



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 Raingauges stations in
Karnataka**

Contents

1. Time schedule for bidding	4
2. Terms and Definition	4
3. Introduction.....	5
4. Scope of Work	5
5. Software	9
6. Inspection and testing	6
7. Maintenance.....	6
8. Period for completion of installation.....	7
9. Pre Qualification criteria.....	7
10. General Instructions to bidders.....	8
11. Procedure for submission of bids.....	9
11.1 Tender processing fees.....	9
11.2 Mode of submission.....	13
11.3 Authentication of bid.....	11
11.4 Validation of interlinations in bid.....	11
12. Clarification on tender document.....	11
13. Language of bids.....	11
14. Bid Prices.....	11
15. Bid Currencies	14
16. Bidder Qualification	14
17. Bid Security (Earnest Money Deposit).....	15
18. Bid Validity Period	16
18.1 Period of Validity of Bids.....	16
18.2 Extension of Period of Validity	16
19. Contacting KSNDMC.....	16
19.1 Contact by Writing.....	16
19.2 Rejection of Bid	16
19.3 KSNDMC's Right to Vary Scope of Contract at the time of Award	16
19.4 KSNDMC's Right to Accept Any Bid and to reject any or All Bids	16
20. Assignment/ sub-contracts.....	14
21. Notification of Award.....	17
21.1 Notification to Bidder	17
21.2 Failure to abide by the Agreement.....	17
22. Performance Bank Guarantee	17
23. Technical Rejection Criteria	17
24. Commercial Rejection Criteria	18
25. Liability clause.....	18
26. Liquidated Damages	19
27. Termination of Contract.....	19
28. Force Majeure.....	19
29. Resolution of disputes.....	20
30. Interpretation of Clauses.....	20
31. Third Party Claims.....	21
32. Performance Related SLAs.....	21
32.1 SLAs during Operation and Maintenance	Error! Bookmark not defined.
33. Submission of proposal.....	20
34. Evaluation Process.....	20
35. Technical Evaluation Conformance.....	20
36. Commercial Bid Evaluation.....	20

37. Payment terms.....	20
Annexure 1: Undertaking.....	21
Annexure 2: Turnover.....	22
Annexure 3: Declaration of non blacklistment.....	23
Annexure 4: Technical Staff Details.....	24
Annexure 5: Commercial bid.....	25
Annexure 6: Performance Security Bank Guarantee form.....	26
Annexure 7: Technical specifications.....	27
Manufacturer authorisation form.....	36
Annexure 8: List of locations for supply, installation.....	43
Annexure 9: Statement of compliance.....	53
38. Template for power budget calculation.....	54

1. Time schedule for bidding

Tender reference No:	KSNDMC/2025-26/IND0004
EMD	Rs.9,50,000/-
Last Date for Receiving Queries	31.01.2026 till 5:00 PM
Pre-bid meeting & venue	02.02.2026 at 11:00 AM
Last Date and Time for submission of Bids	23.02.2026 till 11:00 AM
Venue, Date & Time of Opening of Technical Bids	24.02.2026 at 11:30 AM
Venue, Date & Time of Opening Financial Bids	Will be intimated to the Technically qualified bidders
Contact Person, Phone No. and e-mail	Sri. S Jagadeesh, 8147508003 Dmc.jagadeesh@gmail.com , dmc.kar@gmail.com
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. “GoK” shall stand for the Government of Karnataka.
2. “KSNDMC” refers to Karnataka State Natural Disaster Monitoring Centre.
3. “Bidder” means any firm offering the supply and or services sought for in the tender document.
4. “SLA” means Service Level Agreement between KSNDMC and Selected bidder.
5. “TRG” means Telemetric raingauge station.
6. “IMD” means Indian meteorological department.
7. “PBG” refers to Performance bank guarantee.
8. Unit Price: Unit price is the price for a single component / equipment.
9. Supplier shall mean the successful Bidder with whom KSNDMC signs the agreement for rendering of services for this supply, installation and maintenance of TRG stations.
10. Project refers to the contract.
11. Contract period refers to the 60 months from the date of acceptance of items.

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*

The scope of work for Supply, refurbishment, installation and maintenance of Telemetric rain gauge stations (TRGs) at 429 locations across Karnataka as detailed in Annexure – 8 is as mentioned below:

a) Supply & Installation (134 locations):

- Supply and installation of complete Telemetric rain gauge station means supply and installation of new tipping bucket rain gauge sensor along with 304 grade stainless steel metal housing, GSM modem with antenna, battery and data logger, IP67 metal enclosure for housing the data logger and battery, painting of the metal parts (except stainless steel) and carrying out necessary civil works for mounting the TRG mounting mast (304 grade stainless steel) as per the technical specifications mentioned in Annexure 7. All the supplied items shall be brand new.
- Charges towards the SIM card (GPRS and GSM connectivity) shall be borne by the successful bidder.

b) Supply & refurbishment (204 locations):

- Supply and refurbishment of Telemetric rain gauge station means supply and refurbishing of the existing TRGs with a new tipping bucket rain gauge sensor along with 304 grade

stainless steel metal housing, GSM modem with antenna, battery and data logger, changing of suitable internal locks of the existing metal enclosure for housing the data logger and battery, painting of the metal parts (except stainless steel) and carrying out necessary civil works wherever damage is reported as mentioned in the work order. The supplied and replaced items shall be brand new.

- Charges towards the SIM card (GPRS and GSM connectivity) shall be borne by the successful bidder.

c) Shifting, Supply & refurbishment (91 locations):

- Shifting, Supply and refurbishment of Telemetric rain gauge station means shifting the existing TRGs to new site location selected by the purchaser, supply and refurbishing of the existing TRGs with a new tipping bucket rain gauge sensor along with 304 grade stainless steel metal housing, GSM modem with antenna, battery and data logger, changing of suitable internal locks of the existing metal enclosure for housing the data logger and battery, painting of the metal parts (except stainless steel) and carrying out necessary civil works as per the specifications mentioned below. The supplied and replaced items shall be brand new.
- Charges towards the SIM card (GPRS and GSM connectivity) shall be borne by the successful bidder.

d) Comprehensive annual maintenance of complete new TRG and refurbished TRGs for four years after one year of standard warranty:

- Comprehensive annual maintenance of TRG includes replacement and repair of any faulty spares / sensors of the instruments free of cost as per the terms of SLA for a period of four years from the expiry of the warranty period of one year from the date of satisfactory installation as certified by competent authority of KSNDMC.

c) Site for new installation and refurbishment & period of completion of installation:

- The TRG equipment / components shall be either installed with new TRGs or refurbished at 429 locations in the gram panchayats of Karnataka as specified by the purchaser (KSNDMC). The details of the locations for new installation and refurbishment will be provided to the successful bidder along with the letter of intent by KSNDMC.

- New installation and the Refurbishment of telemetric rain gauge equipment shall be completed within 60 days from the date of acceptance of the letter of intent. 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.

d) 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.

5) Software: Source code used for transmission of data from the telemetric rain gauge station to the server provided by KSNDMC, has to be submitted to the purchaser.

Software configured in the Telemetric rain gauge station shall be handed over to KSNDMC 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 of the Purchaser. Detailed project report of the hardware and software along with flow chart has to be submitted to the Purchaser (KSNDMC).

6) 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. A representative from KSNDMC shall inspect the component / electronic equipment for the specifications and standards as per the work order issued to the supplier. 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 equipment / components supplied or replace the units as the case may be.

7) Maintenance of TRGs during the contract period including the warranty period: The Supplier shall provide onsite comprehensive maintenance for all the equipment / components

supplied for five years from the date of acceptance of all items supplied and installed. During the period of comprehensive annual maintenance contract (CAMC), the equipment / 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 72 hours of the calls or e-mail or through any other communication. The Supplier shall deploy a minimum of one person for each district in Malnad and Coastal regions and a minimum of one person shall be dedicated for every 100 TRGs or part of thereof in South interior Karnataka and North Interior Karnataka districts and provide the name and contact details of the deployed person on deployment or any replacement shall be intimated to KSNDMC. Total cost quoted for the comprehensive annual maintenance charges (CAMC) for four years shall be at least thirty percent of the total cost of the component defined in serial No.1 of the commercial bid mentioned in this tender document.

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

It is the responsibility of the service provider to carry the ladder and necessary tools during the service visit. 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.

Theft or shifting:

In case of theft, the purchaser shall be intimated by the service provider within 5 days from the date of such incident by uploading the geo stamped photos and details of the incident on the mobile App developed by KSNDMC. It is the responsibility of the service provider to install the telemetric rain gauge stations components in case of partial theft or complete theft or damage of the TRGs. The service provider shall install the complete TRG in case of complete TRG is stolen or install those parts / component / equipment which are reported to be stolen within a period of 10 days from reporting the case to KSNDMC.

In case of shifting of the TRG(s) the purchaser shall select a suitable site for the shifting of TRG within ten (10) days from the date of intimation for shifting by the concerned authorities where TRGs are installed or by the service provider or incase shifting is necessitated due to situation or conditions which are to be recorded and after which a work order will be released by KSNDMC for the shifting of TRGs within a period of 10 days from the date of selection of the suitable site by KSNDMC.

Note: After satisfactory installation of all the TRGs, if shifting is necessitated the charges for shifting of telemetric rain gauge station within 5kms. from the old / existing location to new location shall be paid by KSNDMC to the service provider at fixed rate of Rs.2,000 per site which includes labour charges for dismantling the TRGs and transportation.

8. Period for completion of installation.

On receiving the LOI by the successful bidder, tentative timeline required for completion of supply, installation and commissioning of TRG has to be submitted.

9. 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 / OEM should be in business related to Supply, installation and maintenance of Telemetric Rain gauge or telemetric weather stations or telemetric water level sensors or IOT devices or meteorological instruments in India.	Registration certificate issued under the Companies Act by a competent authority.
2	Bidder should be authorized partner of 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 should be submitted.
3	The Bidder company's annual turnover shall be for more than Rs.3,81,60,000 (Three Crores eighty one lakhs sixty thousand only) and more than Rs.1,90,80,000 (One crore ninety lakhs eighty thousand only) for MSMEs during the period from 2022-23, 2023-24 & 2024-25.	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	Copy of Company PAN Number, and GST Certificate to be furnished.

	Number and GST Certificate.	
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.	Annexure 3:
6	Technical Support and Service Centers: The Bidder should have a technical support centre in Karnataka with at least 10 service engineers / staff and should have an office in Bengaluru and any three districts of Karnataka (If not should provide a declaration stating that an office will be setup in Bengaluru and any of the other 3 districts in Karnataka).	Annexure 4:

Technical Qualification Criteria

SI. No.	Technical Qualification Criteria	Documents/ proof	Weightage Points
1	The Bidder or OEM should have experience in supply and maintenance of telemetric rain gauge / telemetric weather stations / IOT instruments with Government Department / Public Sector Undertaking in India.	Submit documentary evidence by way of work order(s) and experience certificate(s) issued by the office/s concerned. Work Order and Satisfactory Certificates for Supply and installation of 429 telemetric rain gauge / telemetric weather stations / IOT instruments within last ten years.	20
2	Proof of Concept	A demonstration of the concept is to be made at KSNDMC (Date and time will be intimated to the bidders).	25

3	Technical documents	Document on the concept of the working principle of the telemetric rain gauge station, transmission of data to server and reception of data at server, storage of data, compatibility of software for data transmission, encryption and decryption of data packets, deployment of manpower, power budget calculation of solar panel power generation and battery power dissipation to the sensors and electronic equipment, triggering mechanism, retrieval of data from the data logger. Detailed technical architecture of the proposed solution has to be submitted.	25
4	Data sheet or product brochure	Technical product brochure is to be submitted and the same should be available on the OEM's / Vendor's website. (If any of the product brochure which are mentioned as mandatory is not submitted the technical bid is liable to be rejected).	20
5	Compliance statement of specifications	Compliance statement of the specifications of each component or sensor or equipment as mentioned in this tender document has to be submitted to KSNDMC. (As per Annexure-9)	10

10. 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.

11. Procedure for Submission of Bids

11.1 Tender Processing Fees

Bidder can download the tender document for free of cost from the portal (<https://kppp.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) – 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.

11.2 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: <https://kppp.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.

11.3 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.

11.4 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.

12. 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:

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

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 (<https://kppp.karnataka.gov.in>)

13. 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.

14. 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 site identified by the purchaser. 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 by upto plus or minus twenty five 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.

15. Bid Currencies

Prices shall be quoted in Indian Rupees (INR).

16. 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.

17. Bid Security (Earnest Money Deposit)

The Bid shall contain EMD amount of Rs.9,50,000/- (Rupees Nine lakhs fifty thousand only) and shall be paid through any of the four e-payment options in the portal (<https://kppp.karnataka.gov.in>)

- Credit Card
- Direct Debit
- National Electronic Funds Transfer (NEFT)
- Over the Counter (OTC) – 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.

18. Bid Validity Period

18.1 Period of Validity of Bids

Bids shall remain valid for 90 days from the date of opening of Technical Bids. A bid valid for a shorter period may be rejected as non-responsive.

18.2 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 (by mail). In such case, the validity of EMD shall also be suitably extended.

19. Contacting KSNDMC

19.1 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.

19.2 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.

19.3 Purchaser'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.

19.4 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.

20. 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.

21. Notification of Award

21.1 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.

21.2 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.

22. 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 15% of the total value of the Purchase or 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:

23. 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

24. *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.

25. *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

26. 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.

27. 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.

Termination for Insolvency

The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Purchaser.

Termination for Convenience

The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the

Contract is terminated, and the date upon which such termination becomes effective.

The Goods that are complete and ready for shipment within 30 days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:

- (a) To have any portion completed and delivered at the Contract terms and prices; and/or
- (b) To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.

28. *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.

29. *Resolution of disputes*

The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.

Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

Arbitration proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.

Notwithstanding any reference to arbitration herein,

- a) The parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
- b) The Purchaser shall pay the Supplier any monies due the Supplier.

Settlement of Disputes

In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996 by a Sole Arbitrator. The Sole Arbitrator should be appointed by agreement between the parties; failing such agreement, by the appointing authority namely the Indian Council of Arbitration/President of the Institution of Engineers (India)/The International Centre for Alternative Dispute Resolution (India). A certified copy of the appointment Order shall be supplied to each of the Parties.

Arbitration proceedings shall be held at Bangalore, India, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.

The decision of the Arbitrator shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the Arbitrator. However, the expenses incurred by each party in connection with the preparation, presentation etc. of its proceedings shall be borne by each party itself.

30. 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.

31. 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.

32. Performance Related SLAs

1. SLA for Repair / Maintenance / Replacement:

The supplier shall diligently attend to the service calls made by Purchaser and rectify non-functioning of Automatic Rain Gauge, within a period of three days. The service provider should take action to repair any faulty instrument and should not wait for a complaint or call from the purchaser to initiate action for rectification. On attending the service calls the details of the repair / replacement has to be uploaded in the mobile application developed by KSNDMC.

Sl. No.	Scenario	Action
1	If the service provider fails to rectify more than 50% of the faulty TRGs (except the shift and theft cases until it is rectified as per SLA) within a period of 30 days for two consecutive quarters	the contract shall be terminated and performance bank guarantee shall be forfeited
2	If the consecutive non-working days of any of the station is beyond 100 days	
3	If any of the TRGs are reported to be faulty for more than three times in a quarter.	The TRG shall be replaced by the service provider with a new item for which the TRG is reported to be faulty.
4	Painting of the TRGs civil structure mentioned in this tender shall be done during the 40 month after the date of satisfactory installation, any delay for not painting beyond 60 days (Any delay due to unforced condition shall be intimated to KSNDMC with valid reasons to be recorded).	A penalty of Rs.50/week/station shall be levied and the same shall be deducted from the AMC amount to be paid.

Example:

Contract shall be terminated in following cases and bank guarantee shall be forfeited:

1. If 100 TRGs are found to be faulty during the said quarter and if the service provider fails to rectify at least 50 TRGs during the said quarter that are reported as faulty and
2. If any one of the installed TRGs is found faulty and on intimation to the service provider to rectify remains unresolved for more than hundred days

Penalty for not painting within specified duration:

- a. If painting is to be done during 01.06.2029 to 31.06.2029 and if painting is not done even after 31.08.2029 the penalty shall be calculated from the 01.09.2029 upto the date of completing the painting work.

Definitions of faulty station and not working station, the TRG stations will be considered faulty in following cases:

1. If the TRG station records and send erratic or erroneous data. Erratic or erroneous data means if the TRG station records and pushes data which is abnormally high or low.
2. If the calibration is not done for more than four months.
3. If the TRG station's data packets records or transmits less than 85 packets in a day to the server for data reception provided by KSNDMC.
4. If the TRG station does not record any value in the data logger or does not transmit any record/ data packet to the server for data reception provided by KSNDMC it shall be considered as not working station.

Note: On rectification or attending the TRG station to make it functional without any fault the service provider shall report the same on the web portal developed by KSNDMC and the concerned officials of KSNDMC shall check the same to revoke or unblock the station

33. Submission of Proposals

The Technical and Financial bids duly signed digitally shall be uploaded by the intended tenderer electronically to e-Procurement platform- <https://kppp.karnataka.gov.in>.

34. 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

35. 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.

36. 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.

37. Payment terms

The payment will be released as mentioned below:

Work	Payment terms
On supply, installation and commissioning of the TRG stations. (If the site is not available for installation such reasons may be recorded in writing and certified by competent authority)	50% of the cost of supply, installation, commissioning and maintenance of the TRGs will be paid in case of completion of installation, and commissioning of all TRGs as per the work order and on certification by the purchaser. No partial payment will be released.
Quarterly Calibration of all TRGs installed (except those stolen or needs to be shifted).	1% of the total cost for supply, installation, commissioning and maintenance of the TRGs will be paid for each quarter on uploading Geo stamped photos of TRGs along with the details of the calibration done shall be uploaded onto the mobile application developed by KSNDMC.
CAMC charges will be paid as below:	Balance 30% of the total cost for supply, installation, commissioning and maintenance of the TRGs will be paid as AMC over a period of four years.
CAMC of TRG stations for 2 nd year	6% of the total cost of supply, installation, commissioning and maintenance of the TRGs.
CAMC of TRG stations for 3 rd year	7% of the total cost of supply, installation, commissioning and maintenance of the TRGs.
CAMC of TRG stations for 4 th year	8% of the total cost of supply, installation, commissioning and maintenance of the TRGs.

CAMC of TRG stations for 5 th year		9% of the total cost of supply, installation, commissioning and maintenance of the TRGs.
1	90 - 100% of non-faulty days	100% payment of AMC for every TRG will be released and for theft and shifting cases the AMC amount will be released on pro rata basis based on number of working days of each quarter of those TRGs.
2	80 - 89.99% of non-faulty days	90% payment of AMC for every TRG will be released and for theft and shifting cases the AMC amount will be released on pro rata basis based on number of working days of each quarter of those TRGs.
3	70 – 79.99% of non-faulty days	80% payment of AMC for every TRG will be released and for theft and shifting cases the AMC amount will be released on pro rata basis based on number of working days of each quarter of those TRGs.
4	< 70% of non-faulty days	Nil payment.

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.

If the average working percentage of the TRGs stations installed excluding the shift and theft cases in any of the quarter is less than 90% a penalty of Rs.1,00,000 for every percentage less than 90% shall be deducted from the CAMC charges payable.

Example: Out of 429 TRGs installed 400 TRGs have reported to be pushing 90-100% of data packets, 100 TRGs have reported between 80 – 89.99% of non-faulty days and 80 TRGs have reported 70-79.99% non-faulty days during the said quarter. And if the average working percentage during the said quarter is 88% then the penalty will be calculated as below assuming Rs.975 is the amount quoted towards CAMC for the TRG per quarter for the said quarter:

Amount payable is: (400 TRGs * Rs.975) + (10 TRGs * Rs.877.5) + (15 TRGs * Rs.780) + (4 TRGs * Rs.0) = Rs.14,62,500/-

% non-faulty days per TRG in quarter	No. of TRGs	Amount payable per TRG per quarter in Rupees	Total amount payable in Rupees
--------------------------------------	-------------	--	--------------------------------

90 - 100%	400	975	3,90,000
80 - 89.99%	10	877.5	8,775
70 - 79.99%	15	780	11,700
< 70%	4	0	0
Total (Rupees four lakhs ten thousand four hundred & seventy five only)			4,10,475

Amount payable is: (400 TRGs *Rs.975) + (10 TRGs * Rs.877.5) + (15 TRGs * Rs.780) + (4 TRGs * Rs.0) = Rs.4,10,475/- and a penalty of Rs.2,00,000/- shall be deducted as the working percentage is two percent less than ninety percent during the quarter and final amount payable is Rs.2,10,475/-

38. Bidders of certain countries which share land borders with India:

Tenderers shall note the restrictions of Public Procurements for such country who share land borders with India as per GO No. FD 455 EXP 12/20, Bengaluru Dtd.25.8.2020 shall upload declaration compliance certificate as per format provided below.

Declaration-I as per format on a Government Stamp Paper of Rs.20/- (Passing on the benefit of L-1 rate)

DECLARATION - I

(On Non-Judicial Government Stamp Paper of Rs.20/-)

(To be typed below the line of the e-stamp/stamp paper details)

I, **[Name of the authorized signatory]**, son/daughter/wife of **[Father's/Husband's Name]**, aged about **[XX]** years, residing at **[Complete Residential Address]**, in my capacity as the duly authorized representative/Designation **[Designation]** of M/s **[Name of the Company/Firm]** having its registered office at **[Company/Firm Address]** (hereinafter referred to as the "Declarant Company/Firm"), do hereby solemnly affirm and declare on oath as under:

1. That the Declarant Company/Firm is a bidder for the Tender/Enquiry No. [.....] for the supply of [Supply, Installation and Comprehensive annual maintenance of Telemetric Rain gauges stations in Karnataka].
2. That I am the authorised signatory of the Declarant Company/Firm and am competent to make this declaration.
3. That the Declarant Company/Firm has participated in the bidding process and has been identified as the L-1 (Lowest-1) bidder for the aforesaid tender/enquiry.

4. I/We hereby declare and confirm that all the benefits, including any discounts, rebates, or lower rates (the L-1 rate), are being fully and unconditionally passed on to the procuring entity, **[Karnataka State Natural Disaster Monitoring Centre]**.
5. I/We further confirm that the price quoted and the benefits passed on are genuine and reflect the most competitive pricing offered by us for the subject goods/services under similar terms and conditions.
6. I/We understand and agree that if this declaration is found to be false or incorrect at any stage, the procuring entity reserves the right to take appropriate action as per the provisions of the tender document and applicable laws, which may include debarment or legal action.
7. I/We undertake to produce any relevant records or documentation to verify the L-1 rate and the passing of its benefit, if requested by the procuring agency.

DEPONENT

VERIFICATION:

I, the above-named deponent, do hereby verify on this the **[Day]** day of **[Month]**, **[Year]** at **[Place]** that the contents of the above declaration are true and correct to the best of my knowledge and belief, and nothing material has been concealed therefrom.

DEPONENT

(Signature and Seal of the Bidder/Authorized Signatory)

Witnesses:

- 1.
- 2.

Declaration-II Regarding Land Border Sharing Declaration. Declaration-II (Continued) as per format on a Government Stamp Paper of Rs.20/- (Sharing a land border with India).

Sub: Supply, installation and maintenance of telemetric rain gauge stations for Karnataka State Natural Disaster Monitoring Centre (KSNDMC)

In addition to the prequalification criteria, evaluation criteria and other terms & conditions specified above the following Eligibility Clauses and Sub Contract Clauses have been incorporated in the tender as per the GoI Letter No. F.No. 6/18/2019 -PPD dtd: 23.07.2020, Orders (Public Procurement No. 1 and 2) dated 23.07.2020 & Order (Public Procurement No. 3) dated 24.07.2020, Orders of GoK vide No. FD 455 Exp-12 2020

Bengaluru Dated: 25.08.2020, GoI OM vide No. F.No. 18/37/2020-PPD dtd: 08.02.2021 and O.M No. F.12/1/2021 – PPD) Pt), dated: 02-03-2021 and GoK circular vide No. FD 455 Exp-12/2020 Bengaluru Dtd: 25-08-2020, FD 455 Exp-12/2020 Bengaluru Dtd: 10.03.2021 and FD 455 Exp-12/2020 Bengaluru Dtd: 29.03.2021.

Sl. No.	Clauses
1	Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.
1.1	“Bidder” (including the term ‘tenderer’, ‘consultant’ or ‘service provider’ in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated herein before, including any agency branch or office controlled by such person, participating in a procurement process.
1.2	Bidder from a country which shares a land border with India” for the purpose of this Order means: - An entity incorporated, established or registered in such a country; or a. A subsidiary of an entity incorporated, established or registered in such a country; or b. An entity substantially controlled through entities incorporated, established or registered in such a country; or c. An entity whose beneficial owner is situated in such a country; or d. An Indian (or other) agent of such an entity; or e. A natural person who is a citizen of such a country; or f. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
1.3	“The beneficial owner for the purpose of above clause will be as under: (i) In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means. 53 Explanation – a. “Controlling ownership interest” means ownership of or entitlement to more than twenty-five per cent. Of shares or capital or profits of the company; b. “Control” shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or

	management rights or shareholders agreements or voting agreements;
	(ii) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
	(iii) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
	(iv) Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
	(v) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
1.4	An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
1.5	A certificate for having read the above clauses is required to be submitted/ and uploaded by the tenderer separately as per format at Declaration – II (to be downloaded and uploaded to the KPPP Portal duly signed and attached to hard copies of the tender documents.
1.6	In case of Work contract including turnkey contract. The successful bidder will not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority. A declaration to be submitted during submission of tender as per Declaration – II
1.7	(i) A bidder is permitted to procure raw material, components, subassemblies etc. from the vendors from countries which shares a land border with India. Such vendors will not be required to be registered with the Competent Authority, as it is not regarded as "sub-contracting". (ii) However, in case a bidder has proposed to supply finished goods procured directly/ indirectly from the vendors from the countries sharing land border with India, such vendor will be required to be registered with the Competent Authority. (iii) Procurement of Spare parts and other essential service support like Annual Maintenance Contract (AMC)/ Comprehensive Maintenance Contract (CMC) including consumables for closed

	systems, from original equipment Manufacturers (OEMs) or their Authorized agents, shall be exempted from the requirement of registration.
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In this regard, the bidders are requested to download the Declaration-II (Compliance Certificate regarding restrictions on public procurements from bidders of countries which shares a Land Border with India) and to be uploaded to KPPP Portal duly sealed and signed

DECLARATION – II

Compliance Certificate regarding restrictions on public procurements from bidders of countries which shares a
Land Border with India
(to be furnished on a Government Stamp Paper of Rs.20/-)

The Director,
KSNDMC
Yelahanka, Bengaluru-560064

Sir,

Sub: Supply, installation and maintenance of telemetric rain gauge stations for Karnataka State Natural Disaster Monitoring Centre (KSNDMC)

We have read the clauses regarding restrictions on procurement from a bidder of a country which shares a land border with India (GoI Letter No. F.No. 6/18/2019 -PPD dtd: 23.07.2020 Order (Public Procurement No. 1 and 2) dated 23.07.2020 & Order (Public Procurement No. 3) dated 24.07.2020, Orders of GoK vide No. FD 455 Exp-12 2020 Bengaluru Dated: 25.08.2020, GoI OM vide No. F.No. 18/37/2020-PPD dtd: 08.02.2021 and GoK circular vide No. FD 455 Exp-12/2020 Bengaluru Dtd: 10.03.2021 and FD 455 Exp-12/2020 Bengaluru Dtd: 29.03.2021.

i. I/ We certify that, we are not from such a country which shares a land border with India and we are eligible to be considered. Or I/ We declare that, we are from such a country or countries which shares a land border with India and we have been registered with the Competent Authority and certify that, we fulfill all requirements in this regard and are eligible to be considered. A copy of the valid registration by the Competent Authority is enclosed along with this declaration for Evidence.

ii. We declare that, we will not sub-contract any work to a contractor from such country or countries which shares a land border with India unless such contractor is registered with the Competent Authority in case the work order is released on us. We fulfill all requirements in this regard and is eligible to be considered. (A copy of the valid registration issued by the Competent Authority to be enclosed if applicable)

- iii. We declare that, we will not supply finished goods procured directly/ indirectly from the vendors from the countries sharing land border with India unless such vendor is registered with the Competent Authority.
- iv. We aware of the fact that, if the information provided by us in this certificate/ declaration is found to be false at any stage, this would be a ground for immediate termination of order/ contract/ LoI and further legal action against us in accordance with law.
- v. We are aware that, such registration with Competent Authority should be valid at the time of submission of bids and at the time of acceptance of bids.

Signature of the Authorized Signatory.

Name:

Designation:

Mobile No:

E-Mail ID:

Date:

Seal of the Company

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 (Name of the bidder) here in after Called “the Supplier” do hereby affirm and undertake to abide by all the terms, conditions and specifications given in the bidding document No.

Dated..... While performing the contractual obligations relating to supply, installation and maintenance of TRG. 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 (Firm Name) for the years 2022-23, 2023-24 and 2024-25 and certify that the annual turnover of the company for last 3 years is as under:

Financial year	Total Turnover of the Company (in Rs Crores)
2022-23	
2023-24	
2024-25	

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

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

Place:

Date:

ANNEXURE – 5: COMMERCIAL BID

Supply, Installation, refurbishment and Comprehensive Annual maintenance of Telemetric rain gauge stations 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, refurbishment and commissioning of TRG rain gauge sensor with housing, data logger, battery, IP 67 metal enclosure with internal lock, solar panel, GSM modem with antenna and accessories with necessary civil works (wherever required) and painting of metal parts (except stainless steel).	204	
02	Supply, Installation and commissioning of TRG rain gauge sensor with housing, data logger, battery, IP 67 metal enclosure with internal lock, solar panel, GSM modem with antenna and accessories with necessary civil works (wherever required) and painting of metal parts (except stainless steel).	134	
03	Shifting, Supply, Installation and commissioning of TRG rain gauge sensor with housing, data logger, battery, IP 67 metal enclosure with internal lock, solar panel, GSM modem with antenna and accessories with necessary civil works (wherever required) and painting of metal parts (except stainless steel).	91	
04	Charges for Comprehensive maintenance of TRG for a period of four years.	429	
05	Battery	1	
06	20W Solar Panel	1	
07	45W Solar Panel	1	
08	GSM Modem with Antenna	1	
09	Tipping bucket Rain gauge sensor	1	
10	Tipping bucket Rain gauge sensor with housing	1	

11	TRG mounting mast & hardware accessories.	1	
12	IP 67 metal enclosure with internal lock	1	
13	Civil work for mounting the TRG mounting mast	1	
14	Data Logger	1	
15	Rain gauge sensor housing	1	
16	Charges for calibration services for five years on quarterly basis.	1	
17	SIM card charges per TRG for a period of five years	LS	

Note: Charges for shifting of telemetric rain gauge station within 5kms. from the old / existing location to new location shall be paid by KSNDMC to the service provider at fixed rate of Rs.2,000 per site which includes labour charges for dismantling of TRGs, clearing the dismantled waste and transportation of TRG(s) to the new location / site.

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..... 2025 for Supply, refurbishment and maintenance of Telemetric rain gauge 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.....2025

Address:

Annexure 7

Technical Specifications

Specification for the Supply, refurbishment, commissioning with one year warranty & four years of onsite maintenance of GPRS & GSM enabled and solar powered Telemetric rain gauge station in Karnataka.

Sl. No.	Item Description	Qty. approx.
1	Supply, refurbishment, commissioning and maintenance of TRG with four years onsite maintenance of GPRS & GSM enabled and solar powered Telemetric rain gauge stations in Karnataka.	429 TRGs

I. Tipping Bucket Rain Gauge

The TRG Sensor quoted by the bidders should be well proven and the Performance Certificates from the users for the last five years should be submitted while bidding. Should be Tipping bucket based and the material used should be bucket type. Non-Contact electromagnet sensing, while the shell of the Telemetric Rain gauge station to be made of:

- Rust proof Housing Marine grade stainless steel or 304 industrial grade stainless steel (or)
- Anodized aluminium alloy (AI 99.5 grade)

Sensor Type	Tipping bucket with rugged magnetic reed switch
Resolution	≤0.25 mm per tip or better
Operating Temperatures	-20 to +50°C
Accuracy	○ ±2% or better (Rain rate up to 25 mm/hr.) ○ ±3% or better (Rain between 25 - 50 mm/hr.)

	○ $\pm 4\%$ or better (Rain between 50 - 100 mm/hr.) ○ $\pm 5\%$ or better (Rain rate > 100 mm/hr.)
Range of Rainfall	Unlimited
Height above Funnel	Height should be sufficient to accumulate rain during heavy rainfall / high intensity rainfall events
Rain water drain	The rain water to drain out from the base of the collector
Material of outer body/housing (base / collector)	○ Rust proof Housing Marine Industrial grade Stainless steel of 304 grade or better (or) ○ Anodized aluminium alloy or better (AI 99.5 grade)
Levelling	Suitable levelling adjustment screws along with circular spirit level to be provided on the base of the TRG instrument for levelling the TRG Tipping bucket
Debris protection Filter	Suitable debris protection (SS grade wire mesh) to be provided inside the rain collector unit without disturbing the rain collection
Resistance	Frost, heat & salt resistant, withstanding all climatic conditions
Compliance standards	World Meteorological Organization or IMD

Note: Calibration certificate of the Sensors and UV stabilisation Test certificate of the material proposed / quoted have to be submitted which is certified by IMD or WMO, without which the bidder will not be qualified. The quoted version of the entire TRG instrument to be tested and validated at KSNDMC campus by way of Proof of Concept (PoC) at their own cost and get it certified by the constituted Committee for getting qualified for the Technical Bid.

II. Electronics (Data Logger)

- 32 bit Micro controller / Micro-Processor based or better
- Should have SD card memory or NAND memory of minimum 16 GB for accommodating at least 10 variables at every 15 minutes interval or better
- Data logger should be accessible using both RS484, 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 Keypad with at least three buttons including for Calibration
- Battery backed operation & Solar powered standalone operation

- Should support HTTPS, MQTT and TCP-IP protocols
- Push button to capture image manually
- Expandability for more parameters with AES 128 bit encryption
- Data Logger with required number of channels to connect all the sensors mentioned in this tender and additional two channels to connect the battery and GSM modem should be provided
- Sensor cabling: Industry standard weather-proof cable for data transmission
- Data logger should have the calibration mode (While in calibration mode, the data should not be transmitted to the server and should be visible on the LCD / LED display only). After completion of the calibration there shall be a facility to manually push the calibrated data with details of the TRG station ID and date and time of the calibration to the server at KSNDMC for accountability.
- Data logger to be compatible with any type of sensor provided by any make
- Time synchronisation to be achieved from GPS or locally available navigation system

III. GSM / GPRS Modem

- Frequency: 900MHz and 1800MHz (EGSM Dual Band)
- HF Output max: 2W Class 4 at 900MHz and 1W Class 1 at 1900MHz
- Antenna Impedance: 50Ω SIM Card: 1.8V or 3V Power Supply: 6V to 30V-DC or eSIM
- Operating temperature: 0°C to +60°C
- Interface: RS 232 high gain Antenna included with cabling
- Protection: IP 65 or better
- Functioning: Multi level Alarm dial out, pre-programmed dial out, remote interrogation facilities. Modem shall support 2G, 3G, 4G & 5G or 4G & 5G telecom technology (SIM)
- Should support SMS & FTP
- Should have simple interface to set time & date
- Should have provision to indicate network availability (GPRS Signal Strength)
- Should be compatible with all service providers
- Automatic time sync facility from website
- Centralized control for Version updates, firmware upgrade should be possible over the air (OTA).

IV. Solar Panels

- Cell type: Monocrystalline or Polycrystalline

- Solar Panels: 45 Watt or higher for better backup (For Coastal and Malnad districts)
- Solar Panels: 20 Watt or higher for better backup (For SIK and NIK districts)
- Efficiency: Greater than 15%
- Should be fixed which can withstand wind speed up to 60 m/s or even more

V. Battery

- 12-18 Volt, 15Ah or higher as per the power consumption of the equipment / component of the TRGs, rechargeable sealed Lithium ion
- Overcharge protection
- Leak-proof
- High-impact resistant battery case made of non-conductive ABS plastic
- To cater the power to sensors and all other electronic components installed in the TRG Station for a minimum period of 14 days in the absence of continuous power supply from the solar panel (Power budget calculation is to be submitted).

VI. Instrument

- Should have GPRS (HTTPS / FTPS) facility for data transmission with proper encryption facility
- Auto re-transmission of failed packets of data to the web link
- Automatic Data reporting through SMS
- Should have a provision to push the data to at least two different servers simultaneously as desired by KSNDMC
- 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 at least two years period in intervals of 15 minutes
- Time stamping of Data Packets

VII. Metal enclosure

- Metal thickness: 18 gauge or better
- Size: Minimum of 18 inches (height) * 12 inches (width) * 6 inches (depth)
- Lock: Internal lock with key (Embedded)
- Protection: IP 67 protection or better
- Beading: Rubber beading
- Antirust / anti corrosion painting to be done

- Louvers with internal mesh to be provided
- High-impact resistant battery case made of non-conductive ABS plastic
- Battery should have the capacity to cater the power to sensors and all other electronic components installed in the TRG Station for a minimum period of 14 days in the absence of continuous power supply from the solar panel

VIII. 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 the ground level or rooftop based on the available local site conditions. The site should be levelled and made free of obstacles like bushes and trees
- Mast for mounting the sensors should be made up of Stainless steel or steel material painted with “Class B” finish paint
- All metallic components should be painted with standard “Class B” powder coating paint
- Mast must be at least 1.5 meters in height to mount the sensors and house the electronics with proper metal enclosures of thickness of at least 1.6mm and with inbuilt and embedded lock and high quality hinges (stainless steel)

IX. Calibration policy

- Each Rain tipping bucket sensor is to be calibrated once in every 3 months on site and the calibration certificates of the sensor used to compare with the field sensors are to be submitted to KSNDMC. However, the calibration needs to be taken annually during April, i.e., during Pre-Monsoon season with the approaching Monsoon in mind. Calibration reports are to be submitted online through mobile app developed by KSNDMC.

Specifications for accuracy of travelling standards kit used for calibration are as below:

Rainfall

The TRG Calibrator should be used to perform the calibration, which works with the tipping bucket rain gauge with the superiority on reliable calibration and easy field check.

Specifications:

Bottle 114 mm (H) x Diameter 102mm

Cylinder: 120mm (L) with dispenser and shutter

Support: 210cm (L) x 60cm (W)

Material: PP for bottle and cylinder Stainless for handle and support plate

Flow rate: Around 50mm/hr., 150mm/hr. and 300mm/hr. handle switch

Volume: 785ml water for 200mm diameter gauge with 0.5mm/tip, yield desired tips

MAF and product brochure submission

Details of Make / Models offered against the Tender (To be submitted as part of the Technical Bid)

Sl. No.	Item Description	Make / Model Offered	MAF Required	Product Brochure
1	Solar Panel		Optional	Yes
2	Battery		Optional	Yes
3	GPRS / GSM Router		Optional	Yes
4	Telemetric Rain gauge station sensors		Yes	Yes
5	Data Logger		Yes	Yes
6	Any other component, please mention			

Manufacturer's authorization form

(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, refurbishment, Commissioning and Comprehensive Maintenance of telemetric rain gauge stations in Karnataka.

REF: Tender No.: published on

Dear Sir,

We are given to understand that M/s (**Bidder Name**) having an address at (Address) is intending to bid to above referred tender for supply, refurbishment, Commissioning and Maintenance of Telemetric rain gauge stations in Karnataka.

We, the OEM for..... (Item names) hereby clarify that:

1. M/s 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 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:

Annexure 8

List of locations for supply, installation, refurbishment, commissioning and maintenance of telemetric rain gauge stations in Karnataka at 429 locations

Sl. No.	District Name	Station Name
1	Bagalkote	Alur-SK
2	Bagalkote	Govinakoppa
3	Bagalkote	Haligeri
4	Bagalkote	Kainakatti
5	Bagalkote	Kakanur
6	Bagalkote	Kenduru
7	Bagalkote	Narasapur
8	Bagalkote	Bevinamatti-SH
9	Bagalkote	Devanal
10	Bagalkote	Hosur
11	Bagalkote	Neelanagar
12	Bagalkote	Seemikeri
13	Bagalkote	Sheegikeri
14	Bagalkote	Timmapur
15	Bagalkote	Badagandi
16	Bagalkote	Budihal-SH
17	Bagalkote	Janamatti
18	Bagalkote	Nagarala
19	Bagalkote	Haladur
20	Bagalkote	Hanapur-SP
21	Bagalkote	Hangaragi

Sl. No.	District Name	Station Name
22	Bagalkote	Jummanakatti
23	Bagalkote	Kataraki
24	Bagalkote	Kelavadi
25	Bagalkote	Kutakanakeri
26	Bagalkote	Mangalagudda
27	Bagalkote	Havaragi
28	Bagalkote	Hirebadawadagi
29	Bagalkote	Hiremalagavi
30	Bagalkote	Kataguru
31	Bagalkote	Muradi
32	Bagalkote	Chikkakodagali
33	Bagalkote	Havinahalli
34	Bagalkote	Adihudi
35	Bagalkote	Mareguddhi
36	Bagalkote	Siddapura
37	Bagalkote	Baragi
38	Bagalkote	Gulagal-Jambagi
39	Bagalkote	Melligeri
40	Bagalkote	Nandagav
41	Bagalkote	Soragavi
42	Bagalkote	Khajibilagi
43	Bagalkote	Tamadaddi
44	Bagalkote	Yallatti
45	Ballari	Chanalu
46	Ballari	Agrahara
47	Ballari	Bannihatti
48	Ballari	Hirekereyaginahalli
49	Ballari	Rajapura
50	Ballari	Thaluru
51	Ballari	Yarrayyanahalli
52	Ballari	Byrapura
53	Belagavi	Chamakeri
54	Belagavi	Jakkaratti
55	Belagavi	Siddewadi
56	Belagavi	Radderahatti
57	Belagavi	Badachi
58	Belagavi	Kannal
59	Belagavi	Suttatti
60	Belagavi	Mallapur K N
61	Belagavi	Karadiguddi

Sl. No.	District Name	Station Name
62	Belagavi	Kukadolli
63	Belagavi	Modaga
64	Belagavi	Kalakhamba
65	Belagavi	Waghawade
66	Belagavi	Benachinamaradi
67	Belagavi	Midakanatti
68	Belagavi	Shiradana
69	Belagavi	Dandapura
70	Belagavi	Gujanatti
71	Belagavi	Khanatti
72	Belagavi	Mudalgi
73	Belagavi	Patagundi
74	Belagavi	Kamanakatti
75	Belagavi	Tapasi
76	Belagavi	Tigadi
77	Belagavi	Doniwadi
78	Belagavi	Khanadal
79	Belagavi	Siddapura
80	Belagavi	Yabaratti
81	Belagavi	Yalparatti
82	Belagavi	Kampatti
83	Belagavi	Yadrav
84	Belagavi	Hanamasagar
85	Belagavi	Obalapur
86	Belagavi	Bhandarahalli
87	Belagavi	Aladakatti K M
88	Belagavi	Mabanur
89	Bengaluru South	Bhoohalli
90	Bengaluru South	M.B.Halli
91	Bengaluru South	I. Gollahalli
92	Bengaluru South	Hosa Kabbalu
93	Bengaluru South	Mullahalli
94	Bengaluru South	Hanchikuppe
95	Bengaluru South	Lakkenahalli
96	Bengaluru South	Bannikuppe(K)
97	Bengaluru Urban	Tirupalya
98	Bengaluru Urban	Veerasandra
99	Bengaluru Urban	Billapura
100	Bengaluru Urban	Huttanahalli
101	Bengaluru Urban	Sathanuru

Sl. No.	District Name	Station Name
102	Bengaluru Urban	Chikkabidarakallu
103	Bengaluru Urban	Shrikantapura
104	Bengaluru Urban	Byalaalu
105	Bengaluru Urban	Nelaguli
106	Bidar	Gudapalli
107	Bidar	Ladha
108	Bidar	Chikkanagaon
109	Bidar	Kalkhora
110	Bidar	Hanamanthavadi(R)
111	Bidar	Kosam
112	Bidar	Lanjawada
113	Bidar	Enikoora
114	Bidar	Beeri(K)
115	Bidar	Attarga
116	Bidar	Srimandal
117	Bidar	Hokrana(B)
118	Bidar	Jalasangi
119	Chamarajanagara	Koothanooru
120	Chamarajanagara	Mookhahalli
121	Chamarajanagara	Puttanapura
122	Chamarajanagara	Vaddagere
123	Chamarajanagara	Bailooru
124	Chamarajanagara	Doddalattooru
125	Chamarajanagara	Minyam
126	Chamarajanagara	Shettalli
127	Chamarajanagara	Thimmaraajipura
128	Chikkamagaluru	Haralaghatta
129	Chitradurga	N Devarahally
130	Chitradurga	Chennammanagathihalli
131	Chitradurga	Doddachellur
132	Chitradurga	Kaluvehalli
133	Chitradurga	Byalahalu
134	Chitradurga	Cholagatta
135	Chitradurga	Godabanahal
136	Chitradurga	Byadarahalli
137	Chitradurga	Dummy
138	Chitradurga	kellodu
139	Chitradurga	Santegudda
140	Dakshina Kannada	Arala
141	Dakshina Kannada	Irvathur

Sl. No.	District Name	Station Name
142	Dakshina Kannada	Maninalkur
143	Dakshina Kannada	Ammunje
144	Dakshina Kannada	Barimaru
145	Dakshina Kannada	Kallige
146	Dakshina Kannada	Sajipapadu
147	Dakshina Kannada	Bolanthuru
148	Dakshina Kannada	Manila
149	Dakshina Kannada	Netlamudnur
150	Dakshina Kannada	Peraje
151	Dakshina Kannada	Salethooru
152	Dakshina Kannada	Kadirudyavara
153	Dakshina Kannada	Navooru
154	Dakshina Kannada	Kalanja
155	Dakshina Kannada	Kaniyooru
156	Dakshina Kannada	Shibaje
157	Dakshina Kannada	Thekkaru
158	Dakshina Kannada	Sulkeri
159	Dakshina Kannada	Badaga Yedapadavu
160	Dakshina Kannada	Mutturu
161	Dakshina Kannada	Iruvail
162	Dakshina Kannada	Valpadi
163	Dakshina Kannada	Athikaribettu
164	Dakshina Kannada	Kondemoola
165	Dakshina Kannada	Keyyur
166	Dakshina Kannada	Nidpalli
167	Dakshina Kannada	Amara Mudnuru
168	Dakshina Kannada	Kodiyala
169	Dakshina Kannada	Peruvaje
170	Dakshina Kannada	Kadya Konaje
171	Dakshina Kannada	Kudippadi
172	Davanagere	Halebathi
173	Davanagere	Sriramanagara
174	Davanagere	Ukkadagathri
175	Dharwad	Chikkamalligewada
176	Dharwad	Manasuru
177	Dharwad	Agadi
178	Dharwad	Bandiwada
179	Dharwad	Channapura
180	Dharwad	Devaragudihala
181	Dharwad	Kiresuru

Sl. No.	District Name	Station Name
182	Dharwad	Sharewada
183	Dharwad	Umachagi
184	Dharwad	Bhogenagarakoppa
185	Dharwad	Chakalabbi
186	Dharwad	Devanuru
187	Dharwad	Pashupathilal
188	Dharwad	Chilakawada
189	Dharwad	Navalli
190	Dharwad	Saasvihalli
191	Gadag	Kalasapur
192	Gadag	Mulgund[TP]
193	Gadag	Govanala
194	Gadag	Hullura
195	Gadag	Madalli
196	Gadag	Janthli
197	Gadag	Muradi
198	Gadag	Bidanala
199	Gadag	Chikkavaddatti
200	Gadag	Benakanakoppa
201	Gadag	Gajendraghad[TP]
202	Gadag	Gulaguli
203	Gadag	Amaragol
204	Gadag	Koujageri
205	Gadag	Hosalli
206	Hassan	Mokali
207	Hassan	Koratikere
208	Hassan	Kaduvinahosahalli
209	Hassan	Kattepura
210	Hassan	Tarigalale
211	Hassan	Aladahalli
212	Hassan	Heggadihalli
213	Hassan	Hanyalu
214	Hassan	Kabbalu
215	Hassan	Gadenahalli
216	Hassan	Heggadde(Maranahalli)
217	Haveri	Aladakatti
218	Haveri	Somalapur
219	Haveri	Guddadanveri
220	Haveri	Hediyal
221	Haveri	Guddadachannapur

Sl. No.	District Name	Station Name
222	Haveri	Halebankapur
223	Haveri	Hunagund
224	Kalaburagi	Ghattarga
225	Kalaburagi	Madara B
226	Kalaburagi	Tellur
227	Kalaburagi	Bankalaga
228	Kalaburagi	Nandaraga
229	Kalaburagi	Ramnagar
230	Kalaburagi	Halatadakala
231	Kalaburagi	Hebali
232	Kalaburagi	Tadakal
233	Kalaburagi	Tadol
234	Kalaburagi	Mogha K
235	Kalaburagi	Keriambalaga
236	Kalaburagi	Muddadaga
237	Kalaburagi	Dannuru
238	Kalaburagi	Hittalsiroor
239	Kalaburagi	Garagapalli
240	Kalaburagi	Garampalli
241	Kalaburagi	Jattur
242	Kalaburagi	Kupanoor
243	Kalaburagi	Kardal
244	Kalaburagi	Mogala
245	Kalaburagi	Ivani
246	Kalaburagi	Mugalanagaon
247	Kalaburagi	Dhongaon
248	Kalaburagi	Rampurahalli
249	Kalaburagi	Madari
250	Kalaburagi	Karkihalli
251	Kalaburagi	Sathkhed
252	Kalaburagi	Kallahangarag
253	Kalaburagi	Nedalagi
254	Kalaburagi	Ranjangi
255	Kalaburagi	Algood
256	Kalaburagi	Basavapattana
257	Kalaburagi	Minajagi
258	Kalaburagi	Saradagi B
259	Kalaburagi	Hagaraga
260	Kalaburagi	Bedsur
261	Kalaburagi	Heroor K

Sl. No.	District Name	Station Name
262	Kalaburagi	Benakanahalli
263	Kalaburagi	Sindanmadu
264	Kalaburagi	Telkur
265	Kalaburagi	Chandapur
266	Kalaburagi	Yadaga
267	Kalaburagi	Hulluru
268	Kalaburagi	Kachapura
269	Kalaburagi	Sumbad
270	Kodagu	Aiyamgeri
271	Kodagu	Yammemadu
272	Kodagu	Arekadu
273	Kodagu	Mekeri
274	Kodagu	Arji
275	Kodagu	K Badaga
276	Koppala	Sanapur
277	Koppala	Jangamarkalgudi
278	Koppala	Basarihal
279	Koppala	Jiral
280	Koppala	Mailapur
281	Koppala	Baragur
282	Koppala	Bevinahalli
283	Koppala	Vanaballari
284	Koppala	Halavarthi
285	Koppala	Kalakera
286	Koppala	Masabahanchinal
287	Koppala	Nelzeri
288	Koppala	Antarathana
289	Koppala	Hirenandihal
290	Koppala	Bilekal
291	Koppala	Habalakatti
292	Koppala	Tumarikoppa
293	Koppala	Gumageri
294	Koppala	Kesur
295	Koppala	Shiragumpi
296	Koppala	Lingadahalli
297	Koppala	Bhudura
298	Koppala	Sankanooru
299	Koppala	Tummaraguddhi
300	Mandya	Marchakanahalli
301	Mandya	Hulikere

Sl. No.	District Name	Station Name
302	Mysuru	Hosaholalu
303	Mysuru	Bachegowdanahalli
304	Mysuru	Hommaragalli
305	Mysuru	Padukotekaval
306	Mysuru	Chikkabeechanahalli
307	Mysuru	Hussenpura
308	Mysuru	Bilegere
309	Mysuru	Jabagere
310	Mysuru	Moduru
311	Mysuru	Gurupura
312	Mysuru	Hegganduru
313	Mysuru	Kademanuganahalli
314	Mysuru	Kiranguru
315	Mysuru	Mukanhalli
316	Mysuru	Udduru
317	Mysuru	Arjunahalli
318	Mysuru	Siddapura
319	Mysuru	Maratikyathanahalli
320	Mysuru	Varakodu
321	Mysuru	Bettadathunga
322	Mysuru	Haraduru
323	Mysuru	N Shettihalli
324	Mysuru	Avarthi
325	Mysuru	Chapparadahalli
326	Mysuru	Punadahalli
327	Mysuru	Chowthi
328	Mysuru	Naviluru
329	Mysuru	Kirnalli
330	Mysuru	Honnenahalli
331	Mysuru	Sheegavalu
332	Mysuru	Kandalike
333	Mysuru	Hadanuru
334	Mysuru	Itna
335	Mysuru	Kothegala
336	Mysuru	Yachenahalli
337	Mysuru	Kupya
338	Raichuru	Shavantagera
339	Raichuru	Amarapur
340	Raichuru	Somanamaradi
341	Raichuru	Malledevaragudda

Sl. No.	District Name	Station Name
342	Raichuru	Bhumanagunda
343	Raichuru	Halkavatagi
344	Raichuru	Neeralakera
345	Raichuru	Adavibhavi D
346	Raichuru	Chittapura
347	Raichuru	Kairavadagi
348	Raichuru	Aroli
349	Raichuru	Hiredinni
350	Raichuru	Vatagal
351	Raichuru	Malladagudda
352	Raichuru	Heerapura
353	Raichuru	Nadigaddimalkapura
354	Raichuru	Udamagal
355	Raichuru	Valaballary
356	Raichuru	Hosalli.E.J
357	Raichuru	Yelekudlagi
358	Raichuru	Gonwar
359	Raichuru	Chincharaki
360	Shivamogga	Hanumanthapura
361	Shivamogga	Sanyasikodamogga
362	Shivamogga	Ramachandrapur
363	Shivamogga	Yedajigalimane
364	Shivamogga	Gogga
365	Shivamogga	Hotanakatte
366	Shivamogga	Bedarahosahalli
367	Shivamogga	Muddinakoppa
368	Shivamogga	Sogaane
369	Shivamogga	Tuppuru
370	Shivamogga	Andige
371	Shivamogga	Dhoguru
372	Shivamogga	Katuvalli
373	Udupi	Neelavara
374	Udupi	Thagarasi
375	Udupi	Chara
376	Udupi	Irvathauru
377	Udupi	Kalya
378	Udupi	Kervashe
379	Udupi	Nandalike
380	Udupi	Gopadi
381	Udupi	Gulwadi

Sl. No.	District Name	Station Name
382	Udupi	Hosaadu
383	Udupi	Idurukunjyadi
384	Udupi	Kandavare
385	Udupi	Kattabelthuru
386	Udupi	Korgi
387	Udupi	Ulluru
388	Udupi	Yedamoge
389	Uttara Kannada	SADASHIVALLI
390	Vijayanagara	Ayyanahalli
391	Vijayanagara	Birabbi
392	Vijayanagara	Gaddhikeri
393	Vijayanagara	Madhuru
394	Vijayanagara	Nelkudri
395	Vijayanagara	Kadathi
396	Vijayanagara	Lakshmipura
397	Vijayanagara	Chirabi
398	Vijayanagara	Nagarakatte
399	Vijayanagara	Kakuppi
400	Vijayapura	Kakkalameli
401	Vijayapura	Ramanahalli
402	Vijayapura	Umaraja
403	Vijayapura	Chavadihal
404	Vijayapura	Hingani
405	Vijayapura	Kapanimbaragi
406	Vijayapura	Arjunagi B K
407	Vijayapura	Gubbewada
408	Vijayapura	Ingalagi
409	Vijayapura	Sangogi
410	Vijayapura	Siddanatha R.C
411	Vijayapura	Nagarabetta
412	Vijayapura	Balabatti
413	Vijayapura	Benala
414	Vijayapura	Gani R.C
415	Vijayapura	Guttaragi
416	Vijayapura	Hikkanagutti
417	Vijayapura	Nagavi B K
418	Vijayapura	Bommanahalli
419	Vijayapura	Jamanal
420	Vijayapura	Kumatagi
421	Yadgir	Kakkasgera

Sl. No.	District Name	Station Name
422	Yadgir	Aikur
423	Yadgir	Beernur
424	Yadgir	Gundgurthi
425	Yadgir	Hurasagundagi
426	Yadgir	Heggandoddi
427	Yadgir	Kirdahalli
428	Yadgir	Badyapura
429	Yadgir	Tumakura

Annexure 9

Compliance statement format

a) For all items specified in this tender.

Sl. No.	Prescribed Specification	Proposed specification	Compliance	Deviation if any

38. Template of power generation, battery power and power consumption

Solar Panel Details

Parameter	Value
Rated Power	20 W / 45 W
Nominal Voltage	___ V
Maximum Current	___ A
Panel Derating Factor (dust, temp, ageing)	___ %

Average Daily Solar Energy Generation

Parameter	Value
Peak Sun Hours (PSH):	___ hours/day
Effective Output Power:	___ W
Daily Energy Generated:	___ Wh/day

Formula: Daily Solar Energy=20W or 45W ×PSH×Derating Factor

Component-wise Power Consumption

Sl. No.	Component	Voltage (V)	Current (mA)	Power (W)	Active Time per Cycle (sec)	Cycles/day	Daily Energy (Wh)
1	Rain Sensor					96	
2	Data Logger / MCU					96	
3	Communication Module (Tx/Rx)					96	
4	Communication Module (Idle/Sleep)					Continuous	
5	Other Sensors					96	

Total: _____ Wh / day

Battery Capacity & Power Dissipation Analysis

Battery Specification

Parameter	Value
Nominal Voltage	____ V
Rated Capacity	____ Ah
Gross Stored Energy	____ Wh

Battery Derating & Losses

Factor	Considered Value
Maximum Depth of Discharge (DoD)	____ %
Temperature Derating	____ %
Charge–Discharge Efficiency	____ %
Ageing / Safety Margin	____ %

Factor	Considered Value
Net Usable Battery Energy	___ Wh

Parameter	Value
Net Usable Battery Energy	___ Wh
Daily Energy Consumption	___ Wh/day
Battery Backup Duration	___ days

The bidder shall demonstrate through calculation that the battery alone can power the complete TRG system, including 96 data transmissions per day, for a minimum period of 14 consecutive days without any solar power generation.

Item	Value
Daily Solar Energy Generated	___ Wh
Daily Energy Consumed (96 Tx/day)	___ Wh
Net Energy Balance	___ Wh
Battery Backup Available	___ days

Bidder Declaration

We certify that the above power budget calculations are based on realistic operating conditions, with data transmission every 15 minutes, and that the proposed TRG station shall operate continuously for a minimum of 14 days without solar power generation.

Bidder Name:

Authorized Signatory:

Signature & Seal:

Date: