



KARNATAKA STATE NATURAL DISASTER MONITORING CENTRE
(Autonomous Organisation of Revenue Department, Government of Karnataka)



**TENDER DOCUMENT
FOR**

**Supply, Installation, Commissioning and Maintenance of
Seismic Equipment in Karnataka**

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1. Time schedule for bidding

Tender Reference No:	KSNDMC / TECH / 01 / 2021 /
EMD	Rs. 3,00,000/- (Rupees Three Lakhs)
Last Date for Receiving Queries	20.03.2021 till 5:00 p.m
Pre-bid meeting & venue	25.03.2021 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 09.04.2021 at 04:00 p.m. at KSNDMC office
Presentation by technically pre-qualified bidders	On 15.04.2021 at 11:00 a.m at KSNDMC office
Contact Person, Phone No. and e-mail	Shri. S Jagadeesh, Scientific Officer Shri. R.K. Abhinand, Senior Scientific Asst. Phone: 8147508003, 9964237382, 08067355139 e-mail: IT@KSNDMC.ORG
Address for Communication:	Karnataka State Natural Disaster Monitoring Centre (KSNDMC), Major Sandeep Unnikrishnan Road, Near Attur Layout, Yelahanka, Bengaluru - 560 064.

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 problems 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. “GoK” shall stand for the Government of Karnataka.
2. “KSNDMC” refers to Karnataka State Natural Disaster Monitoring Centre.
3. “Bidder”/Tenderer means, person / firm / company / Organization participating in this tender.
4. “Supplier” means the successful bidder with whom KSNDMC signs the agreement for Supply, Installation, Commissioning and Maintenance of the Seismic Equipment.
5. “PBG” refers to Performance Bank Guarantee.
6. Unit Price: Unit price is the price for a single component / equipment.
7. Project refers to the work of Supply, Installation, Commissioning and Maintenance of Seismic Equipment in Karnataka
8. DAS: Digital Data Acquisition System
9. MCF: Master Control Facility located at KSNDMC, Yelahanka, Bengaluru
10. 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 10 years.
11. Purchaser: Means KSNDMC
12. 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 the Seismic equipment with associated accessories and software with one-year warranty and nine years comprehensive maintenance of six permanent seismological observatories to be established in Karnataka.

Each of the observatories shall have the following equipments:

- a. Broadband Seismometers and accessories
- b. Six Channel Data Acquisition System (DAS) with GPS, and associated accessories
- c. Data acquisition, health monitoring, communication and other utility software with license and media
- d. Solar Power Supply System
- e. Communication system
- f. Automated Real Time Seismic Data Processing Software.

Detailed specifications of the observatory equipments is given at **Annexure-1**.

The list of six field stations to be set up is enclosed as **Annexure-2**. Master Control Facility (MCF) of KSNDMC is currently functioning with SCREAM 4.5 software. The successful bidder needs to integrate the real time seismic data from all the proposed six stations to the existing software or provide an equivalent arrangement. The bidder shall take all necessary actions related to the supply, transportation of equipments 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 & Commissioning: Installation and commissioning of all the Seismic Equipments 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's shall commence from the date of

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completion declared by KSNDMC of satisfactory supply, installation, testing and commissioning of the 6 observatories.

4.4 Comprehensive Maintenance: The Supplier shall provide onsite comprehensive maintenance (CAMC) for all the equipments / accessories supplied, for a period of nine years from the date of completion of warranty. During the period of warranty and Comprehensive Maintenance (CAMC), the successful bidder shall maintain all the equipments / 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 Strong Motion Accelerographs to the newly supplied DAS. 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 through GPRS should be through local LAN 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, GPS, 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: After 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 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 specifications 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 reserves the right to reject all equipment/accessories or part thereof. The Purchaser on giving 30 days' notice in writing to the Supplier; the defects/problems in the equipments/ components supplied shall be rectified or the units replaced by the Supplier.

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Successful bidder should provide operational and maintenance training of seismic equipments 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 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 nine 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, 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 said tender shall meet the following Technical criteria to qualify for the technical bid.

Sl. No.	Pre-Qualification Criteria	Documents / Proof required
1.	The OEM/Authorised representative of the OEM/ Bidder should be in business related to Supply, Installation, Commissioning and Maintenance of Seismic Telemetry 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).

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Sl. No.	Pre-Qualification Criteria	Documents / Proof required
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 from 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 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

Sl. 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 Three Seismic Telemetry Networks.	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 seismic equipment proposed and details of the protocols of data transmission capability to auto retransmit / store the seismic data in case of failure of telecom signal at the site. The document

Sl. No.	Technical Qualification Criteria	Documents/ proof
		should also consist of calculation of the battery sizing based on the equipments and all other electronic components used in the system. 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 Brochures.

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 3,00,000/- 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) – 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: Bid response documents 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 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. Authorised 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 within 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 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.

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

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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 price bid format prescribed in the Tender document.
- 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

22.1 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.

22.2 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 it's 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

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 Seismic 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.	Seismic Equipment (10 days downtime).	A penalty of 1% from the contract value per day per observatory subject to a maximum of 10% of the contract value for each Observatory.

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 seismic equipment will be made to the successful bidder on satisfactory Supply, Installation, Commissioning and Testing of all the six Observatories on submission of 10% of the total contract value in the form of Performance Bank Guarantee. The price which is quoted by the bidder under the Comprehensive Maintenance (CAMC) for nine 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

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

ANNEXURE – 1

(Technical Specifications)

Sl. No.	Item Description	Approximate Qty. (In Nos.)
1	Supply, Installation, Commissioning with one year warranty followed by nine years onsite comprehensive maintenance of Seismic Equipment's in Karnataka and integrating with the existing network of Seismic Observatories established by Karnataka State Natural Disaster Monitoring Centre (KSNDMC) in Karnataka.	06 (Six)

Specifications of the Seismic Equipments are as below:

1. Digital Broadband Seismometer (BBS):

Sl. No.	KSNDMC's Specifications	Specifications Offered by the Bidder	Complied / Not complied	Deviations, if any with remarks
1.1	Type	Tri-axial electronic mechanical force balance broadband velocity transducer in a single sealed module with output for one vertical and two horizontal components orthogonal to each other with low noise 10 Mtr Sensor Cable with end connectors		
1.2	Frequency Response	Flat (within ± 3 dB) to ground velocity, at least in the range of 120 sec to 100 Hz.		
1.3	Dynamic range	Minimum 130 dB		
1.4	Output voltage	± 20 V		
1.5	Damping	0.7 critical		
1.6	Sensitivity	1000 - 2000 V/m/s		
1.7	Linearity	+/- 1% of full scale		
1.8	Mass centering	Automatic or on external command locally or from		

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Sl. No.	KSNDMC's Specifications	Specifications Offered by the Bidder	Complied / Not complied	Deviations, if any with remarks
		remote. No mass deviation within temperature range ± 45 °C. With each sensor mass centering devise must be supplied, for mass centering, if required only.		
1.9	Calibration Facility	Calibration facility from Data Acquisition System (DAS)		
1.10	Frequency response curve and system information	Frequency response curve of the unit along with information regarding transfer function including poles and zeros should be provided as per serial number of each sensor.		
1.11	Electronic self noise	Must be below the USGS Low Noise Model over 100 sec to 10Hz range		
1.12	Indicator	a) Should have an indicator for leveling the transducer. b) Should have an indicator mark on its body to indicate the direction of relative orientation of the Seismometer.		
1.13	Operating Temperatures	-10° to 50°C or better		
1.14	Humidity tolerance	0 to 100% RH		
1.15	Power Requirement	≤ 2.0 watts, derived from the DAS		
1.16	Housing	All the components should be permanently mounted in single stainless steel or cast aluminum casing, water tight, vacuum		

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Sl. No.	KSNDMC's Specifications	Specifications Offered by the Bidder	Complied / Not complied	Deviations, if any with remarks
		tight enclosure.		
1.17	Mass Locking	Automatic Mass Locking facility during transportation		
1.18	Connectors	Water proof and rust proof		
1.19	Cable	Low-loss shielded cable of at least 10 meters with end connectors.		
1.20	Thermal insulation cover	PVC thermal insulation cover should not touch the outer wall of the sensor and must be supplied by the OEM for thermal protection		
1.21	Supporting Document	a) The Bidder should provide detailed technical documentation in support of specifications offered. b) The bidder should provide all details of poles and zeros as per the model and serial number.		
1.22	Spare part	Spare connector to sensor cable		
1.23	Test Report	Submit the test report of the offered model of Broadband seismometer from internationally recognized organizations like USGS or a third party scientific lab/agency		

Digital Data Acquisition System (DAS):

Sl. No.	KSNDMC's Specifications		Specifications Offered by the Bidder	Complied / Not complied	Deviations, if any with remarks
2.1	Number of Channels	Six channels with option to support for one accelerometer & one Seismometer or two individual seismometers with 3-5 mtr power cable			
2.2	Dynamic range	140dB or more measured at 100 sps			
2.3	ADC resolution	24 bit or more; independent digitizer for each channel			
2.4	Input Range	Should match to the sensor outputs			
2.5	Common Mode Rejection	≥ 70 dB			
2.6	Channel to channel skew	a) Zero- Simultaneous sampling of all channels. b) Immune to electromagnetic interference.			
2.7	System noise	Not more than 2-3 counts			
2.8	Sampling rate	a) User- selectable 1,10,20,50,100 and 200 sps per channel in different streams both in continuous and trigger modes simultaneously as per user requirements. b) Provision to select different sampling rates for weak motion and strong motion channels.			
2.9	Filter	Linear phase digital FIR filter.			
2.10	Internal Storage	8 GB or more			
2.11	RAM	At least 128 Mb			
2.12	Hot swappable Storage	SD/CF card of 60 GB or more			
2.13	Recording Format	Standard seismological format compatible to Windows/UNIX/LINUX			

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Sl. No.	KSNDMC's Specifications	Specifications Offered by the Bidder	Complied / Not complied	Deviations, if any with remarks	
		with proven compression technique. It should be easily convertible to SEED format. Direct output of PGA, PGV and PGD from Digitizer.			
2.14	GPS Timing System	a) UTC timed with digitally controlled precision VCXO clock phase locked to GPS b) Timing accuracy less than 0.1mSec when GPS is locked c) Free running TCXO accuracy of 1 ppm over wide temperature range d) GPS receiver electronic circuit should be inside the DAS with Antenna exposed outside e) Antenna cable length should be 20 Mtr or more f) Antenna should be enclosed in water tight and can work effectively in extreme climatic condition g) Antenna mounting rod and its accessories			
2.15	Sensor control	a) Sensor calibration facility for both BB seismometer and SMA b) Sensor mass position monitoring for BB seismometer. c) Sensor mass centering on command for BB seismometer.			
2.16	State of Health of each Channel	Provision for checking state of health information like sensor mass position, temperature voltage, condition of GPS time lock etc. locally and remotely. Also System Software to view the state of health information of DAS and to			

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Sl. No.	KSNDMC's Specifications		Specifications Offered by the Bidder	Complied / Not complied	Deviations, if any with remarks
		Edit / Program acquisition parameters			
2.17	Status display	Status display indicators for power, data acquisition, SOH, GPS etc. should be provided.			
2.18	Gain	Hardware gain selection through software for 0.5, 1, 2 and 4			
2.19	Data acquisition Mode	Both continuous and trigger mode simultaneously. At least two or more data streaming in different sample rates for BBS and Accelerometer in local storage and transmission.			
2.20	Trigger	User selectable, independently for each channel at different sampling rate based on triggering criteria as STA/LTA level etc.			
2.21	Communication	a) In built communication interface circuitry for provision of remote data b) Suitable interface for computer / laptop for parameter setting and data downloading.			
2.22	Transmission setting	Should have facility to select transmission of data to remote location in the following options: a) continuous mode transmission for BB data b) continuous or trigger mode transmission of			
2.23	VSAT connectivity	a) Ethernet port (10/100 Base-T) supporting TCP/IP and UDP / IP b) Compression of data before transferring to VSAT c) Continuous and trigger both. (6 channels)			

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Sl. No.	KSNDMC's Specifications	Specifications Offered by the Bidder	Complied / Not complied	Deviations, if any with remarks
		d) Duplex communication between field and both hubs e) Extensive error correction f) Support for off-the-shelf communication equipment g) Appropriate cable to connect the DAS with the VSAT (RJ-45 port)		
2.24	Power Supply	The digital seismic recorders shall operate from an internal / external 12 Volts DC battery system that can be charged either from solar cells or from a 230 V 50 Hz AC power source. The internal / external battery must be sufficient to operate the system for a minimum of 3 to 4 days without external source for charging. a) Supply voltage 10-15Volts through solar panel activated sealed maintenance free batteries. b) Power consumption of DAS less than 6W at 12V DC recording 6 channels at 100 SPS c) Low battery voltage protection and d) DAS shall resume data acquisition and transmission automatically when the power is restored		
2.25	DC- DC Convertor	A DC-DC convertor between DAS and Battery must be provided to safeguard from a) Spurious voltage b) Low Voltage c) Over voltage charging of batteries, etc.		
2.26	Operating temperature and humidity range	a) Operating Temperature -10 to 50°C b) Humidity Up to 100% RH		

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Sl. No.	KSNDMC's Specifications		Specifications Offered by the Bidder	Complied / Not complied	Deviations, if any with remarks
2.27	Environment	All the indoor units should work in typical tropical environment conditions and should work without air conditioning.			
2.28	Housing	GPS and DAS modules should be enclosed in a weather and shock-proof sealed enclosures, as GPS will be exposed.			
2.29	Software	<p><u>Software and support programs:</u></p> <ul style="list-style-type: none"> • The Data acquisition software to fetch continuous data from all field sites to MCF • The SOH to be accessed through a Web Interface • Recorded data must be either written directly in the MiniSeed / SEISAN format • A format conversion routine to be provided for conversion to MiniSeed / SEISAN format to enable recorded data is compatible with the standard software library • Real time data Configuration • Real time data acquisition (weak motion and acceleration) in DAS including GPS data and State of Health monitoring. • Real time data Monitoring on an external PC • Receiving recorded data to MCF in real time using GPRS in continuous or trigger mode or both as per user selected criteria • Capability to serve the request from MCF for re-transmission of data in case of real time data transmission break / failure • In case of communication failure, automatic request/transfer for the pending data from the point 			

Sl. No.	KSNDMC's Specifications	Specifications Offered by the Bidder	Complied / Not complied	Deviations, if any with remarks
	at which it was executing just before the failure • Real time earthquake analysis			

2. Power Supply System (Solar Panels, Batteries & related accessories):

DC Power supply for Sensors, DAS, GPS and GPRS Modem for each site

- a. All these equipments will be powered by ISO certified branded sealed maintenance Free (SMF) batteries which are charged through solar panels.
- b. Bidder should provide power calculation required to operate seismic equipment at each field station for **at least five days** without charging of batteries from the solar panels (no direct sunshine).
- c. A suitable battery charger working both from AC mains (230VAC 50Hz) & Solar DC is to be supplied.
- d. All outside exposed cables between solar panels and solar charge controlled should pass through a good ducting pipe.

A) Solar Panels:

- 12V, 100 Watts, 5 Amps Standard size of poly crystalline make – 12 Nos.
- Solar Charge Control unit of 12 Volts, 10 / 20A with Battery Reverse Polarity Protection, Display of Charging, Overcharge and Low Battery – 10 Nos.

B) Batteries:

- 12 Volts, 100Ah, Branded SMF Batteries and required cables – 12 Nos.

C) Related Accessories & Works:

- Complete wiring with standard PVC conduit & clamping with standard 15-20 Mtr length for running the Solar power supply system to the Instrument.
- A Solar powered 8-10 Watts white LED Light to be provided inside the Observatory for emergency usage with PIR control.
- Monkey gauging for solar panels and GPS at each Observatory.
- Chemical Earthing at each site to connect the DAS, Solar Power, etc.,

3. Communication System:

Bidder to provide the communication system for transmitting data from the remote observatory to Master Control Facility (MCF), KSNDMC, Bengaluru through GPRS Modem.

Sl. No.	Description of Items	Specification
4.1	Communication / Network Operation	Near Real time through 4G / 3G mobile network
4.2	Processor	Ultra-low power 1.2Ghz New-Gen quad-core processor
4.3	RAM	High Buffer 1 GB LPDDR2 SDRAM

4.4	Storage	16 GB or more
4.5	Connection	Through Ethernet
4.6	Static IP	No static IP to be configured
4.7	Display	Inbuilt 5 inches touch screen display for onsite configuration
4.8	Data Streaming Support	UDP, TCP, HTTP
4.9	Data Transfer facility	Multi device data transfer facility with USB/Ethernet interfacing
4.10	SIM	SIM card will be provided by KSNDMC with a 2-3 GB data plan
4.11	Network Operator Selection	Automatic
4.12	Warranty	One year standard warranty with 9 Years CAMC
4.13	All associated accessories	

4. Automated Real Time Seismic Data Processing Software:

The auto location software to process the received Seismic data and detect the Earthquake Parameters automatically from the data received from remote sites of the KSNDMC Network and disseminate the same to the end Users. The following parameters need to be assessed by the software:

- Local Magnitude (Ml)
 - Duration (Coda) Magnitude (Md)
 - Body Wave Magnitude (Mb)
 - Surface Wave Magnitude (Ms)
 - Crustal Channel Wave Magnitude (MbLg)
 - Broadband Moment Magnitude (Mwp)
 - Moment Magnitude (Mw)
 - Moment Tensor Solutions (MT)
 - Centroid Moment Tensor (CMT)
 - Fault Plane Solutions
 - Focal Mechanism Solutions
 - Additional magnitude of Ms_BB, Ms_Vmax, Mb_BB
 - Support for regional moment tensor & Mw
 - W-Phase moment tensor
1. The required software should feed the data acquired by any Seismic network application software used for real time data acquisition and monitoring, using a separate module / SEEDLINK Server which can accept and process all global formats.
 2. The SEEDLINK Server should be able to convert all the input seismic data received from such Software and further data from other Local & International Agencies such as IMD, NCS & IRIS / GSN respectively to the SEEDLINK output.
 3. Automated Real Time Seismic Data Processing software should have a provision to configure the data from Global Seismic Stations Network through internet for near real time

use in the Master Control Facility (MCF) at KSNDMC, Bengaluru. As the strength of computing Regional events will be limited due to lesser number of Seismic Stations, the provision of adding Seismic data from the external Local & International Agencies will strengthen the computing of Regional events significantly.

4. Generation of an Automatic “EARTHQUAKE ALERT – TO BE VALIDATED” through SMS to a pre-defined list initially and after evaluating the said event, to issue another manual “EARTHQUAKE ALERT - VALIDATED” with further emails to a pre-defined and editable list of subscribers / users using a suitable platform as provided. The Automated Real Time Seismic Data Processing Software should be also able to cancel the Alert in case of large amplitude false triggers.
5. The Preliminary Analysis of data shall be carried out automatically and Hypo-Central Parameters with Magnitude should be displayed on Display Panel in a tabular form. Simultaneously, the auto located earthquake events shall further be displayed through a Web Browser which can display a map of Earthquakes, along with a Legend showing the age of the Earthquakes and their respective Magnitudes along with a facility to Zoom / Un-zoom options. Option for printing the displayed information (both table & map) as a hard copy or to a globally recognised file format to be made available. This software should also be able to be hosted on any Organisations Web Portal, if necessary for public access.
6. The Automated Real Time Seismic Data Processing Software should have a provision of giving a suitable audible alert alarm at MCF on auto-location of every Earthquake event.
7. Automatic events are to be stored in a database separately for later retrieval and post processing.
8. KSNDMC shall provide the necessary Computer Hardware with OS, Anti-Virus Software, Internet facility and Hardware Firewall to avoid the Virus for the Automated System for installation and further usage.
9. The Software to support picking the Phases – Crust, Mantle, Depth, Core & Core reflected phases.
10. The Software to display Seismic traces in both velocity and displacement on the waveform page.
11. The Software to make available a provision to disseminate the Earthquake Information by sending email’s and SMS’s automatically to the Users once the Seismic Event is detected, processed by the Software and further validated by the in house Scientist.
12. The Software to receive the Real Time Seismic data from any format and convert accordingly for processing and alerting the Users.

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13. The Software to have the facility to review the event on the display screen for the Scientist's review and rerun back to the Software, if required.
14. The Successful bidder supplying the Software should install the supplied software at Central Monitoring Station (CMS) located at KSNDMC, Bengaluru along with Media and key.
15. The required space for installation and a Computer with OS will be provided by KSNDMC.
16. KSNDMC will provide a platform for disseminating the Seismic Information to the Users wherein, any number of SMS's can be disseminated.
17. The Successful bidder to give a demo of the Software and training to the 4 Scientists at KSNDMC.
18. The successful bidder to provide with updates and upgrades to the software for a period of 05 years under maintenance from the date of installation at KSNDMC along with perpetual license and media.
19. Onsite training program to be provided at KSNDMC or any specified location by Experts from the Bidder / OEM of the said Software developer for a period of 4 days during working days which shall be scheduled by KSNDMC. The said training program should cover the procedures of Installation, Configuration, Operationalisation, Maintenance, Troubleshooting techniques adopted along with an insight on Technical features available & advantages of the software followed by a series of Presentations.
20. During the Warranty Period, the bidder should be able to provide support related to the technical issues, Updating of Software patches, station configuration etc., through E-mail, Telephone, Fax and Remote Desktop Connectivity as and when necessary and also should provide a hotline for communication.

Data Retrieval & Configuration: The data retrieval and configuration software shall be configured by the supplier compatible for application software, SOH, DAS configurations on the Laptop provided by KSNDMC for field purpose.

ANNEXURE – 2
(List of Seismic Observatories)

Name of the Seismic Observatory & District	Qty.
Almatti Dam, Vijayapura: The Assistant Executive Engineer, Krishna Bhagya Jala Nigama Niyamitha, Quality Control Division No.4, Almatti Dam Site, Basavana Bagewadi Taluk, Vijayapura - 586201 Contact Person: Shri. Ranganna (AE) 9449645183, 8762595228	01
Hidkal Dam, Belagavi: The Assistant Executive Engineer, KNNL, Ghataprabha Quality Control Sub Division No.1, Hukkeri Taluk, Hidkal Dam, Belagavi – 591107. Contact Person: Shri. Raju 9481107609	01
Sub Regional Science Centre, Raichur: Vignana Betta, Rastrakavi Kuvempu Vana, Mantralaya Road, Raichur – 584102 Contact Person: Shri. Shankar 9113698933	01
Linganmakki Dam, Shivamogga: The Assistant Executive Engineer, Quality Control Sub Division, Karnataka Power Corporation Limited (KPCL), Kargal, Sagara Taluk, Shivamogga - 577421 Contact Person: Shri. Girish (JE) 9449174085, 9141611688	01
Jogimatti Forest Guest House: Jogi Matti Road, Chitradurga - 577501 Contact Person:- Narasimhappa 9342147408	01
T.G. Halli Dam, Bengaluru Urban: The Superintendent Office, Thippagondanahalli, Magadi Main Road, Tavarakere Hobli, Bangalore South - 561320 Contact Person: Shri. Ramakrishna Gowda (AE) 9845655146	01
TOTAL	06

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 – 560 064.

Sir,
We M/s (Name of the bidder) here in after Called “the Bidder” do hereby affirm and undertake to abide by all the terms, conditions and specifications given in the Tender document No....., dated while performing the contractual obligations relating to Supply, Installation, Commissioning and Maintenance of the Seismic Monitoring Network of six Stations. 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 reasons 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 Annual Maintenance of Seismic Equipments 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 (In Nos.)	Unit Price (In Rs.)
01.	Seismic Equipments with Digital Broadband Seismometers (BBS), Digital Data Acquisition System (DAS) and software application, Power Supply System (12 Nos. of Solar panels, 10 CCU's, 12 Batteries, Wiring, solar powered LED, monkey gauging, Chemical Earthing), GPRS Communication System and Automated Real Time Seismic Data Processing Software, Installation & Commissioning, shipping & Insurance with one year warranty - as more described in the technical specifications of the Tender Document including all taxes & duties Software application should be provided along with the equipment for configuring the sensors, DAS, GPS and real time data monitoring.	01	
02.	Comprehensive Maintenance Contract fee per observatory after completion of one-year warranty period.	Per Year	
Total Amount under Sl. No. 1 for six Observatories (A)			
Total Amount under Sl. No. 2 for six Observatories for 09 Years (B)			
Grand Total (A +B)			

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 Seismic Equipment 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, installation, Commissioning and Maintenance of Seismic Equipments 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: