



REQUEST FOR PROPOSAL

RFP No. : ASDMA.60/2018/33

RFP on : EARLY WARNING SERVICE (EWS) IN ASSAM FOR LIGHTNING AND SEVERE WEATHER BASED ON TOTAL LIGHTNING DETECTION

ISSUED BY : ASSAM STATE DISASTER MANAGEMENT AUTHORITY

ISSUE DATE : 29-07-2019

LAST DATE OF SUBMISSION : 28-08-2019

CONTACT PERSON : CHIEF EXECUTIVE OFFICER
ASSAM STATE DISASTER MANAGEMENT AUTHORITY
ANCILLIARY BLOCK
DISPUR, GUWAHATI

SUMMARY OF PROPOSAL:

This Request for Proposal is issued by the Assam State Disaster Management Authority to obtain proposal from reputed firms/agencies/organisations for providing Early Warning Services (EWS) in Assam for Lightning and severe weather based on Total Lightning Detection.

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1. REQUEST FOR PROPOSAL TERMINOLOGY

Throughout this document, the following definitions apply:

“Applicant” means a party that submits, or intends to submit, a Proposal;

- a) “Bidder” means any firm offering the services required in the RFP.
- b) “Work Order” means the written order resulting from this RFP issued by the Authority ;
- c) “The Authority” or ASDMA means the Assam State Disaster Management Authority;
- d) “Must”, or “mandatory” means a requirement that must be met in order for a Proposal to receive consideration;
- e) “Proposal” means a proposal submitted in response to this RFP;
- f) “RFP” means this Request for Proposal; and
- g) “Should” or “desirable” means a requirement having a significant degree of importance to the objectives of RFP.
- h) “SLA” means Service Level Agreement between ASDMA and successful bidder.
- i) “EWS ” means Early Warning Service for Lightning and severe weather.

2. EXECUTIVE SUMMARY

Background

The State Disaster Management Authority in Assam was notified by the Government in the year 2007 and its Secretariat has become functional from the year 2009. The Assam State Disaster Management Authority has been established as per the mandate of the Disaster Management Act 2005 which redefines the shift in approach to the concept of disaster management. The government is now committed to a holistic approach to disaster management encompassing all phases - Prevention, Mitigation and Preparedness as well as Response, Relief & Rehabilitation.

Assam has witnessed considerable number of casualties due to lightning and thunderstorms in past few years. Experts believe that the severity and frequency of lightning and thunderstorms will rise in the years ahead due to rising global temperature and this will have an impact on lives, livelihoods and property. In this context, an early warning system for lightning and thunderstorms is much needed to reduce the adverse effects of this disaster.

Realizing the importance of an Early Warning System based on total lightning detection, Assam State Disaster Management Authority (ASDMA) intends to hire the services from scientific agencies/firms for providing early warning for lightning and severe thunderstorms in Assam.

The task ahead is to provide Early Warning Service (EWS) for Lightning in the state of Assam. The EWS shall observe hazardous phenomena associated with convective storm development, intensification and movement, and other necessary inputs required to generate early warnings.

3. SCOPE OF WORK

i) The task ahead is to Provide Early Warning Service (EWS) for Lightning in the State of Assam. The EWS shall observe hazardous phenomena associated with convective storm development, intensification and movement, and other necessary inputs required to generate early warnings.

The EWS shall be based on real time monitoring of lightning data through a ground based network or space based platform or combination of both.

ii) The EWS will transmit this data in TXT or CSV format in near real time with latency not exceeding 1 minutes to ASDMA. The supplier shall provide the requisite online training sessions to ASDMA staff on the technology and alerting API's of Early Warning Service Based on Total Lightning Detection. It will be the selected vendor's responsibility to install Lightning sensors across Assam such that the lightning should be sensed or detected across the entire boundary of Assam.

iii) EWS should provide a trial App (included for notifying alerts to registered users that can be viewed on mobile phones).

iv) Alert messages shall be sent to ASDMA Control Room which in turn shall be disseminated to the public and various line departments through SMS gateway of ASDMA.

- v) Successful Bidder will be responsible for the installation and maintenance of sensors/making satellite data available (as the case may be) throughout the contract period, at no extra cost to ASDMA.
- vi) Recurring charges towards network maintenance and electricity to the sensor and accessories shall be borne by the successful bidder.
- vii) **Variation in services availed:** The services indicated in the RFP may vary as per discretionary of ASDMA. The successful Bidder shall agree to provide the services as finally determined by ASDMA.
- viii) **Quoting:** The break up rate for each item (if any) shall be quoted in the Bill of Quantities (BOQ) in Commercial bid, failing which the tender will be rejected.
- ix) **Rate/price:** The total cost quoted, in the BOQ in Commercial bid, shall include wherever applicable basic cost duties, all taxes of the Union and the State, profit, transport; (all inclusive). The total cost quoted shall include auto generation of alert/warnings in English, development of trial App, web based visualization or dashboard and training, to ASDMA staff.
- x) Successful bidder will ensure that API data and online display software will be provided as per the specifications mentioned under **Annexure- G**.
- xi) Warranty will be provided on the data service with an uptime of over 95%.

4. QUALIFICATION CRITERIA

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

| Sl. No. | Qualification Criteria | Documents/ proof |
|---------|--|--|
| 1 | The Bidder should be a) Authorized partner of OEM of lightning sensor/space based platform with registered company in India, or b) Company who is into business related to supply and maintenance of meteorological equipment's in India for at least 3 years as on 31.03.2019. c) OEM should be ISO 9001:2015 certified | a. Authorization letter from OEM (if authorized partner) b. Registration issued under the Companies Act by a competent authority. c: ISO 9001:2015 certificate |
| 2 | If the bidder is i) An authorized partner of OEM then the company's annual turnover shall be Rs.25,00,000/- each of last 3 years and the OEM's turn over shall be atleast INR 25,00,000 each for last 3 years | Annexure B: Auditor's certificate regarding company's last 3 years turnover and IT returns along with turnover for the category for which applied must be furnished. |
| 4 | The Bidder or OEM should have experience in supply and ongoing operation of lightning data services and systems or meteorological | Documentary evidence to support these response (Work Orders and Satisfactory Certificates) |

| | | |
|---|--|---|
| | equipment. | |
| 5 | The bidder should produce the self attested photocopies of documents related to Company PAN Number | Copy of Company PAN Number, GST Certificate |
| 6 | The Bidder should not have been barred/blacklisted by any PSU/Govt. Deptt. in doing projects with them | Annexure C |

Note: Agency must provide necessary supporting documents as proof in respect of the eligibility criteria mentioned above.

5. RFP PROCESS

- i) The Authority is the Work Order issuing authority as relates to this RFP.
- ii) This RFP is illustrative in nature and all narrations are intended to be used by the applicant as a preliminary background explanation. This RFP does not necessarily contain all relevant information and the Authority reserves the right to amend its requirements or the information contained in this document at any time during the RFP process.
- iii) The Authority offer no warranties in regard to the information contained in this RFP and shall not be liable for any loss or damage as relates to this RFP for any applicant, potential applicant or any other third party arising as a result of reliance on this RFP's information or any subsequent communication.
- iv) If the Authority decides to select an applicant for the services, at that time a detailed Work Order will be issued to the applicant selected. This Work Order will not be made available until the selection of a successful applicant.
- v) Neither the RFP document nor any other related document shall constitute a contract or agreement with Authority.
- vi) The Authority reserves the right to disqualify any applicant who provides information which later proves to be incorrect, or which does not supply the information required by this RFP.
- vii) The Authority will not be liable for any cost of any applicant participating in this RFP.
- viii) The submission of a response to this RFP by any applicant or potential applicant confirms the applicant or potential applicant's acceptance of all terms and conditions of this RFP.
- ix) Respondents to this RFP or their agents may not make any contact with any party employed or directly associated with the Authority as relates to this RFP. Any clarifications and all information will be via e-mail only to asdmaghy@gmail.com.

6. INSTRUCTIONS TO BIDDERS

A. General Requirements

- i) This invitation for bids is open to all Indian firms who fulfill the criteria's as specified in the RFP.
- ii) The response to RFP is required to address all technical requirements contained within this RFP.
- iii) Only proposals submitted strictly in accordance with the RFP documents or as may be required by the Authority will be considered as valid proposals by the Authority.
- iv) The RFP is not a Work Order. A separate Work Order will be made available only after selection of the preferred applicant.

B. Timetable

The RFP timetable is given below. The Authority retains the right to vary or discontinue the process or any part thereof at its absolute discretion.

| <i>Activity</i> | <i>Date</i> |
|---|--------------------------------------|
| Issue of RFP Document | 29-07-2019 |
| Deadline for Proposal submission | 28-08-2019 (4.00 PM at ASDMA Office) |
| Opening of Qualification Criteria & Technical Bid | Will be notified later |
| Opening of Financial Bid | Will be notified later |

7. SUBMISSION OF BID

- i) Potential Applicant must complete and sign the Undertaking at **Annexure- A**.
- ii) Bidders can download the RFP for free of cost from the e-Procurement portal <https://assamtenders.gov.in> till due date and time of submission of bids.
- iii) Bidder shall submit an Earnest Money Deposit (EMD) amounting to Rs.1.00 Lakh from any Nationalised/Commercial banks. The EMD shall remain valid for a period of 180 days from the date of opening of the Bids.
- iv) Bidders are required to submit their Qualification Criteria, Technical and Financial Proposals electronically in the e-procurement portal <https://assamtenders.gov.in>. Bidders should also submit one printed original hard copy of the proposal document. The printed copy of the documents will be taken to be correct if there is any inconsistency between the versions.
- v) Bidder will submit their proposal in two parts. The first part will contain the documents relating to Qualification and Technical Criteria and the second part will contain the documents relating to Financial Proposal.
- vi) Financial Bid shall contain the **Price Bid Schedule** as per the format given in **e-Procurement Portal (Annexure-D)**.

- vii) The documents containing Technical Proposal and Financial Proposal should be submitted in two separate sealed envelope marked "Technical Proposal" and "Financial Proposal".
- viii) The two sealed envelopes should then be submitted in one sealed envelope super scribed with the wordings "Do not open" and this envelope should be clearly marked "Request for Proposal for Early Warning Service (EWS) in Assam for Lightning and Severe Weather based on Total Lightning Detection".
- ix) The cover thus prepared should also indicate clearly the name, address and telephone number of the Tenderer to enable the Bid to be returned unopened in case it is declared "Late".
- x) The Technical Bid and Financial Bid should be a complete document and should be bound as a volume separately. The document should be page numbered and appropriately flagged and contain the list of contents with page numbers. The deficiency in documentation may result in the rejection of the Bid.
- xi) The sealed envelop containing the proposal must be received in the office of the Chief Executive Officer on or before **28-08-2019** on any working day up to **4.00PM**. Envelopes /documents received after the stated time and date will be rejected.
- xii) The Technical and Financial Bid shall be opened in the office of **Assam State Disaster Management Authority, Assam Secretariat Complex, Dispur, Guwahati-781006** at the time on the due date mentioned in the N.I.T. If due to any administrative reason the venue of Bid opening is changed it will be duly intimated in the e-procurement portal.
- xiii) Offer received through Fax/E-mail or through open letter shall be ignored.
- xiv) Bids submitted not in the manner prescribed are liable to be summarily rejected which will be the sole discretion of the Authority.
- xv) Proposals must remain open for acceptance for a minimum of 90 days.

For any queries/ information the bidder can contact at the address mentioned below:

Assam State Disaster Management Authority

Assam Secretariat Complex,

Guwahati-781006

Email ID: asdmaghy@gmail.com

Tel: 0361-2237221, Fax: 0361- 2237010

8. PREPARATION OF RFP DOCUMENT

A. Technical Bid

The technical bid should contain

- i) Earnest Money Deposit (EMD) amounting to Rs.1.00 Lakh from any Nationalised/Commercial Banks.

- ii) All the technical informations as listed out in **Annexure-G**
- iii) Supporting documents as listed in the qualification criteria (Clause 4)

Forms for Technical Bid are given at Annexures A, B & C.

B. Financial Bid

- i) The Financial bid will be the cost of the project as per the Scope of Work as laid down in the RFP.
- ii) Tenderer should provide all prices as per the prescribed format under this Form. Tenderer should not leave any field blank. In case the field is not applicable, Tenderer must indicate "0" (Zero) in all such fields.
- iii) All the prices are to be entered in Indian Rupees INR (%age values are not allowed).
- iv) It is mandatory to provide breakup of all Taxes, Duties and Levies wherever applicable and/or payable.
- v) The final Financial Bid of the Tenderer shall be inclusive of all Taxes, Duties and Levies including Service Tax, etc.
- vi) Authority shall take into account all Taxes, Duties & Levies for the purpose of Evaluation.

The Financial Bid Summary Form is given at Annexure –D

9. OPENING OF TECHNICAL BID

- i) The Purchaser shall open the Technical Bid in the presence of the bidder or their authorized representatives, who choose to attend at date and time specified in the NIT. The authorized representatives, who remain present, shall sign the Attendance Register.
- ii) A maximum of two representatives authorized by any bidder shall be permitted to attend the bid opening.
- iii) The date fixed for opening of bids, if subsequently declared as a Govt. holiday, the revised date of schedule will be notified. However, in absence of such notification, the bids will be opened on next working day, time and venue remaining unaltered.

10. OPENING OF FINANCIAL BID

Financial Bid of only those bidders will be opened whose Technical Bids are found to be qualified and acceptable to ASDMA. Authorized representative of the bidders may attend the Financial Bid opening. The qualified parties shall be notified with the date, time & venue of the opening of the Financial Bid.

11. EVALUATION OF PROPOSAL

Tenders will be evaluated based on the following phases:

Phase I: Evaluation of Technical Bid

Phase II: Evaluation of Financial Bid

Phase III: Combined Evaluation of Technical & Financial Bid

Phase I: Evaluation of Technical Criteria

i) In this part the technical bid of agencies will be analyzed and evaluated on the following criteria

| Sl. No. | Technical Criteria | Marks | Minimum Qualifying Marks |
|---------|--|-------|--------------------------|
| 1 | Experience of the Bidder or OEM in providing lightning and severe weather early warning services in Govt./PSUs/autonomous bodies/Authority | | 10 |
| | 1 order | 10 | |
| | 2 orders or more | 10 | |
| 2 | Comparison between the technical specifications (Annexure- G) and offered specifications. | 40 | 20 |
| 3 | Work Plan (including the number of lightning sensors to be installed with details of locations) and Methodology for implementing the work | 40 | 20 |

ii) Bidders failing to meet the technical criteria by scoring less than 50 % of total marks shall not be considered for Financial Bid.

iii) Analysis of qualification and technical bid:-

1. In this part, the bid will be analyzed and evaluated and the bid marks (S_{tm}) shall be assigned to each bid on the basis of evaluation matrix.
2. Each competency group will have Minimum Qualification Score and only those Bids receiving marks greater than or equal to cut-off marks in each competency group will be eligible for consideration in financial bids. If required, the Authority may seek specific clarifications from any or all Tenderer(s) at this stage. The Authority shall determine the Tenderer that qualify for the next phase after reviewing the clarifications provided by the Tenderer(s).
3. Bid Score: The Bid Score 'St' of the Tenderer shall be derived as under
$$S_t = (S_{tm}/S_H)$$
where
 S_t is the Bid Score
 S_{tm} = Total bid marks of the bid under consideration
 S_H = Highest total bid marks amongst all evaluated bids

iv) The Authority reserves the right to modify the evaluation process at any time during the Tender process, without assigning any reason, whatsoever, and without any requirement of intimating

the Tenderer of any such change. At any time during the process of evaluation the Authority may seek specific clarifications from any or all Tenderer.

Phase II: Evaluation of Financial Bid

i) In this phase, the Financial Bids of the Agencies who qualify the technical bid in Phase I shall be opened. Formula to determine the scores for the Financial Bids shall be as follows

$$S_f = (F_L / F),$$

Where

S_f is the Financial Score

F_L is the value of lowest Commercial Bid

F is the price quoted in the bid under consideration

Phase III: Evaluation of combined Qualification and Technical & Financial Bid

- i. The Total score of the Tenderer will be determined as under
Total Score (T_s) = (70 x S_t) + (30 x S_f)
- ii. The Bid of the Tenderer, who obtains the highest T_s value, will be rated as the best Bid. In the event of a tie, the bid with the highest technical score (S_t) will be rated as the best bid. Beyond that, Authority will decide the matter in its full discretion.
- iii. The Authority will award the Contract to the successful Tenderer whose bid has been determined to be substantially responsive and has been determined as the best bid, provided further that the Tenderer is determined to be qualified to perform the Contract satisfactorily. The Authority shall however not bind itself to accept the best bid or any bid and reserves the right to accept any bid, wholly or in part.

12. RIGHT TO VARY SCOPE OF WORK AT THE TIME OF AWARD

The Authority may at any time, by a written order given to the Tenderer, make changes within the general scope of the Work. If any such change causes an increase or decrease in the cost of, or the time required for, the Tenderer's performance of any part of the work, whether changed or not changed by the order, an equitable adjustment shall be made in the agreed Price or delivery schedule, or both, and the Work Order shall accordingly be amended. Any claims by the Tenderer for adjustment under this Clause must be asserted within thirty (30) days from the date of the Tenderer's receipt of the Authority's changed order.

13. RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

The Authority reserves the right to accept any bid, and to annul the Tender process and reject any or all bids at any time prior to award of work, without thereby incurring any liability to the affected

Tenderer or any obligation to inform the affected Tenderer of the grounds for the Authority's action.

14. NOTIFICATION OF AWARD

Prior to the expiration of the period of bid validity, the Authority will notify the successful Tenderer by e-mail or in writing, by registered letter that its bid has been accepted.

15. ISSUING THE WORK ORDER

At the same time as the Authority notifies the successful Tenderer that its bid has been accepted, the Authority will send the Work Order, incorporating its requirements including the conditions laid down in the RFP. Within 7 days of receipt of the Work Order, the successful bidder shall sign the Work Order and return a copy to the Authority as a token of acceptance of the requirements laid down.

16. PERFORMANCE BANK GUARANTEE (PBG)

Along with the signed copy of the Work Order the successful Tenderer is also required to submit a **Performance Bank Guarantee (Annexure-E) for 10%** of the total work order value in the form of Account Payee Demand Draft or a Bank Guarantee from a Nationalized/ Commercial Bank in an acceptable form. The Performance Bank Guarantee should remain valid till the completion of the work.

17. CONFIDENTIALITY OF THE DOCUMENT

This RFP is confidential and anything contained in this RFP shall not be disclosed in any manner, whatsoever.

18. REJECTION CRITERIA

Besides other conditions and terms highlighted in the RFP document, bids may be rejected under following circumstances:

- i) Incomplete bids that do not quote for the complete Scope of Work as indicated in the bidding documents, addendum (if any) and any subsequent information given to the Tenderer.
- ii) Bids providing information that are found to be incorrect/ misleading at any stage / time during the Tendering Process.
- iii) Technical Bid containing financial details.
- iv) Bids that reveal prices in any form or by any reason before opening the Financial Bid
- v) Bids not submitted in Two Bid systems in separate envelopes.

- vi) Bids in which the total lump sum price quoted by the Tenderer is not inclusive of all taxes, duties, fees, levies, works contract tax and other charges
- vii) Bids made through Telex /Telegraphic / Fax/E. Mail.
- viii) Bids which do not confirm unconditional validity of the bid for 90 days from the date of opening of bid.
- ix) Bids where prices are not firm during the entire duration of the contract and / or with any qualifications.
- x) Bids that do not confirm unconditional acceptance of full responsibility of executing the 'Scope of Work' of this Tender.
- xi) Bids in which the Tenderer seeks to influence the Authority's bid evaluation, bid comparison or contract award decisions.

19. LIQUIDATED DAMAGES

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

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

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 ASDMA with such penalties as specified in the RFP and the Agreement. Upon such termination, ASDMA will have the right to forfeit the entire performance bank guarantee submitted by the vendor, apart from blacklisting of the vendor for further participation in any of the tenders of ASDMA.

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

21. FORCE MAJEURE

If any time, during the continuance of this contract, the performance in whole or in part by either party under obligation as per this contract is prevented or delayed by reasons of any war or hostility, act of the public enemy, civil commotion, sabotage, fire, flood, explosion, epidemic, quarantine restrictions, strike, lockout or acts of God (hereinafter referred to "eventuality"), provided notice of happening of any such eventuality is given by either party to the other within 21 days of the date of occurrence thereof, neither party shall be the reason of such an "eventuality" and be entitled to terminate this contract nor shall either party have any claim or damages against the other in respect of such non-performance or delay in performance and deliveries under the contract. The contract shall be resumed as soon as practicable after such "eventuality" has come to an end or ceased to exist. In case of any dispute, the decision of CEO, ASDMA, shall be final and conclusive, provided further that if the performance in whole or part of any obligation under this contract is prevented or delayed by reason of any such eventuality for a period exceeding 60 days, either party may at its option, terminate the contract. Provided also that if the contract is terminated under this clause the Purchaser shall be at liberty to take over from the Supplier at a price to be fixed by the Purchaser, which shall be final, all unused, undamaged and acceptable materials, bought out components and other stores in the course of manufacture which may be in the possession of the Supplier at the time of such termination, or such portion thereof as the Purchaser may deem fit except such material, as the Supplier may, with the concurrence of the Purchaser, elect to retain.

22. SERVICE LEVEL AGREEMENT (SLA) DURING CONTRACT PERIOD

The vendor shall commit to provide Early Warning Services Based on Total Lightning Detection and its components under a formal Service Level Agreement (SLA). The SLA for EWS shall ensure that the system will run 24 x 7 along with delivery of data with 95% or higher availability every month, for the duration of the contract. The vendor shall be liable to be penalized if the system fails to run on a 24 x 7 basis and if there is a delay in providing services during the contract period at a rate to be finalized by ASDMA while signing the Contract Agreement.

23. Payment Schedule

Payment of the invoice value will be done on quarterly basis on Submission of invoices and certification from ASDMA's competent authority.

24. GENERAL

- i) Tenderer shall not make any alteration / changes in the bid after the closing time and date.
Unsolicited correspondences from Tenderer will not be considered.

- ii) If at any stage of Tendering process or during the currency of the Work, any suppression / falsification of such information is brought to the knowledge of the Authority, the Authority shall have the right to reject the bid or cancel the Work Order, as the case may be, without any compensation to the Tenderer.
- iii) The Tenderer shall be deemed to have complied with all clauses in the Tender under all the sections/chapters of the Bidding document, unless otherwise stated in the deviation statement. Evaluation will be carried out on the available information in the bid.
- iv) Any other point, which may arise at the time of evaluation, will be decided by Authority for assessment of the bids.

v) Other important Information

- a) The Authority is not bound to accept the lowest or any tender or to assign any reason for non-acceptance. The Authority reserves its right to accept the RFP either in full or in part. Conditional Bids will be rejected outright.
- b) The Authority reserves the right to cancel the Work Order of any agency/ agencies in case of change in the procedures or unsatisfactory services.
- c) In the event of any dispute, the tribunals and courts in Guwahati will have the exclusive jurisdiction in respect of all matters pertaining to the agreement between the Consultant/Organisation/Institute and the Authority.

UNDERTAKING

TO: The Chief Executive Officer
Assam State Disaster Management Authority
Assam State Secretariat
Dispur, Guwahati

I/We _____

Of (insert business address)

Hereby submit our proposal in response to the Request for Proposal (RFP) on **“Early Warning Services (EWS) in Assam for Lightning and Severe Weather based on Total Lightning Detection”** and undertake to abide by all the terms, conditions and specifications given in the bidding document while performing the contractual obligations relating to providing Data on Severe Weather Early Warning Service (EWS) Based on Total Lightning Detection. We also adhere to guarantee clause as specified in terms and conditions of the contract.

I/We understand that the Authority reserves the right to accept / reject any application and the selection is at their sole discretion.

Yours faithfully

Signature of the bidder with office seal

Place

Date

TURNOVER

[Auditor's certificate shall be issued by the Chartered Accountant Firm/Chartered Accountant who audit the Company's accounts]

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the annual turnover furnished by << COMPANY NAME >> for last 3 years as below. This is as per the Statement of Accounts which has been duly verified by me and found correct.

| Financial year | Total Turnover of the Company (in Lakhs) |
|----------------|--|
| 2016-17 | |
| 2017-18 | |
| 2018-19 | |

Chartered Accountant Name

Signature

Seal

ANNEXURE - C

Declaration of Non-Blacklisting

DD/MM/YYYY

TO: The Chief Executive Officer
Assam State Disaster Management Authority
Assam State Secretariat
Dispur, Guwahati

Dear Sir/Madam

Sub.: Declaration on non Black-Listment

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

Sincerely yours

Authorized Signatory
Name and Designation
<< Bidder Name >>

Place:

Date:



FINANCIAL BID**Providing Early Warning Service (EWS) for Lightning based on total Lightning Detection network in Assam.**

| Sl.No. | Description | Value in INR |
|--------|--|--------------|
| 1 | Professional Fees for i) Providing Early Warning data Service (EWS) for lightning and Dangerous Thunderstorm Alerts (DTA) ii) Development of trial application for dissemination of lightning and severe thunderstorm alerts | |
| 2 | Taxes on Professional Fee | |
| | a. _____ Tax @ __% | |
| | b. _____ Tax @ __% | |
| 3 | Miscellaneous Expenses 1 Miscellaneous Expenses 2 Miscellaneous Expenses 3 Miscellaneous Expenses ... | |
| 4 | Taxes if any on Miscellaneous Expenses | |
| | _____ Tax @ __% | |
| | _____ Tax @ __% | |
| | Total Financial Bid (In Figures) | |
| | Total Financial Bid (In Words) | |

Note: To be completed signed and submitted on the e-procurement portal as a part of the bid.

Signature

(Name and Address of the bidder with seal)

Dated this.....day of.....2019



FORMAT OF PERFORMANCE BANK GUARANTEE (PBG)

To
The Chief Executive Officer
Assam State Disaster Management Authority (ASDMA)
Guwahati

OUR LETTER OF GUARANTEE No. : _____

In consideration of "ASDMA", having its office at the Assam Secretariat Complex, Dispur (INDIA) (hereinafter referred to as "ASDMA") and having entered into an agreement dated _____ / issued Purchase Order No. _____ dated _____ with /on M/s _____ (hereinafter referred to as "The Supplier").

WHEREAS, the Supplier having unequivocally accepted to supply the materials as per terms and conditions given in the Agreement dated _____ / Purchase Order No. _____ dated _____ and ASDMA having agreed that the Supplier shall furnish to ASDMA a Performance Guarantee for the faithful performance of the entire contract, to the extent of 10% (ten percent) of the value of the Purchase Order i.e. for _____

We, _____ ("The Bank") which shall include OUR successors, administrators and executors herewith establish an irrevocable Letter of Guarantee No. _____ in your favour for account of _____ (The Supplier) in cover of performance guarantee in accordance with the terms and conditions of the Agreement/Purchase Order.

Hereby, we undertake to pay upto but not exceeding _____ (say _____ only) upon receipt by us of your first written demand accompanied by your declaration stating that the amount claimed is due by reason of the Supplier having failed to perform the Agreement and despite any contestation on the part of above named supplier.

This Letter of Guarantee will expire on _____ (after the completion of the warranty period) including 30 days of claim period and any claims made hereunder must be received by us on or before expiry date after which date this Letter of Guarantee will become of no effect whatsoever whether returned to us or not.

Authorized Signatory
Manager
Seal of Bank

FORM OF CONTRACT AGREEMENT
AGREEMENT

This Agreement, made the _____ day of _____ 2019, by and between

(name and address of Purchaser hereinafter called "the Purchaser") and

(name and address of Supplier hereinafter called "the Supplier") of the other part.

Whereas the Purchaser is desirous that the Supplier execute _____

(name and identification number of Contract hereinafter called "the Contract")

and the Purchaser has accepted the Bid/Quotation submitted by the Supplier for the execution and completion of such Contract.

Now this Agreement witnesses as follows:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereafter referred to, and they shall be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to execute and complete the Contract in conformity in all respects with the provisions of the Contract.
3. The Purchaser hereby covenants to pay the Supplier in consideration of the execution and completion of the Contract the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be executed on _____, 2017

Signed By _____

(the Purchaser)

Signed By _____

(the Supplier)



TECHNICAL SPECIFICATIONS

The EWS shall deliver data according to the following baseline performance criteria:

- Ninety-five percent (95%) or higher Detection Efficiency (DE) rate for Cloud to Ground (CG) lightning over the specified coverage area. Methodologies used to arrive at the DE rate must be described.
- Sixty percent (60%) or higher Detection Efficiency rate for In-Cloud (IC) lightning over the specified coverage area. Methodologies used to arrive at the DE rate must be described.
- Location Accuracy of CG and IC Flashes shall be an average of 500 meters or better. Methodologies used to arrive at the Location Accuracy must be described and verified through ground truth case studies supplied by the supplier.

I. Basic Lightning Data

- a. The EWS shall provide the following data characterizing the observed lightning activity:
 - Pulse or Flash time in Coordinated Universal Time (UTC)
 - Latitude in decimal degrees
 - Longitude in decimal degrees
 - Polarity
 - Signal strength
 - Type: Cloud to Ground (CG) or In-Cloud (IC)
 - Height of IC in km
- b. Total time from when lightning occurs to when that flash is reported must be 1 minute or less for 99% of all flashes.
- c. Accuracy of the reported time of lightning strikes shall be one (1) second or better.
- d. No more than 1% of reported lightning flashes can be considered as false alarms.
- e. The EWS shall have a defined and documented API that makes this basic total lightning data available in real-time for ingest into data display or other GIS systems, databases or applications.

II. Severe Weather Warnings Based on Total Lightning

- a. The EWS shall use the collected lightning data to identify and track the initiation and development of convective storm cells and to automatically generate real-time severe weather warnings.
- b. The EWS shall automatically cluster lightning data into storm cells with defined boundaries at no longer than 1 minute intervals, and no less than 1 minute latency.
- c. The storm cells shall record perimeter boundaries, center, size, speed, and direction of travel, as well as IC and CG flash and stroke rates every minute.

- d. The EWS shall have the capacity to issue no less than three different levels (colors) of weather warnings: mild, moderate, and severe.
- e. A Severe Weather Warning shall be issued by the EWS once a storm cell's flash rate characteristics have exceeded thresholds indicating an imminent severe weather threat.
- f. The Severe Weather Warning shall be in two forms: a polygon indicating the speed and direction of the threat and its probable location and duration, and a corresponding text alert bulletin in Common Alert Protocol (CAP) format.
- g. The Severe Weather Warnings shall be automated and provide advanced warning on the potential for severe weather such as frequent lightning, hail, heavy rainfall, wind gusts, and other types of severe weather.
- h. The Severe Weather Warnings shall be updated at regular intervals until the dangerous weather activity is no longer a threat and the warning expires.
- i. The Severe Weather Warnings shall be made available via a documented API and be fully accessible for ingest into data display or other GIS systems, databases or applications.
- j. The simulated radar product shall be made available via a documented API and be fully accessible for ingest into data display or other GIS systems, databases or applications.

III. Data Display System (DDS)

- a. DDS shall be an internet browser-based visualization tool that enables the display of information generated by the EWS and other data as needed.
- b. DDS shall enable ASDMA to visualize current, historical and nowcast data, including convective storm activity, severe weather warnings, and others.
- c. DDS shall enable individual user profiles to create custom views and alerts for specific geographic areas and/or data types that are displayed and delivered for their personalized log in.
- d. DDS content shall be accessible to ASDMA staff from modern PCs, laptops or smartphones using standard web browser technology and the internet.
- e. DDS shall incorporate Geographic Information System (GIS) principles that aid visualization of weather data layers with facility to add custom layers.
- f. DDS shall enable remote collaboration of ASDMA forecasters through real-time sharing of on-screen user activity between parties at different locations.
- g. Automated notification functionalities:
 - The DDS shall provide a tool that enables each individual user to define specific alerts based on presence of severe weather in a specific area.
 - The alerts shall provide instant notifications to the user when weather parameters exceed customizable and preset thresholds.

- Notification channels shall include visual and email.
- h. The DDS shall provide users with ability to visualize data in specific formats:
- All CG and IC lightning data parameters shall be displayed for every lightning stroke or flash identified by the EWS with latency no greater than 1 minute.
 - Storm Cells shall be displayed for every storm identified by the EWS with latency no greater than 1 minute.
 - Storm Tracks shall be displayed for every storm identified by the EWS until that storm has diminished.
 - Severe Weather Warnings shall be displayed for every Storm Cell determined by the EWS to require an alert.
- i. Historical data from EWS shall be sent to ASDMA ftp site via file data transfer.

IV. Data Services Configuration

- a. Primary data management, and storage functions of the EWS shall be performed by supplier,
- b. Access to user portals must be provided through standard web browser-based software to ASDMA via authenticated username/password credentials.

V) Trial Application for proactive alerting of inclement weather conditions

The winning bidder will work with ASDMA to come up with a trial application based on specific needs for proactive alerting. This will be further revised based on specific inputs from ASDMA through trying out various approaches for alerting the public. The final requirements of the application will be frozen and a separate project will be initiated for building the same.

