



**KARNATAKA STATE NATURAL DISASTER MONITORING CENTRE**

(A Regd. Society and Autonomous Body, affiliated to Dept. of Revenue,  
Govt. of Karnataka)



**TENDER DOCUMENT  
FOR**

**Supply, Installation, Refurbishment and Comprehensive  
Annual maintenance of Telemetric Rain gauge and Telemetric  
Weather stations in Karnataka**

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## 1. Time schedule for bidding

Tender reference No:	KSNDMC/TRG-TWS/REFUR/02/2020-21
EMD	RS. 20,00,000/-
Pre-bid meeting & venue	10.08.2020 at 11:00 a.m. at KSNDMC / Video Conference.
Last Date for Receiving Queries	11.08.2020 till 5:00 p.m.
Last Date and Time for submission of Bids	01.09.2020 till 05:00 p.m.
Venue, Date & Time of Opening Of Technical Bids	On 03.09.2020 at 10:30 a.m. in KSNDMC.
Venue, Date & Time of Opening Financial Bids	Will be intimated to the Technically qualified bidders
Contact Person, Phone No. and e-mail	A.V. Prabhulingappa, Scientific Officer R.K. Abhinand, Senior Scientific Asst. Phone: 9964237382, 9844819151, 08067355139 e-mail: IT@KSNDMC.ORG
Address for Communication:	Karnataka State Natural Disaster Monitoring Centre (KSNDMC) Major Sandeep Unnikrishnan road, Near Yelahanka-Attur Layout, Bengaluru-560064

## 2. Terms and Definition

1. %oKö shall stand for the Government of Karnataka.
2. öKSNDMCö refers to Karnataka State Natural Disaster Monitoring Centre.
3. %Bidderö means any firm offering the supply and or services sought for in the tender document.
4. öSLAö means Service Level Agreement between KSNDMC and Selected bidder.
5. öTRGö means Telemetric Rain gauge.
6. öTWSö means Telemetric weather station.
7. öIMDö means Indian meteorological department.
8. öPBGö refers to Performance bank guarantee.
9. Unit Price: Unit price is the price for a single component / equipment.
10. Supplier shall mean the successful Bidder with whom KSNDMC signs the agreement for rendering of services for this supply, installation, refurbishment and maintenance of TRG and TWS contract.
11. Project refers to the contract.

### **3. Introduction**

Karnataka State has the distinction of being first in the country to establish Drought Monitoring Cell (DMC) in 1988 as an institutional mechanism to monitor the Drought. The activities of the Cell were later broadened to include other natural disasters as also the activity of monitoring and renamed as Karnataka State Natural Disaster Monitoring Centre (KSNDMC) in 2007. Management of Natural Disasters heavily depends on inputs from Science and Technology.

KSNDMC has been serving as a common platform to the various response players in the field of natural disaster management by providing timely pro-active science and technology inputs. The Master Control Facility will strengthen the activities of the centre in providing information, reports, and advisories to the community, research organizations and the Government. The Centre provides inputs to the farming community, agriculture and horticulture-based sector, fisherman, transport sector, power and electricity sector, State and District level Disaster Management Authorities in Karnataka through the state-of-the-art sensors monitoring natural hazards, and communication system.

### **4. Scope of Work**

#### **1) Supply:**

- Supply, installation, Refurbishment and maintenance of Telemetric Rain gauge (TRG) at 1271 Locations and Telemetric weather stations (TWS) at 605 locations across Karnataka as detailed in Annexure -5 including transportation and civil works etc, complete.

#### **2) Refurbishment:**

- Refurbishment of Telemetric rain gauge includes replacement of battery, tipping bucket rain gauge sensor, modem with GSM antenna, data logger with IP65 enclosure and painting.
- Refurbishment of Telemetric weather station includes replacement of battery, tipping bucket rain gauge sensor, temperature sensor, humidity sensor, wind speed & wind direction sensor modem with GSM antenna, data logger with IP65 enclosure and painting.
- All the replaced sensors, electronic equipment as mentioned above shall carry one year warranty from the date of completion of all refurbishment work at all the specified districts.
- Refurbishment shall be done on the same day after dismantling the old equipment / components, so that there will not be data loss of any station for more than one day.
- Source code used for data transmission has to be submitted.

#### **3) Comprehensive annual maintenance of TRG and TWS for 4 years:**

- Comprehensive annual maintenance of TRG and TWS includes replacement and repair of any spares /sensors of the instruments free of cost as per the terms of SLA.

#### **4) Delivery Period:**

**Installation:** Installation of equipment shall be completed within 45 days from the date of acceptance of the purchase order. Delay in installation of equipment /components attract, penalty at the 0.05% of the total contract value per day of delayed delivery subject to a maximum of 10% of the total contract value including all taxes duties and all other charges.

**5) Site for delivery and refurbishment / installation:** The equipment /components shall be refurbished at the locations identified by the purchaser (KSNDMC), in Annexure 8.

**6) Test on installation:** On installation and commissioning, the equipment / components will be tested for their performance. If the result of the tests are not within the margins specified by the manufacturer or in the codes/manuals of the professional bodies, the tests shall, if required, be repeated and necessary corrective action to be taken by the Supplier to ensure that the components /equipment supplied meets the performance specification prescribed.

7) Software configured in the Telemetric rain gauge and Telemetric Weather Station shall be handed over to the Purchaser and the officers of KSNDMC be trained on of the software logic. The supplier has to update the software so as to customize to the Purchaser's requirement at no extra charge to the Purchaser. The Supplier shall make any such modification/s only with the prior approval by the Purchaser. Detailed project report of the Hardware and Software along with flow chart has to be submitted to the Purchaser (KSNDMC).

**8) Inspection and testing:** Performance tests of the equipment/components supplied, installed and commissioned by the Supplier will be tested for performance by way of demonstration of bench mark of standards prescribed by the IMD. If the performance or workmanship is not found to be not in accordance with the specification in the Tender Document, the Purchaser has the liberty to reject non-performing or defective or all equipment/components for reasons to be recorded.

The Purchaser shall on giving ten days' notice in writing to the Supplier shall set right defects/problems in the equipments/ components supplied or replace the units as the case may be.

**9) Maintenance:** The Supplier shall provide onsite comprehensive maintenance for all the equipments /components supplied for four years from the date of acceptance of all items supplied. During the period of warranty and comprehensive annual maintenance contract (CAMC) period the equipments /components supplied shall be maintained on site by the Supplier, at no extra cost to the Purchaser and ensure that they are kept in full working condition. Service calls by the Purchaser should be resolved by the Supplier within 48 hours of the calls or e-mail or through any other communication. The Supplier shall allocate one person to each district for the maintenance of the TRG and TW stations and provide the name and contact details of the person to the Purchaser. Cost of the annual maintenance shall be 30% of the refurbishment cost or 30% of the cost of supply & installation of TRG / TWS as the case may be.

The above act of backing out would automatically debar the firm from any further dealing with KSNDMC and EMD/performance bank guarantee amount shall be forfeited.

The Supplier shall be responsible for any loss or damage caused to any of the Equipment/Components already installed at site due to negligence or any other reason while working at site.

### **5. *Period for supply of Hardware***

Time required for completion of supply, installation and commissioning of TRG and TWS has to be submitted by the bidder as per Annexure-8. when we have stated it as 60 days why again he has to submit)

## 6. Pre-Qualification Criteria

Bidders who are desirous of bidding for the project shall meet the following Technical criteria to qualify for the technical bid.

SI. No.	Pre-Qualification Criteria	Documents/ proof
1	The Bidder should be in business related to Supply, installation and maintenance of Telemetric Rain gauge and telemetric weather stations in India for at least 5 years as on 31.07.2020	Registration issued under the Companies Act by a competent authority.
2	Bidder should be authorized partner of ISO certified OEM Company and authorization letter from (OEM) is to be provided to KSNDMC along with the bid documents or Bidder shall be a Manufacturer.	Authorization letter from OEM or Manufacturer Certificate as per Bureau of Indian Standards.
3	The Bidder company's average annual turnover shall be for more than Rs.2,00,00,000 (Two Crores during the period from 2016-17, 2017-18 & 2018-19 for the category of supply and services for which the tender is called for.	Annexure 2: Auditor's certificate with regard to company's last 3 years turnover in the category of supply and services for which tender is called for, need to be furnished. The tenderer shall also submit copies of the IT returns for these years.
4	The firm/company should produce the self-attested photocopies of documents related to Company PAN Number, Service Tax number, etc.	Copy of Company PAN Number, Service Tax certificate to be furnished
5	The Bidder should not have been blacklisted by Government of Karnataka or its agencies for any reasons whatsoever & The bidder should not have been blacklisted by Central / any other State/UT Government or its agencies for corrupt or fraudulent practices or for indulging in unfair trade practices.	<b>Annexure 3:</b>
6	<b>Technical Support and Service Centers:</b> The Bidder should have a technical support centre in Karnataka with at least 20 service engineers/ staff for providing service. .	<b>Annexure 4:</b>

### Technical Qualification Criteria

SI. No.	Technical Qualification Criteria	Documents/ proof
1.	The Bidder should have experience in supply and maintenance of not less than 182 weather stations with at least 5 weather sensors for each station and 1000 telemetric rain gauge stations / instruments/with Government Department / Public Sector Undertaking	Submit documentary evidence by way of experience certificate/s issued by the office/s concerned (Work Orders and Satisfactory Certificates)

	in India.	
2.	Proof of Concept	Submit Document
3.	Product Brochure	Technical brochure is to be submitted and the same should be available on the Vendor's website.
4.	Compliance statement of specifications	Compliance statement.

## **7. General Instructions and Bidding Process**

- 1 This invitation for bids is open to all Indian firms who fulfill pre-qualification criteria as Specified in this tender document.
- 2 Bidders declared by GoK to be ineligible to participate for unsatisfactory past performance, corrupt, fraudulent or any other unethical business practices, shall not be eligible to participate in the tender.
- 3 Firms/Organisations which have breached general or specific instructions for bidding, or general and special conditions of contract with GoK or any of its user organizations during the past 3 years are ineligible to participate in bidding process for this tender.
- 4 Any Company/firm can submit only one bid. Single company if submits more than one bid to this tender shall be disqualified and liable to be black-listed by the Department.

## **8. Procedure for Submission of Bids**

### **8.1 Tender Processing Fees**

Bidder can download the tender document for free of cost from the portal (<http://eproc.karnataka.gov.in>) till the due date and time for bid submission. Any interested bidder shall pay tender processing fee as specified to the e-Procurement portal. The tender processing fee has to be paid through any of the four e-payment options in the portal:

- Credit Card
- Direct Debit
- National Electronic Funds Transfer (NEFT)
- Over the Counter (OTC) ó designated ICICI bank branches located across the country

Please note that payments submitted through cheque or demand draft towards tender processing fee shall not be accepted. Further details regarding e-Payment of tender processing fee, please refer to e-Procurement portal at the above mentioned website or call e-procurement helpline.

### **8.2 Modes of Submission**

All interested bidders shall pay EMD and Tender Processing fee and submit their Technical and Commercial bids electronically using the unified e-Procurement platform. The e-Procurement portal is available at: <http://eproc.karnataka.gov.in>

Intending tenderers can submit the tenders only through the unified e-Procurement system It will be in the interest of the bidders to familiarize themselves with the e-Procurement system to ensure smooth preparation and submission of the tender documents on or before the scheduled date and time



prescribed for bid submission to avoid problems / glitches that may arise on the last day of submission of the bid. KSNDMC will not be responsible for any delays due to unavailability of the portal or internet link.

### **8.3 Authentication of Bid**

The response bid shall be signed by the Bidder or a person or person who has been authorized by their company or firm. A letter of authorization/ power-of-attorney issued by the competent authority of the company / firm to the person signing the tender document should accompany the bid. All pages of the bid, except for printed literature, shall be initialed and stamped by the person or persons signing the bid document.

### **8.4 Validation of interlineations in Bid**

The bid documents uploaded to the e- procurement portal should be legible and shall not contain interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

## **9. Clarification on Tender Document**

A prospective Bidder requiring any clarification on the tender document may submit his queries, in writing, to the mailing address on or before the time and date indicated in Invitation for Bids / Key events and dates. Queries must be submitted in the following format only to be considered for clarification:

<b>Sl. No</b>	<b>Section No./ Clause No./General queries.</b>	<b>Page No.</b>	<b>Reference/ Subject</b>	<b>Clarification required on</b>

Queries received after the last date and time prescribed in Invitation for Bids / Key events and dates shall not be entertained. Queries received and Clarifications thereon will be uploaded on the portal (<http://eproc.karnataka.gov.in>)

## **10. Language of Bids**

The Bids prepared and submitted by the Bidder and all correspondence and documents exchanged relating to the bids, shall be in English language.

## **11. Bid Prices**

The Bidder shall prepare the bid based on details provided in the tender documents. It must be clearly understood that the scope of work indicated in the tender is intended to give the bidder an idea about the nature of the work involved and may not be exhaustive. The Bidder shall carry out due diligence. The tenderer shall quote prices item wise prices for all items in Annexure-5-Commercial bid. Tender will be rejected in the event of failure of the tenderer to quote for all items in the Annexure-5.

Prices quoted in the Commercial bid for each item, shall be all inclusive price including basic cost, duties, all taxes, transportation charges, insurance, handling and all other charges if any, until the items are delivered and installed at the Purchaser's site. Price quoted shall also include, cost of electrical cords, adaptors, etc., complete installation, testing, commissioning and training for KSNDMC staff.

The tender shall indicate the percentage of taxes, statutory duties, levy, included in the quoted price and other charges such as transport, insurance, handling etc.

**Variation of taxes, duties and levy:** Rate quoted by the tenderers shall be firm during the tenure of the contract, except for variation in the rate of duty or taxes levied by the Union or State or Local Government. Any variation in taxes, duties and levy shall be to the account of the Purchaser.

**Variation in Quantity:** Quantities indicated in Annexure 5 are approximate. Final quantities may vary plus or minus fifteen percent of the estimates. Intending tenderers should note the probable variation indicated as above and it shall be binding on the successful tenderer to adhere to the increase or decrease in the quantities as mentioned above under the same terms and conditions and price.

## **12. Bid Currencies**

Prices shall be quoted in Indian Rupees (INR).

## **13. Bidder Qualification**

The "Bidder" (add in the definitions) as used in the tender documents shall mean the one who has signed the Tender Form. The Bidder may be either the Principal Officer or his duly Authorized Representative, in either case he/ she shall submit a certificate of authority for signing the tender document and to correspond with KSNDMC. All certificates and documents (including any clarifications sought and any subsequent correspondences) received hereby, shall, as far as possible, be furnished and signed by the authorized representative and or the principal.

It is further clarified that the individual signing the tender or other documents in connection with the tender must certify whether he/she constitutes and act as attorney of the firm or the company on whose behalf he/she is signing.

## **14. Bid Security (Earnest Money Deposit)**

The Bid shall contain EMD amount of Rs.20,00,000/- (Rupees Twenty Lakhs) and shall be paid through any of the four e-payment options in the portal (<https://eproc.karnataka.gov.in/>)

- Credit Card
- Direct Debit
- National Electronic Funds Transfer (NEFT)
- Over the Counter (OTC) ó designated ICICI bank branches located across the country

**Note:** e-Procurement portal will deny submission of the bid without submitting the EMD Deposit and it will take min 2-3 days for confirmation from the bank regarding the EMD realization.

Please note that payments submitted through cheque or demand draft shall not be Accepted. For further details regarding e-Payment, please refer to e-Procurement portal at the above-mentioned website.

The bidder shall be disqualified in the Technical Evaluation process if the prescribed EMD is not submitted along with the bid. The EMD (bid security) of the unsuccessful Bidder/s will be discharged / returned as early as possible.

No interest will be payable by KSNDMC on the amount of the Bid Security. The bid security may be forfeited:

- 1) If a Bidder withdraws his/her bid or increases the quoted prices during the period of bid validity, or its extended period, without the explicit consent of the department, if any; or
- 2) In the case the successful Bidder, after issuing Purchase/Work order if she / he fails within the to sign the Agreement with in the time specified or furnish the required Performance Bank Guarantee.

## ***17. Bid Validity Period***

### ***17.1 Period of Validity of Bids***

Bids shall remain valid for 180 days from the date of opening of Technical Bids. A bid valid for a shorter period may be rejected as non-responsive.

### ***17.2 Extension of Period of Validity***

In exceptional circumstances, KSNDMC may request the Bidder(s) for an extension of the period of validity. The request and the responses thereto shall be made in writing (or by fax or by mail). In such case, the validity of EMD shall also be suitably extended.

## ***18. Contacting KSNDMC***

### ***18.1 Contact by Writing***

No bidder shall contact KSNDMC on any matter relating to its bid, from the time of bid opening till the time the Contract is awarded. If the Bidder wishes to provide any additional information to KSNDMC, it should be done through writing a letter or through an email.

### ***18.2 Rejection of Bid***

Any effort by a Bidder to influence the KSNDMC in its decisions with respect to the tender entails rejection of the bid submitted by the tenderer.

### ***18.3 Purchase's Right to Vary Scope of Contract at the time of Award***

Purchaser may at any time, by a written order given to the Bidder, make changes to the scope of the Contract as specified. If any such change causes an increase or decrease in the cost of Contract, whether changed or not changed by the order, an equitable adjustment shall be made in the Contract Value or time schedule, or both, and the Contract shall accordingly be amended. Any claims by the Bidder for adjustment under this Clause must be asserted within thirty (30) days from the date of the Bidder's receipt of KSNDMC's changed order.

#### **18.4 Purchaser's Right to Accept Any Bid and to reject any or All Bids**

The Purchaser reserves the right to accept or reject any bid or all bids and to annul the Tender process without assigning any reasons therefor and without any liability.

Purchaser, also reserves the right in the interest of the work, to allocate the order to one or more tenderers at the prices and terms and conditions of the lowest tenderer.

#### **19. Assignment / Sub-contracts**

On award of the Supply/Work order, the Contractor shall not assign the performance of contractual obligations, in whole or in part to any third party, except with the Purchaser's prior written consent.

Sub-contract is strictly prohibited. However, consortium with another firms/companies is permitted as mentioned in Section II of this document.

#### **20. Notification of Award**

##### **20.1 Signing of Contract**

On issue of Letter of Intent (LOI), the successful bidder, shall acknowledge the receipt in writing and shall send acceptance to LOI and shall enter in to agreement within seven (7) days from the date of receipt of LOI.

##### **20.2 Failure to abide by the Agreement**

The conditions stipulated in the agreement shall be strictly adhered to and violation of any of the conditions will entail termination of the contract without prejudice to the rights of the Purchaser with such penalties as specified in the tender document and the Agreement.

#### **21. Performance Bank Guarantee**

- The successful bidder, **Signing of Contract**
- The successful tenderer, within 7 days of the Signing of Contract,
- Shall furnish an unconditional and irrevocable Bank Guarantee from a Scheduled commercial bank of Reserve Bank of India, in the format acceptable to the Purchaser, for an amount equivalent to 10% of the total value of the Purchase & Work order. The bank Guarantee shall be kept valid for a period of sixty-three Months from the date of Bank guarantee issue date. Failure of the successful Bidder to comply with the requirement shall constitute sufficient grounds for the annulment of the award of the order and forfeiture of the EMD.

##### **Rejection Criteria**

Besides other terms and conditions of the tender document, bids may be rejected under following circumstances:

#### **22. Technical Rejection Criteria**

- Failure to conform Technical criteria prescribed.
- Bids submitted without or with improper EMD.
- Bids which do not conform to required validity of the bid as prescribed in the Tender.
- If the information provided by the Bidder is found to be incorrect / misleading at any stage / time During the Tendering Process.
- Any effort on the part of a Bidder to influence the bid evaluation, bid comparison or contract

Award decisions.

- Bids without signature of person(s) duly authorized on required pages of the bid.
- Bids without power of authorization and any other document consisting of adequate proof of the Ability of the signatory to bind the Bidder.
- Technical Bid containing commercial details.
- Revelation of Prices in any form or by any reason before opening the Commercial Bid.
- Failure to furnish all information required by the tender Document or submission of a bid not Substantially responsive to the Tender document in every respect.
- Failure to furnish proofs for information provided.
- Bidders not quoting for the complete scope of Work as indicated in the Tender documents, Addendum (if any) and any subsequent information given to the Bidder.
- Bidders not complying with the Technical and General Terms and conditions as stated in the Tender document.
- Any false declaration by the bidder during the bidding process, following action may be taken:
  - Liable for Legal Action
  - Forfeiture of entire PBG/EMD.
  - Forfeiture of any Released payments
  - Blacklisting of the Vendor

### **23. Commercial Rejection Criteria**

- Incomplete Price Bid
- Price Bids that do not conform to the Tender's price bid format
- Total price quoted by the Bidder does not include all statutory taxes and levies applicable.

### **24. Liability clause**

Neither party shall be liable to the other for any special, indirect, incidental, consequential (including loss of profit or revenue), exemplary or punitive damages whether in contract, tort or other theories of law, even if such party has been advised of the possibility of such damages.

The total cumulative liability of either party arising from or relating to this Agreement shall not exceed the contract value provided, however, that this limitation shall not apply to any liability for damages arising from (a) willful misconduct or (b) indemnification against third party claims for infringement

### **25. Liquidated Damages**

Subject to clause for Force Majeure, if the vendor fails to complete the assignment in compliance to the time schedule prescribed in the Purchase/ Work order or the extended date or if the vendor repudiates the Contract before completion of the Work, the Purchaser at its discretion may without prejudice to any other right or remedy available, forfeit the entire performance bank guarantee submitted by the vendor apart from blacklisting of the selected vendor for further participation in any of the tenders of the KSNDMC.

Any such recovery or liquidated damages shall not in any way relieve the vendor from any of its obligations to complete the Works or from any other obligations and liabilities under the Contract.

## **26. Termination of Contract**

Any violations / non-compliance of any of the conditions will entail termination of the contract without prejudice to the rights of the Purchaser with such penalties as specified in the contract. Upon such termination, the Purchaser will have the right to forfeit the entire performance bank guarantee submitted by the vendor, apart from blacklisting of the Supplier for further participation in any of the tenders of Purchaser.

Where a change of management of the Supplier has occurred whereby the Supplier's company has merged, amalgamated or been taken over, due to which the majority shareholding of the Supplier has been transferred to another entity, and in case requirements for the Supplier set out in the tender document are not complied with, the purchaser can by a 15 (Fifteen) days written notice, terminate the contract and such notice shall become effective at the end of the notice period.

## **27. Force Majeure**

a. In the event if the Force Majeure conditions substantially, prevents, hinders or delays the Supplier's performance for project's implementation or the operation of Project's critical business functions for a period in excess of 3 days, the Purchaser may upon request by the Supplier, declare at its discretion, certain specified period as Force Majeure. However, when the situation arising out of force Majeure comes to an end in the assessment of the Purchaser, the Supplier shall resume normal activities under this agreement immediately thereafter. If the Purchaser considers it necessary, may grant an extension of time to the Supplier for resuming normal activities under this agreement. If the Supplier does not resume normal activities immediately or within the extended period, if any, granted, the purchaser will have the option to invoke the Performance Guarantee, levy liquidated damages, obtain substitute performance from an alternate vendor at the cost of Supplier and/or terminate the Agreement.

Notwithstanding the terms of this Article, the failure in complying to the terms and conditions of the agreement on the part of the Supplier in implementing any disaster contingency plan, insurance coverage and back-up and other data safeguards in accordance with the terms of the Agreement against natural disaster, fire, sabotage or other similar occurrence shall not be an event of Force Majeure.

## **28. Resolution of disputes**

### **Resolution of disputes**

Any dispute arising out of or in connection with this Agreement or the tender document shall in the first instance be dealt with in accordance with the escalation procedure set forth herein.

### **Scope of Dispute Resolution**

Except where otherwise provided in the agreement, all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here-in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the agreement, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the services and deliverables or the execution or failure to execute the same whether arising during the progress of the

Project (define) or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter:

If any dispute arises between the purchaser and the Supplier in connection with, or arising out of, the agreement or tender conditions or execution of the Supply/work, whether before or after the repudiation or other termination of the agreement, including any disagreement by either party with any action, inaction, opinion, instruction, determination, certificate or valuation, the matter in dispute shall, in the first place, be referred to the Director, KSNDMC. Either party may refer a dispute to the Director or Principal Secretary, KSNDMC, who shall give a decision in writing within 30 days of reference of dispute. Either party may refer a written decision of Director or Principal Secretary, KSNDMC for arbitration. .

- a) In case either party is not satisfied with the decision of the Director or Principal Secretary, KSNDMC, they can institute arbitration proceedings as per Indian Arbitration and reconciliation Act, 1996, after a 30-day notice period.
- b) Any dispute or difference or claim arising out of, or in connection with, or relating to the Agreement or breach, termination or invalidity thereof, shall be referred to and settled under the Arbitration Center, Karnataka (domestic and international) rules 2012, by one or more Arbitrators appointed in accordance with its rules.
- c) Arbitration proceedings shall be held in Bangalore and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.
- d) Any litigation in courts shall be in Bengaluru Jurisdiction only.

### **29. Interpretation of Clauses**

In case of any ambiguity in the interpretation of any clauses in the bid document, Director, KSNDMC interpretation of the clauses shall be final and binding on all parties.

### **30. Third Party Claims**

The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods or any part thereof in reference to this Supply/work order in India.

### **31. Performance Related SLAs**

#### **32.1 SLAs during Warranty period**

The Supplies and Support and Maintenance services shall be provided on all days which include Sundays and general holidays also. The Supplier shall repair/replace/maintain the equipment in good working conditions. If there is a delay in providing maintenance services during the Agreement period, the Supplier is liable to be penalized.

#### **1. SLA for Repair/Maintenance/ Replacement:**

<b>Sl. No.</b>	<b>Item</b>	<b>Penalty</b>
1	Telemetric Rain gauge / Telemetric weather stations (Supply delay erection delay) including sensors /solar panel / battery.	Rs.200/day/station
2	Painting (Pole / Mast, Data logger box, solar panel mounting structure).	Rs.50/day/ station



Penalty for Sl. No.1 of SLA shall be applicable after 2 non-working days of each of the TRG / TW stations. If the consecutive non-working days of each station is beyond 30 days the contract shall be terminated and the bank guarantee shall be forfeited and the contractor shall be blacklisted.

Painting of all the TRG and TWS specified in the locations as per Annexure VIII shall be done once after 18 months, 36 months and 54 months each after the date of satisfactory installation / refurbishment, any delay for not painting beyond 30 days from the above said days shall attract a penalty as mentioned above subject to maximum delay until 60 days beyond which the contract shall be terminated and PBG shall be forfeited.

After successfully attending the call A call sheet duly signed by user and should be submitted to the section concerned of the purchaser. In case the Supplier do not repair/replace the faulty hardware/software devices within 30 days from í í í , the Purchaser reserves the right to forfeit the PBG amount and vendor shall be blacklisted.

Replacement of product/sensor shall be of same specifications as mentioned in this tender document.

### **32. Submission of Proposals**

The Technical and Financial bids duly signed digitally shall be uploaded by the intended tenderer electronically to e-Procurement platform-[www.eproc.karnataka.gov.in](http://www.eproc.karnataka.gov.in).

### **33. Evaluation Process**

The bids are evaluated in 2 phase process as below:

- First Phase - Evaluated based on Technical Qualification Criteria
- Second Phase - Evaluated based on Commercial aspects

### **34. Technical Evaluation Conformance**

The Bidders shall be evaluated based on the technical criteria. Bidders failing to meet the Technical criteria shall not be considered for opening their Commercial Bid.

- a. Purchaser reserves the right to seek clarifications and additional documentary evidence from the bidders to ascertain any other information required but not available in the tender document.
- b. Decision of the Purchaser in the evaluation of the Technical bids shall be final.

### **35. Commercial Bid Evaluation**

The commercial quotes submitted by technically qualified bidders will be opened in e-Procurement Portal. The total value of all items put together would be the basis for evaluating the lowest tender.

### **36. Payment terms**

Payment of 100% of the invoice value will be made after satisfactory installation and Commissioning of TRG /TWS or refurbishment of the Sensors, equipment/ component, software and on submission of bank guarantee as the case may be and certification by the competent authority.

TDS and any other applicable taxes as per prevailing rates, will be deducted before making the payment. Payment towards comprehensive AMC shall be made on quarterly basis subject to deduction of penalty if any.



***ANNEXURE 1: UNDERTAKING***

**To,**  
**Karnataka State Natural Disaster Monitoring Centre (KSNDMC)**  
Government of Karnataka  
Major Sandeep Unnikrishnan road, near Yelahanka-Attur Layout,  
Bangalore-560064

Sir,  
We M/s í í í í í í . (Name of the bidder) here in after Called òthe Supplierö do hereby affirm and Undertake to abide by all the terms, conditions and specifications given in the bidding document No. Datedí í í .. While performing the contractual obligations relating to supply, installation, Refurbishment and maintenance of TRG and TWS. We also adhere to guarantee clause as specified in Terms and conditions of the contract.

Yours faithfully,

Signature of the bidder and with office seal

Place:

Date

***Annexure 2: Turnover***

**[Auditor’s certificate shall be issued by the Chartered Accountant Firm/Chartered Accountant who regularly audit the Company’s accounts]  
TO WHOMSOEVER IT MAY CONCERN**

I have verified the financial statements of the ,,.,.,.,.,., for the years 2016-17,2017-18 and 2018-19 and certify that the annual turnover of the company for last 3 years is as under:.

<b>Financial year</b>	<b>Total Turnover of the Company (in Rs Crores )</b>
<b>2016-17</b>	
<b>2017-18</b>	
<b>2018-19</b>	

Chartered Accountant Name  
Signature  
Seal

*Annexure 3: Declaration on Non Black-Listment*

DD/MM/YYYY

To

KSNDMC

Dear Sir,

Sub.: Declaration on non Black-Listment

We \_\_\_\_\_ hereby confirm that our firm/organization/company has neither been blacklisted by the Government of Karnataka or any of its agencies for any reasons whatsoever, nor has our firm/organization/company been blacklisted by Central / any other State/UT Government or its agencies for indulging in corrupt or fraudulent practices or for indulging in unfair trade practices.

Sincerely yours

Authorized Signatory  
Name and Designation  
<< Bidder Name >>

*Annexure 4: Technical Staff Details*

<b>Details of Technical Staff working in Karnataka (Attach additional sheet if required)</b>							
<b>Sl. No.</b>	<b>Name of the place</b>	<b>Name of Employee</b>	<b>Qualification</b>	<b>Total experience</b>	<b>Experience in the present company</b>	<b>Area of expertise</b>	<b>Contact Details with address</b>

Place:

Date:

**ANNEXURE – 5: COMMERCIAL BID**

**Supply, Installation, Refurbishment and Comprehensive Annual maintenance of Telemetric Rain gauge and Telemetric Weather stations in Karnataka**

Intending Bidders shall quote prices for all items listed hereunder failing which the bid shall be treated as invalid.

<b>Sl. No.</b>	<b>Description of Goods</b>	<b>Quantity</b>	<b>Price per Unit in Rs.</b>
01	Supply, installation, commissioning and maintenance of TRG	25	
02	Supply, installation, commissioning and maintenance of TWS	4	
03	Data Logger	1847	
04	Battery	1847	
05	Solar Panel	1847	
06	Solar Charge Controller	1847	
07	GSM Modem with Antenna	1847	
08	Data Logger	1847	
09	Rain gauge sensor	1246	
10	Temperature and Humidity Sensor	601	
11	Wind Speed Sensor	601	
12	Wind Direction Sensor	601	
13	TWS Mounting Mast & hardware accessories.	4	
14	Mechanical part of Wind Speed Sensor	601	
15	Mechanical Wind Direction Sensor	601	
16	TRG mounting mast & hardware accessories.	25	
17	Charges for Comprehensive Maintenance of TRG for a period of 4 years.	2 <sup>nd</sup> year	
		3 <sup>rd</sup> year	
		4 <sup>th</sup> year	
		5 <sup>th</sup> year	
18	Charges for Comprehensive Maintenance of TWS for a period of 4 years.	2 <sup>nd</sup> year	
		3 <sup>rd</sup> year	
		4 <sup>th</sup> year	
		5 <sup>th</sup> year	
19	Painting during refurbishment of TRG and TWS	1847	
20	Painting during CAMC period at an interval of 18 months each	1876	

**ANNEXURE – 6**

**PERFORMANCE SECURITY BANK GUARANTEE FORM**

To  
The Director,  
Karnataka State Natural Disaster Monitoring Centre  
Yelahanka,  
Bangalore-560064

WHEREAS ..... (Name of contractor) hereinafter called "the Supplier" has undertaken, in pursuance of Agreement No..... dated..... 2020 for Supply, Refurbishment and maintenance of Telemetric Rain gauge and Telemetric Weather stations.

AND WHEREAS it has been stipulated in the Agreement that the Supplier shall furnish a Bank Guarantee issued by a Scheduled Commercial bank for a sum equivalent to 10% of the total contract value specified therein as performance security for complying with the contractual obligations.

AND WHEREAS we having agreed to give the Supplier a Guarantee: THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the contractor, up to a total of..... (Amount of the Guarantee in Words and Figures) and we undertake to pay you, upon your first written demand declaring the contractor to be in default under the Contract and without cavil or argument, any sum or sums within the limit of ..... (Amount of Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein. This guarantee is valid until the three months of the date of expiry.

Signature and Seal of Guarantors  
.....  
.....  
.....

Date.....2020

Address: .....

## *Annexure 7*

# Technical Specifications

Specification for the Supply, Installation, Commissioning, refurbishment & 5-year onsite maintenance (including standard warranty of one year) of GPRS & GSM enabled and solar powered Telemetric Rain gauge & Telemetric weather stations and integrating with existing data network system installed by Karnataka State Natural Disaster Monitoring Centre (KSNDMC) in Karnataka.

<b>Sl. No.</b>	<b>Item Description</b>	<b>Qty. approx.</b>
<b>1</b>	Supply, Installation of Telemetric rain gauge and Telemetric weather stations.	25 TRG and 4 TWS
<b>2</b>	Refurbishment of TRG and TWS & five year onsite maintenance of GPRS & GSM enabled and solar powered Telemetric Rain gauge stations, integrating with existing data network system installed by KSNDMC in Karnataka State.	1246 TRG and 601 TWS

Specifications of Telemetric Rain gauge and Telemetric Weather Station equipment.

### **Instrument**

Should have GPRS (Secured HTTP/Secured FTP) facility for data transmission.

Auto re-transmission of failed packets of data to the web link.

Automatic Data reporting through SMS.

At closing time, in case data logging to web link fails, data dump facility to provide data for previous one year of the selected date should be available through SMS command.

Storage device instrument should have capacity to store on-site data for one year period in intervals of 15 minutes .

Time stamping of Data Packets.

Enable/Disable facility of Alert functionality.

### **GSM/GPRS Modem Technical Specifications:**

Frequency: 900MHz and 1800MHz (EGSM Dual Band)

HF Output max: 2W Class 4 at 900MHz and 1W Class 1 at 1900MHz

Antenna Impedance: 50   SIM Card: 1.8V or 3V Power Supply: 6V to 30V-DC

Operating temperature:-30°C to +85°C

Electric Current: 30mA/12VDC (receipt) 0.5A (transmission)

Interface: RS 232 Antenna Included with cabling

Protection: IP 65

Functioning: Multi level Alarm dial out, preprogrammed dial out, remote interrogation facilities

Modem shall support 4G / 5G telecom technology (SIM) and should have dual SIM compatibility.

Remote management of modem to switch over to any of the two SIM cards should be available.

### **Other**

- Simple interface to set time and date.
- Provision to read the GPRS Signal Strength.
- Ability to accommodate two SIM Cards with different service providers.
- Automatic time sync facility from website.
- Centralized control for Version updates.

### **Civil works**

Proper foundation should be laid for civil work at the site with RCC of 1:2:4, length 10" X width 10" X height 12öabove roof level.

Mast for mounting the sensors should be made up of Stainless steel or GI material with 18 or lower gauge.

All metallic components should be painted with standard quality-approved rust proof paints

Mast must be at least 2 meters in height to mount the sensors and house the electronics with proper enclosures (IP65), high quality hinges and internal locks.

### **Electronics**

Micro controller / Microprocessor based.

Should have adequate non-volatile memory for one year data buffering for 10 variables at 15 minutes interval.

User interface through LCD / LED and Keyboard.

Battery backed operation; battery warranty shall be 12 months.

Solar powered standalone operation.

Expandability for more parameters.

Data Logger with a minimum of 4 channels (TRG) and 8 channels for (TWS) or more with necessary software

Sensor cabling: Industry standard weather-proof cable for data transmission

### **Solar Panels**

Solar Panels: 25 Watt

Typical Peak Power: 25 Watts

Voltage at Peak Power: 17.1 VDC

Current at Peak Power: 1.17 A

Minimum Peak Power: 18 Watts

Short-Circuit Current: 1.27 A

Open-Circuit Voltage: 20.8 VDC

Wind Load Exceeding: 55 m/s

### **Battery- 9Ah, 12V**

Rechargeable sealed lead-acid batteries /SMF batteries with 12 months of replacement warranty.

- Maintenance- free
- Overcharge protection
- Leak-proof



- High-impact resistant battery case made of non-conductive ABS plastic.
- Resistance to shock, vibration, chemicals and heat
- Batteries must power the sensors and electronics of the TRG or TWS for at least 14 days, even in the absence of power generation from the solar panel.

### **SMS commands**

To check the status of the modem.

To avail data dump for the last one year.

To set time, FTP intervals, alert parameters.

To remotely configure site details.

To configure server details (user name, password and server IP address).

Remote Programming and Software utilities for the operation from Master Control Centre

### **Sensor Specifications –**

#### **Rain gauge**

Tipping bucket based; the material used should be polycarbonate or industrial standard metal

Granularity of 0.5 mm

Non-Contact electromagnet sensing

Industrial weather proof material for outer shell and inner components

Easy calibration facility

Telemetric Rain gauge stations shell made of FRP. Bucket made of stainless steel and mounting assembly of powder coated brass or gun metal.

#### **Temperature**

Fully calibrated

Digital output

Operating range: -20 to +60 degree Celsius

Accuracy: +/-0.2 deg C

Precision: min 0.04 degree C; Max 0.05 degree C; Typical: 0.05 degree C

Low power operation preferably at low voltages, with less than or equal to 12V DC

Proper encapsulation and weather shielding

Material used for housing the sensor should be of industrial standard

#### **Relative Humidity**

Fully calibrated

Digital output

Operating range: 0 to 100% Rh, Non-Condensing type

Accuracy: +/-2.0% Rh

Precision: \ Min: 0.4%, Max 0.05% and Typical 0.05%Rh

Low power operation preferably at low voltages, with less than or equal to 12V DC

Proper encapsulation and weather shielding

Material used for housing the sensor should be of industrial standard

There should be option for combining Temperature and Relative Humidity Sensors

They should be mounted inside a proper Radiation-Shield, made up of industry standard material.

### **Wind Speed**

Fully calibrated

Digital pulse output

Cup anemometer-Material should be polycarbonate or industrial standard

Operating Range: 0 to 60 m/s

Accuracy: better than 0.5 m/s for range up to 10 m/s + / -2% of full scale for range above 10 m/s

Starting Threshold: 0.3 m/s

Brass / Aluminum or suitable metallic housing

### **Wind Direction**

Fully calibrated

Digital Output / Analog output

Digital output: 8 direction in coded in 3 bits

Analog output: 0 to 359 deg

Brass / Aluminum or suitable metallic housing

### **Solar Radiation**

Fully Calibrated

Output: 0-25 mili Volts Digital Output-

Range: 0-1500 W/Sq.m

Time Constant: < 30 Seconds

Sensitivity: ~20 micro Volts / W / m<sup>2</sup>

Spectral range: 0.3 to 3 micro meters

### **Accuracy:**

Tolerance should be as below limited by the precision of the instrument which in this is 0.5 mm (1% up to rainfall intensity of 50 mm every day and 2% of rainfall intensity of 50 to 100 mm per day. With IMD/national/international certification

**Note:** Calibration certificate of the sensors proposed have to be submitted which is certified by IMD or WMO.

### **Onsite maintenance**

Should cover on-site maintenance of the hardware, software, sensors, electronics and all civil works for a period of 5 years from the date of commissioning.

Downtime Max: 24 hours

### **Calibration policy**

Each Rain tipping bucket sensor is to be calibrated once in every 3 months on site by the Supplier and the calibration certificates are to be submitted to KSNDMC.

*Annexure – 8*  
*Time Schedule*

District Name	TRG	TWS	Time in days		
			Delivery	Installation	Testing & Commissioning
BAGALKOTE	30	14			
BALLARI	40	22			
BELAGAVI	40	27			
BENGALURU RURAL	20	14			
BENGALURU URBAN	93	14			
BIDAR	25	26			
CHAMARAJANAGARA	77	13			
CHIKKABALLAPURA	30	26			
CHIKKAMAGALURU	10	27			
CHITRADURGA	117	16			
DAVANAGERE	25	18			
DAKSHINA KANNADA	0	11			
DHARWAD	96	11			
GADAG	25	6			
HASSAN	20	32			
HAVERI	155	12			
KALABURAGI	146	24			
KODAGU	0	13			
KOLARA	25	26			
KOPPALA	88	19			
MANDYA	35	27			
MYSURU	35	25			
RAICHUR	20	33			
RAMANAGARA	20	17			
SHIVAMOGGA	4	32			
TUMAKURU	50	41			
UDUPI	0	6			
UTTARA KANNADA	0	27			
VIJAYAPURA	25	13			
YADGIR	20	13			
<b>Total</b>	<b>1271</b>	<b>605</b>			