

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

TENDER DOCUMENT

**REQUEST FOR QUOTATION FOR “TURNKEY INSTALLATION OF 120M TALL
LATTICE MASTS (400mm x400mm)
ALONG WITH ALLIED WIND DATA MEASURING INSTRUMENTS AND
ONE YEAR OPERATION & MAINTENANCE”**

Tender Ref No : NREDCAP/WE/WIND MASTS/2020

Dated : 14.09.2020

**NEW & RENEWABLE ENERGY DEVELOPMENT CORPORATION OF
ANDHRA PRADESH LIMITED (NREDCAP)**

12-464/5/1, River Oaks Apartment, CSR Kalyana Mandapam Road, Tadepalli, Guntur (Dist),

Pin: 522 501

Tel: 0863-2347650/51/52/53

E-mail : info@nredcap.in ; website: www.nredcap.in

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

DISCLAIMER

1. The Tender document is not transferable.
2. This Tender is issued by New & Renewable Energy Development Corporation of AP Ltd (NREDCAP).
3. The Bid document is not a prospectus or offer on invitation to the public in relation to the sale of shares, debentures or securities, nor shall this Bid document or any part of it form the basis of or be relied upon in any way in connection with, any contract relating to any shares, debentures or securities.
4. In considering a response to this Tender, each recipient should make its own independent assessment and seek its own professional, technical, financial and legal advice.
5. Whilst the information in this Tender document has been prepared in good faith, it is not and does not purport to be comprehensive or to have been independently verified. Neither NREDCAP nor any of their officers or employees, nor any of their advisers nor consultants, accept any liability or responsibility for the accuracy, reasonableness or completeness of, or for any errors, omissions or misstatements, negligent or otherwise, relating to the proposed Project, or makes any representation or warranty, express or implied, with respect to the information contained in this document or on which this document is based or with respect to any written or oral information made or to be made available to any of the recipients or their professional advisers and, so far as permitted by law and except in the case of fraudulent misrepresentation by the party concerned, and liability therefore is hereby expressly disclaimed.
6. The information contained in this document is selective and is subject to updating, expansion, revision and amendment issued before due date. It does not, and does not purport to, contain all the information that a recipient may require. Neither NREDCAP nor any of their officers, employees nor any of its advisors nor consultants undertakes to provide any recipient with access to any additional information or to update the information in this document or to correct any inaccuracies therein which may become apparent. Each recipient must conduct its own analysis of the information contained in this document or to correct any inaccuracies therein that may be contained in this document and is advised to carry out its own investigation in relation to the Project(s)/Tender, the legislative and regulatory regime which applies thereto and by and all matters pertinent to the proposed Project/Tender and to seek its own professional advice on the legal, financial, regulatory and taxation consequences of entering into any agreement or arrangement relating to the proposed Project/Tender.
7. This Tender document, if includes certain statements, estimates, projections, designs, targets and forecasts with respect to the Project, such statements, estimates, projections, targets and forecasts, designs reflect various assumptions made by the management, officers and employees of NREDCAP, which assumptions (and the base information on which they are made) may or may not prove to be correct. No representation or warranty is given as to the reasonableness of forecasts or the assumptions on which they may be based and nothing in this document is, or should be relied on as a promise, representation or warranty.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

8. NREDCAP reserves the right to modify, amend or supplement or cancel this Tender document, without any prior notice or without assigning any reason.

Authorised Person: The VC & Managing Director, NREDCAP

Address: 12-464/5/1, River Oaks Apartment,
CSR Kalyana Mandapam road,
Tadepalli,
Guntur District

Tel: 0863 -2347650 /651/652/653

Email: info@nredcap.in; vc@nredcap.in

Place: Tadepalli

Date : 14.09.2020

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

TABLE OF CONTENTS

SECTION	TOPIC	PAGE NO
SECTION 1	Tender Information	5
SECTION 2	Information Pertaining To Bid Submission Via E-Procurement Platform	7
SECTION 3	Scope Of Work	10
SECTION 4	Eligibility Criteria and General Terms & conditions	13
ANNEXURES		
ANNEXURE -I	Technical Specifications	32
ANNEXURE-II	Covering letter	39
ANNEXURE-III	General Particulars of the Bidder	40
ANNEXURE-IV	Details about the Blacklisting	41
ANNEXURE-V	Details of Experience	42
ANNEXURE-VI	Format for EMD Bank Guarantee	43
ANNEXURE-VII	Format for Contract Performance Bank Guarantee	46
ANNEXURE-VII	Financial Bid	49
ANNEXURE-IX	Check List	50

TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS IN THE STATE OF ANDHRA PRADESH

SECTION- 1 : TENDER INFORMATION

TENDER NO: NREDCAP/WE/Wind Masts/2020

DATE: 14.09.2020

1.0	Description & Brief Scope of the work	Design, fabrication, supply and transportation, civil works, installation and commissioning including one year Operation & Maintenance of 120 M (400mmx400mm) tall lattice masts along with allied wind data measuring instruments at 3 (Three) locations in the state of Andhra Pradesh	
2.0	Content of Tender Documents	NREDCAP invites tender from the Indian Manufacturers / The Authorized Indian Agents for the aforesaid work as per the scope of work and other terms & conditions of the tender.	
3.0	Important Details	Tender Mode	E-Procurement
		Tender Issue date	14.09.2020
		Tender download start Date and Time	14.09.2020 from 05.00 PM
		Tender download end dated and Time	28.09.2020 at 05.00 PM
		Tender Closing Date and Time	29.09.2020 at 05.00 PM
		Technical Bid Opening Date and Time	30.09.2020 at 03.00 PM
		Financial Bid Opening Date and Time	05.10.2020 at 03.00 PM
4.0	Tender Processing Fee (Non-Refundable)	Rs.25,000 + 18% GST by way of Demand Draft drawn in favour of NREDCAP, payable at Tadepalli, Guntur District, AP State.	
5.0	Earnest Money Deposit	<p>Earnest Money Deposit (EMD) of Rs. 1,00,000 by way of Demand Draft drawn in favour of NREDCAP, payable at Tadepalli, Guntur District, AP State or by way of Bank Guarantee valid upto 31.12.2020.</p> <p>EMD (Refundable to unsuccessful bidders without any interest) must accompany the offers. Suppliers registered with National Small Industries Corporation (NSIC) such as Micro/Small/Medium/Startup Enterprises registered for supply / service related to this tender are eligible for exemption from payment of EMD for the contract up to the monetary limit for which the unit is with NSIC. (Attested copy of registration certificate should be furnished in support of the claim of exemption).</p> <p><u>NREDCAP Account Details are:</u> Bank : STATE BANK OF INDIA, Branch : TADEPALLI , Guntur Dist, Pin: 522501 Account Number : 2188926870 IFSC Code : S B I N 0012870</p>	

TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS IN THE STATE OF ANDHRA PRADESH

6.0	Tender Transaction Fee	Rs.10,000 + GST, payable to MD, APTS (online mode)
7.0	Nature of contract	Lumpsum basis
8.0	Validity of the offer	120 Days
9.0	Completion Period	One year from date of commissioning of the Wind Masts and may be extended for one more year.
10.0	Tender Opening Place	Office of the VC & MD, NREDCAP, TADEPALLI
11.0	Designation, Address, Phone/email of the tender inviting authority	VC & Managing Director, NREDCAP, # 12-464/5/1,River Oaks Apartment, CSR Kalyana Mandapam Road, Tadepalli,Guntur District-522501 Phones: 0863-2347650/51/52/53 Email: vc@nredcap.in ; info@nredcap.in

Intending agencies should submit their proposal only by online mode on or before the time and date specified above.

The proposal shall be opened online at the office of the VC & MD, NREDCAP, Tadepalli on the date and time mentioned above in the presence of the bidders / their representatives who wish to attend. All other existing conditions related to the tenders of NREDCAP will be applicable to this tender also. The tender details will also be available in the website.

If any of the dates mentioned above happens to be a holiday, the actual dates for the same will be the next working day. No separate intimation in this regard will be issued.

The bidding authority reserves the right to modify /cancel any or all proposals without assigning any reasons. NREDCAP will not be responsible for any errors like missing of schedule data while downloading by the bidder/ non receipt of document / delay if any.

All proponents participating in the tender should have a valid Digital Signature Certificate from an approved Certifying Authority.

V C & MANAGING DIRECTOR

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

SECTION -2

**INFORMATION PERTAINING TO BID SUBMISSION VIA
E-PROCUREMENT PLATFORM**

The Bidder shall submit response to the tender on e-Procurement platform at <https://tender.apecurement.gov.in> by following the procedure given below.

The Bidder would be required to register on the e-procurement market place <https://tender.apecurement.gov.in> and submit their Bids online. Online submission of Bids is mandatory and Offline Bids shall not be entertained by the Tender Inviting Authority.

The Bidders shall submit their eligibility and qualification details, Bid Processing Fee and EMD (Prequalification), Technical Bid, Financial Bid etc., in the online standard formats displayed in e-Procurement web site. The Bidders shall upload the scanned copies of all the relevant certificates, documents etc., in support of their eligibility criteria/Technical Bid/Bid Processing Fee/EMD and other certificate/documents in the e-Procurement web site. The Bidder shall sign on the statements, documents, certificates, uploaded by him, owning responsibility for their correctness/authenticity. The Bidder shall attach all the required documents specific to the RFP after uploading the same during the Bid submission as per Bid Documents.

1. Registration with e-Procurement platform:

For registration and online Bid submission Bidders may contact HELP DESK of Vupadhi Techno Services

M/s Vupadhi Techno Services Pvt. Ltd

Flat No:407, 4th Floor, Sreeram'sSneha Avenue,

Near Aravinda School, Kunchanpalli,

Tadepalli Mandal, Guntur district-522501.

Phone: 08645-243670/71/72/73/74

Email id: contact@vupadhi.com

<https://tender.apecurement.gov.in>.

2. Digital Certificate authentication:

The Bidder shall authenticate the Bid with Digital Certificate for submitting the Bid electronically on e-procurement platform. The Bids not authenticated by Digital Certificate of the Bidder will not be accepted.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

For obtaining Digital Signature Certificate, you may please Contact:

Andhra Pradesh Technology Services Limited,
Plot No. 302, 3rd Floor, BanukrishnaNilayam, Ashoka Nagar,
Velanki Rammohan Rao street,
Vijayawada
Mob: 9963029443

3. Hard copies:

- i) Bidders shall submit hard copies of the Bid as specified in the tender document.
- ii) All the Bidders shall invariably upload the scanned copies of DD/BG/PO/RTGS particulars in eProcurement system and this will be one of the key requirements to consider the Bid responsive.

4. Deactivation of Bidders:

If any Successful Bidder fails to submit the original hard copies of uploaded certificates/documents, within stipulated time or if any variation is noticed between the uploaded documents and the hard copies submitted by the Bidder, as the successful Bidder will be barred from participating in the tenders on e-procurement platform for a period of 3 years. The e-procurement system would deactivate the user ID of such defaulting Bidder based on the trigger/recommendation by the Authorised Representative in the system. Besides this, the Authorised Representative shall invoke all processes of law including criminal prosecution of such defaulting Bidder as an act of extreme deterrence to avoid delays in the Bid Process for execution of the development schemes taken up by the government. Other conditions as per the Tender are applicable.

5. Payment Of Transaction Fee:

It is mandatory for all the participant Bidders to electronically pay a Non-refundable Transaction fee to MD, APTS as per the relevant GoAP guidelines in regard to e-procurement fund to be administered by APTS limited, the service provider through "Payment Gateway Service on E-Procurement platform". The Electronic Payment Gateway accepts all Master and Visa Credit Cards issued by any bank and Direct Debit facility/Net Banking of ICICI Bank, HDFC, Axis Bank to facilitate the transaction. GST is applicable for Transaction on the transaction amount payable to MD APTS.

6.Nodal Person for enquiries and clarifications

All correspondence, clarifications in respect of the Bid document and submission of the Bid shall be addressed to:

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

Designation:	VC & Managing Director, NREDCAP
Address:	12-464/5/1, River Oaks Apartment, CSR Kalyana Mandapam Road, Tadepalli, Guntur District, PIN ; 522 501
Telephone:	0863 -2347650 /651/652/653
E-mail id:	vc@nredcap.in ; info@nredcap.in ; we@nredcap.in ; pdwe@nredcap.in

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

**SECTION – 3
SCOPE OF WORK**

- 3.1. The Government of Andhra Pradesh have notified AP Renewable Export Policy vide G.O Ms. No. 20 dated 17.07.2020 for large scale promotion of RE Power Projects. Number of Prospective Developers are approaching NREDCAP expressing their interest to set up Wind and Solar Power Projects at identified areas. However, in respect of Wind Power Projects, the detailed wind data at 80 mts and above levels are not available to take investment decision by the prospective developers.
- 3.2. Taking into consideration the availability of huge extents of lands and possibility to promote Wind Power Projects and Wind-Solar Hybrid Power Projects, it is decided to take up detailed wind monitoring studies at 120 mt level in the following regions,
1. Kadiri, Ananthapuramu District
 2. Puttaparthi, Ananthapuramu District
 3. Kalasapadu, near Badvel, YSR Kadapa District.

The details of Wind Mast locations along with co-ordinates will be shared with the successful bidder. NREDCAP may change the project locations based on requirement and in such case also the locations will be selected in Ananthapuramu, YSR Kadapa and Kurnool Districts only.

- 3.3. The bidder is responsible for design, fabrication, supply & transportation, civil foundation works, erection and commissioning of 120 Metre (400mmx400mm) lattice masts at the above 3(three) locations.
- 3.4. The Wind measuring instruments like anemometers, wind direction and temperature sensors, data loggers, pyranometers, etc. as required for standard wind data collection process shall be supplied/arranged and installed by the bidder.
- 3.5. The technical specifications for wind masts are furnished in the Annexure -I.
- 3.6. Necessary arrangements/provision shall be provided for collecting the wind data and other parameters at different levels as per the technical specifications.

TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS IN THE STATE OF ANDHRA PRADESH

3.7. The data loggers shall be of NRG systems make (SymphoniePLUS3 MODEL or any other upgraded model) or equivalent. The anemometers, wind vanes shall be the make of NRG systems or equivalent. The pyranometers and other instruments shall be of applicable IS standards.

3.8. The instruments/sensors to be installed at each mast are as follows:

S.No	Instrument/Sensor	No of Units	Mounting Level(s)
1.	Cup Anemometer	5	120 M N &S- 2 Nos 90 M - 1No, 60 M - 1 No and 30 M - 1 No or as suggested by NREDCAP
2.	Wind vanes	4	118 M, 90 M,60 M and 30 M or as suggested by NREDCAP
3.	Temperature sensor	1	10 M
4.	Pyranometer	2	20 M
5.	Relative Humidity Sensor	1	Ground level
6.	Pressure Sensor	1	120 M
7.	Automatic Data Logger	1	5 M

3.9. Additional instruments that may be required for Standard Detailed Wind Monitoring studies shall also supplied and installed for which payment will be made by NREDCAP. The bidder may also suggest additional instrumentation required if any and the quote for the same shall be submitted separately and attached to the Financial Bid.

3.10. The make and models of above instruments shall be acceptable to National Institute of Wind Energy (NIWE), Chennai. The calibration certificates of the instruments shall be submitted.

3.11. The bidder shall arrange for validation of the wind data from NIWE and necessary charges for the same will be paid by NREDCAP directly to NIWE.

3.12. The data from the data loggers shall be transferred to NREDCAP/NIWE on monthly basis for which link will be provided along with abstract of the Wind Data.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

- 3.13. The bidder shall be responsible for Operation & Maintenance of the wind masts for a period of one year. Based on the necessity and requirement, the wind mast may be continued for one more year for which the O & M cost will be paid extra by NREDCAP.
- 3.14. Based on the requirement, NREDCAP may consider for installation of additional wind masts and the bidder shall take up the additional masts also at the same quoted price. However, the decision for installation of additional mast will be taken within six months from the date of LoI/Work order to be issued for the initial 3 wind masts.
- 3.15. The insurance during the transport of the material, erection and operation & maintenance period shall be the responsibility of the bidder.
- 3.16. NREDCAP will be responsible for arranging the clear site for installation of wind masts along with payment of lease rentals if any to the land owner.
- 3.17. On completion of the contract period, the wind mast material will be retained with the NREDCAP. However, the bidder shall be responsible for dismantling of the material as per the requirement of the NREDCAP.

SECTION –4

ELIGIBILITY CRITERIA AND GENERAL TERMS & CONDITIONS

4.1. Eligibility Criteria:

The bidder shall furnish documentary evidence in support of meeting the following Qualifying Requirements

- The bidder should be a reputed manufacturer/ supplier /dealer with minimum 5 years of experience as on 3108.2020.
- The average annual turnover of the bidder in the preceding three (3) financial years as on bid opening date shall not be less than 150 Lakhs (Scanned Copy of CA Certificate or Annual Reports are to be uploaded).
- Supplier should have successfully completed three similar works (120 Metre tall mast) for the last 5 years (Copy of relevant work orders to be enclosed).
- Bidder should provide the proposed detailed work plan, methodology and time schedule to complete the scope of work in the stipulated time.

4.2. Amendments to Bidding Document:

1. At any time prior to the deadline for submission of the Bids, the NREDCAP may amend the Bidding Document by issuing addenda.
2. Any Corrigendum/addendum issued shall be part of the Bidding Document and shall be published in the E-Procurement site and NREDCAP website.
3. To give prospective Bidders reasonable time in which to consider a Corrigendum/addendum in preparing their Bids, the NREDCAP may, at its discretion, extend the deadline for the submission of the Bids.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

4.3. Preparation of Bid Proposals:

1. The bids shall be submitted in the e-procurement platform on or before 5.00 PM on **29.09.2020**. **The hard copy of the technical bid (scanned copies along with supporting documents and bid processing fee and EMD shall be submitted** to the VC & Managing Director, NREDAP, Tadepalli on or before **01.10.2020 before 2.00 PM**. The sealed covers shall contain the superscription of **“Tender for Turnkey installation of 120M Tall Lattice Masts ”**.
2. Proposals shall be completed in all respects and submitted with requisite information and Annexures. It shall be free from any ambiguity, cutting or overwriting. Any such correction must be initialed by the persons who sign the proposals.
3. For preparation of Proposals, Bidders are expected to examine the bidding documents in detail. Material deficiencies in providing the information requested may result in rejection of the proposal.
4. All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid.
5. Indian agent on behalf of the Principal /OEM and Principal OEM cannot bid simultaneously for the same item/product.
6. The same agent should not submit a bid on behalf of another Principal OEM in the same tender for the same item/product.
7. Apart from the technical requirements as stipulated in the bid documents, data sheets etc. the documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed item-by-item description of the essential technical and performance characteristics of the Goods and Related Services, demonstrating substantial responsiveness of the Goods and Related Services to those requirements. If applicable, a statement of deviations and exceptions to the provisions of Technical specifications will be submitted by the bidder separately.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

4.4. Financial bid:

1. For preparation of the “Financial Bid”, Bidders are expected to take into account the requirements and conditions of the bidding documents, as per the prescribed format and uploaded in the e-procurement platform.
2. The rate quoted by the bidder shall be inclusive of all provisions for incidental expenses necessary for proper execution and completion of the work in accordance with the terms & condition of the bidding document.
3. All prices to be quoted by the Bidders will be in Indian Rupees and/or any convertible foreign currency on firm price basis and to remain valid during the currency of the Contract.
4. Bidders shall necessarily submit the prices in the prescribed format for Financial Bid Schedule only.

4.5. Cost of Bidding:

The Bidder shall bear all costs associated with the preparation and submission of its Bid, negotiation, discussion etc. and the NREDCAP shall not be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

4.6. Language of Bid:

The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the NREDCAP, shall be written in English. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Bid, such translation shall govern. If the bid does not fulfil this condition, the bid shall be rejected straight away.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

4.7. Validity of the Offer:

The proposals shall remain valid for a period of 120 days from the date of opening of BID. In exceptional circumstances the NREDCAP may solicit the Bidder's consent for extension of the bid validity period. When the validity period is extended by the Bidder, the same shall be done without any modification to the bid proposal by the Bidder.

4.8. Conditions for Forfeiture of EMD:

The Earnest Money Deposit shall be forfeited on any of the following circumstances by the NREDCAP without any notice or proof of damage to the NREDCAP,

1. If the Bidder withdraws or varies its Bid during the period of Bid validity specified by the Bidder in the Bid Proposal.
2. If the Bidder does not withdraw any deviation listed in prescribed Deviation Schedule at the cost of withdrawal indicated by him.
3. If the Bidder refuses to withdraw, without any cost to the NREDCAP, any deviation not listed in prescribed Deviation Schedules but found elsewhere in the Bid.
4. In the case of a successful bidder, if the bidder fails within the specified time limit to furnish the acceptance of Letter of Award/Work Order.
5. In the case of successful Bidder, if the Bidder fails, within the time limit, to furnish the required Contract Performance Guarantee.

4.9. Release of EMD:

1. The Bid Security of all the unsuccessful Bidders shall be returned as promptly as possible, but not later than 1 month after expiration of bid validity. EMD shall not carry any interest.
2. The Bid Security of the successful Bidder shall be retained once the successful Bidder has accepted the Letter of Award/ Work Order and furnished the required Contract Performance Guarantee/Security Deposit after adjusting EMD.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

4.10. Ineligibility for Future Tenders:

Notwithstanding the provisions regarding forfeiture of Bid Security specified above, if a bidder after having been issued the Letter of Award/Work Order either does not accept the order/Letter of award or does not sign the Contract Agreement or does not submit an acceptable Performance Security and which results in tender being annulled then such bidder shall be treated ineligible for participation in future tenders.

4.11. Liability for Errors:

Considerable efforts to ensure the accuracy of the information in this EoI have been made. The information contained in this EoI is supplied solely as a guideline to bidders. The information is neither guaranteed for accuracy, nor is it necessarily comprehensive or exhaustive.

4.12. Acceptance of Terms & Conditions:

Unless otherwise stated by the bidder, all terms and conditions of this EoI document are deemed to have been accepted and accordingly considered in the bidder's submission of proposal.

4.13. Compliance with Laws:

The bidder shall ensure that all the licenses and permits are obtained, to perform the work. The bidder shall comply with all the laws applicable to the work or the performance of the contract.

4.14. Deviations:

Bidders should generally agree to all the terms and conditions of the bid documents. However, deviation / exception / assumption, if any should be stated separately and shall be submitted along-with "Bid Proposal", failing which it would be presumed that all terms and conditions are acceptable to them.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

4.15. Evaluation of Bids:

1. The NREDCAP will determine whether the Proposals are substantially responsive to the Bidding Document and their proposal is complete. Material deficiencies in the proposal may render the proposal non-responsive and may lead to the rejection of the proposal.
2. To evaluate a Bid, NREDCAP shall only use all the criteria and methodologies defined in this document.
3. The financial bids of technical qualified bidders shall be opened as per scheduled date and time.
4. The Bidder who quote lowest price without any deviations in the scope of work shall be considered for awarding the work.

4.16. Discrepancies in Bid:

In case of discrepancies in bids, the following will be adopted to correct the discrepancies for the purpose of evaluation.

1. In case of discrepancy between the original & copies of bid, the original bid will be considered as correct.
2. In case of discrepancy between unit price in figures and words, the unit price in words will be considered as correct.
3. In case of discrepancy between unit price and total price, the unit price will be considered as correct.
4. In case of discrepancy between unit price and total price, which is obtained by multiplying the unit price and quantity, or between sub-totals and the total price, the unit or subtotal price shall prevail, and the total price shall be corrected accordingly.

4.17. Right to Accept any Bid and to reject any or all Bids:

The NREDCAP reserves the right to accept or reject any Bid, and to annul the bidding process and reject all Bids at any time prior to Contract award, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder (s) of the grounds for the NREDCAP action.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

4.18. Award Criteria:

The NREDCAP will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and to be the lowest evaluated bid, further provided that the Bidder is determined to be qualified to perform the contract satisfactorily.

4.19. Contract:

1. The NREDCAP shall send to the successful Bidder the Work Order/Letter of Award (LOA).
2. The contract shall come into effect from the date of issue of Letter of Award / Work Order.
3. Successful bidder on whom Contract/LOA/Work Order is placed shall hereafter be called Supplier.

4.20. Signing of Contract Agreement:

Within one week after issuance, the bidder should send his acceptance to the LOI/PO. Upon the receipt of acceptance, a contract agreement will be signed between NREDCAP and the successful bidder.

4.21. Time Schedule:

1. The Supplier shall complete the civil works and deliver the wind mast material **within 30 days from the date of written intimation from NREDCAP.**
2. The commissioning of the wind mast along with installation of instruments such as anemometers, wind and temperature sensors, pyranometer, etc., shall be completed within 10 days period from the date of completion of installation of the wind mast or within 45 days from the date of written intimation from NREDCAP to deliver the wind mast material, whichever is earlier.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

4.22. Payment Schedule:

1. 75% of the mast cost and 100% of the transportation cost for mast will be paid on receipt of the mast(s) at the site(s) on production of invoice (in triplicate) duly certified by the authorized representative of NREDCAP about receipt of the mast in good condition and as per specifications.
2. 15% of the mast cost will be released after one month of commissioning of the wind mast with required instruments on certification by the authorized representative of NREDCAP.
3. The balance 10% of the total cost of mast will be paid after the warranty period or against unconditional bank guarantee towards Performance Bank Guarantee valid for 3 months beyond warranty period of 2 years.
4. 90% cost of instruments such as anemometers, wind and temperature sensors, pyranometer, etc. shall be released as per the terms and conditions of the OEM if the payment is required to be made directly or alternatively the payment will be released to the supplier within one week period on submission of invoices in triplicate duly certified by the authorized representative of NREDCAP. The relevant calibration certificates shall also be submitted along with the invoices.
5. 10% cost of instruments shall be released after the warranty period or against unconditional bank guarantee towards Performance Bank Guarantee valid for 3 months beyond warranty period of 2 years.
6. In respect of statutory fee and consultancy charges payable to NIWE, Chennai towards validation of the wind data collected will be released at actuals to the bidder or directly to NIWE on intimation of these charges.
7. The Rates shall be firm throughout the contract period.

4.23. Contract Price:

The Contract Price shall be as specified in the Work Order / LOA.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

4.24. Scope of Supply:

1. The Goods supplied shall be as specified in the technical specification and Price Schedule. The successful bidder shall supply all the Goods as per the Delivery Schedule that may be specified.
2. Unless otherwise stipulated in the Contract (Work Order / LOA), the Scope of Supply shall include all such items not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining Delivery and Completion of the Goods and Related Services as if such items were expressly mentioned in the Contract.
3. The Supplier shall ensure that the Goods and Related Services comply with the technical specifications and other provisions of the Contract.
4. The Goods and Related Services supplied under this Contract shall conform to the standards mentioned in Technical Specifications and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate.

4.25. Security Deposit:

1. Within thirty (30) days of the receipt of Work Order/Letter of Award from the NREDCAP, the Supplier shall furnish Security Deposit in any form acceptable to the NREDCAP for 10% value of the order including taxes and duties to the extent of wind mast supply, Transport, commissioning and 1 year O&M cost (less EMD when paid by DD/Banker's Cheque).
2. Failure of the supplier to submit the above-mentioned Security Deposit shall constitute sufficient grounds for the annulment of the award and forfeiture of the EMD.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

3. Security Deposit may be submitted in any of the following forms:
 - a) A crossed Demand Draft/ Bankers cheque drawn in favour of NREDCAP payable at Tadepalli
 - b) An irrevocable Bank Guarantee as per the NREDCAP standard format from any nationalized bank / Scheduled Bank as acceptable to NREDCAP.

4.26. Authorized Representative:

Any action required or permitted to be taken, and any document required or permitted to be executed, under the Contract by the NREDCAP or the Bidder may be taken or executed by the officials authorized for the purpose.

4.27. Insurance:

The Bidder will be responsible for taking out any appropriate insurance coverage at their own cost as may be required for successful completion of the job against all risks including theft/fire. The insurance coverage will be arranged by suppliers.

4.28. Freight:

The Bidder will be responsible for safe delivery of material at their own cost.

4.29. Packing:

The Bidder shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, handling and storage. The Bidder will be responsible for any loss or damage during transportation, handling and storage due to improper packing. All packages should be marked with Contract no. and date. Each package must contain packing slip and literature, if any.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

4.30. Inspection and Tests:

1. The Supplier shall Guarantee/Warranty that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions.
2. The warranty shall remain valid for the period **of 2 years from** the date of Supply/Installation/Commissioning.
3. If having been notified, the Supplier fails to remedy the defect; the NREDCAP may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the NREDCAP may have against the Supplier under the Contract.

4.31. Warranty:

- a. The manufacturer's warranty for all supplied items shall be made available to NREDCAP and shall be valid at least for the first year of operation. However, in case the manufacturer's warranty period is in excess of the 2 years period of commissioning, such warranty for such excess period shall be passed on by the bidder to NREDCAP.
- b. The Supplier shall warrant that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions.
- c. The warranty shall remain valid for the period of 2 years.
- d. If having been notified, the Supplier fails to remedy the defect; the NREDCAP may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the NREDCAP may have against the Supplier under the Contract.

4.32. Indemnification:

The Supplier shall, at its own expense, defend and indemnify the NREDCAP against all third part claims of infringement of Intellectual Property Rights, including patent, trade mark, copy right, trade secret or industrial design rules arising from use of the products or any part thereof.

The Supplier shall expeditiously extinguish any such claims and shall have full rights to defend itself there from. The NREDCAP shall not pay any compensation to a third party resulting from such infringement and the Supplier shall be fully responsible for the same, including all expenses at the court and legal fees.

The NREDCAP will give notice to the Supplier of any such claim without delay, shall provide reasonable assistance to the Contractor in disposing of the claim, and shall at no time admit any liability for or express any intent to settle the claim. Final payment to the Supplier by the NREDCAP will not be made while any such suit or claim remains unsettled.

4.33. Removal of Rejected Goods and Replacement:

1. If any delivery, whether inspected and approved earlier or otherwise, the material/equipment is not in conformity with the specifications, the same shall be rejected by the NREDCAP or his duly authorized representative and notification to this effect will be issued to the Supplier normally within 30 days from the date of receipt of the material at site.
2. The supplier shall arrange for removal of the rejected item(s) within 15 days from the date of notification. In the event, the supplier fails to lift the materials within the said 15 days, the NREDCAP shall be at liberty to dispose of such rejected item(s) in any manner as he may think fit. All expenses shall be recoverable from the supplier or any sum due that may become payable to him.

4.34. Modification of Contract:

Modification of the terms and conditions of the Contract, including any modification of the Scope of the Services or of the Contract price may only be made by written agreement between the Parties.

4.35. Liquidated Damages:

The timely delivery of the material and related services is the essence of the contract. In the event of supplier's failure to deliver the material of acceptable quality within the stipulated delivery period, the liquidated damages are payable by the Bidder @ 0.5% (one half of one percent) per week of delay or part thereof, of the unexecuted order value. However, the total liability of the Bidder under this clause shall not exceed 5% of the Contract value as awarded.

4.36. Force Majeure:

1. "Force Majeure" shall mean any event beyond the reasonable control of the Owner or the Supplier, as the case may be, and which is unavoidable notwithstanding the reasonable care of the party affected.
2. If either party is prevented, hindered or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances thereof within fourteen (14) days after the occurrence of such event.
3. The party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such party's performance is prevented, hindered or delayed. The Time for Completion shall be extended by a reasonable time.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

4. The party or parties affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect there of upon its or their performance of the Contract and to fulfil its or their obligations under the Contract, but without prejudice to either parties' right to terminate the contract.
5. No delay or non-performance by either party hereto caused by the occurrence of any event of Force Majeure shall
 - i. Constitutes a default or breach of the Contract.
 - ii. Give rise to any claim for damages or additional cost or expense occasioned there by if and to the extent that such delay or non-performance is caused by the occurrence of an event of Force Majeure.
6. If the performance of the Contract is substantially prevented, hindered or delayed for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (120) days on account of one or more events of Force Majeure during the currency of the Contract, the parties will attempt to develop a mutually satisfactory solution, failing which the decision of the NREDCAP is final and binding on the supplier.
7. Notwithstanding clause above, Force Majeure shall not apply to any obligation of the NREDCAP to make payments to the Supplier herein.

4.37. No Breach of Contract:

The failure of a party to fulfil any of its obligations under the Contract shall not be considered to be a breach or default under the Contract in so far as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract and has informed the other Party as soon as possible about the occurrence of such an event.

4.38. Obligations of the Bidder:

The Bidder shall perform the Services and carry out their obligations with all due diligence, efficiency, and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advance technology and safe methods. The Bidder shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the NREDCAP and shall at all times support and safeguard the NREDCAP's legitimate interests in any dealings with Sub-bidder or third parties.

4.39. Risk Procurement:

In the event of Suppliers failure to render service of acceptable quality in scheduled delivery period, NREDCAP reserves the right to procure services from any other source at the Suppliers risk and cost and the difference in cost shall be borne by the Supplier. Further, NREDCAP shall retain the right of forfeiture of Contract performance Guarantee (CPG) and or any other action as deemed fit.

4.40. Settlement of Disputes:

In case of disputes, the decision of VC & MD, NREDCAP is final and binding on the supplier. All disputes are subjected to the jurisdiction of AP Courts only.

4.41. Notices:

Any notice, request, or consent sought pursuant to the tender shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by speed post, fax, or facsimile to such Party i.e. NREDCAP or Bidder.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

4.42. Termination:

The NREDCAP may terminate the Contract, by not less than thirty (30) days written notice of termination to the Supplier due to the following reasons,

1. If the Supplier does not remedy a failure within thirty (30) days.
2. If the Supplier becomes insolvent or bankrupt;
3. If as a result of Force Majeure, the Supplier is unable to perform a material portion of the Services delayed for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (120) days on account of one or more events or;
4. If the Supplier, in the judgment of the NREDCAP has engaged in corrupt or fraudulent practices in competing or in executing the Contract. For the purpose of this clause:

“Corrupt Practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the selection process or in contract execution. “Fraudulent Practice” means a misrepresentation of facts in order to influence a selection process or the execution of a contract to the detriment of the NREDCAP.

5. If the NREDCAP, at its sole discretion, decides to terminate this Contract.

4.43. Taxes & Duties:

- a. The prices shall be inclusive of all taxes & duties leviable including Goods and Service taxes and the NREDCAP shall not be liable for the same.
- b. For the purpose of the contract, it is agreed that the contract price specified in Bid Price Schedule is based on the taxes duties and charges prevailing at seven (7) days prior to the last date of bid submission date. Bidders are requested to provide the breakup of taxes in the Bid Price Schedule prevailing at seven (7) days prior to the last date of bid submission date.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

- c. If any rates of tax are increased or decreased, a new tax is introduced, an existing tax is abolished, or any change in interpretation or application of any tax occurs in the course of the performance of contract, which was or will be accessed on the bidder in connection with performance of the contract, an equitable adjustment of the contract price shall be made to fully take into account any such change by addition to the contract price or deduction there from as the case may be.

4.44. Tax Deduction at Source (TDS):

TDS will be deducted as applicable. Valid Permanent Account Number (PAN) is mandatory.

4.45. Limitation of Liability:

Except in cases of criminal negligence or wilful misconduct,

- a. The Contractor shall not be liable to the Employer, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to the Employer and
- b. The aggregate liability of the Contractor to the Employer, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to any obligation of the Contractor to indemnify the Employer with respect to patent infringement. In the event of summons from Government organizations like GST authorities, NREDCAP shall recover such sums as directed by the authorities and remit the same to them under intimation to the suppliers.

4.46. Accident or Injury to Workmen:

NREDCAP shall not be liable for any damage or compensation payable at law in respect or in consequence of any accident or injury to any workmen or other men in the employment of the contractor or sub-contractor. The contractor shall indemnify and keep indemnify NREDCAP against all such damages and compensation, and against all claims, proceedings costs, charges and expenses whatsoever in respect thereof or in relation there to. The insurance shall be within the contract price. It is the responsibility of contractor to ensure prompt settlement of such claims as admissible in law without waiting for settlement of insurance claims.

4.47. Ownership:

All data and accompanying documents and records, both working and fair, acquired or created in the contract shall become the property and copyright of NREDCAP. Copyright and intellectual property rights will belong to NREDCAP.

4.48. Option Clause:

NREDCAP reserves the right to increase/decrease the ordered quantity at any time, till final delivery date (or the extended delivery date of the contract), by giving reasonable notice even though the quantity ordered initially has been supplied in full before the date of the delivery period (or the extended delivery period).

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

A N N E X U R E S

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

ANNEXURE-I

TECHNICAL SPECIFICATIONS

1. Lattice tower	<p>The design of the tower including booms with its joint at tower face and the foundation, should be complete in all aspect and should be vetted by authorized Structural Engineer/Firm.</p>
	<p>Mast structure shall be analyzed for stability and designed to withstand all compressive and tensile stresses encountered during operation under gusty conditions as detailed in clause 12.1. During transportation, the bidder/contractor shall ensure that the segments are safely transported in suitable fixtures without any buckling/bending, to the respective sites.</p>
	<p>The mast structure shall be guyed in suitable number of places at equal degrees apart and at suitable levels as per international standard ensuring safety and stability of the system. Provision shall be made for the adjustment of the tension of each guy.</p>
	<p>The mast needs to be made up to 120m height using multiple segments of uniform square cross section. The tower width should be 400x400mm. The design of the structural sections of the mast should confirm to IS 800-2007 specification. Easy transportation of mast segment and its assembly is to be taken care of as some times sites identified will be rigid tops.</p>
2. Mast Material	<p>The mast materials should be galvanized mild steel and should confirm to IS 277:2003. Foundation bolts and other hardware has to be hot dip / spray galvanized and should confirm to IS 2629-1985. The mast segments have to be factory painted orange and white as per aviation rules.</p>
3. Guy wire size	<p>The diameter of the guy wires should be such that it is easy to handle at the time of installation, dismantling and storing. The material should be galvanized steel / fiber core wire ropes and should confirm to IS 2266:2002. The guy wire should be precut and swaged to guy rings. A minimum Pre-tension of 10% of UTS (Ultimate Tensile Strength) should be maintained to ensure structural tensile action of the guy under all windy conditions.</p>

TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS IN THE STATE OF ANDHRA PRADESH

<p>4. Structural Configurations</p>	<ol style="list-style-type: none"> 1. 120m guyed tower is to be assembled with ease. 2. Mast to be supported at approximate levels with required number of guy wires at each level. 3. Galvanized/Fiber core guy wire ropes with two guy radii configuration or as per design approved by an authorized Structural Engineer/Firm.
<p>5. Provision of ladder on the tower</p>	<ol style="list-style-type: none"> 1. It is suggested that the suitable and convenient size accessories are welded as ladder(8mm round rods) to carry out O&M operation at a later stage. The distance between each step of the ladder would be 150-175mm (6 to 7inches). 2. A vertical fall protection system with ladder latch unit and fall protection cable must be provided ensure safety while climbing. <p>A special provision (multiple plat form) must be given for fixing instruments while commissioning. The platform design shall be of open-close type in order to avoid any hindrances to the wind measurement.</p>
<p>6. Boom arrangement for instruments and sensors and structural arrangement for Data logger</p>	<ol style="list-style-type: none"> 1. A convenient structural arrangement and steel section with appropriate sensor mounting arrangement are to be provided for the boom as per IEC 61400-12-1 (wherever applicable) fixing 4 Nos. Cup Anemometer at four levels (120m N&S - 2 number, 90m - 1 number, 60m – 1 number, 30m - 1 number, or as suggested by the client), wind vanes at four levels (118m, 90m and 60m and 30m or as suggest by the client), temperature at 10 m height, 2 nos. of Pyranometer at 20 m, relative humidity sensor at ground level and pressure sensor at 120 m level. Automatic data logger(at 5m a.g.l) will be fixed on the mast for data collection. 2. The wind sensor boom length needs to be at least 6 to 7 times of the face width (atleast 2400mm) from the tower centre line (Standoff distance).The boom and its support structure should be designed appropriately to carry the sensor (including mountings) weighing about 2 to 3 kgs.
<p>7. Arrangements for lifting tools and tackle form the top of the tower</p>	<p>Some arrangement need to be provided on the ladder face of the tower where there is a boom arrangement to lift tools and other accessories to any part of the tower for O&M.</p>

TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS IN THE STATE OF ANDHRA PRADESH

<p>8. Foundation for tower (Central foundation) & Guy support foundation</p>	<p>The casting and civil foundation works for the mast and guys shall be done by the bidder to suit the site requirements. The foundations should be suitably elevated above the natural ground level to avoid contact of water with anchors/guys/mast. Soil Bearing capacity (SBC) for hard strata is to be considered depending upon the engineering properties of soil and SPT “N” values for the determination of SBC. The SBC values are to be based on Annexure I and Annexure II.</p> <p>Annexure I: Standard penetration test (SPT) shall be conducted in soils as per IS 2131-1981 at 1m intervals or at every identifiable change of strata whichever is met earlier. The test shall be conducted after driving the casing to the bottom of bore hole and after cleaning it. “N” values both the field and corrected shall be reported.</p> <p>Annexure II: Following field/laboratory test are required to be carried out on disturbed/undisturbed soil samples to know the different characteristics of soil.</p>		
	S. No.	Test Designation	Applicable Standard
	1.	Natural Moisture Content (NMC)	IS: 2720 (Part-1) 1983
	2.	Grain Size Analysis	IS: 2720 (Part-4) 1985
	3.	Attemberg limits & soil classification	IS: 9259 (Part-5)
	4.	Specific gravity	IS: 2720 (Part-3)
	5.	Bulk density and dry density	IS: 2720
	6.	Unconfined compressive strength	IS: 2720 (Part-10) 1986
	7.	Standard penetration test (SPT)	IS: 2131
	8.	Triaxial test (UU test)	IS: 2720 (Part-11) 1971
	9.	Field Vane Shear Test	IS: 4434
	10.	Consolidation Test	IS: 2720 (Part-15) 1986
	11.	Free Swell Test	IS: 2720 (Part-40) 1977
	12.	Chemical analysis of soil and water samples for pH, sulphate, chloride and other organic content.	Relevant IS code
	13.	Porosity, C- ϕ parameters for each and every strata, Spring Constant	Relevant IS code

TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS IN THE STATE OF ANDHRA PRADESH

	14. Method for the determination of unconfined compressive strength of rock material	IS: 9143-1979
	15. Organic content	IS: 2720 (PartXXII)1972
	<p>Minimum M30 grade concrete is to be used for foundation (if the soil contains chlorides and sulphates beyond acceptable limits, concrete need to be protected with bitumen paint. All the guy support foundations are to designed assuming submerged in the sea water. Analysis of sulphate content of salt water has to be carried out to decide on coatings required for tower portion which is in underwater zone. Rebar to conform to the requirements of CRS of Fe500 specification grade can be used. All rebar to have a minimum of 75mm concrete cover. The type and depth of foundation shall be decided by the design engineer. Design and appropriate calculation sheets(design/load) are to be enclosed along with the tender document duly attested by the authorized Structural Engineer/firm. Soil and salinity should be given special consideration in design, material selection of structure guys and foundation.</p> <p>The complete report along with results of the laboratory test must be submitted to NREDCAP before initiating the foundation work at the site.</p>	
9. Corrosion Protection Requirements	<p>The mast shall be protected against corrosion corresponding to class IM2, Atmospheric Corrosion Category C5-M, according to ISO 12944-2. Passive Corrosion protection system i.e; coatings on tower, guy wire, foundation shall be implemented for meeting the corrosion requirements at the site. It is recommended to use special coatings available on the market (e.g. dense epoxy and dense polyurethane coatings). The choice of materials, coating thickness, workmanship, testing etc. shall comply with ISO 12944 or an equivalent standard. Guywire protection may be done with suitable grease.</p>	
10. Earthing & Lightning arrestor	<p>Earthing and lightning arrestor arrangements for the mast and instruments needs to be provided separately as per IE rules. The Earthing and lightning arrestor arrangements must be a separate entity without touching the mast structure by providing sufficient rubbers in between.</p>	

TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS IN THE STATE OF ANDHRA PRADESH

11. Instruments: sensor locations	1	Wind speed sensor (Cup Anemometer) 120m N - 1 number, 120m S - 1 number, 90m - 1 number, 60m – 1 number, 30m - 1 number
	2	Wind direction sensor (Wind Vanes) - 118m, 90m and 60m and 30m
	3	Pyranometer at 20m – 2 Nos.
	4	Temperature sensor at 10m level.
	5	Solar Panel: Fabricate and fix the solar panel frame at 30m level with cables. A special provision for safety guard against theft of solar panel shall be provided
	6	Pressure sensor at 120 m level & relative humidity sensor at ground level
	7	Weather proof housing for data logger should be at 5m above the ground level.
	Shield Cables are to be provided by the bidder/contractor at the time of commissioning.	
12, One Year comprehensive O&M	The Bidder/Contractor shall provide one-year comprehensive O&M for the masts and shall ensure one year of successful data collection with requisite data availability by the way of effective rectification of masts, sensors etc. During rectification work, a joint visit will be carried out by the NREDCAP ground team along with the contractor’s team, wherein NREDCAP team will provide the sensor and under their supervision, the contractor will be asked to replace the sensors, if required.	
13. General Remarks	1	Wind load on mast, boom, guy ropes, cables, sensors and any others ancillaries are to be calculated as per IS: 875 (Part 3) - 2015 with basic wind speed $V_b = 55\text{m/s}$ at 50m level. The load calculation sheet must be provided in each offer. Certified design calculations along with schematic drawing (showing mast, boom, guys, etc.) are to be submitted.
	2	The individual modules comprising of bracings and leg members shall be galvanized to sufficient thickness and should confirm to IS 277:2003

TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS IN THE STATE OF ANDHRA PRADESH

	3	All infrastructure requirements for civil, erection and commissioning of tower so as to make the job complete in all respects will be the sole responsibility of the successful bidder.
	4	Provide warning light signal as per the aviation requirements at two levels (120m & 80m) powered with solar power backup.
	5	The total load on the tower must be calculated considering the weight of the booms
	6	Provide Orange & White paints as per the aviation requirements. Painting shall be anti-rust coating with marine grade/epoxy painting.
	7	The tender is expected to be a turnkey supply, execute and commission package. The package includes fabrication of mast and accessories, items for civil works, sensor mounts (for all the sensors), data logger housing with mounting accessories, lightning arrestor kit including copper wire earthing pipe (separate earthing arrangements for tower and instruments), packing, transportation, civil works, installation, commissioning, climbing mast, instrumentation of sensors/ dataloggers, comprehensive operation and maintenance, rectification of the mast and replacement of sensors at field stations. During rectification work, a joint visit will be carried out by the NREDCAP ground team along with the contractor's team, wherein NREDCAP team will provide the sensors and their supervision, the contractor will be asked to replace the sensors, if required.
	8	In the event of structural failure of any component/ part of the structure within the guarantee period specified, on account of the manufacturing defect, the bidder shall undertake to replace the component/parts which have failed and those which were damaged as a result thereof, free of cost and bear the expenditure to be incurred for re-erection of the tower.
	9	The bidder should guarantee the stability, safety, durability and satisfactory mechanical behavior of the structure under the condition of specified loading and shall ensure one year of successful data collection with requisite data availability. The guarantee shall hold good for a period of two years

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

		from the date of handing over the tower.
	10	The guy wires should be pretension in sequence so that minimum tension is retained even on the be-ward side guys at all times.
	11	ISI/BS specifications / standards as far as possible shall be adhered

ANNEXURE - II

COVERING LETTER ON BIDDERS LETTER HEAD

Ref No.

Date

To

The Vice Chairman & Managing Director
New & Renewable Energy Development Corporation Of A.P. Ltd
Regd. Office : # 12-464/5/1, River Oaks Apartment,
CSR Kalyana Mandapam Road,
Tadepalli, Guntur District, Andhra Pradesh – 522 501

Dear Sirs,

We hereby submit our bid for “.....” for NREDCAP, Tadepalli as outlined in your bidding document. We have understood the instructions and the terms and conditions mentioned in the bidding documents furnished by you and have thoroughly examined the detailed scope of work laid down by you and are fully aware of nature and scope of work required.

- We hereby confirm our acceptance and compliance to the provisions and terms and conditions contained in the bidding documents.
- We declare that the work will be executed strictly in accordance with the requirement.
- Our proposal shall remain valid for acceptance for a period of 120 days from the date of opening of the "Technical & Financial Bids" by NREDCAP.
- We confirm that the prices quoted by us in the "Financial Bid" are firm and shall not be subject to any variation for the entire period of the contract.
- We confirm that the prices quoted by us in the "Financial Bid" include all taxes, duties and levies payable by us.
- We hereby furnish our "Technical Bid" comprising the following as per prescribed formats
 - i. Technical Bid as per the formats.
 - ii. Documents in support of meeting Qualifying Requirements stipulated in the tender schedule
 - iii. Certificate towards Technical literature
 - iv. Any additional literature in support of Bid documents (please specify)

Yours faithfully,

Date.....

Signature.....

Place.....

Name.....

Designation

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

**ANNEXURE - III
GENERAL PARTICULARS OF THE BIDDER**

S.No	Particulars	To be filled by the bidder
1	Name of the Company	
2	Registered Office Address	
3	Telephone, Telex, Fax No	
4	E-mail	
5	Web site if any	
6	Nature of the firm (Individual/ Partnership/Consortium/ Pvt. Ltd /Public Ltd. Co. /Public Sector, etc.) Attach attested copy of Registration & Partnership deed/ Memorandum of Association	
7	Authorized Contact Person(s) with name, designation Address and Mobile Phone No., E-mail address/ Fax No. to whom all references shall be made	
8	Year of Incorporation (certificate of Registration shall be attached)	
9	PAN Number (copy to be attached)	
10	GST Number (copy to be attached)	
11	Turnover of the company during last 3 years period (CA certificate or Annual reports to be enclosed)	
12	Have the bidder/Company ever been debarred By any Govt. Dept. /	
13	Any other information attached by the Tenderer (Details of Annexure / page no. where its enclosed)	
14	Does Tenderer have any relative Working in NREDCAP? If yes state the Name and designation.	

Signature of Authorized Signatory

With Seal

ANNEXURE - IV

DETAILS ABOUT THE BLACKLISTING, IF ANY

Information on litigation history in which Bidder is involved.

- 1) Whether black listed/ Debarred/Suspended from execution of work.
- 2) Other litigations. If any including Court litigations Arbitrations etc.

Department and concerned officer	Other party (ies)	Case of dispute.	Amount involved.	Remarks showing present status.
1	2	3	4	5

Signature of Authorized Signatory
With Seal

DETAILS OF EXPERIENCE

Year	No.of Wind Masts supplied and erected	Height of Wind Masts	Total value of works attended	Details of User Agency
2015-16				
2016-17				
2017-18				
2018-19				
2019-20				

Note: The copies of relevant work orders shall be enclosed.

Signature of Authorized Signatory
With Seal

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

ANNEXURE - VI

**PROFORMA
BANK GUARANTEE FOR EARNEST MONEY DEPOSIT**

Bank Guarantee No: _____

Date: _____

THIS DEED OF GUARANTEE made on this,day oftwo thousand twenty
twenty by the Bank of (Bank name and address) (herein after called “Bank”) to and in
favour of New and Renewable Energy Development Corporation of Andhra Pradesh Limited, having
its Registered Office at 12-464/5/1, River Oaks Apartment, CSR Kalyana Mandapam Road,
Tadepalli, Guntur District ,Pin Code: 522 501, represented by the Vice-Chairman & Managing
Director (herein after called “NREDCAP”)

WHEREAS Messrs (herein after called
“Bidder”) has submitted his tender response to EOI **NREDCAP/WE/Wind Masts/2020 dated
14.09.2020 for the work** “Design, Fabrication, supply and transportation, Civil works, Installation,
commissioning, including one year of O&M of 120m (400x400) tall lattice mast at 3 locations.”
(Name of work) (hereinafter called “the Tender”).

And WHEREAS in accordance with the terms and conditions of the Tender, the Bidder has to pay a
sum of Rs...../-(Rupees.....towards Earnest Money Deposit
(EMD) from a Nationalised/Scheduled Bank.

And WHEREAS the Bank has, at the request of Bidder, agreed to guarantee the payment of the said
sum of Rs.....in case the Bidder failed to adhere the terms and conditions of the Tender.

And WHEREAS the Bidder has requested the NREDCAP to accept bank guarantee in lieu of EMD
for a sum of Rs..... as per the Tender conditions.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

NOW THIS DEED WITNESSES AS FOLLOWS:

1. In consideration of the NREDCAP having agreed to accept the Bank Guarantee from a Nationalized/Scheduled Bank towards Earnest Money Deposit for a sum equivalent to Rs..... (Rupees..... only), the Bank do hereby guarantee that if the Bidder fails to adhere to the terms and conditions of the Tender as subsequently amended if any, the Bank shall pay forthwith merely on demand without and protest or demur to the NREDCAP such amount or amounts, as the Bank may be called upon to pay by the NREDCAP.

PROVIDED that the liability of the Bank under this deed shall not at any time exceed the said guaranteed amount of Rs...../- (Rupees only)

PROVIDED further that the guarantee hereunder furnished shall be released to the Bidder, in accordance with the terms of the Tender by NREDCAP.

2. The Bank further undertakes to indemnify the NREDCAP against any loss or damage that may be caused or suffered by the NREDCAP by reason of any breach of the term and conditions in the said Tender No. dated
3. The guarantee herein contained shall remain in force till the terms and conditions of the Tender No. Dated have been fully and properly carried out by the said Bidder and in any case, the guarantee shall not hold good after
4. The Bank further agrees with the NREDCAP that the NREDCAP shall have the fullest liberty (without the consent of the Bank and without affecting in any manner the obligations of the Bank hereunder) to vary any of the terms and conditions of the Tender or to extend the time of performance of the Tender by the said Bidder from time to time or to postpone from time to time any of the powers exercisable by the NREDCAP against the said Bidder and to forbear to enforce any of the terms and conditions relating to the said Tender and the Bank shall not be

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

relieved of its liability by the reason of any such variations, or extension being granted to the reason to the said Bidder by reasons of any forbearance, act or omission on the part of the NREDCAP or any indulgence by the NREDCAP to the said Bidder or by any such matter or thing whatsoever which under the law relating to sureties would but for these provisions have the effect of so relieving the Bank.

5. Any account settled between the NREDCAP and the Bidder shall be the conclusive evidence against the Bank for the amount due and shall not be questioned by the Bank.

6. The expression 'Bank', 'NREDCAP' and "Bidder" hereinbefore used shall include their respective successors and assigns.

IN WITNESS WHERE OF Sri/Smt acting for and on behalf of the Bank has signed this Deed on the day, month and year first above written.

Signature
Bank Seal

In the presence of witnesses:

1..... (Name in capital with address)

2..... (Name in capitals to be subscribed with designation, office address or Residential address)

(The Bidder should insert the amount of the EMD in words and figures. The Bank Guarantee shall be valid upto 31.12.2020).

ANNEXURE-VII

PROFORMA FOR BANK GUARANTEE FOR CONTRACT PERFORMANCE

Bank Guarantee No.....

Date:

To

The Vice Chairman & Managing Director

New & Renewable Energy Development Corporation of A.P. Ltd

Regd.Office : # 12-464/5/1, River Oaks Apartment,

CSR Kalyana Mandapam Road,

Tadepalli, Guntur District, Andhra Pradesh – 522 501

Dear Sirs,

In consideration of the New & Renewable Energy Development Corporation of A.P. Ltd NREDCAP, (hereinafter referred to as the “NREDCAP” which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to M/s with its Registered/Head Office at(hereinafter referred to as the “Supplier” which expression shall unless repugnant to the context or meaning thereof, includes its successors, administrators, executors & assigns) a Contract by issue of NREDCAP’s Work Order No..... dated and the same having been unequivocally accepted by the Supplier resulting in a “Contract” valued at for(scope of work/contract) and the supplier having agreed to provide a contract performance guarantee of the faithful performance of the entire contract equivalent to five percent (10%) of the said value of the contract to the purchaser.

We, (Name & Address of Bank) having our Head Office at

.....(hereinafter referred to as the “Bank” which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors & assigns), do hereby guarantee and undertake to pay the NREDCAP, on demand any and all monies payable by the Supplier to the extent of..... as aforesaid at any time up to..... (*)......without any demur, reservation contest, recourse, or protest and/or without any reference to the Seller. Any such demand made

TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS IN THE STATE OF ANDHRA PRADESH

by the NREDCAP on the Bank shall be conclusive and binding notwithstanding any difference between the NREDCAP and Supplier or any dispute pending before any court Tribunal, Arbitrator or any other Authority. The bank undertakes not to revoke this guarantee during its currency without previous consent of the NREDCAP and further agrees that this guarantee herein contained shall continue to be enforceable till the NREDCAP discharges this guarantee. The NREDCAP shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee, from time to time to extend the time for performance of Contract by the Supplier. The NREDCAP shall have the fullest liberty, without affecting this guarantee to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Supplier, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied in the contract between the NREDCAP and the Supplier or any other course of remedy or security available to the NREDCAP. The Bank shall not be released of its obligations under these presents by any exercise by the NREDCAP of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the NREDCAP or any other indulgence shown by the NREDCAP or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving the Bank.

The Bank also agrees that the NREDCAP at its option shall be entitled to enforce this guarantee against the bank as a principal debtor, in the first instance without proceeding against the supplier and notwithstanding any security or other guarantee that the NREDCAP may have in relation to the Supplier's liabilities.

Notwithstanding anything contained hereinabove our liability under this guarantee is restricted to and it shall remain in force up to and including(*)..... and shall be extended from time to time for such period , as may be desired by M/s.....on whose behalf this guarantee has been given.

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

Dated thisday of20.....at
.....

Signature

Bank Seal

In the presence of witnesses:

1..... (Name in capital with address)

2..... (Name in capitals to be subscribed with designation, office address or Residential address)

BANK ADDRESS

BANK'S COMMON SEAL

TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS IN THE STATE OF ANDHRA PRADESH

ANNEXURE- VIII

FINANCIAL BID

(in Rs)

S . N o	Lattice Mast Particulars	No. of Masts	Rate for one Mast	GST rate applicable	Total without Taxes	Total with Taxes
1	120m high lattice mast with size 400X400mm with Design, Fabrication, Supply, Civil work, Installation and Commissioning including one year Operation and Maintenance with requisite Technical specifications	1	2	3	4	5
		3 Nos				
2	Supply, installation, commissioning of instruments including one year Operation and Maintenance (Cost break up instrument wise shall be attached)	3 Nos				
3	Total cost	3 Nos				
4	NIWE Validation Report Charges	3 Nos				
5	Operation & Maintenance Charges for 2 nd year (if opted by NREDCAP)	3 Nos				

Note:

1. For evaluation purpose, the total cost as indicated against S.No.3 shall only be considered.
2. The prices shall inclusive of all work items required for commissioning of wind masts.
3. Mast material and instruments should be delivered to the sites and inclusive of transportation, packing and forwarding charges.
4. The quote for additional instruments suggested if any other than included in the Scope of Work shall be furnished in a separate sheet and enclosed to the Financial bid.

Signature of Authorized Signatory
With Seal

**TENDER FOR TURNKEY INSTALLATION OF 120M TALL LATTICE MASTS ALONG WITH
ALLIED WIND DATA MEASURING INSTRUMENTS AT IDENTIFIED LOCATIONS
IN THE STATE OF ANDHRA PRADESH**

ANNEXURE - IX

CHEK LIST OF DOCUMENTS TO BE UPLOADED

Sl. No	Particulars	Whether uploaded or not
1.	Scanned copy of Tender Processing Fee paid	
2.	Scanned Copy of EMD paid or Exemption Certificate from NSIC /MSME (In case of BG as per format at Annexure VI)	
3.	Registration copy of the organization	
4.	PAN copy	
5.	GST Registration copy	
6.	Auditor Certificate confirming the Turnover for the past three years (2017-18, 2018-19 and 2019-20) or Annual Reports	
7.	Technical Compliance Sheet-Compliance to the Technical specifications mentioned of the Tender document and also duly signed copy of Annexure – I	
8.	Duly filled Annexures - II,III,IV,V and IX	
9.	Financial Bid as per Annexure – VIII (Not to be clubbed with Technical bid and no need to submit hard copy)	

Signature of Authorized Signatory
With Seal