

TENDER DOCUMENT

FOR

**SUPPLY, INSTALLTION, AND MAINTENANCE OF 80 METER
MET MAST IN ODISHA**

**ORISSA RENEWABLE ENERGY DEVELOPMENT AGENCY
S-59, MANCHESWAR INDUSTRIAL ESTATE BHUBANESWAR-751010**

Technical bid Document

1. SUPPLY, INSTALLTION, AND MAINTENANCE OF 80 METER MET MAST IN ODISHA

2. PROJECT BACK GROUND

Orissa Renewable Energy Development Agency (OREDA) is the state level nodal Agency under Science & Technology, Dept, Govt of Odisha to implement renewable energy programme/scheme in the state.

OREDA have decided to set up ten Met Mast at 80 magl for wind resource assessment study in the state of Odisha

For this job OREDA is to select suitable manufacturer/supplier for installation, maintenance of the above system

3. TENDER NOTICE

This tender is invited from the manufacturer/ supplier/ fabricator in the country to take up the above

2.1 The agencies/ bidders are advised to study the Tender document carefully.

Submission of Tender shall be deemed to have been done after careful study and examination of the Tender document with full understanding of its implications.

2.2 Interested bidders may download the Tender document from the website www.oredaorissa.com and submit the bid along with a demand draft of Rs 10,400/- (Rupees ten thousand and four hundred only) only including 4 % VAT drawn in favour of Chief Executive, Orissa Renewable Energy Development Agency payable at Bhubaneswar towards cost of bid documents or obtain the same from the office of Chief Executive, Orissa Renewable Energy Development Agency (OREDA, Dept. of Science & Technology, Govt. of Odisha, S-59, Mancheswar Industrial Estate , Bhubaneswar-751010,Odisha, Tel:- 0674-2588260/ 2586398 Fax-2586368 on payment of non refundable tender document fee of the above amount. The payment will be accepted in the form of crossed demand draft drawn on any scheduled bank, payable in Bhubaneswar in favour of “Orissa Renewable Energy Development Agency”.

2.3 This Tender document is not transferable. OREDA Advt. No. 3873 date 15.12. 2011

3. INSTRUCTION TO BIDDERS:

1. Rates quoted should be firm and fixed. No price variation and escalation will be allowed.

2. Terms and conditions, technical specifications and price bid may be returned duly signed by the bidder on each page in token of acceptance.
3. Valid Sales Tax/ VAT Clearance Certificate duly attested to be attached.
4. Rates will be valid up to six months from the date of opening of tender.
5. Deviation in terms and conditions, Specification of material, Inspection clause etc. will not be accepted
6. Earnest money amounting to Rs 1,00,000/- shall be deposited in shape of Demand Draft in favour of the Chief Executive, OREDA payable at Bhubaneswar . Tenders without deposit of E.M.D will not be accepted. In case of E.M.D Exemption, a copy of such notification issued by Govt should be enclosed.
7. Intending bidders are required to carefully go through the tender specification before submitting their offer.
8. Tenders must be submitted in English language only.
9. Incomplete, telegraphic or conditional tenders are not accepted.
10. Tenders received late due to postal delay or otherwise will not be considered.
11. The bidders are required to furnish their offers in the price bid in both words & figures, so that in case of any confusion, the offer given in words would be accepted as final.
12. The materials are urgently required. Timely delivery of materials against purchase order is of paramount importance.
13. Canvassing in any manner is strictly prohibited. The same will lead to rejection of the tender.
14. Certified photo copies of work orders along with invoice and installation certificate in support of previous experience in supplying and installing the met mast /tower should be furnished along with tender.
15. Proof in support of having authorized representative / service center in Orissa should be enclosed.
16. The tender should be complete with details of materials used for each items/components and quantity required to fabricate a 80 meter high lattice/tubular mast including foundation bolts and the civil works, specification used with descriptive literature and drawing containing dimensions. The details regarding the installation of the mast and the equipment required for its installation are to be included with illustration.
17. The details including drawing & specifications of weather proof housing for data logger, bracket and other hard ware used for fixing anemometers, wind vanes, temperature and pressure sensor, cabling details for the respective sensors , lighting arrestor including earthing kit should be a part of the tender.
18. A copy of the approval and verification of the design of the mast from Government certifying institution or by a Government approved structural engineer should be submitted along with the tender.
19. Original documents of the tender along with the prescribed price bid should be signed, sealed & submitted by the Bidder(s), otherwise tender is liable for rejection.
20. In case of any correction made by the bidder in the rates offered, it should be signed & sealed by the bidders; otherwise tenders are liable for rejection.
21. Power of attorney to sign the agreement on behalf of bidder & partnership deed articles should be enclosed along with original tender documents.

22. Notice inviting tender, tender documents, prescribed Technical bid, price bid, terms & conditions will form the part of tender.
23. All pages of the tenders must be signed by the authorized person on behalf of the bidder.
24. The last date of receipt of the tender is 07/01/2012 up to 3.00 P.M. Sealed tenders will only be accepted during office hours on working days through deposit in the tender box kept for the purpose with Project Division in the office of the Chief Executive, OREDA, Bhubaneswar. Tenders received after due date & time will not be considered.
25. In case of tenders downloaded from the website, the tender documents submitted along with the demand draft for the cost of the tenders in favour of Chief Executive, OREDA drawn in any nationalized bank payable at Bhubaneswar shall only be accepted.
If due to any reason the due date is declared as a holiday the tender will be opened on next working day at the same time.
26. The tender shall be opened on 07/01/2012 at 4 PM in the OREDA office, Bhubaneswar in presence of such Bidders /their representatives, who may be present at the time of opening.

The tender should be submitted in two separate sealed envelopes as mentioned below addressed to the Chief Executive, OREDA, S-59, Mancheswar Industrial Estate, Bhubaneswar -10, inside a sealed envelope super scribed with " The tender for design, fabrication, Supply, civil work ,Installation, and maintenance of 80 mtrs lattice/tubular masts" in Orissa against Tender Call Notice No 3873 /OREDA Dated- 15.12.2011

The first sealed envelope should contain Technical Bid as per Annexure – A, prescribed certificate, EMD amounting to Rs 1,00,000/-, Technical Specification, design , drawing , valid STCC/ VAT clearance certificate ,Commercial terms & conditions, tender document duly signed & stamped in all pages, Proof in support of supply as well as brochure, literature etc. In the second sealed envelope (part-II) should contain Price bids in respect of 10 Met mast as per Annexure –C. It should be super scribed with "Part-II PRICE BID". Any condition in regard to financial aspects, payments, terms of rebate etc beyond the prescribed financial terms of OREDA will make the tender invalid. Therefore it is in the interest of the bidder not to write anything extra in the Price Bid in Annexure-B except price.

The procedure of opening of the tender shall be as under

The two envelopes "PART-1 TECHNICAL BID and PART II PRICE BID" shall be opened at the time & date mentioned in the tender notice by OREDA representative in the presence of bidders. If necessary, the firms may be called for Technical Presentation of their product as per the time intimated by OREDA.

27. Entry Tax if applicable will be paid extra as per actual on documentary evidence.
28. No price escalation on account of any statutory increases in or fresh imposition of custom duty, excise duty, sales tax or duty livable in respect of the major components in the said acceptance of the tender shall be applicable.
29. The bidders quoting abnormally low/high price may be rejected from consideration during financial bids analysis.

30. In case of supply of any defective material or substandard material, the materials will be rejected & it will be the responsibility of the supplier for taking back & replacing the rejected materials at their own cost.
31. The supplied materials should be strictly as per specifications; otherwise the material would be liable for rejection.
32. The tender with validity of less than six months shall not be considered. The validity can be further extended with mutual consent.
33. Any or all tenders may be rejected or accepted partially or fully without assigning any reason thereof by Chief Executive, OREDA, Bhubaneswar.

4. SCOPE OF WORK

Orissa Renewable Energy Development Agency (OREDA) proposes to set up 80 mtrs tall Lattice/tubular Met Mast of following places (list enclosed) of Odisha.

Scope of work includes: -

1. Design (design approved and certified by a government certifying institution or by a government structural engineer) , manufacture/ fabrication of 80 meter tall lattice /tubular mast including foundation bolts and supply along with accessories including transportation , civil works (including foundation for tower and guys) and installation of 80 meter tall lattice/tubular mast at ten locations in Odisha as per the list Annexed-B.
2. The supplier must submit the design drawing with dimension to scale , foundation for the mast & Guys description of type of materials proposed for each components of the mast / installation (including length, width, thickness ,gauge and shape of structures, foundation bolts, joineries , hooks , buckles, corrosion protection painting, boom arrangement, weather proof housing , earthing , lighting arrestor , sensor mounts, cables accessories etc). Also operational specification for installation and commissioning is to be enclosed.
3. Transit insurance up to satisfactory commission of 80 magl lattice/tubular wind met mast
4. Comprehensive maintenance Contract (CMC) of complete system for two years. The date of commencement of CMC shall be reckoned from the date of installation of the met mast with all fittings.
5. The materials to be supplied should be as per specification with at least two years warrantee period on the system installed by the firm.
6. The firm shall after completion and commissioning of the work submit details of the same in the format.
7. The firm should inspect the respective sites and quote accordingly.
8. C-WET will supply instruments like data logger, anemometer, wind vanes, temperature sensor with shield. The supplying firm will provide weather proof housing for data logger, bracket and other hard ware used and fix the above instruments in the met mast. During operational period of two years the instruments found defective will be replaced by C-WET which will be fitted by the supplier/firm.

4. ELIGIBILITY CRITERIA FOR THE MANUFACTURERS FOR SUPPLY, INSTALLTION, AND MAINTENANCE OF 80 METER MET MAST IN ORISSA

1. The firm should be a manufacturer / fabricator / supplier with minimum 5 years experience in fabricating and installing wind mast/tower in India.
2. The average annual turn over of the bidder in the preceding three (3) years shall not less than 1 crores.
3. The firm should be ISO 9001 : 2000 certified

6. SIGNING OF AGREEMENT/ MOU

Finally selected firm or their authorised representative will submit the signed and sealed copy of the purchase / work order in each page on behalf of the firm as token of acceptance along with required security deposit to execute the work as per the terms and condition laid down in the said order.

Annexure - I

SCHEDULED OF EVENTS

Important dates on tender

Last date of Sale of Tender: 6.1.2012 up to 5 PM

Submission of Tender: 7.1.2012 up to 3 PM

Opening of Technical and price bids: 7.1.2012 at 4 PM

Address for submission of Tender

Chief Executive,
Orissa Renewable Energy Development Agency,

S-59 Mancheswar Industrial Estate, Bhubaneswar.
Pin 751 010.

Bidders are requested to watch out OREDA web site for change of events/additional information from time to time.

CHECK-LIST (All the following documents should be enclosed in technical bid)

Please check whether following documents have been enclosed in the bid

1. Tender Paper Cost (DD No.::, ---- Amt: Rs. -----/-, (Bank. name:, Date:)) (Yes/No)
2. Tender paper cost in shape of cash Rs 10,400/- MR No- date- (Yes/No)
3. Evidence of registered Firm /Company (Yes/No)
4. Evidence of operation of the company in India for last 3 years (Yes/No)
5. Copy of Service Tax Registration Certificate/ Service Tax return/ Copy of PAN (Yes/No)
6. Proof of professionals with qualification and experience in installation of met mast (Yes/No)
7. Proof of successful installation of met mast / tower in last 3 years/Copies of work completion order with details of work execution and area extent etc. (Yes/No)
8. Declaration of ineligibility for corrupt and fraudulent practices (Yes/No)
9. Acceptance of terms & conditions contained in the Tender (Yes/No)
10. Representatives authorization letter both for tender opening and technical presentation (along with Proof of above two persons as employee of the company to be enclosed) (Yes/No)

Signature of Authorized Signatory

*(To be typed on the Letterhead paper of the Applicant, including full postal address,
Telephone and FAX numbers and e-mail address)*

To,

**The Chief Executive
Orissa Renewable Energy Development Agency (OREDA)
Dept. of Science and Technology, Govt. of Odisha, S-59 Mancheswar
Industrial Estate Bhubaneswar 751 010. (Odisha)
Tel:-0674-2588260/2586398., Fax-2586368.**

**Subject: Tender (Tender) for selection of firm for installation, and
maintenance of 80mgl Wind Met Mast vide tender call
notice no 3873/OREDA dated- 15.12.2011.**

Dear Sir,

Having examined the Tender (Tender) we, the undersigned, offer to propose for award of work **for installation, and maintenance of 80Wind Met Mast** vide tender call notice no 3873/OREDA dated- 15.12.2011 in full conformity with the said Tender.

We have read the provisions of the Tender and confirm that these are acceptable to us. We further declare that additional conditions, variations, deviations, if any, found in our Tender offer shall not be given effect to.

We agree to abide by this Tender, consisting of this letter, the detailed response to the Tender and all attachments, for a period of one year from the date fixed for submission of Tender as stipulated in the Tender

This application is made with the full understanding that:

- (a) Bids by qualified firm will be subject to verification of all information submitted for qualification and bidding;
- (b) OREDA reserves the right to reject or accept any application, cancels the qualification process, and rejects all applications and OREDA shall not be liable for any such actions.

Any genuine changes made by OREDA in the interest of the work with respect to the technical requirement during the course of project implementation will be acceptable.

We hereby declare that all the information and statements made in this proposal are complete, true and correct and accept that any misinterpretation contained in it may lead to our disqualification.

Information Detail

- 1 Name of bidder
- 2 Address of bidder
- 3 Name, Designation and Address of the contact person to whom all correspondences shall be made regarding this Tender
- 4 Telephone no. of contact person
- 5 Mobile no. of contact person
- 6 Fax no. of contact person
7. E-mail address of contact person

We hereby declare that our Tender is made in good faith and the information contained is true and correct to the best of our knowledge and belief.

<Signature of Authorized Signatory>
<Name>
<Designation>
<Contact Address>
<Telephone Numbers (Mobile & Land)>
Firm/Company Seal

Annexure-IV

(Representative AUTHORIZATION Letter in the Letterhead of the applicant)

Date : _____

Ref : _____

To,

**Chief Executive
Orissa Renewable Energy Development Agency (OREDA)
Dept. of Science and Technology, Govt. of Orissa
Mancheswar Industrial Estate Bhubaneswar-751010, Orissa
Tel:-0674-2588260/2586398 Fax No 2586368.**

Ms. /Mr. _____ is hereby authorized to sign relevant documents on behalf of the company/firm in dealing with invitation reference No. ----- . She/He is also authorized to attend meetings and submit technical and commercial information as may be required by OREDA in the course of processing above said application. Ms. /Mr. _____ is hereby authorized to make technical presentation on behalf of the company.

(Proof of above two persons as employee of the company to be enclosed)

Thanking you,

Authorized Signatory

Representative Signature

Signature attested

PROFILES OF PROJECTS COMPLETED

1. Name of client
Name of the Project
3. Brief Description of the Project
4. Scope of the Project (Activities Involved)
5. Details of Solution and Methodology Adopted
6. No. of Locations at which Project is being/was implemented
8. Value of the project (INR)
9. Date of award of contract
10. Date of commencement of the project
11. Date of successful completion of the project
12. If not completed, expected date of completion
13. Name of the person who can be referred to from Clients' side, with Name, Designation, Postal address, Contact phone, FAX number, e-mail id etc.

Attach Additional Sheets and Annexure, if required.

**Authorized Signatory
(Company Seal)**

Annexure-VI

BRIEF VENDOR PROFILE

- 01 Name of the Firm/Company
- 02 Year Established
- 03 Address of Office
- 04 Telephone No.
- 05 Fax No.
- 06 E-mail Address
- 07 Website
- 08 Sectors' in which the company/firm has successfully commission wind Met Mast against the work order of Govt./ PSU/ Agencies in India
- 09 No. of full time personnel currently under employment
- 10 No. of years of proven experience of providing similar Services

**Authorized Signatory
(Company Seal)**

DECLARATION

Date: _____

Ref: _____

To,

Chief Executive

Orissa Renewable Energy Development Agency (OREDA)

S-59 Mancheswar Industrial Estate Bhubaneswar 751 010.

Dept. of Science and Technology, Govt. of Orissa,

Ref: Declaration Letter, **for design fabrication transportation, civil works, installation, and maintenance of 80 meters tall lattice/tubular Mast**

Dear Sir,

This is to notify you that our Firm / Company intend to submit a proposal in response to your Tender Reference No: 3873 dated- 15.12.2011- In accordance with the above we would like to declare that:

a) We are not involved in any litigation that may have an impact of affecting or compromising the delivery of services as required under this assignment

b) We are not blacklisted by any Central / State Government / Public Sector Undertaking in India.

Sincerely,

[BIDDER'S NAME

Name

Title

Signature

Date

Company Seal

UNDERTAKING

I

.....

Son / Daughter

.....

Resident of

.....

Being Proprietor/ Partner/ authorized representative of

M/S

.....

of whose State Sales Tax Registration No VAT and TIN . is

.....

CST Registration No. is

.....

and Income Tax P.A No. is

.....

Hereby give consent to OREDA to deduct from our Bill whatever dues of the ST & IT Department on their demand.

Place:

Date:

SIGNATURE:

NAME:

SEAL:

COMMERCIAL TERMS & CONDITIONS

1. RATE:

The offer should indicate the unit cost, taxes & duties separately. The unit cost must be inclusive of packing, forwarding, loading & unloading charges, cost of transit insurance, transportation for delivery at destination and training to users, technical personnel and field functionaries of OREDA.

2. SALES TAX & DUTIES ETC.:

All taxes and duties as prescribed both under central and state Government sales tax rules would be applicable.

3. EARNEST MONEY DEPOSIT:

3.1 Earnest money amounting to Rs 1,00,000/- shall be deposited along with the tender without which the same shall not be accepted.

3.2 Request for adjustment of Earnest money Deposit against any previous dues with OREDA will not be considered.

3.3 E.M.D will be refunded to the unsuccessful bidders after finalization of the tender without any interest.

3.4 The Earnest Money Deposit will be returned to the successful bidders after furnishing Security Deposit for performance and acceptance of the purchase order. The EMD can also be adjusted against Security Deposit on request by the successful bidder

3.5 Within 15 (fifteen) days of issue of the letter-accepting bid, the successful bidders shall furnish security deposit for the amount prescribed in this document for performance along with the letter of acceptance. If the bidders fail to furnish the required security deposit along with acceptance letter, within the stipulated time, his E. M. D shall be forfeited and the bidder may be disqualified for participating in further tenders.

3.7 The validity of Earnest Money, shall have to be suitably extended if necessary on request by OREDA, with out which the tender shall be rejected.

4. SECURITY DEPOSIT/ PERFORMANCE GUARANTEE FEES:

The successful bidder shall deposit Security amount/ performance guarantee fees @10% of the ordered value with the Chief Executive, OREDA, Bhubaneswar-10 either in shape of cash or demand draft or in shape of bank guarantee (BG) with validity of two years . The EMD deposited with the tender can be adjusted towards the above amount payable. The said deposit would be forfeited if supplies are not made as per terms and conditions of the purchase order. The security deposit amount will be refunded with out any interest after expiry of the warrantee period and CMC period, subject to satisfactory execution/ performance of the system.

5. DELIVERY:

The materials must be supplied and commissioned within two months (60 days) from the date of issue of the purchase order in the respective sites. The exact location like khata no – plot no- of the respective location for setting up met mast will be indicated at the time of placing of purchase order. Also installation work will be done as per the instruction of the concerned Asst Director (Tech)/ OIC of the R E Cell, DRDA of the district.

- 6. QUANTITY:**
The quantity mentioned in the tender might either increase or decrease according to our requirement. The order shall be placed to the approved bidder in phased manner.
- 7. VALIDITY OF OFFER:**
The offer must be kept valid for a period of six months from the date of opening of the tender. No escalation clause would be accepted. The validity can be further extended with mutual consent.
- 8. STCC:**
The Bidders must submit attested copy of valid up to date Sales Tax / VAT clearance certificate along with the tender. The tender would not be considered without this document. The original certificate would be produced at the time of opening of the tender, or, before placement of purchase order, if required.
- 9. WARRANTY:**
The supplier should give warrantee 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 commission.
- 11. LIQUIDATED DAMAGES:**
The systems are to be supplied and commissioned within the scheduled date. For delay in commissioning of the met mast beyond the scheduled date the buyer shall without prejudice to its other remedies deduct from the order value as liquidated damage @ 5% of the delayed consignment for more then 30 days , @ 10% for more than 45 days . Once delay more than 60 days the purchase order would be cancelled and the security deposit would be forfeited.
- 12. FORCE MAJEURE:**
The supplier shall not be charged with Liquidated damages nor shall his security for performance be forfeited when failure of supplier in making delivery is due to any event beyond his control and could not have been foreseen, prevented, avoided by a prudent person.
These include, but are not restricted to, acts of God, acts of public enemy, acts of government, fires, floods, epidemics, strikes, freights, embargoes and unusually severe weather.
- 13. SPECIFICATION:**
The detailed technical specifications of the wind Met Mast are annexed.
- 14. INSPECTION:**
All tests and inspections shall be made at the place of delivery unless otherwise specifically agreed upon by the bidder and OREDA at the time of purchase if necessary.
- 15. PAYMENT:**
i) 25 % of the system cost and 100% taxes on system supplied shall be released on supply of the system on receipt of report from the Asst Director (Tech)/ OIC of the respective R E Cell, DRDAs. The Bills and Challans in triplicate must be submitted along with the following documents for release of payments

- (a) Valid VAT / Sales tax clearance certificates and ITCC
- (b) Guarantee / Warrantee certificate as stipulated in this specification.

(ii) 70 % of the cost will be released after commissioning, conducting training, opening after-sales-service centres in the State and submission of joint commissioning and handing over certificate in Annexure-IX , copy of the signed CMC by supplier (Format enclosed) and submission of 10 % BG .

(iii) Balance 5% payment will be given after 12 months of commissioning of the system.

CMC charges will be paid at the approved rate on successful maintenance of the system for each complete year from the date of commissioning of met mast as stipulated in the CMC.

16. TRAINING PROGRAMME:

The bidder as per the discretion of OREDA should conduct one Training programme of users, technical personnel & field functionaries of OREDA at site.

17. LIMITATION & LIABILITIES: - The supplier will be responsible for safety & security of it's staff at the time of installation & commissioning and subsequent maintenance of the met mast.

18. DISPUTE:

For adjudication of any dispute between OREDA and the bidders arising in this case, reference can be made to any Law courts under the jurisdiction of Orissa High Courts only.

The Chief Executive, OREDA reserves the right to accept or reject any or all tenders without assigning any reason thereof.

**Chief Executive
OREDA**

I/We have carefully read and understood the above terms and conditions of the tender and agree to abide by them.

SIGNATURE OF TENDERER WITH SEAL

A. TECHNICAL SPECIFICATIONS

1. LATTICE/TUBULAR TOWER:

The design of the mast should be a vetted one by a Government Certifying Institution or Government approved structural engineer.

Mast structure shall be designed to withstand all stresses encountered during transportation, installation, operation under worst conditions.

The mast structure shall be guyed in suitable number of places at equivalent degrees apart and at suitable levels as per international standard. Provision shall be made for adjustment of the tension of each guy.

The mast needs to be made up to 80 m using multiple segments of uniform or tapered structure. Easy transportation of mast segment and its assembly is to be taken care of as some times sites identified will be ridge tops.

2. MAST MATERIAL:

The mast materials have to be galvanized mild steel (as per relevant IS) or otherwise protected against corrosion protection shall be last step in the manufacturing process. Foundation bolts and other hardware has to be hot dip / spray galvanized. The mast segments have to be factory painted orange / white as per aviation rules.

3. GUY WIRE SIZE:

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. The guy wire should be precut and swaged to guy rings.

4. STRUCTURAL CONFIGURATIONS:

1. 80 m guyed tower is to be assembled with ease and the modules need to be transported easily.
2. Mast to be supported at approximate levels with required number of guy wires at each level.
3. Galvanized / stainless steel guy wire with two guy radii configuration or as per approved design.

5. PROVISION OF LADDER ON THE TOWER

It is suggested that the suitable and convenient size angles are welded as ladder to carry out O & M operation at a later stage.

6. BOOM ARRANGEMENT FOR INSTRUMENTS AND SENSORS AND WEATHER PROOF HOUSING OR DATA LOGGER.

A convenient angle section is to be provided for the boom arrangement for fixing wind sensors / instruments at 20, 48, 50, 78, 80 m levels. Data logger should be kept at 3 magl. The wind sensor boom length needs to be at least 6 to 7 times of the face width from the tower centre line (stand off distance).

7. ARRANGEMENTS FOR LIFTING TOOLS AND TACKLE FROM THE TOP OF THE TOWER.

Some arrangement need to be provided on the ladder face of the tower where there is boom arrangement to lift tools and other accessories to any part of the tower for O & M.

8. FOUNDATION FOR TOWER (CENTRAL FOUNDATION) & GUY SUPPORT FOUNDATIONS.

The casting and civil foundation works for the mast guys shall be done by the tenderer to suit the site requirements. The foundations will be suitable elevated above the natural ground level to avoid contact of water with anchors / guys / mast.

9. EARTHING AND LIGHTNING ARRESTOR

Earthing and lightning arrestor arrangements for the mast and instruments need to be provided separately as per IE rules.

10. INSTRUMENTS: SENSOR LOCATIONS:

1. Wind speed sensor at 80 m, 50m, 20 m level with appropriate sensor mounting arrangement and cables.
2. Wind direction 78 m & 48 m level with appropriate sensor mounting and cables.
3. Temperature sensor: either at 10m level or close to the ground.
4. Pressure sensor: either at 10m level or close to the ground with mounts and cables. The details of sensors will be given at a later stage.

Weather proof housing for data logger – 3m above gl.

(The details of the sensors and data logger will be given at a later stage).

11. GENERAL REMARKS

1. The mast should be able to withstand wind speed and sudden gusts of 65 to 70 m / s. The design wind speed of the mast needs to be as per IS. 875 pt 3 (1987).
2. It is strongly recommended that individual modules comprising of bracings and leg members need to be galvanized to sufficient thickness.
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.
5. Provide orange & white paints as per the aviation requirements. Painting shall be anti-rust coating with marine grade / epoxy painting.
6. The tender is expected to be package. The package includes fabrication of mast and accessories, items for civil works, sensor mounts (for all the sensors), cables, data

logger housing with mounting accessories, lightning arrestor kit including copper wire and earthing pipe (separate earthing arrangements for tower and instruments), packing, transportation, civil works installation and commissioning of the mast at field stations in different locations in different states. Supply of sensors and Data loggers will not be a part of the package.

GUARANTEED TECHNICAL PARTICULARS _____

Sl. No	Item	Description
1.	Lattice/tubular structure	
2.	Guy	
3.	Housing of data logger, brackets, temperature sensor and wind vanes, Battery	
4.	Lighting arrestor	
5.	Civil work for tower and guy wire	
6.	Others Features	

Signature of the Bidder with seal

List of sites for installation of met mast

Sl no	Name of the location	Block	District
1	Kasijaganathpur	Sadar	Puri
2	Chedak	Chandbali	Bhadrak
3	Hatipada	Rangailunda	Ganjam
4	U Allpur	Khalikote	Ganjam
5	Kadakala	Banspal	Keonjhar
6	Srikona	Balasore	Balasore
7	Paradeep	Kujang	Jagatsinghpur
8	Artiputra ghati	Koraput	Koraput
9	Dakhili Panabandha	Kasipur	Raygada
10	Zillagaon	Th Rampur	Kalahandi

PRICE BID**Annexure- C**

Sl No.	Name of the item	Qty.	Price Rs. in words and figures
1	Design, manufacture and supply of 80m tall lattice mast along with all accessories and including arrangement for fixing wind sensors/ instruments at 20,48,50,78 & 80 m level and temperature at 10 m level. Data logger at 3magl		
2	Tax & duties on item-1		
	Total		
3.	Installation and commissioning charges		
4	Tax & duties on item -3		
	Total		
5	Comprehensive Maintenance Charges		
6	Tax & duties on item -5		
	Total		
5	Grand Total		

Annexure-IX

Joint Commissioning cum handing over Certificate

This is to certify that M/S -----have installed ----- met mast at ----- under ----- block of ----- district and completed the same by----- successfully. Now the system is running satisfactorily.

1. Place of installation: -
2. Block: -
3. District: -
4. SI No of the system
5. SI no and make of other components

Signature with Seal
M/S -----

Signature with Seal
Asst Director (Tech)
R E Cell, DRDA, -----

COMPREHENSIVE MAINTENANCE CONTRACT (CMC) FOR MAINTENANCE
OF ----- Met mast SUPPLIED & INSTALLED BY M/S-----
IN -----
FOR TWO YEARS

This Comprehensive Maintenance Contract (CMC) is executed between the Orissa Renewable Energy Development Agency (OREDA), S-59, Mancheswar Industrial Estate, Bhubaneswar-10 represented by its Deputy Director (Tech.), SE Division hereinafter called as 1st Party and M/S.

_____, supplier, hereinafter called as 2nd Party, for maintenance of met mast for a period of two years with effect from _____ AD, supplied and installed at _____ of _____ block of _____ district. Vide Purchase Order No. _____ dt. _____.

The 2nd party, supplier, will maintain the system as per the terms and conditions mentioned hereunder.

1. It has been envisaged in the Purchase Order No. _____/OREDA, dated. _____ Under Clause No. _____ that the system shall be warranted against any manufacturing defect and bad-workmanship at least for a period of two years from the date of commissioning. The systems have been commissioned and handed over to the 1st party through its Asst Director (Tech), posted at DRDA ----- during _____. The 2nd party is fully responsible for their trouble-free performance of all the components during the warrantee period. .

The 2nd party is fully responsible for any defect noticed within the above warranty period and is liable for rectification/replacement of the defective components/systems free of cost.

2. The 2nd party should conduct at least one training programmes for the users/technical personnel and field functionaries of OREDA, on day-to-day repair and maintenance of the system.
3. An amount of 10% of the ordered materials shall be kept as fees towards Performance Guarantee for a period of two years of maintenance.
After expiry of the maintenance period of two years, which remains valid up to _____ AD, the security deposit towards PGF shall be returned to the 2nd party thereafter only.
If the maintenance of the met mast is found to be unsatisfactory by the 2nd party, the 1st party will have the liberty to encash and forfeit the PGF deposited/furnished, in full or part as per the following
 - a) If the met mast or the guy wire is not rectified to the original condition within 15 days from the date of complain penalty will be Rs 100/- per day
 - b) If delay in rectification exceeds one month then the PGF will be forfeited.
4. The CMC includes repair/replacement of all defective parts during maintenance period.
5. The 2nd party shall undertake Preventive/Routine Maintenance work of the of system. This shall be done at least once in every two months and shall include activities such as cleaning and checking the health of the system, tightening of all electrical connections, cleaning & greasing of battery

- terminals and any other activity that may be required for proper functioning of the system as a whole. The 2nd party shall forward report to the 1st party in the prescribed format attached herewith (format-1) on every two months.
6. Whenever a complaint is lodged by the user, the 2nd party shall attend within 7-days period of time. The 2nd party shall furnish the status report after the repair works are over which shall invariably bear the signature of the concerned officer of OREDA in the district.
 7. For carrying out the CMC effectively, the 2nd party shall establish at least one service center deployed within the State. The 2nd party shall maintain the following facilities at the service center for ensuring highest level of services to the end user.
 - (a) Adequate trained manpower specifically trained by the 2nd party for carrying out the service activities.
 - (b) Adequate provisions for record keeping, which shall inter-alia, include the following.
 - (c) Adequate spares for ensuring least down time of a individual component.
 - (d) The service center shall send summary service reports to 1st party on half yearly basis. These reports shall include the following information:
 - ❖ Number of complaint received during the period of reporting.
 - ❖ Number of complaints attended during period of reporting.
 - ❖ Major cause of failure, as observed.
 - ❖ Major replacement made during the reporting period.
 - (e) The records maintained at the service center shall be available for scrutiny of authorized representatives of the 1st Party.
 - (f) The date of CMC, maintenance period shall begin on the date of actual commissioning of the systems.
 8. Separate bills/Invoices in triplicate are to be submitted by the 2nd party to 1st party for effecting payment, after end of the year from the date of maintenance of the systems.
 9. Certificate in support of successful maintenance of the system (s) shall be obtained from the user as explained above, which should be countersigned by the Assistant Director (Technical), RE Cell, DRDA, ----- in token of verification of maintenance done.
 10. It will be the liberty of the 1st party to cross check the systems maintained by the 2nd party. Random verification of the maintenance may be carried out by the 1st party wherever necessary.
 11. For adjudication of any dispute between the two parties arising on execution of this CMC, the matter shall first be brought to the notice of Chief Executive/Chairman, OREDA

12. In case, there will be no amicable settlement of the issue, the matter can be referred to the Court of Law having jurisdiction at Bhubaneswar only.
The Comprehensive Maintenance Contract is signed jointly between the two parties today i.e. on dated. _____ day of 2009.

For and on behalf of Orissa
Renewable Energy Development
Agency (OREDA), BBSR
(1st Party)

For and on behalf of
M/S.
(2nd party)
(Seal)

Dy. Director (Tech.)
SE Division
(Seal)

Witness

Dy. Director (Tech.)
SS Division, OREDA
(Seal)

(To be furnished in duplicate by the 2nd party)

STATUS REPORT OF MET MAST

(A) **PARTICULARS**

1. SI no of the system :
2. (a) Place of installation :
(Village)
- (b) Gram Panchayat :
3. Block :
4. District :
5. Date of visit :
6. Name & address of the staff visiting the installation. :

(B) **OBSERVATIONS** (To be filled-in by the staff visiting the installation)

(i) Have seen any

7. Visual damage of the system :
8. **Damage of the logger box** :
- (i) Sl. No. & make of the logger box :
:
9. Condition of the battery :

(i) Make & Sl. No. of the battery defective battery

Condition of the :-

16. Electrical condition :
17. Routine maintenance work :

i) Tightening of the all electrical connection:

ii) Cleaning & greasing of the battery Terminal.

18. Type of repair/rectification carried out:

19. Suggestion imparted to the user:

20. Status of the system

21. Remarks of the user:

Signature of the user/representative(with name & stamp if any) with date

Signature of the staff visiting the installations with date -

Signature of the

**Asst Director (Tech)/
R E Cell, DRDA,**
