



ENGINEERING PROJECTS (INDIA) LTD

(A Govt. of India Undertaking)

Core-3, Scope Complex,

NEW DELHI-110003

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CIN-U27109 DL1970GOI 117585

**Expression of Interest (EOI) invited for association as sub-contractor
through pre-bid tie up**

from

**Experienced Agencies for “Supply, installation & Commissioning of 1000
no of Accelerographs along with specifications to be installed in 225
number of specified Dams in Maharashtra State in India.”**

EOI NO: EPI/CO/BDD/PTT-273/214

Dt. 18.10.2024

(EPIL reserves the right to cancel this request for EOI and / or invite afresh with or without amendments to this request for EOI, without liability or any obligation for such request for EOI and without assigning any reason. Information provided at this stage is indicative and EPIL reserves the right to amend / add further details in the EOI document. Further, this EOI does not in any way restrict EPIL from collaborating with any other Agency/Agencies who express their interest for collaboration at a later stage after end of EOI)



ENGINEERING PROJECTS (INDIA) LTD
Corp Off: Core-3, Scope Complex, NEW DELHI-110003

EOI NOTICE

EOI NO: EPI/CO/BDD/PTT-273/214

Dt. 18.10.2024

Data Sheet

1.	Publishing Date	:	18.10.2024	17:00 Hrs.
2.	Eol Document Download/ Start Date	:	18.10.2024	17:00 Hrs.
3.	Clarification Start Date	:	18.10.2024	17:10 Hrs.
4.	Clarification End Date	:	22.10.2024	15:00 Hrs.
5.	Eol Submission Start Date	:	18.10.2024	17:30 Hrs.
6.	Eol Submission End Date	:	28.10.2024	15:00 Hrs.
7.	Eol Opening Date	:	29.10.2024	15:00 Hrs.
8.	Eol document Availability	:	https://etenders.gov.in , https://epi.gov.in	
9.	Cost of Eol document	:	Rs.5,900/- (With GST)	
10.	Mode of Submission	:	Online through portal	
11.	EMD/BID Security	:	Rs.10,00,000/-	

AGM /BDD for and on behalf of, ENGINEERING PROJECTS (INDIA) LTD, Core-3, Scope Complex, NEW DELHI-110003, invites online EOI for associating with EPIL as sub-contractor (through pre-bid tie up) - on prescribed forms for submitting EPI offer for Supply, installation & Commissioning of 1000 no of Accelerographs along with specifications to be installed in 225 number of specified Dams in Maharashtra State in India as per requirement.

I. Accessing/ Purchasing of Eol Documents

- a) Website <https://etenders.gov.in>, <https://epi.gov.in> may be referred for detailed terms and conditions of the Eol documents, which is available online. Amendments / Corrigendum / Addendum, if any would be hosted on the website only.
- b) Help for Contractors, FAQ, Information about DSC and Bidders Manual Kit containing the detailed guidelines for e-Procurement system are also available on Central Public Procurement Portal.
- c) It is mandatory for all the applicants to have class-III Digital Signature Certificate (in the name of person having power of attorney to sign the Bid) from any of the licensed Certifying Agency (**Bidders can see the list of licensed CA's from the link www.cca.gov.in**) to participate in e-Procurement of EPIL.
- d) It is mandatory for the applicants to get their firm /company registered with e-procurement portal <https://etenders.gov.in>, <https://epi.gov.in> to have user ID & password.

II. Instructions to Applicants for Online Eol Submission on the e-Procurement portal

<https://etenders.gov.in>, <https://epi.gov.in>: Applicants may download and refer "Instructions for Online bid Submission" from <https://etenders.gov.in/eprocure/app.jsessionid=F90A7689A0BF87EF35B88D2CA57C6FD4.cppsugp2?page=StandardBiddingDocuments&service=page>

III. Pre-bid meeting: Not Applicable

- IV. The EoI document shall be digitally signed by the Authorized Signatory of the Applicant & Submitted online only. The authorized signatory must be in Possession of Power of Attorney before submitting the digitally signed EoI. Scanned copies of various documents can be prepared in different file format (PDF, JPEG).**
- V. All queries, if any, in connection with this EOI shall be sent to following officials (in word format) to following nominated person by email as per above mentioned dates:**

Mr. Prashant Bajpai, AGM (Business Development Division)at official number 011-24361965, Extn: 2432, +91-9082046140, email bdd@epi.gov.in

Website <https://etenders.gov.in>, <https://epi.gov.in> may be referred for detailed terms and conditions of the bidding documents, which is available on line. Amendments / Corrigendum / Addendum, if any would be hosted on the website only.



ANNEXURE - I

I. PREAMBLE

ENGINEERING PROJECTS (INDIA) LTD (EPIL), a government company incorporated in 1970 as A Government of India Enterprise under the administrative control of Ministry of Heavy Industries. Since then, EPI has admirably performed its assigned roles as the country's leading Prime Contracting Company and has left its imprint not only in India but in the overseas market as well where its past operation spread over a decade in the wake of oil boom in the Middle East. EPI successfully executed 33 odd projects valued over US\$ 1050.204 million in Iraq, Kuwait, Saudi Arabia, UAE, Yugoslavia, Maldives, Bhutan, Thailand and Oman

EPI has executed over 650 multi-disciplinary projects in India valuing over Rs. 142025.620 million. Through the execution of these projects, EPI has in its own way contributed immensely in the development of the Nation and there is hardly any state in India where EPI's pronounced presence is not visible. EPI has the rare distinction of having worked for almost all Power Sectors and Steel Plants in India in Public Sector as well as in Private Sector. EPI's contribution in project execution for various sectors is also quite substantial.

EPI is proud to be one of the first few companies to have been awarded integrated certification for its Quality Management System, Environment Management System and Occupational Health and Safety Management System i.e. ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 for all its areas of operations. EPI is one of the first few companies to have been awarded ISO/IEC 27001:2013 for Information Security Management System and is a "Mini Ratna" Company

II. ABOUT PROJECT

Name of the work: Expression of Interest for Pre-Tender/Bid Tie Up is invited for Association as subcontractor for Supply, installation & Commissioning of 1000 no of Accelerographs along with specifications to be installed in 225 number of specified Dams in various states like Maharashtra, Madhya Pradesh, Chattisgarh, Kerala etc. in India as per requirement.

Sr.No.	EMD (in ₹)	Tender Fee
1	Rs.10,00,000/-	Rs.5900/-

Scope of Works:

The scope of work shall be read with system requirements and technical specifications given in the entire document. The basic scope of work shall include the following: -

- i) Design and Engineering for workability of Accelerographs at various locations.
- ii) Various Demos and Trial runs as per client requirement.
- iii) Surveying, ground preparation.
- iv) Procurement, supply of Accelerographs at site.
- v) Related Civil and structural works.
- vi) Erection and installation of equipment.
- vii) Inspection, trial run, commissioning.
- viii) Performance guarantee.



ANNEXURE - I

- ix) Operation of the Accelerographs during Defect Liability Period (DLP) with all safety equipment's and safety measures.
- x) Maintenance of the Accelerographs during Defect Liability Period including Repair, Replacement of spare parts, components, critical spares, consumables, equipment etc. free of cost:
- xi) Supply of manuals, special tools etc.
- xii) Any other items not mentioned but required for the completion of above project.

III. OBJECTIVE OF EOI

EPIL wishes to expand aggressively its market share in development & construction of Infrastructure Projects in order to fulfill its objective of multifold growth in its turn over & profitability.

- a) For achieving this goal EPIL is submitting offer for this type of upcoming project of client. Therefore, EPIL intends **to associate with suitable agency as sub-contractor (through pre-bid tie up)** to submit the good offer to client & execute project.
- b) **The submitted technical details by the Applicants as per eligibility criteria shall be evaluated by EPIL. Thereafter-shortlisted Applicant shall be advised to submit their financial offer as per BOQ attached with this EOI physically in hard copy in sealed Envelope with mentioning Price Bid Envelope on it. Bidder has to submitted covering letter as Undertaking which should mentioned about consideration of same specifications as given in EOI tender documents. Applicants are informed not to submit financial offer online & offline otherwise his/her bid will be rejected.**
- c) Financial offers of the shortlisted applicants shall be evaluated by EPIL with based on the specifications considered by bidder. If any bidder submitted their price bid without undertaking letter as mentioned above, his/her price bid will not be considered for evaluation and the applicant who offers the lowest cost of work shall be invited for signing the pre-bid tie up agreement (format attached herewith as Pre Bid Tie Up Agreement).
- d) Selected applicant for pre bid tie -up have to submit full amount of **Bank Guarantee and other required Bank Guarantee or Bid security to the client as required** in favor of EPIL.
- e) Bidder has to submit Bid Security in the form of Bank Guarantee for this Expression of Interest (as bid security) of amount as mentioned in clause No. II in Favor of EPI as per attached format before signing the pre-bid tie up agreement.

IV. COMPLETION PERIOD

Scope of work for pre-bid tie up shall be Supply, Erection, and Commissioning work as mentioned above Clause-II.

All other terms & conditions of the main contract shall be applicable for the sub-contracted portion of work shall be same as issued by Client but the applicant shall be responsible to execute his scope of work so that EPIL is able to complete entire work within the scheduled or extended completion period. However the supply of the equipment shall be within 6 months (or lesser as required by client) after approval of Demo and go ahead for supply from the client.



ANNEXURE - I

The total work to be completed within one year of time and defect liability period should be considered atleast one year. The warranty shall be considered for atleast one year of time. It may be noted that all contract conditions of main contract between EPIL & Client shall be applicable to sub-contracting agreement between EPIL & applicant.

V. INSTRUCTIONS

Instructions for submission of the expression of interest are enclosed at Annex-I and guidelines for the preparation for the expression of interest is enclosed at Annex-II. Interested Companies should fill up the enclosed forms and submit together with a Covering Letter online at CPP portal <https://etenders.gov.in/eprocure/app> not later than EOI due date.

VI. ELIGIBILITY AND QUALIFICATION CRITERIA

Detailed Essential Qualification Criteria is attached herewith this EOI document as **Annexure A**.

Applicants are advised to go through the requirements mentioned in the EQC document & submit their proposal accordingly.

VII. VALIDITY OF OFFER

Validity of Offer shall be 180 (one hundred eighty) days from the date of opening of price bid by the Principal Client or for a further period if mutually accepted. EPI reserves the right to ask for the extension of validity if any.

VIII. AMENDMENT OF EOI DOCUMENT

EPIL may issue addendum(s)/ corrigendum(s) to the EOI documents. In such case, the addendum(s)/ corrigendum(s) shall be issued at any time before closing time of EOI. The firms who have received the EOI documents must check website time to time <https://etenders.gov.in>, <https://epi.gov.in> and ensure that such addendum(s)/ corrigendum(s) (If any) also have been received by them. This shall be the responsibility of the prospective registered applicant to check for any such addendum(s)/ corrigendum(s) at the time of closing time of EOI and ensure that the application submitted by them are in accordance with all the addendum(s)/ corrigendum(s).

IX. EVALUATION CRITERIA AND METHOD OF EVALUATION

Evaluation shall be carried out strictly as per eligibility conditions mentioned and based on verification of testimonials submitted. Applications received without testimonials might not be considered. Decision of EPIL in this regard shall be final & binding.

The EOI is issued with no commitment. EPIL reserves the right to withdraw this EOI at any time and or vary and part thereof at any stage. EPIL further reserves the right to disqualify any application, should it be so necessary at any stage.

X. TERMS AND CONDITIONS

1. Information provided at this stage is indicative and EPIL reserves the right to amend/add further details in the EOI document. Applicants shall go through all documents enclosed with this EOI along with the tender documents issued by Client.

ANNEXURE - I

2. EPIL reserves the right to accept or reject any or all application (s) without assigning any reasons whatsoever EPIL's decision in this regard shall be binding and final.
3. If any of the information, furnished by the applicant, is found incorrect at a later stage, they shall be liable to be barred from participating in current and subsequent opportunities with EPIL. EPIL reserves the right to verify the particulars furnished by the applicant independently.
4. The applicants after submitting the response to this EOI, agrees with EPIL for honoring all aspects of fair-trade practices.
5. The applicants shall bear all costs associated with the preparation and submission of the response to this EOI.
6. Applicant selected shall be notified through their registered emails.
7. Any new Corrigendum issued by Client before submission of bid also may have to be incorporated as and when required.
8. Unless otherwise specified anywhere in the document, all technical specifications for work execution shall be as per latest relevant Specifications, Client specifications and Good Industry Practice.
9. The Supplier/OEM Authorized agency (Bidder) shall submit point-by-point compliance statement of the technical specification of the tender equipment should accompany the bid along with the explanations as to how the compliance is achieved. It should also be supported by illustrative literature/catalogue.
10. The bidder should provide all operation, service and maintenance manuals (in English) along with necessary circuit diagrams.
11. The bidder should provide the power consumption details of the broadband accelerographs, data acquisition systems and endurance of the internal batteries supplied with the unit.
12. The bidder should be able to supply spares for the quoted model of the broadband accelerographs and the data acquisition system as and when required within a five-year period.
13. The bidder should propose any other hardware and software required at the field stations for installations and for the efficient operation and maintenance of these stations. Necessary accessories should provide for smoother operation.
14. The bidder should provide the version update for the software supplied at free of cost During AMC period.
15. The bidder should provide list of users of accelerograph equipment as in the present tender to whom this type of equipment has been supplied during the last three years



ANNEXURE - I

along with the equipment performance report from the users (National & International).

INSTRUCTIONS FOR SUBMISSION OF EXPRESSION OF INTEREST STATEMENT

1. Expression of Interest proposal must be submitted together with a covering Letter online at CPP portal <https://etenders.gov.in> not later than EOI due date.
2. All applications shall be submitted in English.
3. **Application submitted by Joint Venture is not permitted**
4. **All pages of the submittal shall be numbered and index to be enclosed.**



ANNEXURE - II

GUIDELINES FOR PREPARATION OF EXPRESSION OF INTEREST

1. Expression of Interest is to be filled up in the enclosed forms in single copy.
2. Complete name of firm, date of establishment & type of organization whether individual, proprietorship, partnership, private limited company, limited company etc. be filled up in Proforma-I also indicating name of affiliate firms, their years of establishment, countries of origin and type of organization.
3. Exact and complete office address, business address, telephone number, Fax, number, E-mail and cable address.
4. If present firm is the successor to or outgrowth of one or more predecessor firms, fresh name(s) of former entity (ties) and the year(s) of their original establishment.
5. The EOI is to be submitted by submitting duly filled up forms prescribed below:
 - a) Details of Applicants as per Proforma I.
 - b) Affidavit as per Proforma II
 - c) Power of Attorney (General)
 - d) Memorandum and Article of Association of the applicant.
 - e) Duly filled up forms/details as per EQC document attached herewith:

EQC requirement attached as Annexure - A



PROFORMA- I (APPLICANT DETAILS/ COMPANY PROFILE)

1	Full name of the firm (as per registration).	
2	Date and Year of establishment & type of organization whether individual/ proprietorship/ partnership/ private limited company/ limited company also indicating name of affiliate firms, their years of establishment, countries of origin and type of organization.	
3.	Registered Head Office & Postal Address Telephone Nos., email id, Fax No etc.	
4.	Name of Contact Person, Designation, Phone no & email id	
5.	Constitution of firm (give full details including names of Directors/Partners/Executives etc.) Attach Memorandum and Articles of the Association, Certificate of Registration & Proof of Address, Copy of Power of Attorney.	
6.	Particulars of Registration with Government / Semi-Govt. Organization/Public Sector/ Undertaking & Local Bodies/PAN No/TAN No/GST etc. if any	

PROFORMA-II - (AFFIDAVIT)



(On non-judicial stamp paper of Rs. 100/- duly notarized)

I/we, the undersigned, do hereby solemnly affirm and declare that-

1. Neither our firm nor any of the members/ partners in any form/manner as an individual or the constituent partner in case of partnership firm/JV/MOU have been declared non-performer by Central/ State Government Department in India including authority controlled by them during the last two years prior to the date of EOI submission.
2. As on date our EOI submission, neither our firm nor any of the members/ partners in any manner as an individual or the constituent partner in case of partnership firm/JV/MOU are debarred for tendering, blacklisted, suspended in Central/ State Government Department in India including authority controlled by them.
3. As on date of our EOI submission, neither our firm nor any of the members/ partners in any form/manner as an individual or the constituent partner in case of partnership firm/JV/MOU are in Corporate Insolvency Resolution Process (CIRP)/ liquidation/ Winding up/ CDR/ SDR/ S4A/ Flexible Structuring or any other restructuring scheme due to financial stress and have not been in default on any debt obligations on the EOI due date.
4. No contract agreement between EPIL or its subsidiaries and either our firm or any of the members/ partners in any form/manner as an individual or the constituent partner in case of partnership firm/JV/MOU have been terminated during the last two years prior to the date of our EOI submission.
5. We have no objection to EPIL requesting to any bank, person, firm or body and any such agency furnishing pertinent information as deemed necessary or to verify this statement or regarding our competence and general reputation.
6. We understand that further qualifying information may be requested by EPIL and we agree to furnish any such information at the request of EPIL within the prescribed time.
7. We bind ourselves with all the stipulations of the EOI Document including period of completion, provision of adequate equipment, personnel and other resources required for completion within the stipulated completion period and agree to augment any resources, if found necessary for timely completion of the project, as desired by the EPIL.
8. **Certification on submitted/ Attached Documents/ Credentials:**

That the facts stated and documents enclosed by us in the EOI Application are true and correct and we have not concealed/ suppressed any facts/ record/ documents and/ or misrepresented the facts/ record/ documents.

I/ We further declare and certify that I/ We have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.

I/ We also understand that my/ our offer will be evaluated based on the documents/ credentials submitted along with the offer and same shall be binding upon me/ us.



I/ We declare that the information and documents submitted along with the tender by me/us are correct and I/we are fully responsible for the correctness of the information and documents, submitted by us.

I/ We understand that if the certificates regarding eligibility criteria submitted by us are found to be forged/ false or incorrect or any suppression of information and misrepresentation is noticed at any time during process for evaluation of tenders, it shall lead to forfeiture of the tender EMD besides disqualification for future tenders of EPIL & its subsidiaries for a period of two years. Further, I/ We (insert name of the tenderer) ** and all my/ our constituents understand that my/ our offer shall be summarily rejected.

I/ We also understand that if the certificates submitted by us are found to be false/ forged or incorrect or any suppression of information and misrepresentation is noticed at any time after the award of the contract, it will lead to termination of the contract, along with forfeiture of EMD/ SD and Performance Guarantee besides any other action provided in the contract including disqualification for future tenders of EPIL & its subsidiaries for a period of two years.

9. We have read and understood all the provisions included in the EOI and undertake to abide by them, if applicable.
10. We have read and understood all the provisions included in the EOI documents and undertake to abide by them.

Model Certificate for Tenders

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration with the Competent Authority shall be attached.]"

Model Certificate for Tenders for Works involving possibility of sub-contracting

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration with the Competent Authority shall be attached.]"

- 12 The information furnished by us is true and correct and we understand the consequences, in case, any of the information furnished is not found to be true/ correct and /or any suppression/ concealment of facts/ record or misrepresentation of facts/ record is noticed.

(Signed by the Authorized Representative of the Firm)

Name of the Authorized Representative.

Name of the Firm.

Dated:

Annexure - A - EQC Requirements

Qualification Requirement:

1. The entities eligible for participating in the bid process shall be Indian/Foreign Original Accelerographs Manufacturer (OEM) or
2. Authorized Dealer/Supplier/Distributor of Indian/Foreigner OEM/principal or
3. Indian agent on behalf of foreign principal/OEM.
4. The organization have valid MOU/Agreement with OEM for the supply of Accelerographs.
5. In case of Authorized Dealer/Supplier/Distributor or Indian agent on behalf of foreign principal/OEM, Foreign-based company will have to fully authorize the Indian agent/partner for participating in all the bid process, signing of all the bid documents, submitting the Tender fee, Earnest Money Deposit, and Performance Bank Guarantee etc. and communicate with the ISR on their behalf. However, in this case too, the purchase order shall be issued to the OEM (Foreign Company) even if authorized Indian agent participate. If any dispute arises between the authorized Indian entity and OEM, the OEM shall be fully responsible for the completion of the project work directly.
6. The bidder should have average annual turnover of **INR 40 Crs.** for the last three years. The Copies of Audited Annual Accounts for last three years shall be attached along with the bid (2021-22, 2022-23, 2023-24).
7. The bidder and/or the OEM in case of Indian partner/agent must have manufactured, tested, supplied and installed i.e. SITC at least **50 Nos. Accelerographs** for the Dams to any of the reputed organization in the world or Government of India or State Government in India within last 5 years. The Goods/Software and services offered for supply must be of the most recent versions/models incorporation the latest improvements in design. OEM credentials can be considered provided valid MAF in favor of the bidder.
8. The bidder should also submit valid Completion Certificate as per above mentioned criteria.
9. OEM should be in continuous business of manufacturing products similar to that specified in the technical specification section of each item during the last 3 years prior to bid opening, and should not be blacklisted by Indian or any state Govt. or any Govt. board/ Nigam/ Institute/ society/ corporation etc.
10. Bid of bidder/Indian partner quoting as authorized representative of a manufacturer meeting with the above requirement in full can also be considered provided.
 - a) The Supplier/OEM Authorized agency (Bidder) should submit Manufacturer's Authorization Form (MAF) from original equipment manufacturer for all quoted products otherwise the bids will be liable for rejection.
The manufacturer furnishes authorization assuring full guarantee and warranty obligation.
 - b) The bidder/OEM/ Indian partner has supplied, installed and commissioned satisfactorily at least 10 nos. of units of the Accelerographs , which must be in satisfactory operation till March -2024 and must be providing annual maintenance services for the above installation.

1. The bidder/OEM/any Indian partner shall furnish the information on the past supplies and satisfactory performance.
 2. Bidder/OEM/Indian partner will have to submit the OEM consent letter on OEM letterhead with clearly mentioning that for supplied items by OEM, the OEM will provide support and warranty.
 3. The bidder/OEM/Indian partner shall furnish the information on the past supplies and satisfactory performance.
 4. Bidder/OEM will have to submit the OEM consent letter on OEM letterhead with clearly mentioning that for supplied items by OEM, the OEM will provide support and warranty.
11. BANK SOLVENCY not less than **Rs. 30 Crore** from the nationalized/ Scheduled banks as per format given in Annexure-III as certified by the bankers which shall not be older than 06 months as on the preceding month of bid submission end date.
12. The applicant should submit completion certificates in reference to S.No.1 above issued by Government Organizations/ Semi Government Organizations/ Public Sector Undertakings/ Autonomous bodies/ Municipal bodies/ Public Limited Company / Concessionaire Company/ Private Company/ JV Company for having successfully completed similar works in the last 7 years. Certificates issued by such Public Limited Company / Concessionaire Company/Private Company/ JV Company must be supported by Tax Deducted at Source (TDS) Certificates (Form 16A/ 26AS) in evidence of the value of work executed. In case of supply contracts, Copies of GSTR-1/GSTR 3B to be submitted by the applicant as a proof of payment received for supply. Before implementation of GST where no TDS is deducted, relevant copies of purchase order and invoices along with bill wise details of payment received duly certified by Chartered Accountant should be submitted by the applicant in support of value of work executed. It shall be mandatorily incumbent upon the applicant to identify, state and submit the supporting documents duly self-attested by which they/he is qualifying the Qualifying Criteria mentioned in the EOI Document.



Bill of Quantity

Name of Work: EOI for selection of sub-contractor through pre bid tie up for Supply, installation & Commissioning of 1000 no of Accelerographs along with specifications to be installed in 225 number of specified Dams in various states in India.

EOI No.EPI/CO/BDD/----/----- Dated.

Item No.	Description of Item	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	Supply of Accelerographs	Nos	1000		
2	Miscellaneous work	LS	1		
3	Installation and Commissioning	LS	1		
4	Design & Drawing	LS	1		
	Total Amount (1+2+3+4.)				
	Taxes				
	Total Amount (Including Taxes)				

Note:

1. Applicant to refer this EOI and DAM Safety act 2021 & NSDA regulations act 2021.
2. Quoted rates in BOQ above should be inclusive of Key personnel to be deployed for successful execution of works.
3. Above quoted rates shall include all taxes, duties, levies, cess including GST as applicable.



PRE-TENDER TIE-UP MEMORANDUM OF UNDERSTANDING (MOU)

WHEREAS Engineering Projects (India) Ltd. (EPI) is a premier construction company of Govt. of India, having its registered office at Core -3, Scope Complex, 7, Institutional Area, Lodhi Road, New Delhi-110 003, India (hereinafter called "EPI" which expression shall unless repugnant to the context include its successors and assigns).

WHEREAS State Government of India (Here in after referred to as "Client") vide their enquiry , has invited for **“Supply, installation & Commissioning of 1000 no of Accelerographs along with specifications to be installed in 225 number of specified Dams in state for Government of India”** (hereinafter referred to as ‘Project’).

WHEREAS EPI has to participate/submit offer in the above-mentioned project as main contractor.

WHEREAS _____ with their registered office _____ (herein after called "_____") which expression shall unless repugnant to the context include its successors and assigns) agreed to submit offer for **“Supply, installation & Commissioning of 1000 no of Accelerographs along with specifications to be installed in 225 number of specified Dams in state for Government of India”** (herein after referred to as “Works” as spelt out in Clause No. 2.0 and Clause 5.0 of this MOU) of the above Projects as Sub-contractor of EPI.



WHEREAS EPI _____are hereinafter referred to collectively and "Parties". as

AND WHEREAS EPI now agrees to associate _____as its Sub-contractor forexecution of the above-mentioned "Works".

NOW THEREFORE, it is hereby agreed by and between EPI and_____to associate for the above "Works" on the following terms and conditions:

- 1.0 EPI shall act as main contractor and_____shall be Sub-contractor of EPI forexecution of "Works" as spelt out in Clause No. 2.0 and Clause 5.0 of this MOU.
- 1.1 _____has submitted its offer to EPI for execution and completion of above- mentioned "Works"._____shall not participate individually eitherdirectly or indirectly and/or through and JV/ Consortium etc. entered into with any other company/organization/ proprietor/individual constituted for that particular work and shall quote

its rates to EPI only and not to any other party participating/ pre-qualified for the project directly or indirectly through its subsidiary, partnership, ownership, individual firm etc.

1.2 The amount/ rates quoted by _____ to EPI for the “Works” at pre-tender stage are enclosed at Price Bid Format (Annexure-I) of this MOU. EPI shall submit its offer to Client on the basis of amount/rates quoted by the _____ to EPI after adding EPI’s markup towards its expenses, overheads and profit margin, which shall be solely decided by EPI. In case it is required to offer any reduction in the prices to Client or to change the terms and conditions; the same shall be done after mutual consultation Between EPI and _____.

1.3 In the event of award of project to EPI by Client, EPI shall associate _____ for execution and completion of “Works”.

2.0 Scope of Work:

The scope of work shall be read with system requirements and technical specifications given in the entire document. The basic scope of work shall include the following: -

- i) Design and Engineering for workability of Accelerographs at various locations.
- ii) Various Demos and Trial runs as per client requirement.
- iii) Surveying, ground preparation.
- iv) Procurement, supply of Accelerographs at site.
- v) Related Civil and structural works.
- vi) Erection and installation of equipment.
- vii) Inspection, trial run, commissioning.
- viii) Performance guarantee.
- ix) Operation of the Accelerographs during Defect Liability Period (DLP) with all safety equipment’s and safety measures.
- x) Maintenance of the Accelerographs during Defect Liability Period including Repair, Replacement of spare parts, components, critical spares, consumables, equipment etc. free of cost:
- xi) Supply of manuals, special tools etc.
- xii) Any other items not mentioned but required for the completion of above project.

3.0 Commencement and Completion of Project:

All other terms & conditions of the main contract shall be applicable for the sub-contracted portion of work shall be same as issued by Client but the applicant shall be responsible to execute his scope of work so that EPI is able to complete entire work within the scheduled or extended completion period. However the supply of the equipment shall be within 6 months (or lesser as required by client) after approval of Demo and go ahead for supply from the client.

The total work to be completed within one year of time and defect liability period

should be considered atleast one year. The warranty shall be considered for atleast one year of time. It may be noted that all contract conditions of main contract between EPIL & Client shall be applicable to sub-contracting agreement between EPIL & applicant. The date of commencement shall be reckoned as per EPI's contract with Client.

- (i) Commencement and completion date: The respective dates, valid for EPI will also be binding on the agency.
- (ii) Variation: In case EPI has to negatively adjust the rates for variation as per terms of the contract, the same will be applicable to the agency, irrespective of whatever may be variation for the work under the scope of the agency.
- (iii) Maintenance: The agency will be bound to follow this provision as per client work order with EPI. It is once again clearly stated that the agency, willing to tie-up, must agree to share any risk and responsibility (whether specifically mentioned in this document or not) of EPI, whomsoever being the reasons are attributable in mutatismutandis basis manner.
- (iv) All other terms and conditions are as per terms and conditions of CLIENT documents with EPI.

4.0 _____ confirms that they have read and understood scope of work and their offer is based on the scope and specifications of EOI and caters to all the works, requirements, etc. thereof.

5.0 _____ has agreed that the scope is tentative and may change after detail investigation, design and final acceptance of the authority during execution of the said Project.

6.0 _____ agrees and undertakes to indemnify and hold harmless EPI against any liability, loss, cost, damages or expenses sustained as a result of breach or default or negligence or improper performance or disturbance caused by itself or by any of its subcontractors, suppliers, or associates in connection with its part of Works as per Contract.

7.0 _____ **shall submit prescribed Tender Fee and full amount of bid security as third party bank guarantee at the time of bidding/offers by EPI to client and total project performance bank guarantee (as third party bank guarantee) and any other bank guarantee and obtain insurances as per client's conditions to EPI wherever required for this work for which offer is applied by _____.**
No interest shall be borne/ paid by EPI for the same. _____ has to submit the undertaking for the same along with this MOU.

8.0 None of the parties shall make or enter into any contract or commitment on behalf of other party without its express consent in writing.

9.0 EPI shall be the point of contact BY Client for the purposes of the Project.

EPI shall issue Authorization letter to the Authorized Representative of

_____ to deal all the matters related to this Contract.

10.0 Taxes and Duties:

All kind of Taxes, Duties like GST (as applicable as on date and during commencement of contract), Cess, Levies, Royalties, custom duties (if applicable) and other expenses etc. for the “Works” are included in the sub-contract price. The payment of GST applicable on the total Contract value of EPI with Client shall be the responsibility of _____ and is included in the Sub- Contract price of _____. In case EPI pays any GST on this project, the same shall be recovered as reimbursement from _____ by deducting the same from their bills or other dues and in such cases no certificate in this regard shall be issued by EPI to _____.

11.0 On award of work by Client, EPI shall award the scope of work to

_____ fully after retaining a fixed margin that shall be mutually discussed at the Financial Bid Stage for value of work based on terms and conditions of client’s tender or as mutually agreed between the parties.

12.0 In case project financing is required at any stage of the project, _____ shall engage financial partner as per the requirement of project. All liabilities of the financial partner shall be in the scope of selected partner.

13.0 The amount/rate quoted in their offer by _____ to EPI includes all charges, all direct and indirect cost of works, materials, labour, plant & equipment, all taxes, duties, GST, levies, royalties, etc., all transportation charges including e-way bill charges & cartage of issue material, electricity and water charges and for all expenses such as site offices expenses, labor camp, bank guarantee charges, insurance charges, EPF/ CPF/ Statutory contributions, preparation of all required design & detailed engineering and all required drawings etc., facilities and other expenses whatsoever, incurred on execution, completion and maintenance of the “Works” as per ‘scope of works and specifications’ and their own overheads and profit etc. _____ shall comply with all the requirements laid down as per ‘scope of works and specifications’ and shall unconditionally abide by its offer quoted at pre-tender stage for execution of “Works” as per terms, conditions, specifications, drawings, documents etc. given in the ‘scope of works and specifications’ for the completion, handing over, maintenance period etc. for the project. All men, materials, machinery, tools and plants, infrastructure, resources etc., as required for execution of “Works” shall be provided and arranged by _____.

14.0 Insurance charges for insurance to be taken by EPI for the project as per contract with Client shall be borne by _____. _____ shall take insurance cover at its own cost towards Workman Compensation Act for its own workers, employees and for the Plant & Equipment deployed _____ at the project site and shall furnish documentary proof of the same to EPI failing which no payments shall be released to _____ against work done. _____ shall assist EPI in follow up with insurance company in case of any claim related to total scope of work. EPI is not liable to pay any claim of the _____ if it is not paid by insurance company due to any reasons whatsoever.

- 15.0 _____ shall provide and maintain facilities (furnished office & one vehicle for site for EPI staff) for exclusive use of EPI which shall be provided until completion of DLP. These facilities and vehicles shall be the property of the _____ at the end of the contract.
- 16.0 The initial validity period of offer of _____ shall be one month more than the validity period of EPI's offer to Client. The validity period of their offer shall be extended by _____ as and when desired by EPI.
- 17.0 Each party shall bear its own expenses for preparation and submission of offer to client. In case of non-award of the project to EPI by Client due to any reason, _____ shall have no claim whatsoever on EPI.
- 18.0 All the cost of travel, lodging, boarding etc. towards visits by Client, their Consultant etc. to the manufacturing units/works for the inspection of materials, equipment etc. under the scope of work shall be borne by, if applicable under the contract between EPI and Client / Employer.
- 19.0 Payments:-The Payment shall be received from Client/Employer in the designated Escrow Bank Account which shall be opened specifically for this Project and Payment shall be transferred to automatically with the standing instructions after the deduction of the EPI Fee as agreed above for all the payment received from the Client/Employer, after 15 working days. The necessary approval from existing banker of EPI is to be ensured for opening the Escrow Account by EPI.
- 20.0 _____ shall be fully responsible to complete the "Works" in workmen like manner to the satisfaction of Client and EPI by maintaining high standard of quality and precision as per 'EOI, scope of works and specifications, client's requirements', Agreements, Terms & Conditions, Specifications, Drawings etc., within contractual completion period and within their quoted rates/amount. In case Client reduces or increases scope of work of this tender, the same shall be binding on _____ and _____ has to execute the same at rates paid by the Client less EPI's margin.
- 21.0 _____ shall be responsible for timely completion of the "Works" within the contractual completion period. Total Liquidated Damages/Compensation for delay, if any imposed/deducted from EPI's bills by Client shall be recovered from _____ bills or other dues.
- 22.0 In case the project execution is delayed beyond the contractual scheduled completion period due to reasons attributable to _____, the staff and site office expenses of EPI for extended period shall be paid by _____ to EPI at the rate of _____ (shall be mutually discussed during Financial Bid Stage) per month maximum of 12 months. This shall be in addition to the facilities provided by the PARTY to EPI and the Liquidated Damages/compensation for delay/Penalties etc. if any, levied by Client. The decision of EPI in this regard shall be final & binding on the party.
- 23.0 _____ shall be responsible for obtaining all approvals from Client with regard to quality of materials & workmanship and measurements etc. for their

portion of work. All such approvals shall be in the name and title of EPI. _____ shall be responsible for reconciliation of issue material with Client, if any. Any shortfall in issue materials shall be made good / recovered from _____ as per terms of EPI's contract with the Client.

24.0 _____ shall not assign or transfer its interest specified in this MOU to any other party without the prior written consent of EPI.

25.0 If desired by EPI, _____ shall be available/ associate with EPI in meetings/negotiations with EPI/ Client. _____ shall furnish all information and clarifications as and when required by EPI/ Client. _____ shall abide by any modifications/ changes etc. in tender prices, terms & conditions for the work, agreed by it during negotiations with Client/EPI. Each party shall bear its own expenses for these purposes.

26.0 _____ shall deploy sufficient plant & equipment of the required capacity and in good working condition for completion of the works in stipulated time with required quality. The equipment should either be owned by _____ or hired/leased. The deployment of equipment by _____ shall be as decided by EPI and the same shall not be less than the minimum deployment stipulated by the Client, if any, for execution of "Works" and as per schedule agreed with EPI. _____ shall make arrangement for regular maintenance including preventive and breakdown maintenance and maintain stock of essential spares at site/near to site so as to ensure minimum breakdown time of equipment. The equipment once brought to site shall not be allowed to be removed without the consent of EPI. In case the PARTY fails to deploy sufficient equipment to the satisfaction of EPI or in case of prolonged breakdown of equipment, EPI at its sole discretion shall arrange the required equipment and debit all the related costs including ten percent overheads of EPI and shall recover the same from the due payments of PARTY, including from its bank guarantees available with EPI.

27.0 **Confidentiality:**

The Parties acknowledge that the existence and the terms of this MOU and any oral or written information exchanged between the Parties in connection with the preparation and performance of this MOU are regarded as confidential information. Each Party shall maintain confidentiality of all such confidential information, and without obtaining the written consent of the other Party, it shall not disclose any such relevant confidential information to any third parties, except for the information that (with a written notice to other party): (a) is or will be in the public domain (other than through the receiving Party's unauthorized disclosure); (b) is under the obligation to be disclosed pursuant to the applicable laws or regulations, or orders of the court or other government authorities; or (c) is required to be disclosed by any Party to its shareholders, investors, legal counsels or financial advisors regarding the transaction contemplated hereunder, provided that such shareholders, investors, legal counsels or financial advisors shall be bound by the confidentiality obligations similar to those set forth in this

Section. Disclosure of any confidential information by the staff members or agencies hired by any Party shall be deemed disclosure of such confidential information by such Party, which Party shall be held liable for breach of this MOU. This Section shall survive the termination of this MOU for any reason.

28.0 _____ shall ensure compliance with all Central, State and Local Laws, Rules, Regulations etc. as applicable or may be applicable during the course of execution, maintenance etc. of the “Works” and shall indemnify EPI against any claim or damages whatsoever on such accounts. _____ shall keep EPI indemnified at all times against infringement of any Patent or Intellectual Property rights.

29.0 Governing Law And Dispute Resolution:

This bidding MOU shall be governed under Indian Laws.

Any dispute, controversy or claim arising out of or relating to this MOU shall be first resolved amicably by mutual discussions.

30.0 Jurisdiction:

The Courts of New Delhi only shall have the jurisdiction to entertain any matter or dispute on account of any action arising out of this MOU.

31.0 EPI has agreed to associate _____ on the basis of details regarding experience profile, financial standing, credentials, fulfillment of statutory obligations, etc. of _____ submitted by _____ to EPI. In case, at a later stage even after signing of this MOU it is found that _____ has submitted incorrect, false details and credentials resulting in apprehensions on the capabilities of _____ with regard to quality & timely completion of works, financial capabilities etc, EPI can terminate this MOU solely at its option. In this eventuality _____ shall be liable for the losses suffered by EPI and further _____ shall have no claim on EPI, whatsoever.

32.0 By signing this MOU, the Parties acknowledge that it correctly records the understanding the parties have reached with regard to the mutual co-operation in their common interest.

33.0 All other terms and conditions shall be as per this EOI, scope of works and specifications of Client and the same shall be applicable between EPI and _____ on mutatis mutandis basis. However, if EPI is granted some concession or exempted from certain obligations by Client, by virtue of EPI being a Public Sector Company, the same concessions/ exemptions shall not be applicable to _____. The decision of EPI in this regard including interpretation of terms & conditions shall be final & binding on _____.

34.0 Validity of MOU:

This Agreement constitutes the entire agreement between the PARTIES with respect to the subject matter hereof and supersedes any and all previous understandings, correspondence and agreements, whether oral or written, between the PARTIES. Any amendment to this Agreement shall be mutually agreed between the PARTIES in writing.

This Agreement is particular to the Subcontract Work for the Project and nothing in this Agreement is to be construed in any way that it means or implies that there is a commitment by or obligation on either or both of the PARTIES to enter into any similar agreements in the future for proposal work for other projects.

- a) If EPI is successful to get award the work and the contract from Client, this MOU will lead to further Work Order/ Contract Agreement with__.
- b) The MOU shall expire or become null & void upon happening of the earliest occurrence of any of the following events:
 - i) EPI does not become eligible to bid/offer for the project or
 - ii) Having become eligible to bid EPI submits a tender/offer which is unsuccessful or
 - iii) Having been awarded the contract, on completion of the defect liability period of the contract or
 - iv) On the signing of a detailed MOU/Agreement by the Parties, setting out there in detailed terms of the said work.
 - v) If any of the Parties commits breach of terms of this MOU or is declared insolvent by a court of competent jurisdiction or if either Party undergoes any winding up either voluntarily or under court proceedings, this MOU will stand terminated with immediate effect.

35.0 This 'Pre-Tender Tie-up MOU' is signed in duplicate for retaining one copy each by the "Parties" and both the copies shall be taken as original.

36.0 EXCLUSIVITY:-

Each party (nor its affiliates and/or subsidiaries) shall not enter into negotiations, agreements or otherwise collaborate or participate in any manner, whether directly or indirectly (including as subcontractor or supplier), alone or with any other third party in relation to matters falling under the scope of this Agreement or the Project without the prior approval of the other party. The Sub-contractor warrant to EPIL that such exclusivity shall also be adhered to by their subsidiaries, affiliates, as well as other firms, entities or individuals over which they may exercise control.

37.0 THIRD PARTY RIGHTS

Except as expressly stated in this Agreement, a person who is not a PARTY to this Agreement may not enforce any of its terms under the Contracts (Rights of Third Parties) Act 1999.



38.0 ASSIGNMENT

Neither PARTY shall assign nor transfer its rights and/or interests in this Agreement, whether totally or partially, to a third party without the other Party's prior written consent.

<p>EPIL</p> <p>Attn.: Mr. Prashant Bajpai, AGM (Business Development Division) Core-3, Scope Complex, Lodhi Road, New Delhi Tel: +91-11-24361965, Extn: 2432, +91-9082046140 Fax: +91-11-24363426 Email Id: bdd@epi.gov.in</p>	<p>Address:- _____</p> <p>_____</p> <p>Name: _____</p> <p>Email: _____</p> <p>Tel: _____</p> <p>Fax: _____</p>
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IN WITNESS WHEREOF the "Parties" hereto have set their hands on these presents on the _____ day of _____ 2024 at New Delhi

ENGINEERING PROJECTS

_____ **(INDIA) LTD.**

AUTHORIZED SIGNATORY

AUTHORIZED SIGNATORY

Witnesses:

1.

1.

2.

2.

Disclaimer:

The above given terms and conditions for Pre-Tender Tie-Up MOU are general. EPI shall not be liable for authorized or unauthorized, usage of the presented material and users by using the same expressly agree to indemnify EPI against any and all claims, expenses, damages and liabilities arising out of the materials by such users, including any and all direct, indirect, incidental, special or consequential damages.



Annexure – III – EMD Format

(to be executed on a non-judicial stamp paper of Rs. 100/- only.)

PROFORMA FOR BANK GURANTEE IN LIEU OF EARNEST MONEY DEPOSIT
(Tender Notice No. and Date)

In consideration of Chairman & managing Director, Engineering Projects (India) Limited, (A Govt. of India Enterprise), Core-3, Scope Complex, Lodhi Road, New Delhi Pin 110003. (hereinafter called the EPI) having agreed to accept bank Guarantee of Rs in lieu of EARNEST MONEY DEPOSIT from (hereinafter called the Supplier/ Contractor/ Sub-Contractor, which expression shall include its heirs, successors and assignees) in respect of the Tender

We, bank having its registered/head for at (hereinafter referred to as the Bank) do hereby agree and undertake to pay to EPI without demur or protest an amount not exceeding Rs..... on demand by EPI.

We the above said Bank further agree and undertake to pay the said amount of Rs..... without any demur on demand within 48 hours. Any demand made on the Bank by EPI shall be conclusive as regards the amount due and payable by the Bank under this guarantee.

We the above said Bank further agree that the guarantee herein contained shall be in full force and in effect until date Unless a demand or claim under this guarantee is made on us in writing on or before date , we shall be discharged from all liabilities under this guarantee thereafter.

We, the above said Bank, further agree that EPI shall have full liberty, without our consent and without affecting in any manner our obligation to verify, modify or delete any of the conditions.

We, the above said Bank, lastly undertake not to revoke this guarantee during its currency except with the prior consent of EPI in writing.

For and behalf of the Bank

Dated.....this day of.....200.

NOTE For and on behalf of the Bank : on a Non-Judicial stamp paper of Rs. 100/- (Rupees One hundred only)

**TECHNICAL SPECIFICATIONS OF STRONG MOTION ACCELEROGRAPHS
(BUILT-IN ACCELEROMETER)**

S.No.	Feature	Specifications
A.	Strong Motion Accelerographs (Built-In Accelerometer)	
1.	Transducers	Triaxial, force balanced, orthogonal oriented transducers (two horizontal and one vertical) along with the data acquisition system in a single sealed unit.
2.	Full scale Range	User selectable +0.5 g, +1 g, +2 g, +4 g
3.	Frequency response	Flat (within +3dB) to ground acceleration in the range of DC to at least 200Hz
4.	Dynamic range of accelerometer	>130dB
5.	Linearity	Better than 1% of full scale
6.	Cross axis sensitivity	Less than 1% of full scale
7.	Clip level	Greater than the full scale range
8.	Leveling	Bubble level indicator for leveling the transducer.
9.	Orientation	Suitable mark to indicate the direction of relative orientation of the transducer.
10.	Frequency response curve and system information	Frequency response curve of the unit along with information regarding transfer function including poles, zeros and normalization factor should be provided (for each sensor as per the serial number)
11.	Calibration	Calibration facility from the data acquisition system locally or remotely from central recording station through DAS
12.	Anchoring	Provision for anchoring the accelerograph unit to the seismic pier.
13.	Number of channels	Three
14.	ADC	Independent 24-bit digitizers, one for each channel
15.	Sampling rate	User selectable upto 1000 SPS per channel
16.	Dynamic range of A/D converter	130dB or more @ 100sps
17.	Input voltage range of A/D converter	to be matched with the accelerometer output
18.	Channel-to-channel skew	None
19.	System response	±3 dB flat from DC to nyquist frequency
20.	Noise level	Noise level of the unit including the accelerometer and the data acquisition system should be less than 0.001% of the full scale level in the frequency range from DC to 50Hz

21.	Timing System	<ul style="list-style-type: none"> i) Internal GPS receiver based timing system ii) Timing accuracy of+ 10μsec or less when GPS is locked iii) Record of GPS status information iv) GPS antenna should be enclosed in weather proof sealed enclosure with lightning protection.
22.	Recording mode	<ul style="list-style-type: none"> i) Both continuous and triggered recording mode ii) Triggering: The DAS should be capable of recording the acceleration data in the STA/LTA ratio trigger, threshold trigger and time window iii) Trigger selection: Independent selection for each channel iv) Pre-event Recording length: User selectable from 1 to 30 sec in steps of 1 sec v) Post event length: User selectable up to 90 sec or more
23.	Data storage	<ul style="list-style-type: none"> i) User accessible compact flash card ii) The compact swappable flash card should have the capacity of 32GB or more and appropriate flash card reader or pen Drives with maximum capacity. iii) The compact flash card should be rugged and industrial grade suitable to withstand extreme temperature variations. iv) The bidder should attach the data sheet of the compact flash card to be supplied with the DAS.
24.	Recording format	<ul style="list-style-type: none"> i) Standard seismic data in a format that is compatible with Windows and Linux platforms. ii) Conversion utilities to miniseed, SAC, SEISAN, ASCII formats to be provided.
25.	DAS firmware should support	<ul style="list-style-type: none"> i) Web browsing support/ communication over TCP/ IP protocol. ii) Full Duplex communication between field station and Central Receiving Station (CRS) iii) Triggered or continuous data transmission iv) Support off-the- shelf communication

		<p>equipment</p> <ul style="list-style-type: none"> v) Extensive error correction vi) The DAS should be capable of recording the accelerometer data on the local compact flash card as well as support real-time data telemetry to a central site through VSAT telemetry network simultaneously. vii) DAS should have facility to retrieve the old data in the compact flash card from Central Recording Station manually through VSAT network. viii) DAS should have the facility to check the state of health of the system including system voltage, temperature, GPS status etc. ix) DAS should be able to issue an alert and start the communication in case of earthquake detection or failure of state of health parameter. x) DAS should have facility to retrieve the old data in the compact flash card from Central Recording Station manually through VSAT network.
26.	Communication	<ul style="list-style-type: none"> i) Ethernet Interface for real time telemetry ii) RS-232 interface for real time telemetry /parameter setup iii) Ethernet port, RS-232 port, USB port should be provided
27.	Power	<ul style="list-style-type: none"> i) Total Power consumption < 3.0 watts at 12V DC (including accelerometer and DAS) ii) Status display indicators for power to be provided iii) Provision to connect external 12V battery source iv) Supply power isolated from signal ground v) Reverse voltage protection vi) Over voltage protection vii) DAS should resume data acquisition automatically when the power is restored after disruption.
28.	Operating temperature	-20° to 60° C
29.	Humidity	Up to 100% RH
30.	Enclosure	Accelerometer and DAS should be enclosed in weather and shock proof

		sealed single enclosure with lightning protection.
31.	Cables	<ul style="list-style-type: none"> i) Power cable to external Battery of 2m length to be provided with each unit ii) The Ethernet cable to connect DAS to VSAT IDU with end connectors (2m length) to be provided iii) DAS-GPS antenna cable length of at least 20 meters length with end connectors iv) Inter connection cable - Cables for inter Connection of sensor & Recorder. As per field condition.
32.	Notes	<ul style="list-style-type: none"> i) All the hardware, software and cables required for parameter setting, data retrieval from the DAS at field seismic station and data storage should be provided and described. ii) Detailed user manual, data sheet and calibration data sheet of the accelerograph should be provided.
B.	Compatibilities of Software	<ul style="list-style-type: none"> 9. User Friendly Data receiving Software & compatible with Digitizer. 10. Field editing and conversion for raw data to standard formats including SEISAN 8.1, mini SEED, SAC, ASCII version or latest are to be provided free of cost. 11. Data receiving Software license should be provided free of cost for lifetime. 12. The software should be able to provide /set parameter setting for event recording, provision for two types data. recording, i)continuous data recording, ii) STA/ LTA based, and display state of health information of the system performance free of cost. 13. Compatible software versions of the above software for working in Windows environments should be provided free of cost. 14. Restoration of automatic data acquisition in DAS on assumption of power in case of power failure. 15. Capability to serve the request from CRPS for re- transmission of data m case of real time data transmission

		<p>break/failure.</p> <p>16. In case of communication failure, automatic Request/</p> <p>13.transfer for the pending data from the point at which it was executing just before the failure.</p>
C.	Installation, Demonstration & Training	<p>5. Installation and demonstration of Seismic equipment and software at all project sites.</p> <p>6. The supplier must provide the necessary training on installation, operation, maintenance and calibration of the system including usage and the system application Software to DSO officials & project authority.</p> <p>During the training period installation of all application and operating software should be demonstrated.</p> <p>7. Training on setting the parameter like STA, LTA or Continuous mode or level triggering for respective site & analysis of the recorded digital seismic data should be provided.</p> <p>8. Final acceptance will be done by official from DSO office and project authority.</p>
D.	Warranty & Extended Warranty/AMC	<p>9. Bidder should give three years warranty after successful installation and commissioning. For all equipments including Data Retrieval Unit also. Bidder should give two years comprehensive extended warranty/AMC after completion of three years warranty.</p>
E.	Other Essentials	<p>10. A point-by-point statement of compliance of the technical specifications of the tender equipment should accompany the bid along with the explanations as to how the compliance is achieved. It should also be supported by illustrative literature/catalogues.</p> <p>11. The supplier should provide all operation, service and maintenance manuals (in English) along with necessary circuit diagrams.</p> <p>12. The bidder should provide the power consumption details of the broadband seismometers, data acquisition Systems and endurance of</p>

		<p>the internal batteries supplied with the unit.</p> <p>13. The bidder should be able to supply spares for the quoted model of the broadband seismometers and the data acquisition Systems for five-year period.</p> <p>14. The bidder should propose any other hardware and software required at the field stations for installation and for the efficient operation and maintenance of the seismic stations.</p> <p>15. Necessary accessories should be provided for the smooth operation.</p> <p>16. The bidder should provide the version update for the software supplied at free of cost during AMC period.</p> <p>17. Bidder should provide a list of users of such seismological equipments as in the present tender to whom this type of equipments have been supplied during the last three years along with the equipment performance report from the users (National & International).</p> <p>18. The bidder should be an OEM (Original Equipment Manufacturer) certification for all quoted products otherwise the bids will be liable for rejection. This claim must be accompanied by supporting documents as evidence.</p>
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Note:- Bidder has to consider warranty for atleast one year while submission of bids.