

**TENDER DOCUMENT FOR
6 AUTOMATIC WEATHER STATIONS (AWS) AND
TWO DATA RECEPTION FACILITY**

जनवरी /JANUARY 2020

**भारत सरकार/Government of India
अंतरिक्ष विभाग/Department of Space
उत्तर-पूर्वी अंतरिक्ष उपयोग केंद्र/North Eastern Space Applications Centre
उमियम/Umiam-793103, मेघालय/Meghalaya**

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निविदा आमंत्रण सूचना / NOTICE INVITING TENDER

निदेशक एनई ठेकेदारों आदि, फर्मों, प्रतिष्ठित सेवा प्रदाताओं, सैक उमियम मेघालय-से निम्नलिखित के लिए दो बोली में मोहरबंद प्रस्तावों को आमंत्रित करते हैं/Director, NESAC, Umiyam, Meghalaya invites sealed offers in two bids from reputed Service Providers, Firms, Contractors etc for the following

एनआईटी सं. / NIT No.	कार्य का नाम / NAME OF THE WORK	इएमडी(₹) डीडी के रूप में / EMD (₹) IN THE FORM OF DD	निविदा शुल्क / TENDER FEE (₹)
NESAC/1257/2020	6 Automatic Weather Stations (AWS) with dual (simultaneous via INSAT and GSM/GPRS network) data transmission facility and two data reception facility with necessary software to receive the data from the AWSs	₹ 40,000/-	₹ 280/-

निविदा दस्तावेजों के विक्रय का दिनांक / Dates for selling of tender documents: 30.01.2021 to 26.02.2021

निविदा दस्तावेजों को जमा करने की अन्तिम तिथि व समय / Last date & Time for submission of tender documents: 26.02.2021 upto 1330 Hrs.

निविदा खोलने की तिथि, समय व स्थान / Date, Time & Venue of Bid Opening: 26.02.2021 at 1530 Hrs at एनईसैक, उमियम/ NESAC, UMIAM

Instructions to Tenderers:

1. For full details and terms and conditions etc., please see the enclosed Annexures.
2. Tender documents can be obtained from the Sr. Administrative Officer, NESAC, Umiyam.
3. Tender Fee shall be paid in form of CROSSED Demand Draft only. The Demand Draft should be in favor of Director, NESAC drawn on State Bank of India, Umiyam (branch Code 2010). The Tender Fee is NON-REFUNDABLE. Your request letter along with Tender Fee may be addressed to the Sr. Administrative Officer as indicated above.
4. Interested tenderers may, at their option, download the tender documents from the NESAC website www.nesac.gov.in and submit the Tender Document along with the prescribed tender fee as per details given in the tender notification.
5. While requesting for Tender Documents, please superscribe on the cover as "Request for Tender document against Tender Notice No. **NESAC/1257/2020**
6. Tender Document received after the due date/time will not be considered.
7. While sending sealed quotation/offer superscribed respective Tender Number and Due Date on the envelope.
8. NESAC, UMIAM is not responsible for any postal delays/loss of documents in transit.
9. If the date specified for submission/opening of tenders is declared as a holiday abruptly, the due date for submission/opening of the tenders in such cases shall be postponed automatically to the next working day.
10. Director, NESAC reserves the right to accept or reject any/or all the quotations/Expression of Interest in part or full.
11. **All pages forming part of the tender documents should be duly signed, stamped and submitted to NESAC. Pages not signed and stamped will be considered invalid and rejected.**

Dated: 28.01.2021

Sd/-
निदेशक, एनईसैक / Director NESAC

TECHNICAL SPECIFICATIONS

1.0 GENERAL:

The tender is to set up a network of Automatic Weather Stations (AWS) consisting of 06 (six) numbers of AWSs (each with rain gauge, temperature sensor, and humidity sensor) with dual data transmission system (simultaneously for the INSAT Satellite based and GSM/GPRS based) and two central data receiving and archiving system. As per requirement, AWSs shall be installed at the sites assigned by NESAC (purchaser) in the Kopili Hydro-Electric Plant (KHEP) catchment area operated by NEEPCO (North East Electric Power Corporation) covering Meghalaya (Jaintia Hills districts) and Assam (part of southern Assam). Each AWS shall have data logger to log the measured data from the sensor and dual communication system, viz. INSAT satellite based and GSM/GPRS modem based. The GSM/GPRS data shall be transmitted to NESAC and NEEPCO Project Control Centre, KHEP, Meghalaya and the satellite data shall be received under the national ISRO AWS network with data reception facility at Space Applications Centre (SAC), Ahmedabad.

It shall have Sealed Maintenance Free (SMF) rechargeable battery which will be charged through solar panel using solar battery charger. All electronics protected in NMEA-4 enclosure and rain sensor to be installed preferably on the same tripod stand/ mast hosting the data logger and other accessories. The rain sensor may also be placed at a distance from the tripod stand/ mast. Sensors readings taken and stored into its non-volatile data flash memory of data logger with real time clock based time stamp, referenced using a NAVIC /GPS receiver. At the GSM / GPRS data reception facility, Network Management Software shall be installed by the vendor to receive the GSM/GPRS data from AWS stations and the same is archived after analysis.

The Technical Specifications consists of the installation of the real time data acquisition system for KHEP includes the Design, Supply, Installation, Testing, Commissioning, Training and Documentation, Operationalisation and Maintenance of AWS with network during warranty period of three years.

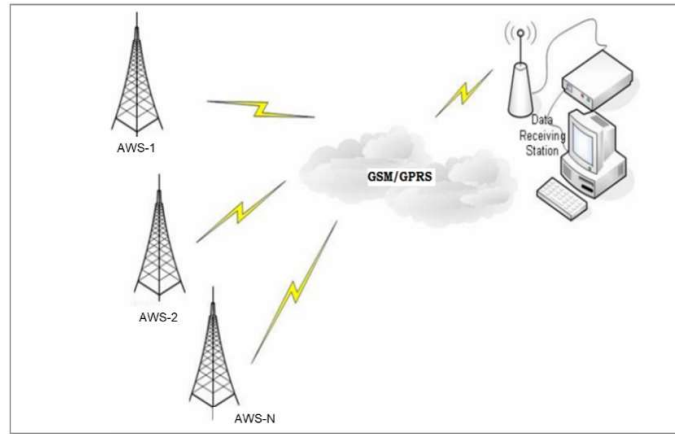


Fig 1: The proposed AWS network architecture

2.0 SCOPE OF WORK:

The following basic principles have been applied to the design of the real time weather data acquisition system network for the project.

- i. Complete supply, installation, testing, commissioning of AWS system consisting of Rain gauge equipment, Temperature and Humidity sensors, Data logger, software, hardware and ancillaries' equipment, Solar panel, mounting stand/ mast, Battery, Battery Charging Unit, INSAT Satellite Transmitter, GSM/GPRS modems and accessories, weatherproof self-contained enclosure, lightning arresters, connecting cables, etc. This includes, but is not limited to acquiring service, and maintaining all aspects of the service during the warranty period.
- ii. The AWS shall carry out in-situ measurements of local ambient temperature, relative humidity and rainfall at user defined time interval. The mounting stand/ mast for AWS instruments shall be of Aluminium / Stainless Steel material to withstand in extreme harsh climate.
- iii. The data transmission using the INSAT series of satellite shall be done as per the existing ISRO AWS network protocol. The station ID and frequency and other technical details for the transmission shall be provided by NESAC. The system shall be fully compatible with the existing ISRO AWS network in terms of data transmission protocols.
- iv. Installation of all the AWS field units at each respective site assigned by NEEPCO in the catchment area of Kopili Hydro-Electric Plant (KHEP), Meghalaya. NEEPCO shall provide the land for installation of the AWSs. The Bidder should first transport the material to the Project Office, KHEP, NEEPCO Ltd., Meghalaya. The AWS shall then be transported to the respective installation site by the bidder. The AWS will be installed as per the World Meteorological Organization (WMO) guidelines.
- v. AWS should have built-in GSM/GPRS telemetry system with required SIM (it should support both 3G and 4G SIM) support with reconfigurable reporting rates for data transmission to corresponding AWS data reception centres.

- vi. Installation of GSM/GPRS data receiving station/system at the identified server/workstations at NESAC, Umiam, Meghalaya and Project Control centre, KHEP, Meghalaya. The data format for the received AWS data packet should be in *.csv format.
- vii. Bidder is responsible for interfaces between the sensors and transmission equipment etc., and trouble free operation of system.
- viii. Supply on-site spares to repair any part of the stations upon determination of malfunction or failure. This includes, but is not limited to, data logger, sensors, batteries, solar panel and other accessories etc. required in seamless operation of the real time data acquisition system.
- ix. Supply detailed operation and maintenance manual for each component in the system and complete Knowledge and working supply type Manual for training purpose (including multimedia training kits).
- x. Provide classroom and field training to sufficient number of project personnel on the data acquisition system. This includes operation and maintenance procedures. The field training will be provided at the installed AWS location of KHEP. This includes start up, operation, maintenance and/or repair of the supplied goods. Training will cover sensor calibration, data logger configuration, data downloading, data retrieval, collection, Trouble shooting, processing maintenance requirements and procedure for equipment configuration, installation, site testing and commissioning including training kit containing course material in soft and hard copies.
- xi. It shall be the responsibility of the vendor to ensure that all the AWSs are integrated to the ISRO AWS network and the data transmitted by these AWSs using the satellite channel is successfully received at MOSDAC (Meteorological and Oceanographic Scientific Data Archival Centre) located at Space Applications Centre (SAC), Ahmedabad. NESAC shall only provide the station ID, Tx time, and satellite locations, and any relevant technical information required by the vendor.
- xii. The AWSs shall not be accepted if the data is not successfully received at MOSDAC (through the satellite channel) and at NESAC/KHEP through the GSM/GPRS network simultaneously for a period of seven days consistently after the installation.
- xiii. The data loss through any of the channel (satellite as well as GSM/GPRS) shall not be more than 5%.
- xiv. Onsite Calibration of the installed system as per IMD protocol shall continue during the entire Warranty period.

3.0 WARRANTY:

- i. The bidder shall provide on-site comprehensive warranty for three (03) years from the date of acceptance of all the 6 AWS stations including all components, and associated telemetry (GSM/GPRS & Satellite) services.

- ii. The Supplier warrants that all the Goods are new, unused, and of the latest operational models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- iii. The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.
- iv. During the warranty period, the equipment should be repaired / replaced within seven (07) days of reporting of the defect. The vendor shall consequently keep necessary critical spares to meet this requirement.
- v. It will be the responsibility of the vendor to ensure that an AWS is made fully operational within the 7 days from reporting of the defect.
- vi. If having been notified, the Supplier fails to rectify the defect within seven days during the warranty period, the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.
- vii. The supplier should be fully responsible for the manufacturer's warranty for all equipment, accessories, spare parts etc. against any defects arising from design, material, manufacturing, workmanship, or any act or omission of the manufacturer / vendor or any defect that may develop under normal use of supplied equipment during the warranty period.
- viii. The bidder/ supplier shall submit certificate from OEM ensuring that adequate regular supply of spare parts for a minimum period of 3 years after expiry of the warranty period whether under their annual maintenance and repairs rate contract or otherwise.

4.0 ADDITIONAL CONDITIONS DURING WARRANTY:

- i. The Contractor shall make suitable arrangement to ensure that it's representative mandatorily visit each station once in a six month during the entire warranty period for preventive maintenance apart from visits during malfunction of equipment(s) / errors and submit a certified report of matching telemetry data with the manual data.

5.0 GENERAL FEATURES/ SPECIFICATIONS:

- i. The specifications provided here are minimum specifications required. The supplier may quote for a higher version; however no additional weightage shall be given to higher versions of AWS.
- ii. It shall be the Suppliers responsibility to ensure that the installation is robust and shall continue to work in extreme weather conditions.

- iii. The sensors and all accessories and facilities shall be fully compatible with the data acquisition and transmission system. The sensors and Data Collection Platform's shall form a complete automated data acquisition, storage and transmission system.
 - iv. The Bidder shall enclose technical literature with photograph in respect of all the sensors being quoted. The features which are mentioned in the literature but are not being quoted as a part of the current system shall be clearly brought out in the bid. In the event of failure of the Bidder to explicitly mention any such exclusion, it shall be taken as inclusion of all features mentioned in the bid as a part of the supply and the Bidder shall have to provide all such features/ accessories without claim of extra cost to the purchaser.
 - v. Although all accessories and fixtures required for installation of the equipment & their specifications have been specified in technical specifications, however, bidder shall ensure the satisfactory performance & functioning of the complete system, for this if any accessory or item(s) are required that shall be provided by bidder, the cost towards that deemed to be included in the cost tendered by the bidder, no extra cost shall be paid to the bidder on this account.
 - vi. Bidders shall give general layout of all the installations including all civil works for types of stations and materials including that for the equipment at the time of bidding. Afterwards, the successful Bidder shall furnish the details of all the mounting arrangements including civil drawings. Bidder to follow the Indian Standard codes of practice for all mounting arrangements.
 - vii. AWS shall also include an integrated NAVIC/GPS receiver to synchronize the data logger time with NAVIC/GPS provided UTC time, once daily.
 - viii. The bidder must configure the server/workstation (a part of GSM/GPRS reception system) for data acquisition to archive data in user defined format i.e. *.csv / *.txt format which is common for both the telemetry systems for further processing & archival.
 - ix. All fixings shall be non-corrodible.
 - x. The Bidder has to specify how the calibration will be carried out and has to use his own calibration equipment during the period of warranty.
 - xi. The implementation plan i.e the delivery and installation and commissioning schedule to be proposed by the bidder shall not exceed more than **02 (two)** months from the date of placement of the purchase order.
 - xii. The responsibility of safe transportation and delivery of the total system to the site rests on the vendor which includes:
 - Transportation from factory to the site and as per Clause No. 2.0 (iv) above.
 - Loading/unloading wherever applicable during transportation.
 - Transit insurance.
- All expenditures for above activities shall be borne by the vendor.

6.0 AUTOMATIC WEATHER STATIONS (AWS):

The Automatic Weather Stations (AWS) shall be equipped with all necessary equipment's and peripherals including the following

- i. Data Collection Platform (DCP) mounted inside an enclosure which will house the following items.
 - Data Logger with INSAT, GSM/GPRS Transmitter with built-in display.
 - Battery for power requirements.
 - Pre-wiring and configuration.
 - Solar panel charger regulator.
 - Antenna (for INSAT communication, NAVIC/GPS receiver, and GSM/GPRS), all cables, mounting hardware & all associated equipment.
- ii. Installation of Rainfall, Ambient Temperature and Relative Humidity sensors with all fittings, accessories and cables.
- iii. Stand/ mast to mount DCP at the site & required sensors as per WMO guidelines for meteorological equipment's. (provided locally by the Bidder)
- iv. Power cables with conduits.
- v. Grounding and lightning protection (provided locally by the Bidder)
- vi. All necessary hardware required for the system to operate properly.
- vii. The installation of sensors should be made as per WMO guidelines at standard height.

7.0 TELEMETRY:

The data communications must be employed simultaneously for the INSAT series of satellite (compatible with ISRO AWS Network) and GPRS/GSM network in 3G and 4G.

Recurring charges of SIM card will be paid by NESAC/NEEPCO. SIM card to be purchased by the bidder. Necessary authorisation shall be given by the purchaser.

8.0 TECHNICAL SPECIFICATIONS:

8.1. General Technical Specifications and specifications of the sensors.

Feature	Value
Site Conditions	
Ambient Temperature	-5 to 50 °C
Humidity	0 to 100%
Altitude	0 to 2000 m

Temperature sensor	
Sensor Type	Precision RTD
Range	-5 to 50 °C
Resolution	± 0.1 °C
Accuracy	Within ±0.2 °C in the entire working range
Response Time	10 sec or better
Relative Humidity Sensor	
Sensor Type	Capacitive/Solid State Humidity Sensor
Range	0 to 100% RH
Accuracy	± 2% RH
Resolution	1% or better
Response Time	10 sec or better
General	
Self-aspirated	To ensure continuous supply of air. Free from turbulence, water droplets and radiation
Power Supply	To be powered by solar power provided by bidder
Accessories	All accessories for mounting the instrument at ~1.5mts height above the ground level. e.g. special cross arm clamps or flag, if any shall be provided
Automatic Rain Gauge	
Sensor	
Sensor Type	Tipping Bucket type with Hall Effect / Reed switch Pickup
Orifice diameter	Shall be 200 mm (approx.)
Range	0 to 300 mm/h
Resolution	0.2 mm
Accuracy	±2% at 25 mm/hr.
General	
Power Supply	To be powered by Solar Panel provided by bidder with DCP.
Material	Corrosion Resistance Metal (Stainless steel/ Anodized Aluminium)
Internal Parts	Engineering Plastic, SS316L, Chrome Plated Brass
Levelling	Suitable levelling adjustment screws and circular spirit level must be provided on the base of TBRG for levelling the Tipping bucket Mechanism.
Enclosure	NEMA 4/ IP65 or better (vertical installation)
Tools	Complete tool kit for operation and routine maintenance.
Manuals	Full Documentation and maintenance manual in English.
Accessories	Sensor mounting support, cables and other accessories as required.
Certification	IMD/WMO certification shall be provided.
Note:	
Bidder shall provide spout filter and bird cage to prevent ingress of insects and debris.	

8.2. DATA LOGGER:

- (i) The data logger should support data transmission via GSM/GPRS and Satellite (under the ISRO AWS network using INSAT series of satellites). Both telemetry systems should work simultaneously for redundancy without any interference.
- (ii) In case of temporary absence of GPRS/GSM network, the data logger functionality should not be disturbed anyway while the device continuously searches for the GSM/GPRS network. In such scenario (when network of GSM/GPRS is absent), the data logger should continue to collect and store data as per schedule, and transmit the data via the satellite (INSAT) channel.
- (iii) It should have menu driven status monitoring and settings to enable.
 - a) View connected sensor data onsite.
 - b) View real time data and past records onsite.
 - c) Take data backup in USB drives onsite.
 - d) View station ID/Net Transmit Time/ System Health, etc.
 - e) View system clock onsite.
 - f) Sensor Measurement/Auto Transmission as scheduled by User.
- (iv) The data logger should support minimum 8 uni-polar channels or 4 bi-polar channels (passive transducers) or mixed-up
- (v) It should have one Serial Port (RS-232) or LAN port (RJ45) or similar port for communication with laptop for programming.
- (vi) Data sampling rate: User selectable from 1 second to 24 hours.
- (vii) Should support individual recording intervals for different sensor/parameter connected.
- (viii) Firmware Operating System: Multi-tasking operating system - must log data and transmit at the same time.
- (ix) Internal memory of the data logger including the extended data storage should be sufficient to store minimum of two year's data (with eight sensors connected and collecting data at 1-minute interval).
- (x) If internal memory is full, it should overwrite the data. While overwriting, it should delete the oldest data and store the current data.
- (xi) The data logger should operate with 12 V power supply.
- (xii) Internal battery backup for clock: Lithium-ion Battery with life of 2 years.
- (xiii) The data logger shall have adequate access restrictions meant for authorized personnel only.

- (xiv) Shall receive time synchronization with NAVIC/GPS time (UTC/GMT time) through a NAVIC/GPS receiver connected to the data logger. The time synchronization should happen automatically, at least once in 24 hours.
- (xv) Should have a LED Display with Graphical dot matrix of minimum 122 × 32 pixels or LCD Display of minimum 16 x 2 Alphanumeric display.
- (xvi) Should have separate key for navigation of menu and for other functions.
- (xvii) Should have at least one USB 3.0 Compatible host for data back-up in USB Memory Stick.
- (xviii) Sensor Interface: 8 × Sensor Channels, 4 × Sensor Power Control.
- (xix) Operating Temperature Range: -5° to +50°C.
- (xx) Battery-Backed SRAM: Minimum 4 MB.
- (xxi) The data logger software shall be compatible to Microsoft Windows 10 operating system with all required licenses.
- (xxii) The SMS/GPRS packet generated by the system shall contain information about the time of origin of the SMS/GPRS packet and system health including battery voltage, in addition to data from all the sensors connected and station ID.
- (xxiii) Necessary accessories: Serial cable + adaptor (if required) for notebook connection shall be provided.

8.3. GSM & GPRS MODEM:

- (i) Shall have embedded HTTP/FTP/TCP/UDP Protocol.
- (ii) Shall be compatible with standard 3G and 4G GSM network of all reputed national operator.
- (iii) Shall be compatible with the data logger proposed by the vendor.
- (iv) Shall have ISO 16759 qualification.
- (v) Shall have GSM/GPRS functionality scalable to customer needs.
- (vi) The modem/software in the data logger shall be configurable to send SMS/GPRS packets to the central reception facility at a user defined interval ranging from 1 second to 24 hours.
- (vii) The modem configuration shall ensure that no data is missed. The modem or the data logger should send data in packets (GPRS) at pre-defined interval. In case of non-availability of mobile network during its schedule transmission time, the data will be transmitted as and when mobile network is available. In such cases, all the data that has not been transmitted till any particular time, shall be transmitted once mobile network is available.

8.4. UHF SATELLITE TRANSMITTER:

- a) Operating temperature: -5 to 50 °C
- b) Career Frequency: 402-403 MHz.
- c) Output Power: 3-10 Watt user settable
- d) Output Connector: N type (Female).
- e) Signal Bandwidth: 6.5 KHz maximum or better
- f) Spurious Level: -60dB or better.
- g) Harmonics: -40dB or better.
- h) Antenna cable: LMR 400 grade or better.
- i) Performance: Data Reception availability of 99% or better.
- j) Working principle: TDMA (Time Division Multiple Access)
- k) Shall be compatible with national ISRO AWS network specifications.

8.5. YAGI ANTENNA:

- a) High gain, minimum 11 dbi or better.
- b) Polarization: LHCP or RHCP, switchable in field
- c) Impedance: 50 Ohms.
- d) Centre Frequency: 402-403 MHz.
- e) Wind Survival: 110 kmph.
- f) Operating temperature: -5 to 50 °C
- g) Material: Rust-proof and Oxidation-proof.
- h) Satellite System: INSAT Radio System to be Used on the INSAT Satellite operated by ISRO.
- i) Accessories: All associated equipment, mounting kits, mounting base, cable assembly etc.

8.6. NAVIC/GPS RECEIVER:

- a) Sensitivity: - 165 dBm or better
- b) Power Consumption: less than 100 mW @ 3.0V
- c) Synchronize with Real Time Clock (RTC): Shall be configurable from 1 hour to 24 hour
- d) Position Details: Shall capture latitude, longitude, and altitude.
- e) Shall provide time synchronization to the data logger.

8.7. SOLAR PANEL AND BATTERY:

- (i) Solar panel of minimum 50W or more to fully charge a 90 AH battery in 4-5 hours of sun light, shall be connected with the battery charger. The vendor shall provide a calculation sheet to demonstrate the same.
- (ii) A sealed maintenance free (SMF) battery of minimum 90 Ah (12 V) of reputed national brand shall be used to power the system.
- (iii) The system shall have a battery charger of proper rating to charge the battery through the solar panel.
- (iv) The system shall have photovoltaic battery charge controller for protection of battery from over charging.
- (v) All fixing devices required to fix the solar panel to the tower/mast shall be provided by the vendor.

8.8. ENCLOSURE:

- a) Minimum 12" x 14" enclosure suitable for data logger with a power supply and one or more peripherals.
- b) IP66 or better Enclosures.
- c) Non Corrosive, white with UV stabilized material.
- d) Should have cable entry options and one sealable conduit.
- e) Fully water proof for heavy precipitation area.

8.9. SITE PREPARATION AND CIVIL WORK:

The AWS stand / mast shall be installed on a strong concrete foundation. Necessary civil work for installation of equipment at sites shall be done by NESAC/NEEPCO. The vendor shall provide all necessary civil design along with the tender. The Bidder shall depute qualified technical personnel for proper inspection & supervision of the civil work.

The Data logger, GSM modem, Battery, Battery Charger etc. shall be enclosed in a single weatherproof enclosure. This enclosure, Temperature and Humidity sensor, and Rain Gauge will then be hooked onto a stand/ mast, buried in the concrete foundation. The necessary mounting hardware to mount the enclosure and Rain Gauge on the tripod stand/ mast shall be supplied by the vendor. The Solar panel and GSM Antenna shall be mounted on the same stand/ mast.

8.10. INSTRUMENT STAND/ MAST ASSEMBLY:

The instrument stand/ mast should be of Aluminium / Stainless Steel with minimum 3.0m height. The mast diameter should be minimum 50mm. All the accessories including the rain gauge shall be fitted in the stand/ mast. If the vendor proposes to install the rain gauge separately from the stand/ mast, the whole system shall be installed in a 2.5m X 2.5m area. All accessories / tools for mast mounting must be able to resist a wind speed of 110 km/hour.

8.11. LIGHTNING PROTECTION:

The entire unit has to be adequately protected against lightning and build of static charges. The lightning rod should protrude 1 m above the highest point (Antenna) and should be placed in the centre of the stand/ mast. The stand/ mast should be electrically grounded by following as per CPWD earthing procedures. As a part of the maintenance, the earthing equipment shall be inspected on a yearly basis for its conductivity and effectiveness. Such inspection shall be carried out in the pre-monsoon period and any faults noticed shall be rectified.

8.12. EARTHING FOR EQUIPMENT:

The electrical grounding for all other electronic and electrical equipment should be done by following standard CPWD procedure. The earthing for the equipment should be done separately and should have a minimum distance of 2.5 meter from the earthing done for lightning rod. In no case both the earths should be done in the same earthing rod.

8.13. NETWORK MANAGEMENT SOFTWARE:

A Network Management Software (NMS) shall be provided by the vendor to maintain individual station wise data which are connected with NMS through GSM/GPRS network. The system shall include demodulator of proper specifications to receive and demodulate the SMS/GPRS packets received from different stations. The objective of the NMS software is to provide the real time data reception, processing, visualization and dissemination in user specified format. The software shall have the following features:

- I. The NMS software required for real time monitoring of all the weather parameters with/over telemetry link and complete operationalisation of the system shall be compatible with Microsoft Windows 10 operating system with all required licenses.
- II. Two laptops of any reputed brand (Make: DELL / Lenovo / HP / IBM) with Intel i7 8th Generation or better Processor, 6 GB RAM, 256 GB SSD hard disk + 1 TB Hard Disk, Windows 10 professional OS, 14" Display Full HD Resolution 1920-1080, 2 USB port, 1 HDMI port, Battery Backup of 6 hrs or better, light weight) for data processing should be provided at NESAC and at Project Control Centre, KHEP, Meghalaya. The laptop shall be pre-installed with the data reception software.

- III. The NMS shall run automatically 24X7 and perform all its activities without any human interface.
- IV. The NMS shall receive the RAW data in real time through GSM/GPRS link from remote stations installed in the field and store the raw data in the RAW files for further processing.
- V. It shall have the facility to view the station wise data in tabular format and graphical format for the stations and time selected and export data into Text and Excel (CSV) files format in real time.
- VI. the software shall have provision for future upgrading with induction of newer technologies
- VII. The NMS shall have adequate redundancy and ensure uninterrupted data processing in the event of any possible single point failures.
- VIII. The NMS shall be able to show data for single station or multiple stations for any selected time period. NMS should allow station to station data comparison in graphical and table format.
- IX. The NMS shall be able to receive data from minimum 6 stations simultaneously with a provision to upgrade the data reception capability to 50 stations.
- X. NMS should have the provision to receive data from multiple sensors from single station, in case the user installs more sensors in the remote stations.
- XI. The software shall provide unique ID to all stations in the network and automatically detect data received from different stations.
- XII. The NMS shall have the capability to check message Start of frame, End of Transmission (EOT) Code etc. and reject/delete message not agreeing with the specified transmission format. If another start of frame occurs before EOT, that particular data may be rejected and suitable message indicating "Collisions" may be echoed on system terminal.
- XIII. The NMS shall receive GPRS data/SMS only from the stations configured. SMS originating from other numbers shall be rejected by the NMS.
- XIV. The NMS shall be able to do parity errors check in the received messages. It shall also have the provision to monitor no. of transmission received from the remote stations. In case for a particular station more than the predefined messages are received, the station ID and the time of observation will be highlighted.
- XV. The NMS shall generate the daily summary of stations including health of the stations.
- XVI. The NMS shall have provision for high and low limits for alarm conditions setting for individual station.
- XVII. The NSM shall be capable to generate a suitable report for NAVIC/GPS locked/Unlocked stations.

- XVIII. The NMS shall include a wide range of error messages, to provide information in respect of various error conditions as detailed below.
- XIX. Last Receipt of data
- XX. Garbage data
- XXI. Data with improper format
- XXII. Overflow of data
- XXIII. Protocol Analysis
- XXIV. Invalid parameters
- XXV. Parity error related problem
- XXVI. NESAC will provide the server to store the data. The vendor will inform the server requirements along with the bid.

8.14. QUALITY ASSURANCE PLAN (QAP):

After award, the supplier shall submit Quality Assurance Plan (QAP) covering relevant aspects of supply and erection of equipment to the owner. The same shall be modified, if required, by the supplier as per requirement of the owner. The final document shall be approved by the owner and incorporated in the Contract Document for implementation during currency of the contract.

General terms and Conditions of contract

1. Name and scope of the work

Setting up a network of Automatic Weather Stations (AWS) with 6 AWS in Assam and Meghalaya with two data receiving facility at NESAC, Umiam, Meghalaya and NEEPCO. The AWS shall be part of the ISRO AWS network set up in India with data reception facility at MOSDAC, SAC, Ahmedabad. The AWS shall take measurements continuously and transmit the data to the MOSDAC server via INSAT series of satellite and also simultaneously transmit the same data to the data reception facilities set up at NEEPCO and NESAC via GSM/GPRS link. The Project will be executed as a Turnkey Project and the systems will be installed at the locations specified by NESAC.

The scope of the tender includes:

- 1.1. Supply of AWS System consisting of Rain gauge equipment, Temperature and Humidity sensors, Data Logger, Solar Panel, Battery, Battery Charging Unit, INSAT Satellite Transmitter, GSM/GPRS modems and accessories, weatherproof self-contained enclosure, connecting cables, etc.
- 1.2. GSM/GPRS data reception facility along with 2 laptops, Demodulator, network management software, and related accessories for receiving the data transmitted from the ARGs.
- 1.3. Transportation of equipments up to the installation sites.
- 1.4. Putting lightning arrestor, Installation & Commissioning.
- 1.5. Setting up the central data receiving facility by configuring the server (to be supplied by NESAC) and software.
- 1.6. Acceptance Testing & Training.
- 1.7. Maintenance of the network during warranty period of three years.

2. Eligibility of the bidder

- 2.1. This invitation is open to all original equipment manufacturers or their authorised dealers/agents (OEM authorisation certificate shall be attached with the quotation and offer by any dealer / agent. Without the authorisation certificate the bid shall be summarily rejected).
- 2.2. The bidder should have supplied, installed and has been maintaining such system for more than one year and should have supplied such system to at least three government firms as on the date of submission of the quotation. Necessary documentary evidence shall be attached with the technical bid.
- 2.3. The bidder should have a service centre / office within NE region of India or in West Bengal to ensure timely service within the warranty period. Necessary documentary evidence (address of the office / service centre along with contact details) to support the claim shall be attached.

3. Cost of Bidding

- 3.1. The Bidder shall bear all costs associated with the preparation and submission of its bid, and "the Purchaser", will, in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.
- 3.2. Earnest Money Deposit (EMD) of ₹40,000/- should be submitted along with the bid in the following manner.
 - 3.2.1. Crossed demand draft drawn on any Nationalized Bank in favour of Director, NESAC and payable at SBI, Shillong branch.
 - 3.2.2. EMD submitted in any form other than as specified above shall not be accepted and shall lead to rejection of the offer.
 - 3.2.3. EMD shall be forfeited in the following events:
 - 3.2.3.1. If the offer is withdrawn during the period of validity of the offer or any agreed extension.
 - 3.2.3.2. If the offer is modified/altere d without the knowledge of NESAC.
 - 3.2.3.3. If the tenderer backs-out.
 - 3.2.3.4. If the tenderer attempts to procure the contract by furnishing false/incorrect documents and by giving false declarations.
- 3.3. The EMD of the unsuccessful bidders shall be returned within a reasonable time or after expiry of the validity period. No interest shall be paid by NESAC on EMD.
- 3.4. Any offer without the EMD shall be summarily rejected.

4. Other terms and conditions

- 4.1. The Quotations should include the balance sheet for last three years, Income Tax statements, GST certificates, etc.
- 4.2. The AWSs shall be installed in The Kopili Hydroelectric power project basin covering Assam and Meghalaya.
- 4.3. Vendor must submit detailed design & layout of proposed AWSs along with the bid.
- 4.4. The tender is invited for 6 nos of AWS and two data reception facility. NESAC reserves the right to decrease or increase the number of AWS and reception facility. Vendor therefore must have to quote individual prices for each AWS and reception facility (excluding the laptops).
- 4.5. Vendor must attach detailed data sheet of quoted Model / product along with the technical bid.
- 4.6. The bid shall include cost of all interconnect cables, management cables and everything that are required to operate the full network. The purchaser shall provide the land for installation of the AWSs for each ARGs and the workstation/computer/server for the data reception facility.
- 4.7. The vendor shall provide detailed technical training for a minimum of 1 day excluding the days of installation and commissioning to the concerned staff on the following aspects:
 - 4.7.1. Operation and Maintenance of the full network.
 - 4.7.2. On different aspects of Network Management Software.
 - 4.7.3. Debugging and Remote Management.

4.8. Vendor must submit their offer in following format for all the items (both technical and general).

Specification Required	Specification Quoted With make/model	Technical Compliance		Deviation
		Yes	No	

4.9. The proposal should include a compliance statement in the format mentioned in para 4.8 above and the detailed bill of material.

5. Prices

- 5.1. Vendor must have to quote individual prices for each AWS, Laptop and data reception facility, if any along with the total package cost.
- 5.2. The price quoted for all AWSs shall be FOR the installation site (within the Kopili watershed basin covering eastern Meghalaya and Southern Assam). The materials shall be first transported to the NEEPCO site at Kopili in Meghalaya. Individual AWSs shall then be transported to the installation site on the day of installation.
- 5.3. The installation site for the two data reception facility shall be at NESAC, Umiam, Meghalaya and NEEPCO office (either at Kopili or Guwahati).
- 5.4. The percentage of GST must be quoted in clear terms separately. If the percentage of GST is not mentioned separately, it will be presumed that the rates quoted are inclusive of taxes.

6. Payment terms

- 6.1. NESAC will make 80% of the payment after 15 days of stable data reception at MOSDAC from the date of installation and acceptance of the entire network of six AWS and 2 data reception facility. All the stations must transmit more than 95% of data (using both the satellite and GSM/GPRS channels) and locally (in the data logger) must store 100% data.
- 6.2. Remaining 20% of the payment shall be made in two installments of 10% each at the end of 12 months and 24 months from the successful commissioning of the entire network.
- 6.3. NESAC, being a Dept. of Space, Govt. of India centre, enjoys exemption of excise duty for importing foreign country made items. The vendor shall therefore clearly mention the items to be imported, if any.
- 6.4. The payment terms for the imported items, if different from NESAC standard payment terms (as mentioned in para 6.1 above), shall be clearly mentioned.
- 6.5. Any changes in payment terms shall be applicable only to those items that are imported and for which excise duty is applicable. NESAC standard payment terms (as mentioned in para 6.1 above) shall be applicable to all items that are not directly imported.
- 6.6. A performance bank guarantee of 03% of the total cost of the system shall be provided by the vendor. The bank guarantee shall be valid for a period of three months more than the entire warranty period of the system (39 months altogether).

7. Delivery terms

- 7.1. Delivery and installation shall be done within maximum of 8 weeks from the date of issue of purchase order.
- 7.2. All the items shall be packed nicely as per the industry standard packing procedure.
- 7.3. Safety and insurance of the material during shipment and/or transportation shall be the responsibility of the vendor.
- 7.4. The vendor shall install and operationalise the instruments at the places as mentioned in para 5.2 above within 8 weeks from the issue of purchase order.

INSTRUCTIONS TO TENDERERS

1. EMD at the rate of ₹40,000/- shall be submitted in form of Demand Draft from any of the Nationalized/Scheduled banks in favour of Director, NESAC payable at SBI Umiam (Branch Code 2010), failing which the Tender will not be considered.
2. Late tenders and delayed tenders will not be considered.
3. a) All taxes/duties/levies whether by Central/State/Local government where legally leviable and intended to be claimed should be distinctly shown separately (in percentage and words) in the tender, otherwise price quoted will be treated as inclusive of all taxes.

While quoting the tender, the tenderer should take into account all the extant statutory deductions under Central/State/Local statutes where legally leviable and show it separately (in percentage and words) and if not separately shown it will be treated as inclusive of all statutory deductions applicable as per the extant statutes.

b) Our's being a Department of Government of India, we are exempted from payment of Excise Duty/Customs Duty.

4. As a Government of India Department, this office is exempted from payment of Octroi and similar local levies. Tenderers shall ensure that necessary Exemption Certificates are obtained by them from the Accounts Officer, I/C Purchase & Stores to avoid payment of such levies.
 - a) Your quotation should be valid for 180 days from the date of opening of the tender.
 - b) Prices are required to be quoted according to the units indicated in the annexed tender form. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.
5. Preference will be given to those tenders offering supplies from ready stocks and on the basis of FOR destination/delivery at site.
 - a) All available technical literature, catalogues and other data in support of the specifications and details of the items should be furnished along with the offer.
 - b) Samples, if called for, should be submitted free of all charges by the tenderer and the Purchaser shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of non- acceptance of tender, the tenderer will have to remove the samples at his own expense.
 - c) Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should also be indicated in your offer.
 - d) **Specifications:** Stores offered should strictly confirm to our specifications. Deviations, if any, should be clearly indicated by the tenderer in his quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary, along with the quotations. Test Certificates, wherever necessary, should be forwarded along with supplies. Wherever options have been called for in our specifications, the tenderer should address all such options. Wherever specifically mentioned by us, the tenderer could suggest changes to specifications with appropriate response for the same.
6. The purchaser shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portions of the quantity offered and the tenderers shall supply the same at the rates quoted.
7. Corrections, if any, must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.
8. The tenderer should supply along with his tender, the name of his bankers as well as the latest Income-Tax clearance certificate duly countersigned by the Income-Tax Officer of the Circle concerned under the seal of his office, if required by the Purchaser.
9. The authority of the person signing the tender, if called for, should be produced.

TERMS & CONDITIONS OF TENDER

1. DEFINITIONS:

- a) The term 'Purchaser' shall mean Director, NESAC.
- b) The term 'Contractor' shall mean, the person, firm or company with whom or with which the order for the supply of stores is placed and shall be deemed to include the Contractor's successors, representative, heirs, executors and administrators unless excluded by the Contract.
- c) The term 'Stores' shall mean what the Contractor agrees to supply under the Contract as specified in the Purchase Order including erection of plants & machinery and subsequent testing, should such a condition is included in the Purchase Order.
- d) The term 'Purchase Order' shall mean the communication signed on behalf of the Purchaser by an Officer duly authorized intimating the acceptance on behalf of the Purchaser on the terms and conditions mentioned or referred to in the said communication accepting the tender or offer of the Contractor for supply of stores or plant, machinery or equipment or part thereof.

2. PRICES:

Tender offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotation with a reasonable ceiling should be submitted. Such offers should invariably be supported by the base price taken into account at the time of tendering and also the formula for any such variation/s.

3. SECURITY DEPOSIT:

On acceptance of the tender, the Contractor shall, at the option of the Purchaser and within the period specified by him, deposit with him, in cash or in any other form as the Purchaser may determine, security deposit not exceeding three percent of the value of the Contract as the Purchaser shall specify. If the Contractor is called upon by the Purchaser to deposit, 'Security' and the Contractor fails to provide the security within the period specified, such failure shall constitute a breach of the Contract, and the Purchaser shall be entitled to make other arrangements for the re-purchase of the stores Contracted at the risk of the Contractor in terms of Sub-Clause (ii) and (iii) of clause 10(b) hereof and/or to recover from the Contractor, damages arising from such cancellation.

4. GUARANTEE/WARRANTY & REPLACEMENT:

- (a) The Contractor shall guarantee/warranty that the stores supplied shall comply fully with the specifications laid down, for material, workmanship and performance.
- (b) For a period of 36 months after the acceptance of the stores, if any defects are discovered therein or any defects therein found to have developed under proper use, arising from faulty stores design or workmanship, the Contractor shall remedy such defects at his own cost provided he is called upon to do so within a period of 39 months from the date of acceptance thereof by the purchaser who shall state in writing in what respect the stores or any part thereof are faulty.
- (c) If, in the opinion of the purchaser, it becomes necessary to replace or renew any defective stores such replacement or renewal shall be made by the Contractor free of all costs to the purchaser, provided the notice informing the Contractor of the defect is given by the purchaser in this regard within the said period of 36 months from the date of acceptance thereof.
- (d) Should the Contractor fail to rectify the defects, the purchaser shall have the right to reject or repair or replace at the cost of the Contractor the whole or any portion of the defective stores.
- (e) The decision of the purchaser notwithstanding any prior approval or acceptance or inspection thereof on behalf of the purchaser, as to whether or not the stores supplied by the Contractor are defective or any defect has developed within the said period of 39 months or as to whether the nature of the defects requires renewal or replacement, shall be final, conclusive and binding on the Contractor.
- (f) To fulfill guarantee/warranty conditions outlined in clause 4 (a) to (e) above, the Contractor shall, at the option of the purchaser, furnish a Bank Guarantee (as prescribed by the purchaser) from a Bank approved by the purchaser for an amount equivalent to 03% of the value of the Contract along with first shipment documents. On the performance and completion of the Contract in all respects, the Bank Guarantee will be returned to the Contractor without any interest.

- (g) All the replacement stores shall also be guaranteed/warranted for a period of 36 months from the date of arrival of the stores at purchaser's site.
- (h) Even while the 36 months guarantee/warranty applies to all stores, in case where a greater period is called for by our specifications then such a specification shall apply in such cases the period of 36 months referred to in para 4 (b) & (c) shall be the 'asked for' guarantee/warranty period plus three months.

5. PACKING FORWARDING & INSURANCE:

The Contractor will be held responsible for the stores being sufficiently and properly packed for transport by rail, road, sea or air to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packages shall be done by and at the expense of the Contractor. The purchaser will not pay separately for transit insurance, all risks in transit being exclusively of the Contractor and the Purchaser shall pay only for such stores as are actually received in good condition in accordance with the Contract.

6. DISPATCH:

The Contractor is responsible for obtaining a clear receipt from the Transport Authorities specifying the goods despatched. The consignment should be despatched with clear Railway Receipt/Lorry Receipt. If sent in any other mode, it shall be at the risk of the Contractor. Purchaser will take no responsibility for short deliveries or wrong supply of goods when the same are booked on 'said to contain' basis. Purchaser shall pay for only such stores as are actually received by them in accordance with the Contract.

7. TEST CERTIFICATE:

Wherever required, test certificates should be sent along with the despatch documents.

8. ACCEPTANCE OF STORES:

- (a) The stores shall be tendered by the Contractor for inspection at such places as may be specified by the purchaser at the Contractor's own risk, expense and cost.
- (b) It is expressly agreed that the acceptance of the stores Contracted for, is subject to final approval by the purchaser, whose decision shall be final.
- (c) If, in the opinion of the purchaser, all or any of the stores do not meet the performance or quality requirements specified in the Purchase Order, they may be either rejected or accepted at a price to be fixed by the purchaser and his decision as to rejection and the prices to be fixed shall be final and binding on the Contractor.
- (d) If the whole or any part of the stores supplied are rejected in accordance with Clause No. 8 (c) above, the purchaser shall be at liberty, with or without notice to the Contractor, to purchase in the open market at the expense of the Contractor stores meeting the necessary performance and quality Contracted for in place of those rejected, provided that either the purchase, or the agreement to purchase, from another supplier is made within six months from the date of rejection of the stores as aforesaid.

9. REJECTED STORES:

Rejected stores will remain at destination at the Contractor's risk and responsibility. If instructions for their disposal are not received from the Contractor within a period of 14 days from the date of receipt of the advice of rejection, the purchaser or his representative has, at his discretion, the right to scrap or sell or consign the rejected stores to Contractor's address at the Contractor's entire risk and expense, freight being payable by the Contractor at actuals.

10. DELIVERY:

- (a) The time for and the date of delivery of the stores stipulated in the Purchase Order shall be deemed to be the essence of the Contract and delivery must be completed on or before the specified dates.
- (b) Should the Contractor fail to deliver the stores or any consignment thereof within the period prescribed for such delivery, the purchaser shall be entitled at his option either:
 - (i) to recover from the Contractor as agreed liquidated damages and not by way of penalty, a sum of 0.5% per week of the price of any stores which the Contractor has failed to deliver as aforesaid or during which the delivery of such store may be in arrears subject to a minimum of 10%, or

- (ii) to purchase from elsewhere, without notice to the Contractor on the account and at the risk of the Contractor, the stores not delivered or others of a similar description (where others exactly complying with the particulars, are not, in the opinion of the purchaser, readily procurable, such opinion being final) without cancelling the Contract in respect of the consignment (s) not yet due for delivery, or
- (iii) to cancel the Contract or a portion thereof and if so desired to purchase or authorise the purchase of stores not so delivered or others of a similar description (where others exactly complying with the particulars are not, in the opinion of the purchaser, readily procurable, such opinion final) at the risk and cost of the Contractor.

In the event of action being taken under sub-clause (ii) & (iii) of clause 10 (b) above, the Contractor shall be liable for any loss which the purchaser may sustain on that account, provided that the re-purchase or if there is an agreement to re-purchase then such agreement is made within six months from the date of such failure. But the Contractor shall not be entitled to any gain on such re-purchase made against default. The manner and method of such re-purchase shall be at the discretion of the purchaser, whose decision shall be final. It shall not be necessary for the purchaser to serve a notice of such re-purchase on the defaulting Contractor. This right shall be without prejudice to the right of the purchaser to recover damages for breach of Contract by the Contractor.

11. EXTENSION OF TIME:

As soon as it is apparent that the Contract dates cannot be adhered to, an application shall be sent by the Contractor to the purchaser. If failure, on the part of the Contractor, to deliver the stores in proper time shall have arisen from any cause which the purchaser may admit as reasonable ground for an extension of the time (and his decision shall be final) he may allow such additional time as he considers it to be justified by circumstances, of the case without prejudice to the purchaser's right to recover liquidated damages under clause 10 thereof.

12. ERECTION OF PLANT & MACHINERY:

Wherever erection of a plant or machinery is the responsibility of the Contractor as per the terms of the Contract and in case the Contractor fails to carry out the erection as and when called upon to do so within the period specified by the purchaser, the purchaser shall have the right to get the erection done through any source of his choice. In such an event, the Contractor shall be liable to bear any additional expenditure that the purchaser is liable to incur towards erection. The Contractor shall, however, not be entitled to any gain due to such an action by the purchaser.

13. PAYMENT:

Contractor's bill will be passed for payment only after the stores have been received, inspected and accepted by the Purchaser.

14. RECOVERY OF SUM DUE:

Whenever any claim for the payment of, whether liquidated or not, money arising out of or under this Contract against the Contractor, the purchaser shall be entitled to recover such sum by appropriating in part or whole, the security deposited by the Contractor, if a security is taken against the Contract. In the event of the security being insufficient or if no security has been taken from the Contractor, then the balance or the total sum recoverable as the case may be, shall be deducted from any sum then due or which at any time thereafter may become due to the Contractor under this or any other Contract with the purchaser. Should this sum be not sufficient to cover the full amount recoverable, the Contractor shall pay to the purchaser on demand the remaining balance due. Similarly, if the purchaser has or makes any claim, whether liquidated or not, against the Contractor under any other Contract with the purchaser, the payment of all moneys payable under the Contract to the Contractor including the security deposit shall be withheld till such claims of the purchaser are finally adjudicated upon and paid by the Contractor.

15. INDEMNITY:

The Contractor shall warrant and be deemed to have warranted that all stores supplied against this Contract are free and clean of infringement of any Patent, Copyright or Trademark, and shall at all times indemnify the purchaser against all claims which may be made in respect of the stores for infringement of any right protected by Patent Registration of design or Trade mark and shall take all risk of accidents or damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for sufficiency of all means used by him for the fulfillment of the contact.

16. ARBITRATION:

Any disputes that arise during the execution of contract will be mutually discussed and settled between NESAC Contract-In-Charge/Focal Person and Service Provider. Any dispute that remains unresolved thereafter will be referred to a one-man Arbitrator, appointed by Director, NESAC, Umiam, Meghalaya in accordance with Arbitration & Conciliation Act 1996 as amended from time to time, whose decision shall be final and binding on both the parties.

17. COUNTER TERMS AND CONDITION OF SUPPLIERS:

Where counter terms and conditions printed or cyclostyled conditions have been offered by the supplier, the same shall not be deemed to have been accepted by the Purchaser, unless specific written acceptance thereof is obtained.

18. SECURITY FOR PURCHASE OF MATERIALS:

Successful tenderer will have to furnish in the form of a bank guarantee or any other form as called for by the purchaser towards adequate security for the materials and properties provided by the Purchaser for the due execution of the Contract.

19. BENEFITS EXTENDED BY MINISTRY OF MICRO, SMALL AND MEDIUM ENTERPRISE (MSME), GOVERNMENT OF INDIA

In order to avail of the benefits extended by Government of India to the Micro, Small and medium Enterprises, bidder should submit self attested copy of valid certificate of registration for specific services asked in the tender by any authority so authorized by Ministry of Micro, small and Medium Enterprise (MSME), Government of India to issue such certificate. Bidder will be required to produce original certificate when called for to do so by NESAC.

20. BID SECURITY DECLARATION

Micro Small and Medium Enterprise (MSME) as stated in Sl., No. 19 above and firms registered with NESAC are exempted from submission of Bid Security but in lieu of Bid Security bidders are required to submit along with the bid document signed "Bid Security Declaration" (Annexure-3) accepting that if they withdraw or modify their bids during period of validity etc, they will be suspended for the time specified in the tender documents"

Bid Security Declaration

Date: [Insert date (as day, month and year)]

Tender No.: NESAC/1257/2020

Tenderer/Bidder's offer no. _____ Dtd: _____

To,

The Director
North Eastern Space Applications Centre
Government of India
Department of Space
Umiam-793103, Meghalaya

Sub: Bid Security Declaration-Reg

We, understand that, according to your conditions, the Tender must be supported by a Declaration.

We accept that we will automatically be suspended from being eligible for bidding in any contract with NESAC for the period of time of 3 years starting from....., if we are in breach of our obligation(s) under the bid conditions because we:

- a) have withdrawn our bid during the period of bid validity specified in the Letter of Bid/Tender; or
- b) having been notified of the acceptance of our bid by NESAC during the period of bid validity, (i) fail or refuse to execute the Contract, if required, or (ii) fail or refuse to furnish the Performance Security.

We understand this Bid-Securing Declaration shall expire if we are not the successful Tenderer/ bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Tenderer/bidder; or (ii) twenty-eight days after expiration of our Bid.

Signed: [insert complete name of person signing the Bid-Securing Declaration]

Duly authorized to sign the bid for and on behalf of : [insert complete name of Bidder]

Dated on _____ day of _____, _____ (insert date of signing]

Corporate Seal [where appropriate]

[Note: In case of a Joint Venture, the Bid-Securing Declaration must be in the name of all partners to the joint Venture that submits the bid]

SUBMISSION OF TENDER

The bid is required to be submitted in **two parts**. One part is the **Technical Bid** and the other part is the **Price Bid**.

The Bidder shall submit the bids in two separate envelopes. One envelope shall contain Technical bid and the other shall contain the Price bid. The bidder shall seal the Technical Bid and the Price Bid in two separate envelopes. Both the envelopes shall then be sealed in one outer (main) envelope along with EMD and Tender Fee and superscribed **Tender No. NESAC/1257/2020 for '6 Automatic Weather Stations (AWS) and Data Transmission Facility'**. The main envelope must be sent to **The Sr. Administrative Officer, I/C Purchase & Stores, North Eastern Space Applications Centre (NESAC), Government of India, Department of Space, Umiam -793103, Meghalaya.**

**उत्तर/पूर्वी अंतरिक्ष उपयोग केंद्र-North Eastern Space Applications Centre
उमियम/Uiam-793103, मेघालय/Meghalaya**

निविदा सं./Tender No. : NESAC/1257/2020
संदर्भ सं./Ref No. :
दिनांक /Date :

PRICE BID

प्रपत्र/From

सेवा मे/To,
वरिष्ठ प्रशासनिक अधिकारी/Sr. Admin Officer
I/C Purchase & Stores Division
एनई-सैक/NESAC, उमियाम/Uiam

श्रीमान/Dear Sir,

I/We hereby offer to supply the stores detailed herewith/below at the price hereunder quoted and agree to hold this offer open tillI/We shall be bound to supply the stores hereby offered on the issue of the Purchase Order communicating the acceptance thereof on or before the expiry of the last mentioned date. You have the liberty to accept any one or more of the items of stores tendered for any portion of any one or more of items of such stores. I/We not withstanding that the offer in this tender has not been accepted in whole, shall be bound to supply to you such items and such portion or portions of one or more of the items as may be specified in the said Purchase Order communicating the acceptance.

क्र. सं. Sl. No.	विवरण/Description	मात्रा Qty.	Unit price (₹)	Tax/GST		Total Amount (₹)
				%	Amount (₹)	
1	6 Automatic Weather Stations (AWS) with dual (simultaneous via INSAT and GSM/GPRS network) data transmission facility and two data reception facility with necessary software to receive the data from the AWSs	6 Nos. of AWS and two data reception facility				
कुल/Total						
छूट/Discount						
कुल/Total after Discount						
Taxes & other duties (Specify the percentage %)					%	
कुल/Total (Rupees)						

Note: All the rates should be given both in figures and words

वितरण का स्थान/Place of delivery:	As per para 5.2 of General Terms and Conditions of Contract (Annexure-2)
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I/We have understood the terms and conditions of the contract and the instructions of tenderers annexed to the invitation to tender and have thoroughly examined the specification/drawing and/or pattern quoted or preferred to herein and/or fully aware of the nature of stores required and my/or offer is to supply the stores strictly in accordance with the requirements subject to the terms and conditions contained in the purchase orders communicating the acceptance of this tender either in whole or in part.

Date:

निविदाकार के मुहर व हस्ताक्षर
Seal and Signature of the Tenderer