers in Indian Rupees, must be for delivery on F.O.B Dehra Dun basis. Only tax, as applicable, will be paid extra by us. Payment will be made after satisfactory receipt, installation & acceptance of supply.
6. 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, Indian suppliers are advised to quote their rates accordingly.
7. 100% payment will be made to the indigenous Supplier after satisfactory installation /commissioning and acceptance of supply.
- 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.
8. Commercial offer from overseas manufacturers/suppliers must be submitted on the following lines and must be for supply on f.o.b. basis:-
- Ex –works cost
 - (-) Less Indian Agent's Commission, if any, payable in Indian currency after satisfactory installation and acceptance of supply.
 - Net ex-works cost
 - f.o.b. charges up to international airport of dispatch in Supplier's country.
 - Net F.O. B. cost.
 - 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.


Continued on page-3

9. Installation of the equipment will be done at Wadia Institute of Himalayan Geology, Dehradun. In case Operational training is required training charges (if any) should be mentioned separately in the offer, failing which the offered rates will be treated as inclusive of training charges. Installation and training clauses must be clearly mentioned in your offer (both in technical and commercial bids).
10. Delivery period required by you must be clearly mentioned in your offer.
11. 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.
12. Your offer must reach us by 13.00 hrs. On **19-04-2021** 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.
13. 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..
14. Security Deposit: - Before placement of necessary Purchase Order, the successful Indigenous tenderer will have to submit security deposit of @3% of order value while overseas suppliers will have to submit security deposit of 10% of order value in the shape of a Fixed Deposit Receipt/Bank Guarantee that shall be valid till completion of warranty period.
15. 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.
16. The supplier will consider the project as Turnkey and complete the Installation (including civil mounting and cabling work), programming demonstration training and commissioning, as per the WHIG requirement.
17. A 5 meter mast will be provided and installed by the Vendor The supplier will complete the installation commissioning(including civil work as per WHIG requirement) The AWS mast foundation should be at least 3 ft x 3 ft deep for ground or roof with cement 1:1^{1/2}: 3 grade concrete and appropriate tensioning wire support from storm..
18. The AWS and display unit should be compatible to display environmental and meteorological parameters in real time as well as, other server based data/programs available within the campus and as required by WHIG.
19. Proper connectivity and canopy to be arranged by the supplier .for display unit. All the required sensors to be interconnected with display unit. and programmed with cable and wireless connectivity

- 19 All the required sensors and display unit (LED Wall) should be quoted with minimum two years onsite comprehensive warranty. Vendors must also quote for per year AMC rates which shall be charged thereafter for post warranty period (the rates should be valid for a minimum 3 years after the warranty expiry), The vendor will be responsible for compatibility and commissioning of all the sensors and parts as one complete system.
- 19 Minimum two years on-site comprehensive Warranty; Vendors must also quote for the per year AMC which shall be charged there (The AMC rates should be valid for minimum 3 years for post warranty)
- 20 Since the AWS data is to be displayed primarily, it will be preferable if both the items are quoted by the same vendor. However, vendors can quote for individual items also for Sr.No1(a-m) & Sr No2. In case the final order of the two items (AWS & Display) are placed on different vendors, it shall be the responsibility of both the vendors to extend support to ensure the compatibility and interconnectivity of both AWS and the display unit so that the data from the AWS is streamed successfully onto the display unit as per WHIG requirement.
- 21 **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 Their Office Memorandum no. F.9/4/2020-PPD dated 12-11-2020 (A copy of the Format is enclosed as annexure-3)
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 86000.00 (Eighty six Thousand only) or its equivalent foreign currency. **The EMD must be submitted with the 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
- 22 Bidders vide order (Public Procurement No1 from F.No.6/18/2019-PPD Dated 23-07-2020, from Public Procurement Division Department of Expenditure Ministry of Finance, any bidder from a Country which shares a land border with India will be eligible to bid in any procurement whether of goods or services including (consultancy and Non consultancy services) or works (including turnkey project) only if the bidder is registered with competent authority, as specified in Annexure-1. therein.
- 23 **During the Technical evaluation if,** any clarification is required, bidders will have to provide clarification within stipulated period of time failing which the bid will not be considered further.
24. **Résolution of Disputes:** All désagréements, disputes, différence that may arise between the 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 or International Law as the case may be. The venue of the proceedings and arbitration shall be Dehradun, INDIA.

- 25 Amendment (s) in the tender documents required if any, will be made available , In our Web site and accordingly the prospective bidders are required to keep themselves updated till four days of tender opening.
- 26 The Director Wadia Institute of Himalayan Geology DehraDun (India) reserves the right to reject any or all tenders without assigning reasons there of .

Yours faithfully


28/3/21
(M.K Biswas)

Store & Purchase Officer, for Director

ANNEXURE - I

	Qty	
<p>The environmental & meteorological station will consist following sets of sensors/instruments within a 4x4 meter fencing with a multi-channel data logging system. The whole system will be setup at WIHG, campus Dehradun at suitable site.</p>		
<p>Following are the list of sensors to be installed at WIHG campus with detailed specifications.</p>		
<p>Air temperature-Relative humidity sensor (AT-RH):</p>		
<p>1.(a)</p>	<p>AT sensor: Digital Sensor; Accuracy: $\pm 0.5^{\circ}\text{C}$ Temperature range: -5° to $+45^{\circ}\text{C}$; Output resolution: two decimal places. RH sensor: Accuracy: $\pm 2\%$; Range: 0 to 99%; Output resolution: two decimal places.</p>	1
<p>Wind speed and wind direction sensors:</p>		
<p>(b)</p>	<p>WS: Sensor type: Anemometer, 3-cup rotor; Accuracy: $\pm 5\%$; Range: 0.1 to 60ms^{-1}; Output resolution: two decimal places WD: Range: 0-360$^{\circ}$; Resolution: 1$^{\circ}$; Accuracy: $\pm 5\%$</p>	1
<p>Rain Gauge</p>		
<p>(c)</p>	<p>Sensor type: Tipping bucket/ reed switch; Range: 100mm/hr Accuracy: $\pm 0.5\text{mm}$</p>	1
<p>Solar Radiation Sensor (Pyrometer)</p>		
<p>(d)</p>	<p>Radiation range: 0 to 2000Wm^{-2} Accuracy: $\pm 5\%$;</p>	1
<p>Operating Temperature: -5° to $+45^{\circ}\text{C}$; Humidity: 0 to 99%</p>		
<p>(e)</p>	<p>CO Sensor Detection limit: $\pm 0.5\text{ppm}$; Range: 0 to 1,000ppm</p>	1
<p>O₃ Sensor Measurement range: 0 to 20ppm; Response time: < 15 seconds;</p>		
<p>(f)</p>	<p>Operating humidity range: 0-99%RH; Operating Temp: -5° to $+45^{\circ}\text{C}$</p>	1
<p>NO₂ Sensor Range: 0-20ppm; Operating humidity range: 0 to 99%RH; Operating Temp: -5° to $+45^{\circ}\text{C}$</p>		
<p>(g)</p>		1
<p>SO₂ Resolution: < 20ppb; Range: 0 to 20ppm; Response time: < 15 Seconds; Operating humidity: 0 to 99%; Operating Temp: -5° to $+45^{\circ}\text{C}$</p>		
<p>(h)</p>		1
<p>PM_{2.5} Sensor Mass concentration range: 1 to $1000\mu\text{g}/\text{m}^3$; Mass concentration resolution: $1\mu\text{g}/\text{m}^3$; Operating humidity: 0 to 99%; Operating Temp: -5° to $+45^{\circ}\text{C}$</p>		
<p>(i)</p>		1
<p>PM₁₀ Sensor</p>		
<p>(j)</p>	<p>Mass concentration range: 1 to $1000\mu\text{g}/\text{m}^3$; range: Mass concentration resolution: $1\mu\text{g}/\text{m}^3$; Operating humidity: 0 to 99%; Operating Temp: -5° to $+45^{\circ}\text{C}$</p>	1
<p>Data logger:</p>		
<p>(k)</p>	<p>Multi-channel data logger (at least 15 channels); Data Transmission: Dual mode (GPRS/ GSM telemetry option); Remote monitoring applications: Enabled; The Data logger must have data storage capacity for a period of at least 1 year or more and data logging at 1/2 hour interval or less. The output data should be generated in .xls and .csv format. Software should be capable to generate the output data on 30minutes, hourly, daily, monthly, and yearly basis.</p>	1
<p>Power supply system and other accessories:</p>		
<p>(l)</p>	<p>Solar panel: 40watt; Battery: 12volt, 72ah (with battery box) and solar charge regulator. Power supply system should be robust enough to provide continuous at least 15-day power to the equipments in cloudy days. There must be proper Earthing to protect the whole system from lightning.</p>	1

(2)

Outdoor display unit (LED Wall) (Samsung/LG/Sony/Panasonic) (with cables and connectors and all other requisite accessories)

Following are the Viewing Data:

Date: **88.88.88**

Time: **88.88**

Air Temperature: **88.88**

RH: **88.88**

Wind Speed: **88.88**

Wind Direction: **888**

Rainfall: **88.88**

Sunshine Hours: **88.88**

So2: **88.88**

No2: **88.88**

Co: **88.88**

O3: **88.88**

PM2.5: **88.88**

PM 10: **88.88**

AQI: **888**

Screen size: 10ft x 10ft; Technology: SMD3in 1; Resolution: 430 x 430 pixel or better; Life: > 8,000,00 Hours; Operating Temperature: -10 to +45; Each character size : =>4 inches; Viewing Angle: H160xV120 (or better), Connectivity: Gigabit Ethernet and preferably with additional Wi-Fi option.

Terms & Conditions:

1. A 5 meter mast will be provided and installed by the vendor. The supplier will complete the installation and commissioning (including civil work as per WIHG requirement). The AWS mast foundation should be at least 3 ft x3 ft deep for ground or roof with cement concrete mixed with 1:1½:3 grade concrete and appropriate tensioning wire support from the storm.
2. All the required sensors and display unit (LED Wall) should be quoted with minimum **two years comprehensive onsite warranty**. Vendor must also quote for per year AMC rates which shall be charged thereafter for post-warranty period (**The rates should be valid for a minimum of 3 years after the warranty expiry**). The vendor will be responsible for the compatibility and commissioning of all the sensors and parts as one complete system.
3. The supplier will consider the project as turnkey and complete the installation (including civil, mounting and cabling work), programming, demonstration, training, and commissioning work as per the WIHG requirement.
4. The AWS and display unit should be compatible to display environmental & meteorological parameters in real time as well as other server based data/ programs available within the campus and as required by WIHG.
5. Proper connectivity and canopy to be arranged by the supplier for display unit. All the required sensors to be interconnected with display unit and programmed with cable and wireless connectivity.
6. Before bidding for the AWS and the display unit, the vendor may visit the institute on any working days (from 9:30 am to 5:00 pm) to assess the site and civil work.

Compliance Statement ANNEXURE-2

	The environmental & meteorological station will consist following sets of sensors/instruments within a 4×4 meter fencing with a multi-channel data logging system. The whole system will be setup at WIHG, campus Dehradun at suitable site.	Qty	Comply
	Following are the list of sensors to be installed at WIHG campus with detailed specifications.		
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(b)	<p>Wind speed and wind direction sensors: WS: Sensor type: Anemometer, 3-cup rotor; Accuracy: $\pm 5\%$; Range: 0.1 to 60ms^{-1}; Output resolution: two decimal places WD: Range: $0-360^{\circ}$; Resolution: 1°; Accuracy: $\pm 5\%$</p>	1	
(c)	<p>Rain Gauge Sensor type: Tipping bucket/ reed switch; Range: 100mm/hr Accuracy: $\pm 0.5\text{mm}$</p>	1	
(d)	<p>Solar Radiation Sensor (Pyrometer) Radiation range: 0 to 2000Wm^{-2} Accuracy: $\pm 5\%$;</p>	1	
(e)	<p>Operating Temperature: -5° to $+45^{\circ}\text{C}$; Humidity: 0 to 99% CO Sensor Detection limit: $\pm 0.5\text{ppm}$; Range: 0 to $1,000\text{ppm}$</p>	1	
(f)	<p>O₃ Sensor Measurement range: 0 to 20ppm; Response time: < 15 seconds; Operating humidity range: $0-99\%\text{RH}$; Operating Temp: -5° to $+45^{\circ}\text{C}$</p>	1	
(g)	<p>NO₂ Sensor Range: $0-20\text{ppm}$; Operating humidity range: 0 to $99\%\text{RH}$; Operating Temp: -5° to $+45^{\circ}\text{C}$</p>	1	
(h)	<p>SO₂ Resolution: $< 20\text{ppb}$; Range: 0 to 20ppm; Response time: < 15 Seconds; Operating humidity: 0 to 99%; Operating Temp: -5° to $+45^{\circ}\text{C}$</p>	1	
(i)	<p>PM_{2.5} Sensor Mass concentration range: 1 to $1000\mu\text{g}/\text{m}^3$; Mass concentration resolution: $1\mu\text{g}/\text{m}^3$; Operating humidity: 0 to 99%; Operating Temp: -5° to $+45^{\circ}\text{C}$</p>	1	
(j)	<p>PM₁₀ Sensor Mass concentration range: 1 to $1000\mu\text{g}/\text{m}^3$; range: Mass concentration resolution: $1\mu\text{g}/\text{m}^3$; Operating humidity: 0 to 99%; Operating Temp: -5° to $+45^{\circ}\text{C}$</p>	1	
(k)	<p>Data logger: Multi-channel data logger (at least 15 channels); Data Transmission: Dual mode (GPRS/ GSM telemetry option); Remote monitoring applications: Enabled; The Data logger must have data storage capacity for a period of at least 1 year or more and data logging at 1/2 hour interval or less. The output data should be generated in .xls and .csv format. Software should be capable to generate the output data on 30minutes, hourly, daily, monthly, and yearly basis.</p>	1	
(l)	<p>Power supply system and other accessories: Solar panel: 40watt; Battery: 12volt, 72ah (with battery box) and solar charge regulator. Power supply system should be robust enough to provide continuous at least 15-day</p>	1	

Handwritten signature

Compliance Statement ANNEXURE-2

power to the equipments in cloudy days. There must be proper Earthing to protect the whole system from lightning.

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Outdoor display unit (LED Wall) (Samsung/LG/Sony/Panasonic) (with cables and connectors and all other requisite accessories)

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Screen size: 10ft x 10ft; Technology: SMD3in 1; Resolution: 430 x 430 pixel or better; Life: > 8,000,00 Hours; Operating Temperature: -10 to +45; Each character size : =>4 inches; Viewing Angle: H160xV120 (or better), Connectivity: Gigabit Ethernet and preferably with additional Wi-Fi option.

Terms & Conditions:

1. A 5 meter mast will be provided and installed by the vendor. The supplier will complete the installation and commissioning (including civil work as per WIHG requirement). The AWS mast foundation should be at least 3 ft x3 ft deep for ground or roof with cement concrete mixed with 1:1½:3 grade concrete and appropriate tensioning wire support from the storm.

2. All the required sensors and display unit (LED Wall) should be quoted with minimum **two years comprehensive onsite warranty**. Vendor must also quote for per year AMC rates which shall be charged thereafter for post-warranty period (**The rates should be valid for a minimum of 3 years after the warranty expiry**). The vendor will be responsible for the compatibility and commissioning of all the sensors and parts as one complete system.

3. The supplier will consider the project as turnkey and complete the installation (including civil, mounting and cabling work), programming, demonstration, training, and commissioning work as per the WIHG requirement.

4. The AWS and display unit should be compatible to display environmental & meteorological parameters in real time as well as other server based data/ programs available within the campus and as required by WIHG.

Compliance Statement ANNEXURE-2

<p>5. Proper connectivity and canopy to be arranged by the supplier for display unit. All the required sensors to be interconnected with display unit and programmed with cable and wireless connectivity.</p> <p>6. Before bidding for the AWS and the display unit, the vendor may visit the institute on any working days (from 9:30 am to 5:00 pm) to assess the site and civil work.</p>		
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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 contact, 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: