



KARNATAKA STATE NATURAL DISASTER MONITORING CENTRE
(Autonomous organization of Revenue Department, Govt. of Karnataka)



**TENDER DOCUMENT
FOR**

**Supply, Installation, Commissioning and maintenance of
Telemetric Rain Gauge, Telemetric Weather Stations and
Telemetric Water Level sensors in Mangaluru, Belagavi and
Hubballi-Dharawada cities, Karnataka**

Contents

1. Time schedule for Bidding3
2. Terms and Definitions	..4
3. Introduction	..4
4. Scope of Tender	5
5. Pre-Qualification Criteria	.7
6. Technical Qualification Criteria	...8
7. Procedure for Submission of Bids	9
8. Clarification on Tender Document	.10
9. Bid Prices	10
10. Authorized signatory11
11. Bid Security	11
12. Bid Validity Period	.12
13. Contacting KSNDMC	12
14. Assignment / Sub contracts	..13
15. Notification of Award	.13
16. Performance Bank Guarantee	.13
17. Technical Rejection Criteria	...14
18. Commercial Rejection Criteria	...14
19. Liquidated Damages	...14
20. Termination of Contract	.15
21. Force Majeure	15
22. Resolution of disputes	15
23. Interpretation of Clauses	16
24. Third Party Claims	.17
25. Performance Related Service	.17
26. Evaluation Process	.17
27. Technical Evaluation Conformance	...18
28. Commercial Bid Evaluation	...18
29. Payment Terms	...18
Annexure 1: Technical specifications	...20
Annexure 2: List of TRG, TWS, TWLS and IP Camera.....	27
Annexure 3: Undertaking.....	28
Annexure 4: Turnover.....	29
Annexure 5: Declaration on not being blacklisted	30
Annexure 6: Technical Staff Details	31
Annexure 7: Commercial bid.....	32
Annexure 8: Sample format for authorisation letter of OEM to be submitted by non-manufacturer bidder	33

Supply, Installation, Commissioning and maintenance of Telemetric Rain Gauge, Telemetric Weather Stations and Telemetric Water Level sensors in Mangaluru, Belagavi and Hubballi-Dharawada cities, Karnataka

1. Time schedule for bidding

Tender reference No:	KSNDMC/Tech/04/2021/
EMD	Rs.2,60,000 /- (Rupees Two Lakhs Sixty Thousand)
Last Date for Receiving Queries	20.03.2021 till 5:00 p.m.
Pre-bid meeting & venue	26.03.2021 at 11:00 a.m. at KSNDMC office
Last Date and Time for submission of Bids	07.04.2021 till 03:00 p.m.
Venue, Date & Time of Opening Of Technical Bids	On 08.04.2021 at 04:00 p.m. at KSNDMC office
Presentation by technically pre-qualified bidder	On 17.04.2021 at 04:00 p.m. at KSNDMC office
Contact Person, Phone No. and e-mail	R.K. Abhinand, Senior Scientific Asst. Phone: 9964237382, 08067355000 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

Note: It will be in the interest of the bidders to familiarize themselves with e-procurement portal to ensure smooth submission of the tender documents. It is also advised not to wait for the submission of the bid on the portal till the last date so as to avoid problem that may occur in uploading the bid to the portal due to any glitches or for any other reason at the last moment.

2. Terms and Definition

1. GoKö shall stand for the Government of Karnataka.
2. öKSNDMCö refers to Karnataka State Natural Disaster Monitoring Centre.
3. öBidderö/Tenderer means, person / firm / company / Organization participating in this tender.
4. öSupplierö shall mean the successful Bidder with whom KSNDMC signs the agreement for rendering of services for Supply, Installation, Commissioning and maintenance of TRG, TWS and TWLS.
5. öTRGö means Telemetric Rain Gauge.
6. öTWSö means Telemetric Weather Station.
7. öWLSö/öTWLSö means Water Level Sensor/ Telemetric Water Level Sensor
8. öIMDö means India Meteorological Department.
9. öPBGö refers to Performance Bank Guarantee.
10. Unit Price: Unit price is the price for a single component / equipment.
11. Project refers to the work of Supply, Installation, Commissioning and Maintenance of TRG, TWS and TWLS in Mangaluru, Belagavi and Hubballi-Dharawada cities, Karnataka
12. MCF: Master Control Facility located at KSNDMC, Yelahanka, Bengaluru
13. Contract period: From the date of issue of purchase order till the date of completion of warranty period in all respects; that is the end of 5 years.
14. Purchaser: Means KSNDMC
15. Authorised Representative: Means the authorised Indian Company with which the OEM partners for taking up sales and marketing of OEM's products in Indian along with maintenance.

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 were later broadened to include other natural disasters as also the activity of monitoring and was accordingly 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 various response players in the field of natural disaster by providing timely pro-active science & technology inputs. The Master Control Facility will strengthen the activities of the centre in providing information, reports & advisories to the community, research organizations and the Government. The Centre provides inputs to the farming community, agriculture and horticulture sector, fisherman, transport, power and electricity, 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 Tender

4.1 Supply: Supply, installation, commissioning and maintenance of Telemetric Rain Gauges (TRG), Telemetric Weather Station (TWS) and Telemetric Water Level Sensor (TWLS) as per the specifications detailed in **Annexure -1**. Civil Works have to be made in respect of TRG, TWS, and TWLS where supply and installation is involved.

The equipment shall be supplied to the locations identified by the purchaser (KSNDMC), as given in **Annexure 2**. The number of sensors/equipment indicated are approximate and may vary for which unit rate applicable will be paid. The bidder shall take all necessary actions related to the supply, transportation of equipment to the sites, installation, configuration and complete integration of Hardware and Software modules to meet the requirements as per the Tender on turn-key basis.

4.2 Installation and Commissioning: Installation and commissioning of all the equipment shall be completed by the successful bidder within 120 days from the date of acceptance of the purchase order. Delay in installation of equipment / components attract, penalty at the rate of 1% of the contract value per week of delay or part thereof, subject to a maximum of 10% of the contract value. In case where the penalty reaches the maximum percentage, the performance security of the successful bidder will be liable for forfeiture and can be blacklisted.

4.3 Warranty: The Bidder warrants in writing that the Goods supplied under the Contract are new and unused. The Supplier shall provide one year warranty to all the equipment and related accessories supplied. The warranty of the equipment shall commence from the date of completion declared by KSNDMC of satisfactory supply, installation, testing and commissioning of the all the stations.

4.4 Comprehensive Maintenance: The Supplier shall provide onsite comprehensive maintenance (CAMC) for all the equipment / accessories supplied, for a period of four years from the date of completion of warranty. During the period of warranty and Comprehensive Maintenance (CAMC), the successful bidder shall maintain all the equipment / accessories supplied to ensure that they are kept in full working condition and functional by replacing necessary spares and accessories wherever necessary at no extra cost to the purchaser.

4.5 Delivery and Installation: Safe delivery of the instruments to the respective field stations along with required software at Master Control Facility (MCF) will be the responsibility of the bidder. The Successful Bidder shall take the responsibility of integrating the existing TRG and TWS stations network. All the power connectors should plug into the Indian-type electric sockets. The installation shall be such that the system design is modular and upgradable to meet the future requirements, if any in terms of equipment & software. Flow of data to MCF should be through local GPRS only. The supplier should provide perpetual license of all the application software provided. The supplier should also provide latest versions of upgraded firmware of DAS, software application, data retrieval software, communication software etc., at no extra cost until completion of the contract period.

4.6 Acceptance Test on installation and Training: On installation and commissioning; the equipment / components will be tested for their performance. If the results of the tests are not within the margins specified by the manufacturer/OEM or in the codes/manuals of the professional bodies, the tests shall, if required, be repeated and necessary corrective action taken by the supplier to ensure that the components /equipment supplied meets the performance specification prescribed. If the equipment / accessories supplied and installed do not conform to the specification in the Tender Document and tests are not within the margins specified by the OEM or in the codes/ manuals of the professional bodies, the Purchaser has the right to reject all equipment/components or part thereof. The Purchaser on giving 30 days notice in writing to the Supplier; defects/problems in the equipment/ components supplied shall be rectified or the units replaced by the Supplier.

Successful bidder should provide operational and maintenance training of equipment/sensors installed in Mangaluru, Vijayapura, Hubballi-Dharawada cities to the KSNDMC officials. During the training period, installation of all application and operating software should be demonstrated. A detailed training plan about the topics to be covered in the training, shall be

Supply, Installation, Commissioning and maintenance of Telemetric Rain Gauge, Telemetric Weather Stations and Telemetric Water Level sensors in Mangaluru, Belagavi and Hubballi-Dharawada cities, Karnataka

submitted by the successful bidder, sufficiently in advance before commencement of training programme, for KSNDMC's information and approval.

4.7 Maintenance: The successful bidder should offer warranty of one year for all the equipment and related accessories supplied along with onsite comprehensive maintenance for a period of four years from the date of completion of warranty period. During the period of warranty, and comprehensive maintenance, in the event, the equipment develops snags or malfunctions or if it stops functioning altogether, the purchaser will inform the bidder, and the bidder's should attend to the complaint immediately and replace the defective equipment.

During the period of warranty and comprehensive maintenance, the downtime of the whole Network should not exceed the following limits:

- i. 5 days of down time for MCF located at KSNDMC, where the application & configuration software is installed.
- ii. No field station should be down for more than 10 days from the time the complaint is logged.

Delays exceeding the limits mentioned above attracts penalty as indicated below.

All costs towards re-export / re-import of defective unit / units including custom duties, transportation charges etc., shall be borne by the bidder. The Bidder need to undertake quarterly visits as mutually agreed to between the Purchaser and successful bidder.

5. Pre-Qualification Criteria for Technical bid

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 required
1	The OEM/Authorized representative of the OEM/ Bidder should be in business related to Supply, Installation, Commissioning and Maintenance of TRG, TWS, TWLS Networks for at least 5 years as on 31.01.2021.	Registration Certificate issued under the Companies Act 1956/2003 of the OEM/ Authorised representative of the OEM/ Bidder (Certificate of Incorporation).
2	The OEM/Authorized representative of the OEM/ Bidder's average annual turnover shall be more than Rs. 3,00,00,000 (Three Crores) during the period 2017-18, 2018-19 & 2019-20.	Annexure 4: The Bidder shall submit copies of the profit and loss accounts and balance sheets as well as IT returns for these three Financial

Supply, Installation, Commissioning and maintenance of Telemetric Rain Gauge, Telemetric Weather Stations and Telemetric Water Level sensors in Mangaluru, Belagavi and Hubballi-Dharawada cities, Karnataka

		Years duly self-attested. Notwithstanding anything stated above, the Purchaser reserves the right to assess Bidder's capability and capacity to perform the contract, should circumstances warrant such an assessment in the overall interest of the purchaser.
3	The Bidder should produce the self-attested photocopies of the company's PAN Number, GST certification.	Copy of Company PAN Number, GST to be furnished.
4	The Bidder should not have been blacklisted by Government of Karnataka or its agencies & Central / any other State/UT Government or its agencies for corrupt or fraudulent practices or for indulging in unfair trade practices or for any reasons whatsoever.	Annexure 5: The bidder to give an undertaking in Annexure 5 that the OEM/Bidders organisation has not been blacklisted
5	Technical Support and Service Centers: The Bidder should have a technical support centre in India with service engineers / technical staff for providing service as and when required.	Annexure 6: The bidder to give an undertaking in Annexure 6 confirming that service centre is located in India and have adequate technical engineers and technical staff to provide technical support.

6. Technical Qualification Criteria

SI. No.	Technical Qualification Criteria	Documents/ proof
1.	The OEM/authorized representative of the OEM/ bidder should have experience in Supply, Installation and Maintenance of at least 100 Telemetric Rain Gauge, 10 Telemetric Weather Stations and 25 Telemetric Water level sensors or related Hydrological Network.	Submit documentary evidence from the organisation to whom supplies were made. Also attach performance certificate issued by the institution/s who procured the equipment.
2.	Proof of Concept / Presentation	Bidder shall submit documentation / technical brochures about the working principle of the proposed sensors and details of the protocols of data transmission capability to auto retransmit / store the data in case of failure of telecom signal at the site. The document should also consist of calculation of the battery sizing based on the equipment and all other electronic components used in the system.

Supply, Installation, Commissioning and maintenance of Telemetric Rain Gauge, Telemetric Weather Stations and Telemetric Water Level sensors in Mangaluru, Belagavi and Hubballi-Dharawada cities, Karnataka

		The Bidder need to provide presentation after being pre-qualified detailing the salient features and performance output of the equipment.
3.	Product Brochure	Technical brochure is to be submitted and the same should be available on the bidder's website too.
4.	Compliance statement of specifications	Compliance statement of the specifications to be provided along with proof of documentation in terms of Technical Broachers.

7. Procedure for Submission of Bids

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 EMD of Rs 2,60,000/- and tender processing fee as specified to the e-Procurement portal through any of the four e-payment options in the portal and submit their Technical and Commercial bids electronically on the same portal:

- 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 minimum 2-3 days for confirmation from the bank regarding the EMD realization. Also, 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.

7.1 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 e-Procurement portal. 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.

7.2 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.

7.3 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.

8. Clarification on Tender Document

Prospective Bidders requiring any clarification on the tender document may submit queries, in writing, in the following format with in the last date prescribed:

Queries received after the last date and time prescribed shall not be entertained.

KSNDMC will post the Queries received and Clarifications on the portal (<http://eproc.karnataka.gov.in>) and KSNDMC website www.ksndmc.org

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

9. 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

Supply, Installation, Commissioning and maintenance of Telemetric Rain Gauge, Telemetric Weather Stations and Telemetric Water Level sensors in Mangaluru, Belagavi and Hubballi-Dharawada cities, Karnataka

due diligence. The tenderer shall quote prices in **Annexure 7** - Commercial bid. Tender will be rejected in the event of failure of the tenderer to quote for all items in the Annexure 7.

Prices quoted in the Commercial bid for each item, shall be all inclusive price including basic cost, duties, all taxes, packaging charges, 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.

10. Authorized Signatory

The "Bidder" 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.

11. Bid Security (EMD)

The EMD of the unsuccessful Bidder will be returned within 30 days after the Selected Tenderer has signed the Contract and 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 he / she fails to sign the Agreement with in the time specified or furnish the required Performance Bank Guarantee.

12. Bid Validity Period

12.1 Period of Validity of Bids: Bids shall remain valid for a period of 90 days from the date of opening of Technical Bids, unless declared to the contrary. Any bid valid for a shorter period may be treated as non-responsive and rejected.

12.2 Extension of Period of Validity: In exceptional circumstances, KSNDMC may request the Bidder(s) for an extension of the period of validity of bid offered. 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.

13. Contacting KSNDMC

13.1 Contact by Writing: No bidder shall contact KSNDMC officers 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.

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

13.3 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.

13.4 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 to KSNDMC. 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.

14. 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.

15. Notification of Award

15.1 Signing of Contract

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

15.2 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

16. Performance Bank Guarantee

The successful tenderer, within 7 days of the Signing of Contract, 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 63 Months from the date of issue of bank guarantee and thereafter, another bank guarantee (for AMC) for 10% of contract value Valid for a period of 63 months extendable till the expiry of the contract. 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:

17. Technical Rejection Criteria

- 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 to the signatory technical bid containing commercial details.
- Bid not substantially responsive to the tender document.
- Failure to furnish proofs for information provided.
- Bidders not quoting for the complete scope of Work as indicated in the Tender documents.
- 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 Successful bidder

18. 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.

19. Liquidated Damages

Subject to clause for Force Majeure, if the successful bidder fails to complete the assignment in compliance to the time schedule prescribed in the Purchase/ Work order or the extended date or if the successful bidder 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 successful bidder apart from blacklisting of the selected successful bidder for further participation in any of the tenders of the KSNDMC.

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

20. 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 successful bidder, 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.

21. Force Majeure

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 successful bidder at the cost of Supplier and/or terminate the Agreement.

22. 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 Principal Secretary, Revenue Department, GoK or the Commissioner, KSDMA, who shall give decision in writing within 30 days of reference of dispute.

- a) In case either party is not satisfied with the decision of the Principal Secretary 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.

23. 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.

24. 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 or claims under labour laws etc.

25. Performance Related Service

25.1 Service 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 condition.

1. Penalty for Delay / Repair / Maintenance / Replacement:

Sl. No	Item	Penalty
1.	Delay in supply of all the supplied Sensors and Hydrological Equipment.	A penalty of 1% of the contract value for every week of delay or part thereof subject to a ceiling of 10% of the contract value.
2.	Sensors and Hydrological Equipment (10 days downtime for all the supplied Hydrological Equipment).	A penalty of 1% from the contract value per day per station subject to a ceiling of 10% of the contract value for each Station.

The supplier shall diligently attend the service calls and rectify nonfunctioning of the software application within a maximum period of five days for MCF located at KSNDMC; 1 week for delay in supply and 10 days for the Seismic equipment from the date & time the complaint is logged.

Penalty for Sl. No. 2 shall be applicable as specified after 10 days. If the consecutive non-operational days of each station are beyond 30 days, the contract shall be terminated and the bank guarantee shall be forfeited and the contractor shall be blacklisted. Replacement of product/sensor shall be of same specifications as mentioned in this tender document.

26. Evaluation Process

The bids are evaluated in 2 phases

- First Phase - Evaluation based on Technical Qualification Criteria
- Second Phase - Evaluation based on Commercial Criteria

27. 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.

28. 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.

29. Payment terms

Payment shall be made subject to recoveries, if any, by way of delay in supply as per service terms, liquidated damages / penalty clause / TDS or any other charges as per the payment terms of the Supply Order if not specified elsewhere in the document. No advance payment will be made towards supply of the required goods. **No payment shall be made for partial delivery.**

Payment towards Supply, Installation, Commissioning of TRG, TWS, TWLS and IP Camera will be made to the successful bidder on satisfactory Supply, Installation, Commissioning and Testing of all the TRG, TWS, TWLS and IP Camera on submission of 10% of the total contract value in the form of Performance Bank Guarantee. The price which quoted by the bidder under the Comprehensive Maintenance (CAMC) for four Years shall be divided equally and will be paid on quarterly basis after completion of each quarter.

The following Documents need to be submitted along with the Invoice for payment:

- a. supplier's commercial invoice showing contract number, goods description, quantity, unit price and total amount
- b. Copies of packing list identifying contents of each package
- c. Manufacturer's/Supplier's warranty certificate
- d. Inspection certificate issued by the nominated inspection agency, if applicable as per the contract
- e. Manufacturer's own factory inspection report
- f. Certificate of origin

Supply, Installation, Commissioning and maintenance of Telemetric Rain Gauge, Telemetric Weather Stations and Telemetric Water Level sensors in Mangaluru, Belagavi and Hubballi-Dharawada cities, Karnataka

- g. Insurance certificate
- h. Port of Loading & Discharge
- i. Expected date of arrival to India

ANNEXURE - 1
(Technical Specifications)

Sl. No.	Item Description	Qty. approx.
1	Supply, installation, Commissioning of TRG, TWS, WLS with five year onsite maintenance of GPRS & GSM enabled and solar powered Telemetric Rain gauge stations, Telemetric Weather Stations integrating, Telemetric Water Level Sensors and integrating with existing data network system installed by KSNDMC in Belagavi ,Mangaluru and Hubballi-Dharawada City limits, Karnataka.	75 TRG, 29 TWS , 50 WLS , 30 IP Camera

1. Specifications of Telemetric Rain gauge 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.

GSM/GPRS Modem and Antenna 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: 0°C to +60°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 2G, 3G and 4G 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 12" above roof level.

Mounting Mast

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 (rust proof or non corrosive) 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.

Data logger should be accessible using USB or RS232 ports and User interface to view the data onsite through LCD / LED and Keyboard as is the present practice prevailing at KSNDMC.

User interface through LCD / LED and Keyboard.

Battery backed operation; battery warranty shall be 12 months.

Solar powered standalone operation.

Expandability for more parameters.

ISO certified Data Logger with a minimum of 4 channels (TRG) or more with necessary software.

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

Solar Panels

Solar Panels: 20 Watt or higher.

Typical Peak Power: 20 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

Withstand wind speed upto 55 m/s

Battery

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

Supply, Installation, Commissioning and maintenance of Telemetric Rain Gauge, Telemetric Weather Stations and Telemetric Water Level sensors in Mangaluru, Belagavi and Hubballi-Dharawada cities, Karnataka

- Batteries must power the sensors and electronics of the TRG for at least 14 days, even in the absence of power generation from the solar panel.

Battery should have the capacity to cater the power to the sensors and all other electronic components installed in the TRG for a minimum period of 14 days in the absence of power supply 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 bucket shall be made up of stainless steel of 304 grade or ABS plastic or industrial grade material and mounting assembly of powder coated brass or gun metal which are non-corrosive.

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/Stainless steel of 304 grade.

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: 120 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.

2. Specifications of Telemetric Weather Station.

Instrument

Should have GPRS (Secured HTTP/Secured FTP) facility for data transmission
Data reporting to the website at 15 minute interval
Auto retransmission of failed packets of data to the website
Automatic Data reporting through SMS in case of any failure in data logging to website at closing time
Data dump facility through SMS command for any date in the previous year
On-site data storage facility of 15 minutes data up to 1 year
Time stamping of Data Packets
SMS alerts on 3 programmable thresholds of Rainfall
Configurable Destination, Threshold for Alert report
Enable/Disable facility of Alert functionality

Other

Provision to browse the data for any given date
Simple interface to set time and date
Provision to read the GPRS Signal Strength
Ability to accommodate different service providers
Automatic time sync facility from website
Centralized control for Version updates

SMS commands

To check the status
To avail data dump for any given date
To set time, FTP intervals, alert parameters
To remotely configure site details
To configure server details (user name, password and server address)
Remote Programming and Software utilities for the operation from Master Control facility Centre

Electronics

Weather station should include data logger, rain gauge sensor, Cup / Ultrasonic anemometer for wind speed and wind direction, `.
Should have adequate non-volatile memory for 1 year data buffering for 10 variables at 15 minutes interval
User interface through LCD and Keyboard.
Should be Battery backed operation.
Solar powered standalone operation.
Expandability for more parameters.
Data Logger with a minimum of 16 channels with necessary software.
Sensor cabling: Industry standard weather-proof cable for data transmission

Calibration policy

Rain sensors to be calibrated every month on site. Other sensors for Temperature, Relative Humidity, Wind Speed, Wind Direction and Solar Radiation to be calibrated every year and the calibration certificates are to be submitted to KSNDMC Calibration report should also be submitted to KSNDMC at the time of supply.

Batteries

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 TWS for at least 14 days, even in the absence of power generation from the solar panel.

Battery should have the capacity to cater the power to the sensors and all other electronic components installed in the TWS for a minimum period of 14 days in the absence of power supply from the solar panel.

Civil works

Proper foundation should be laid for civil work at the site with RCC of 1:2:4.

Mast for mounting the sensors should be made up of Aluminum or GI material

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, high quality hinges, internal locks, painted on either side of the

Onsite maintenance

Should cover on-site maintenance of the hardware, software, sensors, electronics and all civil works for a period of 5 years after 1 years of warranty period from the date of commissioning
Downtime Max: 24 hours

3. Specifications of RADAR Water Level Sensors

Sensor:

Sensor Type: Non-Contact Radar Type

Range: 10 meter

Resolution: 0.01m

Accuracy: +/- 1%

Beam Angle: Less than 16 degree

Output Interface: SDI-12 / RS 485 / 4-20 mA/ RS232/ Compatible with data logger

Power Supply: To be powered by Rechargeable battery with Solar Panel

Material: Corrosion Resistance

Enclosure: IP67 Ingress protection

Accessories: Sensor Mounting support, cables and other accessories as required

Operating Temperature: 0 to 70 degree celsius

Others: Should have inbuilt error correction and diagnostic features

Data Logger:

Data Storage: Device instrument should have capacity to store on- site data for one year period

Other Features: Device Status/Health Messages

Remote Device Firmware Update

Standalone Unit with keypad and display

USB 2.0 Port

Enclosure: Wall /Pole mountable IP65 Enclosure.

Communication:

Type: Internal GSM/GPRS Modem. Modem shall support 3G, 4G or 5G technology (SIM) and should have dual SIM compatibility with GPS.

Antenna: GSM: 800-960 MHz, 1880-1930 MHz

Power:

Battery: 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 TWLS for at least 14 days, even in the absence of power generation from the solar panel.

Battery should have the capacity to cater the power to the sensors and all other electronic components installed in the TWLS for a minimum period of 14 days in the absence of power supply from the solar panel.

Solar Panel: 10W/12V or better

Charge Control: Smart Charge Controller

Accessories:

- Sensor Mounting support
- Cantilever arrangement from a mast/wall or suitable arrangement according to the site condition.
- Data logger Mounting PoleCorrosion free mount and clamps to adjust and fix frames holding solar panels
Connectors, cables and other accessories as required

Batteries

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 TWS for at least 14 days, even in the absence of power generation from the solar panel.

Battery should have the capacity to cater the power to the sensors and all other electronic components installed in the TWS for a minimum period of 14 days in the absence of power supply from the solar panel.

4. Specifications of IP Camera

Description	Specifications
Camera	Image Sensor - 1/2" Progressive Scan CMOS Min. Illumination Color: 0.008 Lux @ (F1.2, AGC ON), 0.014 Lux @ (F1.6, AGC ON)
Resolution	3840 × 2160
Protocols	TCP/IP, UDP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, UDP, Bonjour, SSL/TLS
Security	Password protection, complicated password, HTTPS encryption, 802.1X authentication (EAP-TLS 1.2, EAP-LEAP, EAP-MD5), watermark, IP address filter, basic and digest authentication for HTTP/HTTPS, WSSE and digest authentication for ONVIF, TLS1.2
Communication Interface	1 RJ45 10M/100M self-adaptive Ethernet port
Protection	IP67

ANNEXURE – 2

(List of TRG, TWS and TWLS Stations in each of the Listed SMART Cities, Karnataka)

City Name	Instruments/Sensors			
	TRG	TWS	TWLS	IP Camera
BELAGAVI	18	7	15	10
MANGALURU	23	9	20	10
HUBBALLI- DHARAWADA	34	13	15	10
Total	75	29	50	30

ANNEXURE 3: UNDERTAKING

To,
The Director
Karnataka State Natural Disaster Monitoring Centre (KSNDMC)
Government of Karnataka
Major Sandeep Unnikrishnan Road, near Attur Layout, Yelahanka,
Bangalore ó 560 064

Sir,

We M/s í í í í í í . (Name of the bidder) here in after Called öthe Bidderö do hereby affirm and

Undertake to abide by all the terms, conditions and specifications given in the bidding document Noí í í , dated í í í .. while performing the contractual obligations relating to Supply, Installation, Commissioning and Maintenance of the TRG, TWS , TWLS in the three SMART cities in Karnataka. 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 4: TURNOVER

Annual turnover of the company for the years 2017-18, 2018-19 & 2019-20 is furnished hereunder:

Financial year	Turnover of the Company (in Rs. Crores)
2017-2018	
2018-2019	
2019-2020	
Average Turn over	

ANNEXURE 5:
Declaration on not being black listed

DD/MM/YYYY

To
KSNDMC

Dear Sir,

Sub.: Declaration on not being blacklisted

We M/s _____ hereby confirm that our firm / organization / company has not been blacklisted by the Government of Karnataka or any of its agencies or by Government of India / any other State / UT Government or its agencies for indulging in corrupt or fraudulent practices or for indulging in unfair trade practices or for any reason whatsoever.

Sincerely yours

Authorized Signatory
Name and Designation
<< Bidder Name>>

ANNEXURE 6: Technical Staff Details

Details of Technical Staff working in Karnataka							
Sl. No.	Name of the place	Name of the Employee	Qualification	Total experience	Experience in the present company	Area of expertise	Contact Details with address

Place:

Date:

ANNEXURE – 7

(COMMERCIAL BID)

Supply, Installation, commissioning and comprehensive maintenance of Telemetric Rain gauge, Telemetric Weather stations, Telemetric water level sensors and IP Cameras in 3 SMART cities in Karnataka

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

Sl. No.	Description of Goods	Quantity	Price per Unit in Rs.
01	Supply, installation, commissioning and maintenance of TRG	75	
02	Supply, installation, commissioning and maintenance of TWS	29	
03	Supply, installation, commissioning and maintenance of TWLS	50	
04	Supply, installation, commissioning and maintenance of IP Camera	30	
05	Charges for Comprehensive Maintenance of TRG for a period of 4 years.	2 nd year	
		3 rd year	
		4 th year	
		5 th year	
06	Charges for Comprehensive Maintenance of TWS for a period of 4 years.	2 nd year	
		3 rd year	
		4 th year	
		5 th year	
07	Charges for Comprehensive Maintenance of TWLS for a period of 4 years.	2 nd year	
		3 rd year	
		4 th year	
		5 th year	
08	Charges for Comprehensive Maintenance of IP Cameras for a period of 4 years.	2 nd year	
		3 rd year	
		4 th year	
		5 th year	
09	Painting during CAMC period (24 th months and 48 th months).	57	
Grand Total (1+2+3+4+5+6+7)			

The following rate of taxes are included in the price quoted above:

- 1) GST--Percentage
- 2)
- 3)

(Signature of the Authorised Signatory)

(Official Seal)

ANNEXURE – 8

(Format for authorisation letter of OEM to be submitted by non-manufacturer bidder)

Letter Head of OEM

To,
The Director
Karnataka State Natural Disaster Monitoring Centre (KSNDMC)
Major Sandeep Unnikrishnan road,
Near Attur Layout, Yelahanka, Bengaluru - 560 064.

Sub: Authorization Letter to(**Bidder Name**) for participation in the bid for Supply, Installation, Commissioning and Comprehensive Maintenance of Hydrological Equipment in Krishna Basin in Karnataka.

REF: Tender No.: í í í í í í í í í í í í published on í í í í .

Dear Sir,

We are given to understand that M/s í í í í í . (Bidder Name) having an address at í í í í í í . (Address) is intending to bid to above referred tender for supply, installation, Commissioning and Maintenance of TRG, TWS, TWLS and IP Cameras in 3 SMART cities in Karnataka. We, the OEM for í í í .(Item names) hereby clarify that:

M/s í í í í í í í í í .. is the authorised Sales/ marketing Agent to sell our products in India.

2. The above mentioned product/s which includes technology and software is in strict compliance with the import/export control laws and regulations of India.

3. It is assured to KSNDMC that on awarding the contract, we will supply the products, services and after-sale support to M/s í í í í í í í í .. for successful execution of the work.

M/s shall be solely responsible to comply with the End User terms and conditions including the provision of first level support to you in respect of all hardware or software related issues pertaining to the OEM products.

Signature and Seal of authorised signatory

Date

