

Engineering Development Centre - Wind Electric Generators.

Bharat Heavy Electricals Limited, Ranipet - 632 406. Tamil Nadu, India.

Ref.: BHEL: BAP: EDC: WEG: O&M: Ramagiri :2010-2012

To,

Sir,

Sub. : Tender for O&M services of 12 x 250 kW WEGs of BHEL wind farm at Ramagiri, Anantapur District, Andhra Pradesh State.

Please find enclosed one set of tender documents for rendering O&M services for 12 x 250 kW WEGs at BHEL windfarm, Ramagiri, Anantapur District, Andhra Pradesh State. The date & time of tender submission is 30.07.2010 before 14.30 Hrs. and tender opening (**technical & un-priced commercial bid only**) by 15.00 Hrs. on the same day. The date of opening of the priced commercial bid will be intimated at a later date to the tenderers whose technical bids are accepted. Kindly arrange to send your most competitive offer in two parts i.e. Part I - Technical bid with un-priced commercial bid and Part II- Priced commercial bid in separate sealed covers. The bids can be submitted either in person or by registered post or by courier service at the earliest in a sealed cover clearly super scribing about the part of the bid as stated above and also super scribing the tender specification no: BHEL: BAP: EDC: WEG:O&M Ramagiri: 2010-2012 dated 07.06.2010 and the date of opening of the tender. The bids are to be addressed to the AGM / WEG & Desalination, BHEL, Ranipet- 632 406 so as to reach well before the closing date and time. All the offers should accompany EMD amount.

Kindly acknowledge the receipt of tender documents.

Thanking you,

Yours faithfully

For and on behalf of Bharat Heavy Electricals Ltd.,

SDGM/ WEG & Desalination.

cc: SDGM/ Finance (Works)

Bharat Heavy Electricals Limited

(A Government of India Undertaking)

Boiler Auxiliaries Plant

Indira Gandhi Industrial Complex, Ranipet - 632 406, Tamil Nadu, India



Engineering and Development Centre - Wind Electric Generators

Phone: 04172 - 241193, 254886, 254524, 254566

Fax: 04172 - 241109

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TENDER NOTICE

Name of Work: **Operation and Maintenance** of 3MW (12 x 250kW) BHEL windfarm at Ramagiri, Anantapur, Andhra Pradesh.

Place of Work: Ramagiri, Anantapur district, Andhra Pradesh.

Earnest Money Deposit: Rs. (Rs. Xxxxxx only) Refer General conditions of tender Clause No. 3.1.3 to 3.1.11 for EMD.

Duration of contract: 24 months.

Last date and time for receipt of tender: 30.07.2010.
14.30 hrs.

Tender opening date and time: 15.00 hrs on 30.07.2010

Tender specification No.: BHEL:BAP:EDC:WEG:O&M:Ramagiri:2010-2012, dtd. 07.06.2010
FOR

Operation and Maintenance of 3MW (12 x 250kW) BHEL windfarm at Ramagiri

AT

M/s. BHEL windfarm at Ramagiri, Anantapur, Andhra Pradesh.

This tender document is non-transferable and issued to:

M/s.

BHEL

Contractor

Bharat Heavy Electricals Limited

(A Government of India Undertaking)

Boiler Auxiliaries Plant

Indira Gandhi Industrial Complex, Ranipet - 632 406, Tamil Nadu, India



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Tender Specification no. BHEL:BAP:EDC:WEG:O&M:Ramagiri:2010-2012, dtd. 07.06.2010.

FOR

Operation and Maintenance of 3MW (12 x 250kW) BHEL windfarm at Ramagiri

AT

M/s. BHEL windfarm at Ramagiri, Anantapur, Andhra Pradesh.

This tender document is non-transferable and issued to:

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BHEL

Contractor

GENERAL CONDITIONS OF CONTRACT

SECTION I - GENERAL INSTRUCTIONS TO TENDERERS

1. DESPATCH INSTRUCTIONS

- 1.1 This tender specification as a whole, duly furnishing all the details required and other document as required in the following pages, shall be duly signed and sent in a sealed cover addressed to **AGM / WEG & Desaln, BHEL, RANIPET-632 406, duly super-scribing the name of work as specified in the tender notice and the date of opening of tender.**
- 1.2 Tenders submitted by post shall be sent by registered post with acknowledgement due or courier service or in person, and shall be posted with due allowance for any postal delay. Tenders received after the due date and time of opening, are liable to be rejected. Telegraphic / telex offers may not be considered.
- 1.3 Tenders shall be opened by authorised officer of BHEL, at his office at the time and date as specified in the tender notice in the presence of such of those tenderers or their authorised representatives who may be present.
- 1.4 The tenderers shall closely peruse all the clauses, specifications and drawings indicated in the tender document before quoting. Should the tenderer have any doubt in the meaning of any portion of the tender specification, or find discrepancies or omission in the drawings or the tender document issued are incomplete or shall require clarification on any or the technical aspects, scope of work, etc., he shall at once address the authority inviting the tender for clarification before the submission of the tender. Every endeavour is made to avoid any error which can materially affect the basis of the tender, nevertheless, the successful tenderer shall take upon themselves to provide for the risk of any error that may be subsequently discovered and shall make no claim on account thereof.
- 1.5 Tenderer must fill in all the schedules and furnish all the required information as per the instructions given in various sections of the tender specification. Each page of the tender specification must be signed and submitted along with the offers by the tenderer token of complete acceptance thereof. The information furnished shall be completed by itself.
- 1.6 The tenderers should furnish the details regarding the statutory requirements like PF, ESI, Insurance etc. for their employees, failing, which the tender may not be considered.
- 1.7 **QUALIFICATION OF TENDERERS** - Only tenderers who have 10 years of previous experience in the work of this nature and description detailed in this tender specification are expected to quote for this work, duly attaching detailed experience along with this offer. Offers from tenderers who do not have proven and established experiences in the field are not likely to be considered.

2 DATA TO BE ENCLOSED

Full information shall be given by the tenderer in respect of the following. Non-submission of the information may lead to rejection of the offer.

- 2.1 FINANCIAL STATUS** - A certificate from scheduled bank to prove his financial capacity to undertake the work duly indicating limits the tenderer enjoys or solvency certificate from the concerned Govt. Authority. Information required in **Annexure-B** shall be furnished by the tenderer along with the offer.
- 2.2 PREVIOUS EXPERIENCE** - A statement giving particulars duly supported by documentary evidence of the various services rendered for each similar work by the tenderer, indicating the particulars, value of each work, the site location, the duration, and date of completion. Also a list of site locations, particulars, value of various services that are under progress. Information required in **Annexure-C** shall be furnished by the tenderer along with the offer.
- 2.3 ORGANISATION CHART** - The organisation pattern that is presently available with him and that will be employed by the tenderer for this work shall be furnished along with **Annexure-D**.
- 2.4 A copy of the Power of Attorney** shall also be attached, in case the tender is signed by an individual other than the sole proprietor (If it is a Company or Firm etc. Director / Managing Partner as the case may be required to sign.)
- 2.5 IN CASE OF AN INDIVIDUAL** - His full name, address and nature of business shall be indicated.
- 2.6 IN CASE OF PARTNERSHIP FIRMS** - The names of all the partners and their addresses are furnished along with a copy of the partnership deed / instrument of partnership duly certified by Notary Public shall be enclosed.
- 2.7 IN CASE OF COMPANIES** - Date and place of registration including date of commencement certificate are to be furnished. In case of public companies, certified copies of Memorandum and Articles of Association are also to be furnished.
- 2.8** Nature of business carried on by the company and the provisions of the Memorandum relating thereof shall be furnished.
- 2.9** Names and particulars including addresses of the Directors and their previous experiences shall be furnished.
- 2.10** In addition to the above the particulars required in various **annexure (A to F)** shall also be furnished.

NOTE: All the data required to be enclosed with the tender need to be furnished neatly typed, signed and stamped in the formats wherever given, failing which the tender may be considered as incomplete and is liable to be rejected. Documentary evidence, wherever necessary also needs to be enclosed.

3 EARNEST MONEY DEPOSIT

- 3.1** Every tender must be accompanied by earnest money deposit in any one of the following forms **only**. EMD in any other form will not be accepted. The rates of EMD are as given below.

- 3.1.1 Cash:** The amount should be remitted by the party to the Cash Office, Bharat Heavy Electricals Limited, Ranipet-632 406 during its working hours and cash receipt issued shall be enclosed along with the tender.
- 3.1.2 Demand Draft** drawn in favour of Bharat Heavy Electricals Ltd., Ranipet, payable at SBI, BHEL Project branch, (**branch code 7013**) M.R. Puram only.
- 3.1.3 Pay order** in favour of Bharat Heavy Electricals Ltd., Ranipet.
- 3.1.4** Works costing upto Rs. 2 lakh - NIL
- 3.1.5** Works costing more than Rs. 2 lakh and upto Rs. 5 lakhs - Rs. 10,000.00
- 3.1.6** Works costing more than Rs. 5 lakhs and upto Rs. 10 lakhs - Rs. 25,000.00
- 3.1.7** Works costing more than Rs. 10 lakhs and upto Rs. 20 lakhs - Rs. 40,000.00
- 3.1.8** Works costing more than Rs. 20 lakhs and upto Rs. 30 lakhs - Rs. 60,000.00
- 3.1.9** Works costing more than Rs. 30 lakhs and upto Rs. 50 lakhs - Rs. 1,00,000.00
- 3.1.10** Works costing more than Rs.50 lakhs and upto Rs. 100 lakhs - Rs. 1,50,000.00
- 3.1.11** Works costing more than Rs.100 lakhs - Rs. 2,00,000.00
- One time EMD will also be Rs. 2,00,000.00**
- 3.2** Tenders received without earnest money in full in the manner prescribed above are liable to be rejected.
- 3.3** The earnest money deposit of the successful tenders had it been paid in cash / D.D will be retained towards part of security deposit. Please refer to **clause 7.3.6**.
- 3.4** In the case of unsuccessful tenderers, the earnest money will be normally refunded within 15 days of award of work to the successful tenderer. EMD shall not carry any interest.
- 3.5** BHEL reserves the right of forfeiture of earnest money in case the successful tenderer
- 3.5.1** Fails to communicate unqualified acceptance of Letter of Intent within 15 days of date of Letter of Intent
- 3.5.2** Fails to start the work as may be indicated in the Letter of Intent.
- 3.5.3** After opening of tender, revokes / withdraws his tender within the validity period of revises / alters his earlier quoted rates / conditions.
- 3.6** If only a part of the work included in the tender has been awarded to the tenderer, the amount of EMD to be forfeited will be based on the value of the contract as awarded.

4 AUTHORISATION AND ATTESTATION

- 4.1** Tenders shall be signed by persons duly authorised / empowered to do so. Certified copies of such authority and relevant document shall be submitted along with the tenders.

4.2 VALIDITY OF OFFER

The rates in the tender shall be kept open for acceptance for a minimum period of **six months** from the date of opening of tenders. In case the Bharat Heavy Electricals Limited calls for

negotiations, such negotiations shall not amount to cancellation or withdrawal of the original offer, which shall be binding, on the tenderers. Once the contract is awarded, the rates quoted by the successful tenderer in his tender as accepted shall be valid, and binding until the entire work is completed and final bill is paid.

4.3 EXECUTION OF CONTRACT

The successful tenderer's responsibility under this contract commences from the date of issue of Letter of Intent, by Bharat Heavy Electricals Limited. The successful tenderer shall be required to execute an agreement in the prescribed form with the BHEL within a reasonable time after the acceptance of his tender and in any case before submitting the first bill for payment. The expenses for completion, stamping and registration of the agreement with prescribed authority, if necessary, shall be borne by the contractor.

5 SECURITY DEPOSIT

5.1 Upon acceptance of tender, the successful tenderer within the time specified in the letter of intent must deposit the required amount of security deposit for satisfactory execution of work.

5.2 The total amount of security deposit shall be as follows

- | | |
|---|---|
| 5.2.1 Work costing upto Rs. 10 lakhs | - 10% |
| 5.2.2 Work costing above Rs. 10 lakhs upto Rs. 50 lakhs | - Rs. 1 lakh + 7.5% of the amount exceeding Rs. 10 lakhs. |
| 5.2.3 Work costing above Rs. 50 lakhs | - Rs. 4 lakhs + 5% of the amount exceeding Rs. 50 lakhs |

5.3 The total security deposit may be deposited in any one of the following forms:

- 5.3.1 **Cash, pay order, demand draft** in favour of BHEL, Ranipet - 6, **local cheques of scheduled banks (subject to realisation)** within the time limit stipulated in the letter of intent.
- 5.3.2 Securities available from Post Offices such as National Savings Certificates, Kisan Vikas Patras, etc. Certificates should be held in the name of the contractor furnishing the security and duly pledged in favour of BHEL and discharged on the back.
- 5.3.3 Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act subject to a maximum of 50% of the total security deposit value. Balance 50% has to be remitted either in cash or in the other form of security. The bank guarantee format should have the approval of BHEL. Bank guarantee furnished towards security deposit, shall be kept valid by proper renewal until the expiry of 6 months after the said work is actually completed. The Bank guarantee submitted against security deposit from contractors shall be obtained **only from** any one of the following banks (i) State Bank of India, (ii) State Bank of Hyderabad, (iii) State Bank of Travancore, (iv) State Bank of Mysore, (v) Canara Bank, (vi)

Bank of Baroda, (vii) Punjab National Bank, (viii) Deutsche Bank, (ix) HDFC Bank Ltd., (x) Standard Chartered Bank, (xi) CITI Bank N.A.

- 5.3.4** Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The FDR shall be in the name of the contractor, A/C BHEL, duly discharged at the back.
- 5.3.5** 50% of security deposit as indicated in the letter of intent can either be paid in cash to BHEL, RANIPET-6, or in the form of bank guarantee in the prescribed proforma, the validity being up to completion of work as stipulated in letter of intent. Balance 50% of security deposit can be recovered by deduction from running bills @ of 10% of each running bill until the full security deposit is made up.
- 5.3.6** The earnest money deposit of the successful tenderer can be retained as part of security deposit. However, he shall at once pay the difference, if any, between the EMD and 50 % of the security deposit as mentioned in the Letter of Intent, in cash at Cash Office, BHEL, Ranipet and the remaining 50% can be recovered by deduction from running bills @ 10% of the each running bill till the full security deposit is made up.
- 5.4** If the value of work done at any time exceeds the accepted agreement value, the security deposit shall be correspondingly enhanced and the extra security deposit shall be immediately deposited by the contractor or recovered from payments due to him.
- 5.5** Failure to deposit the security deposit within the stipulated time may lead to forfeiture of earnest money and cancellation of the award of work.
- 5.6** BHEL reserves the right to forfeit the security deposit in addition to the other claims and penalties in the event of contractor's failure to fulfil any of the contractual obligation or in the event of termination of contract as per terms and conditions of contract. In addition, BHEL reserves the right to set off the security deposit, against any claims of any other contracts with BHEL.

6 RETURN OF SECURITY DEPOSIT

- 6.1** If the contractor fully performs and completes the work in all respects to the entire satisfaction of BHEL, presents an absolute 'No Demand Certificate' in the prescribed form and returns properties belonging to BHEL handed over, lent or hired by him, for carrying out the said works, security deposit will be released to the contractor after deducting all costs of expenses or other amounts that are to be paid to BHEL under this or other contracts entered into with the contractor. It may be noted that in no case the security deposit shall be refunded / released before passing of final bill.
- 6.2** No interest shall be payable by BHEL on earnest money / security deposit / or any money due to the contractor by BHEL.

7 REJECTION OF TENDER AND OTHER CONDITIONS

- 7.1 The acceptance of tender will rest with BHEL, which does not bind itself to accept the lowest tender or any tender and reserves to itself full rights for the following without assigning any reasons whatsoever.
- 7.1.1 To reject any or all of the tenderers.
- 7.1.2 To split the work amongst two or more tenderers.
- 7.1.3 To award the work in part.
- 7.1.4 Either of the contingencies stated above to modify the time for completion suitably.
- 7.2 Canvassing in any form, in connection with tender is strictly prohibited and the tender submitted by the contractors who resort to canvassing will be liable for rejection.
- 7.3 Conditional or un-witnessed tenders, tenders containing absurd or unworkable rates and amounts and tenders, which are incomplete and otherwise considered defective and tenders not in accordance with the tender conditions, specifications, etc., are liable to be rejected.
- 7.4 If a tenderer expires after the submission of his tender or after the acceptance of his tender BHEL may, at their discretion, cancel such tender. If a partner of a firm expires after the submission of the tender or after the acceptance of the tender BHEL may cancel such tender at their discretion unless the firm retains its character.
- 7.5 BHEL will not be bounded by any power of attorney granted by the tenderer or by changes in the composition of the firm made after the execution of the contract. They may however recognise such power of Attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the contractor concerned.
- 7.6 If the tenderer deliberately gives wrong information in his tender, BHEL reserves the right to reject such tender at any stage or to cancel the contract, if awarded. The earnest money / security deposit / any other money due shall also be forfeited.
- 7.7 Tenders not submitted in the prescribed forms are liable to be rejected.
- 7.8 Should a tenderer or contractor or in the case of the firm or company, one or more of its partners / share holders / Directors have a relation or relations employed in BHEL, the authority inviting tender shall be informed of the fact along with the offer, failing which BHEL may, at its sole discretion reject the tender or cancel the contract and forfeit EMD / security deposit amount or both.
- 7.9 This tender specification shall be deemed to form an integral part of the contract to be entered into for this work.



- 7.10 The successful tenderer shall not sub-contract the part or complete work detailed in the tender specification undertaken by him without written permission of BHEL. The tenderer is purely responsible to BHEL for the work awarded to him.

SECTION - II

8 DEFINITIONS:

The following terms shall have the meaning hereby assigned to them except where the context otherwise requires.

- 8.1 BHEL or (B.H.E.Ltd)** shall mean Bharat Heavy Electricals Ltd. A company registered under Indian Companies Act 1956, with its Registered Office at BHEL House, Siri Fort, New Delhi - 110 049 or its Authorised Officers or its Resident Engineer or other employees authorised to deal with any matters with which these persons are concerned on its behalf.
- 8.2 Executive Director/Group General Manager/General Manager** shall mean the officer in administrative charge of contracting unit of BHEL.
- 8.3 'Engineer' or 'Engineer in-charge'** shall mean Engineer who is in-charge for the works referred to in WEG Department. The term also includes 'Project Manager', 'Resident Manager', 'Site Engineer', 'Resident Engineer', 'Site in-charge' and 'Assistant Site Engineer' of BHEL at the site as well as the Officers in-charge at Head Office.
- 8.4 'Site'** shall mean the place or places at which the plants/equipment are to be serviced as per the specification of this contract.
- 8.5 'Clients of BHEL' or 'Customer'** shall mean the Project authorities to whom BHEL is supplying the equipment.
- 8.6 'Contractor'** shall mean the individual, firm or company who enters into this contract with BHEL & shall include their executors, administrators, successor, and permitted assignees.
- 8.7 'Contract' or 'contract document'** shall mean and include the agreement of work order, the accepted appendices of rates, schedules, quantities, if any and general conditions of contract, the special conditions of contract, instructions to tenderers, the drawings, the technical specifications, the special specifications, if any, the tender documents and the letter of intent /acceptance letter issued by BHEL. Any conditions or terms stipulated by the contractor in the tender document or subsequent letters shall not form part of the contract unless specially accepted in writing by BHEL, in the Letter of Indent and incorporated in the agreement.
- 8.8 'General and special conditions of contract'** shall mean the 'instructions to tenderers, general and special conditions of contract' pertaining to the work, for which the tenders are called for.
- 8.9 'Tender specifications'** shall mean the specific conditions, technical specifications, appendices, site information and drawings pertaining to the work in which the tenderers are required to submit their offer.
- 8.10 'Tender Document'** shall mean the general and special conditions of contract, tender specification, related annexure and scope of work.

- 8.11 **'Letter of Intent'** shall mean the intimation by a letter to the tenderer that the tender has been accepted in accordance with provisions contained in that letter. The responsibility of the contractor commences from the date of issue of this letter and all the terms and conditions are applicable from this date.
- 8.12 **'Completion time'** shall mean the period by date specified in the acceptance of tender or date mutually agreed upon for handing over of the equipment / plant which are found acceptable by the Engineer, being of required standard and confirming to the specifications of the contract.
- 8.13 **'Plant'** shall mean the entire assembly of the plant and equipment covered by the contract.
- 8.14 **'Equipment'** shall mean all equipment, machinery, materials, structural, electricals and other components of the plant covered by the contract.
- 8.15 **'Tests'** shall mean and include such test or tests to be carried out on the part of the contractor as prescribed in the contract or considered necessary by BHEL in order to ascertain the efficiency of the contract work or part thereof.
- 8.16 **'Approved', 'Directed', or 'Instructed'** shall mean approved, directed or instructed by BHEL.
- 8.17 **'Work or contract work'** shall mean and include supply of all categories of labour specified, consumables, tools and tackles required, site transportation, handling, stocking, storing, erecting, testing, operating, maintaining and commissioning of the equipment to the entire satisfaction of BHEL.
- 8.18 **'Singular, Plural, etc.'** shall mean works carrying singular number shall also include plural and vice-versa, where the context so requires. Words importing the masculine gender shall be taken to include the feminine gender and words importing purpose shall include any company or association or body or individuals, whether incorporated or not.
- 8.19 **'Headings'** shall be the headings in these general conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.
- 8.20 **'Month'** shall mean calendar month.
- 8.21 **'Writing'** shall include any manuscript typewritten or printed statement under the signature of BHEL.

9 LAW GOVERNING THE CONTRACT AND COURT JURISDICTION

- 9.1 The contract shall be governed by the law for the time being in force in the Republic of India, and shall be subjected to jurisdiction of the courts having jurisdiction over RANIPET, VELLORE district, Tamil Nadu.

10 ISSUE OF NOTICE

- 10.1 The contractor shall furnish to BHEL engineer the name, designation and address of his authorised agent and all complaints, notices, communication and reference shall be deemed to have been duly given to the contractor or his authorised agent or left or posted to the address of either the contractor or his representative and shall be deemed to have been so given in the case of posting on the day on which they would have reached such address in the ordinary course of post or on which they were so delivered of / or left.

11 USE OF LAND

- 11.1 No land belonging to BHEL or their customer or under temporary possession of BHEL shall be occupied by the contractor without the written permission of BHEL.

12 COMMENCEMENT OF WORKS

- 12.1 The contractor shall commence the works within the time indicated in the letter of Intent from BHEL and shall proceed with the same with due expedition immediately.
- 12.2 If the successful tenderer fails to start the work within the stipulated time, BHEL, at its sole discretion will have the right to cancel the contract. His earnest money and / or security deposit with BHEL will stand forfeited without further reference to him without prejudice to any and all of BHEL's other rights and remedies in this regard.
- 12.3 All the works shall be carried out under the direction and to the satisfaction of BHEL, failing which the contract may be terminated, bills may not be passed or deductions may be made as deemed fit.
- 12.4 The serviced /constructed plant or work performed under this contract shall be taken over when it has been completed in all respects and/or satisfactorily put into operation at site.
- 12.5 The actual date of commencement of work has to be intimated to the office of the AGM / WEG & Desaln., BHEL, Ranipet 632 406, through BHEL site in-charge. The entire operation and maintenance due in that contract period should be completed in all respects and the WEGs and the windfarm are to be handed over to BHEL / Customer.
- 12.6 Communication, if any, to AGM / WEG & Desaln. shall be sent through BHEL site in-charge and all letters and bills received at BHEL, Ranipet without site in-charge's signature will not be honoured.

13 LABOUR

- 13.1 The contractor shall employ labour in sufficient number of people / work force and should have valid license for execution of contract. The contractor shall comply with all labour laws in force from time to time. (Please see **Annexure - I**)

14 MODE OF PAYMENT AND MEASUREMENT OF THE WORK COMPLETED

- 14.1 All payments due to the contractor shall be paid by RTGS/Electronic transfer of funds.
- 14.2 For running bill payment - The contractor shall present detailed measurement working sheets, in five copies, duly indicating all relevant details based on technical documents and connected

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drawings for work done during the month/period under various categories in line with terms of payment as per letter of intent. The basis of arriving at the quantities / weight shall be the relevant documents and drawings released by BHEL.

- 14.3** Bill no. as declared to respective jurisdictional central excise office, service tax registration no., jurisdictional central excise address and nature of service provided, should be compulsorily pre-printed on the bills
- 14.4** These measurement-working sheets will be checked and vetted by BHEL Engineers. Quantity and percentage eligible for payment under various groups shall be decided by BHEL Engineers. The abstract of quantities and percentage so arrived based on the terms of payment shall be entered in measurement book and signed by both the parties.
- 14.5** Based on the above quantity, contractor shall prepare the bills in prescribed proforma and workout their financial value. These will be entered in measurement book, signed by both the parties, and paid after duly effecting recoveries due. Five sets of bills are to be submitted to the BHEL Site in-charge for certification along with the copies of challans for payments made by the contractor during the preceding month towards EPF, ESI, insurance, service tax, declaration form, attendance sheet duly certified by BHEL Site in-charge, proof of salary paid to contractor's employees, etc. Bills without BHEL Site-in-charge certification and above-mentioned document shall not be processed and the same will be returned.
- 14.6** All recoveries due from the contractor for the month / period shall be effected in full from the corresponding running bills unless specific approval from the competent authorities is obtained otherwise.
- 14.7** Measurement shall be restricted to that for which it is required to ascertain the financial liability of BHEL under this contract.
- 14.8** The measurement shall be taken jointly by persons duly authorised on the part of BHEL and by the contractor.
- 14.9** The contractor shall bear the expenditure involved, if any, in making the measurement. The contractor shall, without extra charges, provide all the assistance with appliances and other things necessary for measurement.
- 14.10** If at any time due to any reason, whatsoever, it becomes necessary to re-measure the work done in full or in part, the expenses towards such re-measurement shall be borne by the contractor.
- 14.11** Passing of measurements as per bills does not amount to acceptance of the completion of the work mentioned. Any left out work has to be completed, if pointed out by BHEL later.
- 14.12** Final measurement bill shall be prepared in the final bill proforma prescribed for the purpose based on the certificate issued by BHEL engineer that entire work as stipulated in the tender specification has been completed in all respects to the entire satisfaction of BHEL.

14.13 In addition, the contractor shall produce 'No Due' and 'No Demand' certificates in the proforma issued by BHEL. All the tools and tackles loaned to them should be returned in condition satisfactory to BHEL within a reasonable time after completion of work before submitting the final bill. After payment of final bill, only guarantee obligation percentage (5%) shall remain unpaid which shall be released in accordance with **clause 23**. The final bill quantities and financial value shall also be entered in measurement book and signed by both the parties to the contract.

15 RIGHTS OF BHEL

BHEL reserves the following rights in respect of this contract without entitling the contractor for any compensation.

- 15.1** To get the work done through other agency at the risk and the cost of the contractor, in the event of contract's poor progress or inability to progress the work, persistent disregards to instructions of BHEL, assignment transfer, subletting of the contract without permission of BHEL, non-fulfilment of any contractual obligation etc. and to recover compensation for such losses from the contractor including BHEL's supervision charges and overheads from security deposit / other dues.
- 15.2** To withdraw any portion of work and / or to restrict / alter quanta of work as indicated and get it done through other agency and / or with other departmental labour to suit BHEL's commitment to its customer or in case BHEL decides to advance the date of completion due to other emergency reasons / BHEL's obligation to its customer.
- 15.3** To terminate the contract and ban the contractor from applying for any future contracts for a period of 3 years, if any employee/labourer working in the contract is found involved in corruption activities.
- 15.4** To terminate the contract after due notice of one month to cause forfeiture of security deposit and recover the loss sustained in getting the balance work done through other agencies in addition to liquidated damages in the event of:
- 15.4.1** Contractor's continued poor progress.
- 15.4.2** Withdrawal from or abandonment of the work before completion of the work.
- 15.4.3** Corrupt act of contractor.
- 15.4.4** Insolvency of the contractor.
- 15.4.5** Persistent disregards to the instructions of BHEL.
- 15.4.6** Assignment transfer, sub-letting of the contract without BHEL's permission.
- 15.4.7** Non-fulfilment of any contractual obligation.

- 15.5** To recover any money due from the contractor from any money due to the contractor under this contract or any other contract or from the security deposit.
- 15.6** To claim compensation for losses sustained including BHEL's supervision charges and overheads for completion on termination of contract and to impose penalty for delay in completion of the work at the rate of 0.5% of the contract value per week of delay or part thereof subject to ceiling of 10% of the contract value.
- 15.7** To terminate the contract or to restrict the quantum of work and pay for the portion of work executed in case BHEL's contracts with their customers are terminated for any reason.
- 15.8** To effect recovery from any amount due to the contractor under this or any other contract or in any other form, the money BHEL is forced to pay to any body, due to contractor's failure to fulfil any of his obligation.
- 15.9** To restrict or increase the quantity and nature of work to suit site requirements since the tender specification is based on preliminary documents and quantities furnished there in are indicative and approximate and the rates quoted shall not be subject to revision.
- 15.10** To deploy BHEL's fitters, welders, operators and technicians in case of emergency / poor progress / deficiency in skill on the part of employees of contractor and to recover the expenditure on account of the same from contractor's bills.
- 15.11** While every endeavour will be made by BHEL, they cannot guarantee uninterrupted work to the contractor due to conditions beyond their control. Contractor will not be entitled for any compensation / extra payment on his account.
- 15.12** In case of any dispute of any nature, the decision of BHEL shall be final and binding on the contractor.

16 RESPONSIBILITIES OF THE CONTRACTOR IN RESPECT OF LOCAL LAWS, EMPLOYMENT OF WORKERS ETC.,

The following are the responsibilities of the contractor in respect of observations of local laws, employment of personnel, payment of taxes etc.

- 16.1** As far as possible unskilled workers shall be engaged from the local areas in which the work is being executed.
- 16.2** The contractors at all times during the continuance of this contract shall, in all his dealings with local labour for the time being employed on or in connection with the work, have due regard to all local festivals religious and other customs.
- 16.3** The contractor shall comply with all state and central laws, statutory rules, regulations, etc. inclusive of those regarding labour and industrial laws which are applicable from time to time and they shall comply with the provisions of the said labour legislation, rules and regulations framed under the provisions of the Employees Provident Fund and Miscellaneous Provisions Act 1952.

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- 16.4** The contractor shall pay all taxes, fees, license charges deposits, duties, tools, royalty commissions or other charges, which may be chargeable on account of any of his operations in execution of the contract. In case BHEL is forced to any of such taxes, BHEL shall have the right to either recover the same from the contractor from his bills or otherwise as deemed fit.
- 16.5** While BHEL would pay the inspection fees for C.E.I.G / D.E.I.G, all other arrangements for the visits periodically by Inspector to site, inspection certificate etc., will have to be made by the contractor. However BHEL will not make any payment in connection with contractor's employee's qualification / re-qualification tests etc.
- 16.6** The contractor shall be responsible for provision of health and sanitary arrangements (more particularly described in Contract Labour Regulation & Abolition Act) safety precautions etc., as may be required for safe and satisfactory execution of the contract.
- 16.7** The contractor shall be responsible for providing proper accommodation including adequate medical facilities for the personnel employed by him.
- 16.8** It is the responsibility of the contractor to see that personnel employed by him are equipped with proper uniform, safety shoes, search lights with batteries, rain coats, umbrella etc., for safe and effective execution of contract.
- 16.9** The contractor shall be responsible for the proper behaviour and observance of all regulations by the staff employed by him.
- 16.10** The contractor shall ensure that no damage is caused to any person / property of other parties working at site. If any such damage is caused it is the responsibility of the contractor to make good the losses or components for the same. In case of failure to do so by the contractor BHEL shall carry out the same and the expenditure incurred will be recovered the running bills of the tenderer.
- 16.11** All the properties / equipment / components of BHEL their client loaned with or without deposit to the contractor in connection with the contract shall remain the properties of BHEL / their client. The contractor shall use such properties for purpose of execution of their contract. All such properties / equipment / shall be deemed to be in good condition when received by the contractor unless he notifies within 24 hours to the contrary. The contractor shall return them in good condition as and when required by BHEL / their client. In case of non-return, loss, damage, repairs etc. the cost thereof, as may be fixed by the site Engineer, will be recovered from the contractor.
- 16.12** It is not obligatory on the part of BHEL to supply any tools and tackles or other materials other than those specifically agreed to do so by BHEL.
- 16.13** The contractor shall fully indemnify BHEL against all claims of whatsoever nature arising during the course of operation, maintenance, servicing and performing work under the contract.

- 16.14** In case the contractor is required to undertake any work outside the scope of this contract the rate payable shall be those mutually agreed upon.
- 16.15** Any delay in completion of works / non-achievement of periodical targets, due to reasons attributable to contractor, the same will have to be compensated by the contractor either by increasing manpower and resources or by working extra hours and /or by working more than one shift. All these are to be carried out by the contractor at no extra cost.
- 16.16** The contractor shall arrange and co-ordinate his work in such a manner as to cause no hindrance to other agencies working in the same premises.
- 16.17** All safety rules and codes applied by the client / BHEL at site shall be observed by the contractor without exception. The contractor shall be responsible for safety of the equipment, material and works to be performed by him and shall maintain all light, fencing guard signs etc., or other protection necessary for the purpose. Contractor shall also take such additional precautions as may be indicated from time to time by the Engineer with a view to prevent pilferage, accidents, fire hazards and due precautions shall be taken against fire hazards and atmospheric conditions. Suitable number of clerical staff, watch and ward, store keeper to take care of equipment, materials and maintenance / servicing tools and tackles shall be posted at site by the contractor till the completion of the work under this contract. The contractor shall arrange for such safety devices as are necessary for such type of work and carry out the requisite site tests of handling equipment, lifting tools, tackles etc., as per prescribed standard and practices. No extra amount shall be claimed by the contractor for the above such works.
- 16.18** The contractor will be directly responsible for payment of wages to his workers. A pay roll sheet giving all the type of payments given to the worker and duly signed by the contractor's representative should be furnished to BHEL site office on or before 15th of every succeeding month. The daily attendance particulars shall be submitted to BHEL-Site Incharge for verification. The contractor shall also ensure payment of - salary as per minimum wages Act of the state, employer's share of PF, deduction of employee's PF share for payment of EPF, comprehensive insurance of their personnel, payment of medical allowance, the contractor shall produce document proof for payment of above along with bills and whenever asked for by BHEL.
- 16.19** In case of any class of work for which there is no such specification as laid down in the contract, such work shall be carried out in accordance with the instructions and requirements of the Site Engineer-in-charge.
- 16.20** No levy of payment or charge made or imposed shall be impeached by reason of any clerical error or by reasons of any mistake in the amount levied or demanded or charged.
- 16.21** In addition, no idle labour charges will be admissible in the event of any stoppage caused in the work resulting in contractor's labour being rendered idle due to any cause at any time.
- 16.22** The contractor shall take all reasonable care to protect the materials and work until such time the plant / equipment has been taken over by BHEL / their client.

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- 16.23** Contractor shall not stop the work or abandon the site for whatsoever reason or dispute, excepting for force majeure conditions. All such problems / dispute, shall be separately discussed and settled without affecting the progress of work. Such stoppage or abandonment shall be treated as breach of contract and dealt with accordingly.
- 16.24** Subject to any provisions to the contrary contained in the contract, none of the works shall be carried out during night or on Sundays or on authorised holidays without the written permission from the BHEL Site-in-charge.
- 16.25** The transportation facilities for the personnel employed by him shall be the scope of the tenderer.
- 16.26** It shall be the responsibility of the contractor to provide security arrangement for the equipment, materials belonging to BHEL / customer, and handed over to the contractor for maintenance etc. till the same are taken over by BHEL after completion of works.
- 16.27** The tenderer shall provide ESI facility to his work force as available in the region. If the area is not covered by the ESI, the same must be brought out in the relevant annexure.

17 CONSEQUENCES OF CANCELLATION

- 17.1** For whatsoever reasons BHEL exercises the authority to terminate the contract / withdraw a portion of work under the **clause 17**, BHEL will complete the work by any means. In the event of the cost of the completion as certified by the site Engineer which is final and conclusive being less than the contract cost, the advantages shall accrue to BHEL and that if the cost of completion exceeds the money due to the contractor under the contract, the contractor shall either pay the excess amount ordered by BHEL or the same shall be recovered from the contractor by any other means. This will be in addition to the forfeiture of security deposit and recovery of liquidated damages as per the relevant clauses.
- 17.2** In case BHEL completes the work under the provision of this condition, the cost of such completion to be taken into account in determining the excess cost to be charged to the contract under this condition, shall consist of materials purchased and / or labour provided by BHEL with an addition of such percentage to cover supervision and establishment charges as may be decided by BHEL.

18 INSURANCE

- 18.1** BHEL / their customer shall arrange for insuring the materials / properties of BHEL / customer covering the risks during transmit, storage and servicing.
- 18.2** It is the sole responsibility of the contractor to insure his workers, equipment against accidents and injury while at work as required by relevant rules and to pay compensation, if any, to workers as per workmen compensation act / rules of the Government. The work will be carried out in a protected area and all the rules and regulations of the client / BHEL in the area of the project which are enforced from time to time will have to be followed by the contractor. Copy of workmen insurance policy details are to be enclosed with this offer.

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18.3 If due to negligence and / or non-observance and other precautions any accident / injury occurs to any other persons / public, the contractor shall have to pay necessary compensation and other expenses if so decided by the appropriate authorities.

18.4 If due to contractor's carelessness, negligence of non-observance of safety precautions damage to BHEL's / customer's property and personnel should occur and if BHEL is unable to recover the full cost from the insurance company, the same will be recovered from the contractor.

19 STRIKES & LOCKOUTS

19.1 The contractor will be fully responsible for all the disputes and other issues connected with the labour. In the event of the contract labour resorting to strike or the contractor resorting to lock-out and if the strike or lock-out declared is not settled within a reasonable period of 15 days, BHEL, shall have the right to get the work executed employing its own labour or through any agencies or both and the cost so incurred by BHEL shall be deducted from contractor's bills.

19.2 For any purpose whatsoever the employees of the contractor shall not be deemed to be in the employment of BHEL.

20 FORCE MAJEURE

20.1 The following shall amount to FORCE MAJEURE - Act of God or of any Government, war, sabotage, riots, civil commotion, police action, revolution, flood, fire, cyclones, earthquake, epidemic and other similar causes over which the contractor has no control.

20.2 If the contractor suffers delay in the execution of the contract, the obligation due to delays caused by FORCE MAJEURE as defined above, the agreed time of completion of the job covered by this contract or the obligation of the contractor shall be extended by a period of time equal to the period of delay provided that on the occurrence of any such contingency the contractor immediately reports to BHEL, in writing the causes of delay and the contractor shall not be eligible for any compensation.

21 GUARANTEE:

21.1 Even though the work will be carried out under the supervision of BHEL engineers, the contractor will be responsible for the quality of the workmanship and shall guarantee the work done for a period of **six months** from the date of completion of work as certified by the engineer for good workmanship, and rectify free of cost all defects due to faulty work, detected during the guarantee period starting from the date of completion of rectification. In the event of contractor failing to repair the defective works within the time specified by the engineer, BHEL may proceed to undertake the repairs of such defective works at the contractor's risk and cost, without prejudice to any other rights and recover the same from security deposit / other dues or by other legal means.

22 ARBITRATION:

22.1 Except where otherwise provided for in the contract all questions and disputes relating to the meaning of the specifications, designs, drawings and instructions herein before mentioned and

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as to the quality of the workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the work or failure to execute the same whether arising during the progress of the work or after the completion or abandonment thereof shall be referred to the sole, arbitration of the Executive Director of BHEL and if Executive Director is unable or unwilling to act, to the sole arbitration of some other person appointed by the Executive Director, willing to act as such arbitrator.

The cases referred to arbitration shall be other than those for which the decision of the Acceptance officer, or Engineer-in-charge as the case may be is expressed in the contract to be final and conclusive. There will be no objection if the arbitrator so appointed is an employee of BHEL and that he had to deal with the matters to which the contract relates and that in the course of his duties as such he had expressed views on all or any of the matters in dispute or difference.

The arbitrator to whom the matter is originally referred being transferred or vacating his office or being unable to act for any reason, such Executive Director as aforesaid at the time of such transfer, vacation of office or inability to act shall appoint another person to act as arbitrator in accordance with the terms of contract. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

Subject as aforesaid the provision of the Arbitration Act, 1940 or any statutory modification or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitrator under this clause.

It is a term of the contract that the party involving arbitration shall specify the dispute or depute to be referred to arbitration under this clause together with the amount or amounts claimed in respect of each such dispute.

The arbitrator(s) may, from time to time, with consent of the parties enlarge the time for making and publishing the award.

The work under the contractor shall, if reasonably possible, continue, during the arbitration proceedings and no payment due are payable to the contractor shall be withheld on account of such proceedings.

The work under the contractor shall be deemed to have entered on the reference on the date he issues notice to both the parties fixing the date of first hearing.

The arbitrator shall give a separate award in respect of each dispute or difference referred to him.

The venue of arbitration shall be such places as may be fixed by the arbitrator in his sole discretion. The award of the arbitrator shall be a final conclusive and binding on all the parties to this contract.

In the event of disputes or differences arising between one public sector enterprise and a Govt. department or between two public sector enterprises, the above stipulations shall not apply. The provisions of BPE office memorandum no. BPE/CL 001/76 MAN/2 (1.10) 75-BPE (GM - 1) dated 1st January 1976, or its amendments for arbitration shall be applicable.

SCOPE OF WORK for OPERATION and MAINTENANCE and SPECIAL CONDITIONS

1. Routine or scheduled operation and maintenance works.
 - 1.1. Mechanical
 - 1.2. Electrical
 - 1.3. Miscellaneous
2. Data Collection and reporting.
3. Maintenance of spares and stores.
4. Minimum work force deployment.
5. Minimum tools, plants / equipment to be possessed
6. Unscheduled maintenance works - works not included under regular O & M.
7. Special conditions.

Note: The due date of any scheduled maintenance works viz. annual, half-yearly maintenance works (under different categories) would be only from date of commissioning of WEG and not from date of commencement of contract. Maintenance has to be carried out in broad categories cited below.

- Regular operation & brake down maintenance of WEGs as and when required.
- Inspection type II - Once in every 6 months.
- Inspection type III - Once in every year.
- Inspection type IV - Once in 5 years.

1. Routine or Scheduled Operation and Maintenance Works.

The maintenance works as detailed below are to be carried out along with other regular maintenance works. Some more additions may be made at the discretion of BHEL site in-charge. The successful tenderer / contractor would not be entitled to any compensation/increase in rate, as long as the total contract value does not change by 20%. The detailed procedures / format / documentation to carry out maintenance works would be given only to the successful tenderer.

All maintenance works shall be carried out with proper prior information to BHEL site in-charge and customer representative through 'Gantt chart', work schedule etc.

Formats for reporting would be given to the successful tenderer only.

1.1 Mechanical Works

- 1.1.1 Tower bolts are to be visually inspected every 6 months and torque tightened every year to the required torque. In case of damage / slippage of bolts the same are to be replaced.
- 1.1.2 Tightening of wing bolts once in six months using torque / impact wrench to required torque. In case some bolts / washers found damaged they have to be replaced.
- 1.1.3 Greasing of cylinder axle during every servicing, replacement / servicing of blade cylinder in case of any oil leakage as and when required. Replacement of blade tip pin bearing assembly is also in the scope of the successful tenderer / contractor.

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- 1.1.4 Torque tightening of the bolts on the hub flange, brake callipers, yaw ring, generator suspension to correct torque value.
- 1.1.5 Inspection of wings for cracks, working of tip / spoiler (whether opening and closing freely), condition of blade bearings, bushings, steel rope, etc. In case the functioning of tips is not proper blade bearings are to be serviced / replaced.
- 1.1.6 Check the condition of bushings in generator coupling / CV coupling (Corp. R&D design only), torque tightening and alignment (Corp. R&D design only) of the same if required.
- 1.1.7 All other bolts in nacelle including tower top bolts are to be tightened to required torque value.
- 1.1.8 Lubrication of main bearing (Corp. R&D design only), yaw gear assembly, and generator bearing with grease of correct specification.
- 1.1.9 Change of oil filters for main gear and hydraulic system and brake pads of disc brake if required.
- 1.1.10 Checking the level of hydraulic oil, main gear oil, brake oil and oils to be filled to the required level, if required. Oils will be supplied by BHEL / customer.
- 1.1.11 Check for proper functioning of hydraulic system. If required, the whole system may have to be serviced and pressure settings done. Accumulators are to be nitrogen charged to the required pressure every six months or as and when required. The charging kit, nitrogen cylinder, etc. for the above has to be supplied by the successful tenderer / contractor at no extra cost.
- 1.1.12 Collecting of gear oil samples (2 samples per gear box every year), testing and certification of the same from authorised agencies
- 1.1.13 Checking of cable twist sensor mechanism, the actual condition of cable twist and if required manually correct the twist.
- 1.1.14 Checking of the entire length of the power and control cables for wear and tear, damage to the outer sheath, especially near the cable drum. Repositioning of the cables to prevent further damage.
- 1.1.15 Checking up of disc springs washers, verticality of torque arm rods. Replacement of deformed disc springs and positioning of torque arm rods shall be done as and when necessary. (Corp. R&D design only)

The above works are in the scope of the successful tenderer / contractor (for which no extra payment will be made by BHEL) in addition to the routine maintenance /rectification works to be

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carried out like documentation, change of faulty valve, coils and fasteners, arresting of oil leakage in the hydraulic system, general cleaning of nacelle, changing of damaged/faulty brake callipers, etc.

1.2 Electrical Works

1.2.1 Controller, WEG & MCCB box.

- 1.2.1.1 The bolts and nuts on the controller bus bars are to be tightened to the required torque limit.
- 1.2.1.2 All cables terminations for generator, LA in nacelle and controller, earth terminations, transformer input in controller and MCCB to be tightened to required torque value.
- 1.2.1.3 NOTE: In case of damage to any power cable, sufficient insulation / joints to be made to the cable by successful tenderer / contractor at no extra cost. This includes cable preparation if required, supply and crimping of fresh lugs of required / correct specification.
- 1.2.1.4 Check the functioning of generator protection relays, overload relays and reset them to correct values.
- 1.2.1.5 Check the functioning, calibration of all sensors and adjustments to be made if required.
- 1.2.1.6 Check for proper functioning of the capacitor banks, cooling fan, contactors (if required has to be cleaned using contactor cleaner) and other electrical components in controller.
- 1.2.1.7 Meggering of generator and power cables. (Precaution shall be taken while meggering so that no sensor in generator, nacelle, controller or thyristor system is damaged)
- 1.2.1.8 Tightening of all control cables in the controller and nacelle junction box. Fresh lugs to be crimped if the same found damaged.
- 1.2.1.9 Control room shall be kept clean, and the controller in dust free condition.

1.2.2 Transformer

- 1.2.2.1 Transformer oil level, temperatures and condition of silica gel in breather shall be monitored daily.
- 1.2.2.2 Transformer shall be meggered using a megger of required / correct voltage range. The connection to the transformers both L.T. & H.T. side shall be tightened. The L.T. junction box shall be opened, terminals cleaned and re-tightened. In case of damage to lugs, cable preparation for crimping of lugs, supply and crimping of fresh lugs of correct specification and re-termination shall be carried out at no extra cost.
- 1.2.2.3 The colour of silica gel in the breather shall be monitored regularly and when warranted, reactivated by heating.

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- 1.2.2.4 Collection of samples (2 samples per equipment) of transformer oil, CT & PT oil, testing and certification by authorised agency is to be carried out as per IS 335 every year, well in advance of the inspection of the electrical inspector. The oil testing shall include checking of dielectric strength, water content, acidity test etc. The break down values for all transformer oils for 33kV/415V transformers shall be greater than 40KV.
- 1.2.2.5 Upkeep of the fire extinguishers, fire buckets, testing and calibration of safety equipment have to be carried out every year or as and when required.
- 1.2.2.6 These checks are to be made during inspection types-II & III, once in three months and as and when critical faults occur and to be reported in the given format in duplicate to BHEL Site in-charge.
- 1.2.2.7 **Earth Resistance Measurement** using earth resistance megger shall be done every 3 months. Earth pit curing including watering and re-activation to be done as required i.e. earth resistance to be maintained as per IE rules (IS 3043). All requirement of consumables, spares etc. for re-activation work shall be arranged by the successful tenderer / contractor.
- 1.2.2.8 The metering and transformer yards shall be kept free of weed and plants. Anti-weed spraying has to be done every 3 months or as and when required.
- 1.2.3 **Overhead Grid Lines, VCB/OCB, CT, PT, Measuring Equipment, etc.**
- 1.2.3.1 The electrical measuring equipment like energy meter, check meter, VCB relays for tripping etc. including the VCB itself has to be checked, tested, calibrated and if required repaired / rectified every year. The same shall be carried out through OEM / authorised agency and the certificate submitted to BHEL. Cost of all such tests, calibration, repair shall be borne by the successful tenderer / contractor. **Only spare cost / spares shall be supplied by BHEL / customer.** Note: Proper prior permission is to be obtained from EB and BHEL for this works mentioned above.
- 1.2.3.2 All components like insulators, jumpers, AB switches, knife edges contacts (male and female), earth switches, HG / DO fuses, L.A., stay wire etc. in the entire windfarm shall be checked for correct functioning and tightened every three months or as and when required. The contact resistance across the knife-edges of the AB switches is to be measured using milliohm meter. In case of damage to any of the above the rectification / replacement of the same is to be carried out. Spares, except DO fuses would be supplied by BHEL / customer. DO fuses is to be supplied by the successful tenderer / contractor.
- 1.2.3.3 Cleaning of insulators is to be done once every month with diesel / petrol. Incase of excessive saline or dusty conditions the same is to be carried out every 15 days.
- 1.2.3.4 It is the responsibility of the successful tenderer / contractor to maintain the entire electrical system / components in the windfarm, with relevant supporting document as per

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the requirement of the electrical inspector / EB and to carryout the rectification suggested by them with intimation to BHEL.

1.3 Miscellaneous Works

- 1.3.1 Liasoning with EB, Govt. body, local regulatory body etc. The statutory payment aspect of such works would be handled by BHEL.
- 1.3.2 Co-ordinating with EB during the process of meter readings (monthly, annually etc.), collection of certified generation data of concerned windfarm from EB. The certified generation report from EB shall be faxed to BHEL, Ranipet within 5 days of collection of readings by EB from site. The original hard copy of the certified generation report from EB shall be posted to BHEL, Ranipet. Collection of generation data of the entire area as prepared by EB or any other regulatory body etc.
- 1.3.3 Supply of all consumables like cotton waste, emery sheet, polishing papers, contactor cleaners (OKS 2000, WD40) spray galvanising chemicals, etc., are in the scope of the successful tenderer / contractor.
- 1.3.4 The following items are not in the scope of the successful tenderer / contractor. If required will be supplied by BHEL / Customer.
 - 1.3.4.1 Paints for nacelle / tower / transformer, hydraulic oil, yaw oil, gear oil, transformer oil, grease required during 6 monthly and annual maintenance for generator and yawing bearing & aluminium paints for D.P structure and intermediate poles and other electrical structures.
- 1.3.5 Whenever required, cranes, special tools or equipment shall be arranged by the successful tenderer / contractor at reasonable rates after mutual discussion with BHEL.

2 Data Collection and reporting

- 2.1 Data related to the installed WEGs shall be collected on a regular basis or as instructed and maintained in proper registers /formats. Reporting shall be done in the format provided, formats of the reports would be given to the successful tenderer only from EDC - WEG Department / Site Engineer. All reports are to be submitted in the given format only, in duplicate within **02 days** after due date. The reports are to be endorsed by the site in-charge, if available at site, and one copy shall be posted to EDC-WEG department. The postal charges, stationary cost, copying charges etc. are to be borne by the successful tenderer / contractor. Reporting shall be done under the following categories.
 - 2.2 Daily log sheet / maintenance sheet of WEGs and related equipment.
 - 2.3 **WEG breakdown / failure report** shall be send by **fax / mail** within **12 hrs. to BHEL HQ**. In case of any fault rectification undertaken, the report giving details of turbine, site name, customer name, description of fault, rectification carried out, spares / components / consumable used, time duration of repair etc., shall be submitted after getting endorsement

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on it from customer / customer representative (if present) at site in addition to the BHEL Site in-charge.

- 2.4 **Weekly generation report** in the prescribed format shall be submitted to site Engineer on the **first day of the following week either in person or by E-Mail**. The weekly generation reports would be turbine wise and day wise giving all details specified in the formats.
- 2.5 **Monthly generation report** in prescribed format both day wise and turbine wise, giving all details as specified in the formats, is to be submitted on the **first day of the succeeding month either in person or by E-Mail**.
- 2.6 **Individual logbooks for each WEG** shall be maintained at site. The logbook shall contain history of faults, their rectification, spares replaced, etc. in chronological order. Each entry shall be endorsed by the service person carrying out the repair/ rectification and countersigned by the successful tenderer's / contractor's supervisor / site engineer. The logbook shall be produced on demand by BHEL.
- 2.7 **Maintenance schedule / program** for all scheduled maintenances like six monthly, annual, five yearly etc. shall be given in writing atleast 3 months before the commencement of work in form of gantt chart, work schedule, etc. All such maintenance works shall be preferably carried out during low wind periods.
- 2.8 **Maintenance reports for half-yearly and annual maintenance** shall be submitted **within a week** of completion of maintenance, after getting endorsement from customer's Site in-charge / representative at site (if present) and BHEL site engineer.
- 2.9 **All faults** are to be reported to the site engineer within **2 hrs** and incase of **critical faults** only the same is to be reported in writing to AGM / WEG & Desaln. within **12 hrs**. For all machine faults resulting in more than 01-hour stoppage, the contractor shall intimate separately the nature of fault and spares required to BHEL, Ranipet.
- 2.10 **Wind turbine error monitoring report** (which shows the number of occurrences of errors and the time duration, the errors were present) for each WEG has to be noted from the controller on the **first of every month** and has to be sent to Ranipet along with the monthly generation report.
- 2.11 **Monthly readings** taken from respective metering yards along with EB officials duly certified by BHEL Site in-charge/customer representative has to be submitted **within 2 days** from the day of reading taken.
- 2.12 **Monthly report on line losses** with in the windfarm duly signed by the BHEL site in-charge has to be submitted **within 2 days** from the day of reading taken from metering yard.
- 2.13 **SMS** giving details for the day's generation and RkVh consumption, etc. shall be sent to BHEL, HQ every day.

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- 2.14 Monthly report on utilisation of spares and consumables** supplied by BHEL / customer, in the form of stock / inventory statement for a month shall be submitted on the first day of subsequent week.
- 2.15 All records** of failure/breakdown, repair/rectification, maintenance, replacement of spares, logbooks, stock registers, etc. shall be **maintained for a period of 12 months or the entire period of the contract, whichever is longer.** The records shall be produced on demand by BHEL and handed over to BHEL at the end of the contract.
- 3 Maintenance of Spares stock and Stores**
- 3.1 Loading and unloading** of spares / components received at this windfarm site from BHEL HQ / other windfarm sites or those to be despatched to BHEL HQ / other windfarm sites from this windfarm site. Loading and unloading of spares / components as per instruction of BHEL.
- 3.2 Spares projection** for effective operation and maintenance shall be submitted every three months. Spares and consumables required for scheduled maintenance works like six monthly and annual maintenance works shall be intimated to BHEL HQ six months in advance along with detailed maintenance schedule.
- 3.3 Spares, consumables stock** supplied by BHEL, as rollover stock / spares for effective operation and maintenance, shall be maintained by the successful tenderer / contractor at site. The receipt (in), issue (out), utilisation against failure, stock status shall be maintained in proper stock registers by the successful tenderer / contractor. The supply quantity of spares and consumables for initial / recouping of rollover stock / spares shall be at the discretion of BHEL, even though the projection for the same made by the successful tenderer / contractor shall be considered while supplying the spares and consumables. A spares and consumables statement shall be submitted every week detailing the opening stock, utilisation and balance stock / inventory.
- 4 Minimum Workforce Deployment**
- 4.1 Minimum of 06 (02 supervisor, 04 operators)** employees (including relievers) having knowledge in mechanical, hydraulics, electrical and electronics engineering shall be in the rolls of the tenderer for this contract. The successful tenderer shall submit a shift roster certified by him every week well in advance. At any point of time persons as mentioned in the shift roster shall be available on duty at the wind farm.
- 4.2** The supervisors shall hold valid electrical license certificate (C-certificate) or as required by local electricity board.
- 4.3** All operators shall have minimum ITI qualification.
- 4.4** The tenderer should be able to deploy required extra work force during six-monthly, annual maintenance of WEGs, and unscheduled works and no extra payment will be made for the same.

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In no case, shall the persons in the particular ongoing shift be engaged by the successful tenderer / contractor, when the above monthly/annual maintenance work is being carried out.

- 4.5** Movement of the successful tenderer's / contractor's personnel / facilities for operation and maintenance etc., shall be the responsibility of the successful tenderer / contractor. The successful tenderer / contractor shall see that required number of two wheelers is made available, in working condition, to his personnel at site for effective execution of works under the contract.
- 4.6** An organisation chart for manpower to be deployed at site shall be submitted at the time of commencement of contract. **The name, address, telephone no(s) of the supervisor (s) / contact person(s), at site, (including alternate telephone nos.) shall also be submitted within 15 days of commencement of contract. One supervisor shall be always be accessible over phone at all times (24 hrs. x 365 days)**
- 5 Minimum Tools and Plants** - The following minimum tools, tackles and equipment / plants shall be possessed by the successful tenderer / contractor for effective operation and maintenance of the windfarms. The tools, tackles and equipment / plants shall be calibrated through OEM / authorised agencies every year. A copy of such calibration certificates shall be sent to BHEL, Ranipet and also produced at site on demand by BHEL personnel.
- 5.1** Tong tester / clamp meter of sufficient range. (Analogue and digital)
 - 5.2** Multi-meters (analogue and digital)
 - 5.3** Megger - (500V and 1000V)
 - 5.4** Earth resistance-measuring equipment.
 - 5.5** Pressure gauges (0-100 & 0-150 bar)
 - 5.6** Air lock-releasing hose
 - 5.7** Crimping tool (up to 240sq.mm)
 - 5.8** Tapping equipment
 - 5.9** Screw jacks
 - 5.10** Vacuum cleaners / blowers for maintenance of all components in controllers.
 - 5.11** Torque wrenches. (Capacity - upto 1000 Nm)
 - 5.12** Impact wrenches.
 - 5.13** Soldering iron and desolder pump.
 - 5.14** Portable drilling machine.
 - 5.15** Portable grinding machine.
 - 5.16** Safety belts.
 - 5.17** Wheel Pullers
 - 5.18** Chain pulley block - 3 tonnes
 - 5.19** Should be able to arrange arc welding machine, oxy-acetylene flame cutting and gas welding set with gas cylinders as and when required.
 - 5.20** Other standard tools and equipment required for performance / discharge of operation and maintenance duties of contractor as per scope of work, like ratchets, spanners, hammers, etc. shall be possessed by the contractor. Minimum safety equipment like RUBBER GLOVES, SAFETY SHOES, DISCHARGE RODS, etc. shall also be available with the contractor.

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- 5.21 The following tools and plants/equipment shall be issued by BHEL Site Office/BHEL, Ranipet (subject to availability) upon written request from the tenderer and the same has to be returned in good working condition after completion of the particular work. Local transportation of the above has to be arranged by the tenderer.
- 5.22 Torque wrenches above 1000 Nm including hydraulic torque wrenches
- 5.23 Fixture assemblies for generator replacement, blade tuning etc.

6 Unscheduled Works

- 6.1 The rates per man-hour for any unscheduled service as the situation demands shall be quoted. Please see 'Rate schedule'. The work force, for any unscheduled work, shall be arranged by the tenderer as and when demanded by BHEL. The rates for the following unscheduled works to be quoted under rate schedule.
- 6.1.1 Replacement of generator
- 6.1.2 Replacement of blade tip
- 6.1.3 Replacement of blade tip rope
- 6.1.4 Replacement of blade tip spring
- 6.1.5 Blade angle tuning
- 6.1.6 Replacement of transformer
- 6.1.7 Replacement of brake disk
- 6.1.8 Filtration of transformer, CT, PT oil.
- 6.1.9 Replacement of gearbox oil. (Movement of oil barrels from site office store to individual WEGs and back).
- 6.1.10 Complete cleaning of all three blades for each WEG, close inspection for damages, repair of cracks on the blade if any. Removal, servicing and re-assembly of the blade tip, tip rope, pivot mechanism. The above work is to be carried out by building a suitable platform, ensuring safety of personnel, component, equipment etc. This is to be carried out during five year maintenance - type IV.
- 6.1.11 Filtration of hydraulic oil for each WEG if required is to be carried out.
- 6.1.12 Painting of transformer, DP structures in transformer yards, fences etc. of the transformer yard, the entire metering yard structure including the metering yard cubicles, fences etc and the intermediate transmission line structures inside and forming part of the windfarm. The transformer and the cubicles in the metering yard are to be spray painted with paint of required specification, after suitable surface preparation. The structures are to be painted with two coats of aluminium paint after suitable surface preparation. The earth flats from LA, transformer neutral, equipment bodies shall be painted in red, black, and green respectively.
- 6.1.13 Any other unscheduled work, which may arise due to breakdown of WEGs.

7 Special Conditions

- 7.1 **Completion schedule** - The operation & maintenance works under this contract is to be executed for a period of **24 months** from the date of commencement of work as per the following schedule. The scope of work is deemed to be completed only when is certified by the BHEL Site in-charge. The date of commencement of works has to be communicated to BHEL

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head quarters through Site in-charge. The contractor is required to commence the work within one week from the date of issue of LOI, failing which the contract is liable to be cancelled and EMD / SD shall be forfeited.

Start of O&M period: 01.09.2010
Completion of period: 31.08.2012

- 7.2 Execution of Work** - The work shall be executed in a disciplined manner and to the entire satisfaction of the Engineer-in-charge.
- 7.2.1** The Engineer-in-charge will communicate or confirm instructions to the contractor in respect of the execution of work in a **site work order book** maintained at his site office and confirm receipt of such instructions by signing the relevant entries in this book, such entries will rank as order or notices in writing within the intent and meaning of these conditions.
- 7.2.2** All materials supplied by the contractor and incorporated on the work shall conform to the latest IS specifications including all applicable official amendments and revisions.
- 7.2.3** Any work found defective / unsatisfactory the contractor has to rectify the same at his own cost. In case the contractor fails to rectify the defects within the specified time as per the Engineer-in-charge's instructions the same will be got done by BHEL at the risk and cost of the contractor and the cost will be deducted from the contractor's bill.
- 7.3 Water and Power** - The contractor shall make necessary arrangements for drawing water to the work spot at their own cost for watering the earth pits, complying with necessary safety regulations as per the relevant statutory regulations and codes.
- 7.4 Site Clearance** - Written permission for erection of temporary work sheds at site will have to be obtained from BHEL / customer. Once the work is completed the contractor shall remove his temporary shed and the unwanted materials and dispose the debris as instructed by the Engineer-in-charge. Around 100 meters radius of the constructed area, the contractor shall remove all debris and clear unwanted materials.
- 7.5 Project Information** - Round the clock operation and maintenance of WEGs at 3MW (12 x 250 kW) BHEL windfarm at Ramagiri, Andhra Pradesh. The windfarm site is located approximately 65 kms. from Anantapur. Nearest railway station is Dharmavaram, which approximately 30kms from the windfarm site. Bidders are requested to visit the site and verify for themselves about the actual distances and assess to the site, etc. before quoting for the job. No compensation whatsoever on this account will become payable to the contractor.
- 7.6 Penalty** - Penalty and deductions shall be decided by BHEL depending on the site conditions without any prejudice to the terms and conditions of the contract as per clause 7.6.1 to 7.6.6.
- 7.6.1 Penalty w.r.t Attending to Faults**

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- 7.6.1.1** All the machine faults and grid faults shall be attended to within 30 minutes from the time of occurrence of fault. Operation & maintenance crew shall go to the controllers of the stopped machines within 30 minutes of occurrence of fault and put 'Service Mode' wherever possible before starting the rectification works.
- 7.6.1.2** All the faults shall be thoroughly analysed before carrying out the remedial works. Rectification may take some more time depending upon the nature of the faults.
- 7.6.1.3** If 'Service Mode' could not be activated, the same shall be justified and the details of the fault shall be written in the logbooks / fault registers of the respective machines.
- 7.6.1.4** Failure to adhere to the above will attract a penalty at the following rate. If the stopped machine is attended to
- Between 30th minute and 60th minute, the penalty rate is 01 % of the monthly rate per machine
 - Between 60th minute and 120th minute, the penalty rate is 04 % of the monthly rate per machine
 - Between 120th minute and 180th minute, the penalty rate is 08 % of the monthly rate per machine
 - Between 180th minute and 480th minute, the penalty rate is 15 % of the monthly rate per machine and
 - Beyond 480th minute, the contract is to be reviewed and may be cancelled.

7.6.2 Penalty w.r.t Machine Availability

- 7.6.2.1** In addition to the above, the following penalty also would be levied under the conditions mentioned here. The penalty would be levied only when the downtime / stoppage of WEGs, leading to lower weekly availability factor of each WEG, or loss of generation, or both is due to negligence, carelessness and inability on the part of contractor's employees to reset, rectify or repair of WEGs in time as mentioned in the instructions & responsibilities of tenderers.
- 7.6.2.2** The availability factor will be calculated based on weekly generation reports, daily log sheets, fault registers, etc. maintained at site.
- 7.6.2.3** The faults registered in the controller have to be entered in the specific logbook ONCE in EVERY SHIFT.
- 7.6.2.4** Penalty as detailed below would be levied on the contractor based on the availability factor of each WEG under operation and maintenance contract. The penalty levied if any would be deducted from the running bills of the contractor. The penalty rate (calculated as % of quoted rate per month per WEG) with respect to availability factor is:

Availability	Penalty
95.00 % & above	Nil
94.99 % to 94.00 %	02 % of #
93.99 % to 93.00 %	03 % of #
92.99 % to 92.00 %	04 % of #
91.99 % to 90.00 %	05 % of #
< than 90.00 %	Contract to be reviewed and may be terminated / cancelled.

- Quoted rate per month per WEG.

7.6.3 Penalty w.r.t Damage to Components / Parts, etc.

7.6.3.1 The full/repair cost of the components/parts damaged intentionally/ unintentionally by the contractor during servicing/repair/rectification works, due to negligence, carelessness, inability etc., would be recovered from the running monthly bills as decided by BHEL Site-in-charge. Note: If the amount to be deducted is more than 10% of monthly bill, the total amount will be deducted in monthly instalments.

7.6.4 Penalty w.r.t Tools and Plants

7.6.4.1 No tools will be issued except those mentioned explicitly under special tools & equipment of the contract / tender documents.

7.6.4.2 The successful tenderer shall show all the tools as mentioned above to the BHEL site-in-charge before commencement of the work contract and are to be maintained at site all the time during the contract period to avoid unnecessary delays. Failing to do so, the successful tenderer / contractor may not be allowed to continue the contract work.

7.6.4.3 In case of damage to tool / plants & equipment issued by BHEL, due to improper handling, carelessness, negligence etc., the cost of repair / replacement etc., subject to a maximum as decided by BHEL would be recovered from the running monthly bills of the contractor. Note: If the amount to be deducted is more than 10% of monthly bill, the total amount will be deducted in monthly instalments.

7.6.5 Penalty w.r.t delay / non-submission of Generation Reports

7.6.5.1 Generation reports, both weekly & monthly, are to be compulsorily submitted to site in-charge BHEL within 2 days of completion of the period for which report is being made irrespective of any other works under progress. In case of failure on the part of the contractor to do so, penalty will be imposed by BHEL and the amount as mentioned below, shall be deducted from the running bills. The detailed fault reports (consisting of stop/start date, time, WEG No., name of the wind farm etc.), and the fault registers are also to be submitted every week.

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7.6.5.2 Delay in submission of reports (beyond 2 days) will attract a penalty of 1% of monthly bill per day.

7.6.6 Penalty w.r.t Non-availability of / shortage in Manpower deployed

7.6.6.1 At no point of time, the site shall be left unmanned by the contractor. Further, the manpower present at site shall not fall short of the manpower for that shift, projected / to be deputed by the contractor.

7.6.6.2 The shift roaster shall contain details showing explicitly the shift timings, breaks for lunch & tea. Shift change over shall be staggered to take care of the availability of staff always at site.

7.6.6.3 In cases of failure on part of contractor to ensure the above, a penalty shall be imposed at the following rate.

$$\text{Penalty} = A \times B \times C \times 2$$

Where, A = Operator/Supervisor's salary per day

B = No. of operators/supervisors short and

C = No. of shifts on which operators/supervisors were absent

7.6.6.4 Note - If the amount to be deducted is less than or equal to 10 % of the monthly bill, it will be deducted from the monthly bill and the same is more than 10 %, the total amount will be deducted in monthly instalments as decided by BHEL.

7.6.6.5 No penalty will be levied in case the stoppage of WEGs is due to conditions like force majeure, non supply of spares / components etc. by customer/BHEL.

7.6.6.6 The levy of penalty will be based on the recommendation of BHEL and review of all logbooks.

RATE SCHEDULE

1. The tenderer is expected to fill the rate schedules both in figures and words after satisfying all the terms and conditions of the tender specification. The scope of work and responsibility of the contractor as mentioned under this specification shall be covered within the quoted rates.
2. The tenderers shall quote rates in English Language and International numerals. Rates for each item of the tender schedule should be quoted in Rupees and Paise only. In case of any difference in the rates quoted in figures and in words, the lower of the two rates will be taken as the tenderer's rate. In the event of an error occurring in the amount column of schedule of items as a result of wrong extension of the unit rate and quantity, the unit rate shall be recorded, as firm and extension shall be amended on the basis of the rate. All errors in totalling in the amount column and in carrying forward totals shall be corrected.
3. Rate quoted for the scheduled as well as the unscheduled services shall be firm throughout the contract period including total extended period if any and shall include all royalties, tax on works contract and any other taxes levied and leviable under the state or central government rules during the currency of the contract. Bharat Heavy Electricals Ltd. will not entertain any claim in this regard. In addition, the rates shall not vary in case the contract is extended by one or two months. However, Service Tax would be reimbursed at the present prevailing service tax rate @ 10.3%. If there is a change in the Govt. Notification regarding Service tax it would be reimbursed at actuals.
4. All entries in the tender either shall be typed or be written in ink and over writings are not permitted. Cancellations and insertions shall be duly attested by the tenderer.
5. The tenderers are required to quote their rates including the cost of all facilities provided to their employees like uniform, shoes, torchlight, maintenance cost of vehicles, medical, transport, ESI, Employee's insurance etc. and no claim will be entertained later on this account.
6. Evaluation of offers / quotes against this tender shall be on the overall / aggregate amount quoted for the total scope of work, **excluding unscheduled works**.
7. In the event of more than one party being L1, BHEL reserves the right to split and award the contract.
8. The unscheduled works shall be operated on the successful tenderer(s) at the pegged rates.
9. The tenderers are advised to assess the correct distances, availability of work force, transportation facilities and the prevailing site conditions by visiting the site before submitting the quotation. BHEL shall not be responsible in any way for lack of contractor's knowledge on the same and no claim will be entertained later on this account.
10. The rates quoted shall remain the same as the services are to be provided through out the period including Sundays and holidays. No extra claim shall be entertained on this account by BHEL.

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11. The quantities shown in the attached schedule are only approximate and are liable to variation without entitling the contractors to any compensation, provided the total value of the contract does not vary by more than 20%.
12. The tenderer has to follow all the safety regulations prevailing in the site. The contractor should take note of these situations. No extra claim on this account shall be entertained.
13. No deviation to the conditions stipulated in the tender will normally be accepted. However, in case the tenderer desires to take any deviation, the same shall be clearly brought out in the form of statement of deviation giving description of deviation, reference clause and monetary implication of the condition in case of withdrawal.

RATE SCHEDULE

Name of the work: Operation and Maintenance of 3MW (12 x 250KW) BHEL windfarm at Ramagiri, Andhra Pradesh, as per scope of work of this tender.

S N	Description of Work	No. of WEGs (A)	Total period in months (B)	Rate per WEG per month in Rs. (C)	Total Amount for 24 months in Rs. (D=AxBxC)
1	Operation and maintenance of 3MW BHEL windfarm at Ramagiri, Andhra Pradesh, as per scope of work of this tender.	12	24		
2	Service tax @ 10.3% on the above	12	24		
3	Total				

Total amount in Rs. in words -

Rates per man-hour & charges for unscheduled services may please be quoted here. The unscheduled services (refer scope of work) for which the contractor can claim extra labour charges.

Sl. no.	Description	Rate per man hr. in Rs.
01	Trained Engineer	
02	Trained Supervisor	
03	Skilled labour	
04	Semiskilled labour	
05	Unskilled labour	

Sl. no.	Description of work	Rate per unit in Rs.
01	Replacement of generator	
02	Replacement of blade tip	
03	Replacement of blade tip rope	
04	Replacement of blade tip spring	
05	Blade angle tuning	
06	Replacement of transformer	
07	Replacement of brake disk	
08	Filtration of transformer, CT, PT oil	
09	Replacement of gear box oil	
10	Complete cleaning of all three blades for each WEG	

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11	Painting of transformer	
12	Painting of DP structures, transformer yard, metering yard including eight pole structure, VCB cubicle, etc., single poles structures etc. (lump sum for both BHEL and IEDCL windfarm)	
13	Labour charges for de-commissioning, dismantling and loading onto transport vehicle of WEG nacelle.	
14	Labour charges for unloading from transport vehicle, erection and re-commissioning of WEG	
15	Labour charges for replacement of gearbox	
16	Labour charges for replacement of high speed gears, bearings in the gearbox without dismantling the nacelle; including change of gearbox oil.	
17	Hire charges per day (including mobilisation and de-mobilisation) of suitable crane for dismantling, erection, loading and unloading of WEG nacelle	
18	Hire charges per day (including mobilisation and de-mobilisation) of 10T hydra crane.	
01	Service tax for the above manpower and un-scheduled services @ 10.3% included in rate / extra. (Tick one option)	Inclusive / Extra

ANNEXURE - A

ANALYSIS OF UNIT RATE QUOTED

Sl.No.	Description	Percentage of unit rate quoted
1	Salary & wages for staff and worker	
2	Establishment and administrative expenses of site	
3	Consumables	
4	Depreciation and maintenance for tools and plants	
5	Depreciation and maintenance for other items	
6	Overheads	
7	Profit	
8	Taxes	

ANNEXURE - B

FINANCIAL STATUS / VIABILITY

1	Owner's capital in the business (in case of partnership, please mention Percentage shares and amounts)	
2	Quanta of business done during last three financial years. I II III	
3	Value of fixed assets of the business in last three years. I II III	
4	Guarantee limits (if any) enjoyed by the firm	
5	Over draft limits (if any) enjoyed by account and balance sheet for last 3 years (indicate no. of sheets)	
6	Please enclose audited profit and loss account and balance sheet for last 3 years (indicate no. of sheets)	
7	Certificate from scheduled bank to prove contractor's financial capacity to undertake the work duly indicating the financial limits the tenderer enjoys	
8	Permanent Account Number	

(Signature of the tenderer with seal)

NOTE: All the above copies of documents certified by auditors / Bank as may be applicable.

ANNEXURE D

WORK FORCE DEPLOYMENT PLAN
To be in line with the requirement of BHEL *

1.

Sl. No.	Category	No. of persons available on rolls of organisation	Indicate no. of persons to be deployed			
			A Shift	B Shift	C Shift	General Shift
1.	Engineer					
2.	Supervisor					
3.	Operator					

2. Provident fund registration no:

3. E.S.I particulars: (As applicable to the location)

4. Workmen Insurance policy no: (Copy of the policy to be submitted on award of contract)

5. Labour licence no.:

6. Service tax registration no:

Copies of supporting documents are to be attached for sl. nos. 2, 5 & 6. If the above particulars of 2, 5 & 6 are not furnished, the tender is liable to be rejected.

* See manpower requirement under scope of work.

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ANNEXURE - E

TOOLS, TACKLES AND VEHICLES AVAILABLE WITH THE CONTRACTOR AND PROPOSAL FOR
DEPLOYMENT FOR THE CONTRACT.

Sl.No	Description of tool/equipment	Size/Cap.	Qty.	Qty. proposed for this contract

NOTE: The above has to be in line with the requirement of BHEL.

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ANNEXURE - F

CHECKLIST

Note: Tenderer is requested to fill in all the details and no column should be left blank.

1. Name and address of the tenderer
(With phone, fax nos. and e-mail address) :
2. Name & designation of the official of the tenderer
to whom all the references shall be made :
3. Tenderer's proposal No. & date. :
4. Whether EMD submitted (By cash/B.G/D.D) :
DD No. /Cash Receipt No. :
5. Validity of offer/rates quoted for six months
from the date of opening of tender : Yes/No
6. Is Annexure - A enclosed? : Yes/No
7. Is Annexure - B enclosed? : Yes/No
8. Is Annexure - C enclosed? : Yes/No
9. Is Annexure - D enclosed? : Yes/No
10. Is Annexure - E enclosed? : Yes/No
11. Is Organisation Chart enclosed? : Yes/No
12. Income tax Clearance certificate enclosed? : Yes/No
13. Attested copy of power of attorney enclosed? : Yes/No
14. Details about type of the firm enclosed? : Yes/No
15. Declaration sheet enclosed? : Yes/No

Date:
Witnesses (signature with full address)

1.

2.

Signature of tenderer with seal

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ANNEXURE - C

DETAILS OF PREVIOUS EXPERIENCE / SIMILAR WORKS IN PROGRESS

Sl. No	Agency by whom awarded	Location of project	Scope of work	Starting date of the contract	Contract Value	Completion date of the contract	Max. no. of persons deployed / shift.

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ANNEXURE - I

**TERMS AND CONDITIONS REGARDING COMPLIANCE WITH VARIOUS LABOUR LAWS BY
THE CONTRACTORS FOR BHEL.**

1. The contractor shall not employ, concerning the work, any person who has not completed 18 years age.
2. The contractor shall, in respect of labour employed by him either directly or through sub contractors, comply with or cause to be complied with the following statutory provisions and rules and in regard to all matters provided therein.
 - a) The Contract Labour (Regulation & Abolition) Act and the related state Govt. rules
 - b) The Minimum Wages Act and the related state Govt. rules
 - c) The Payment of Wages Act and the related state Govt. rules
 - d) The Factories Act and the related state Govt. rules
 - e) The Employees' Provident Fund & Miscellaneous Provisions Act
 - f) The Employees' State Insurance Act.
 - g) The Workman's Compensation Act.
 - h) The Industrial Disputes Act and any other law, or modifications to the above or to the rules made there under from time to time.
 - i) Payment of Bonus Act.

REGISTRATION AND LICENSING

3. Every contractor shall register his name with the welfare section of BHEL before taking up the work awarded to him by giving the following information and getting a code number.
 - a) The name of the contractor
 - b) Nature of contract work
 - c) Period of work
 - d) Number of maximum labour employed by him on any one day.
 - e) License No. & Date (applicable in case of contractors employing 20 or more workers)
 - f) Whether enrolled for PF, ESI, Insurance etc, and enrolment no.

This information is called for informing the Inspectorate of factories whenever they call for information regarding contracts.

4. The contractor employing **20 or more workers** is required to obtain license from the authorities (The Deputy Chief Inspector of Factories /Asst. Commissioner of Labour as the case may be). This license shall be amended and /or renewed wherever there is an increase in the workers employed by him or in the event of contract being extended or renewed. The contractor shall inform the license number to the BHEL management before taking up the work.
5. The contractor (licensed or unlicensed) shall promptly furnish every information and document required by BHEL authorities for the purpose of fulfilling their obligations as principal employer and /or occupier of the factory and shall render all necessary assistance for the same.

WAGES

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6. The contractor shall pay wages to the workers employed by him at the rate, **which shall not be less than the minimum wages applicable under law from time to time.**
7. The contractor shall fix wage periods in respect of which wages shall be payable. No wage period shall exceed one month.
8. The contractor shall ensure payment of wages to the contract labour employed by him within three days from the end of wage period in case the wage period is one week or a fortnight and in all other cases before 10th day of the following month.
9. All payment of wages shall be made on working days at the work site and during the working time and on dates notified in advance. In case the work is completed before the expiry of the wage period, final payment shall be made within 48 hours of the last working day.
10. Where the employment of any worker is terminated by or on behalf of the contractor, the wages earned by him shall be paid before the expiry of the second working day from the day on which him employment is terminated.
11. Wages due to every worker shall be paid to him direct or to the person authorised by him in this behalf. All wages shall be paid in current coin or currency or in both.
12. The contractor shall ensure the disbursement of wages in the presence of such authorised representatives of BHEL Management.
13. The above payment shall be verified by the authorised officers / representative of BHEL with the following certificate on the payment sheet certified that the amount shown in column no _____ has been paid to the workmen concerned in my presence on _____ at _____.
14. A certificate of payment shall be furnished each month, in duplicate by the contractor to the Engineer-in-charge.
15. A notice showing the wage period and the place and time of disbursement of wages shall be displayed at the place of work and a copy to be sent to the welfare department by the contractor under acknowledgement.
16. Notices showing the rates of wages, weekly rest days, wage period, hours of work, date of payment of wages, names and addressed of the inspectors having jurisdiction the date of unpaid wages shall be displayed in regional language and English in conspicuous places at the establishment and at work site by the contractor. The contractor shall inform the BHEL management every month the details of contract labour engaged for each contract in the following form: -
 - a) Serial number
 - b) Location
 - c) Period of work
 - d) No. of contract labour engaged during the month
 - e) No. of days worked
 - f) No. of man-days worked
 - g) Wages paid to his workers

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The above statement shall be furnished to BHEL Management at the end of every month.

REGISTERS AND RECORDS AND COLLECTION OF STATISTICS

17. The following document/formats under Contract Labour (Regulation and Abolition) Act and relevant state government rules there under shall be maintained by each contractor.
 - a) Register of persons employed by the contractor
 - b) Employment card
 - c) Service certificate
 - d) Muster roll, Wage Register, Deduction Register, Wage Slip, Over Time Register, Register of Fines, Register of Advances etc.
18. The contractor shall display the abstract of the Contract Labour (Regulation and Abolition) Act and the Rules there under both in English and in Regional Language.
19. Half-yearly return shall be sent by the contractor in duplicate to the licensing officer.
20. The contractor shall submit the returns required under the Contract Labour (Regulation and Abolition) Act periodically to BHEL Management.
21. The contractor shall without fail give, up-to-date information in writing of the attendance of the workers employed by him.
22. The contractor shall ensure that his workers keep and produce their employment card when coming to duty and take them back when leaving duty.
23. All the above registers and records shall be preserved in original for a period of three years. All the registers, records and notice maintained under the act and rules shall be produced on demand by inspector or any authority under the act.

WORKING HOURS AND WORKING CONDITIONS

24. **No worker shall be required or allowed to work on Sunday unless he has or will have a holiday on anyone of the three days before or after the said day.**
25. The contractor shall inform BHEL Management in the prescribed form details of the contract workers scheduled to work on Sunday, the day of rest and indicate the substituted holiday in lieu thereof. This shall be intimated two days in advance before his workers are booked for work on Sunday.
26. The Contract Labour working for more than nine hours in any day or for more than 48 hours in any week shall be paid wages at the rate of twice the ordinary rates of wages in accordance with the Provisions of Factories act.
27. The contractor shall provide all safety devices and personal protective equipment to his workers at his own cost and shall ensure that his workers wear/use such devices or equipment provided to them while doing the work and there should not be any relaxation on this.

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28. The contractor shall give four paid National holidays to his workers, viz., 26th January, 1st May, 15th August and 2nd October.
29. The contractor shall ensure that his workers vacate the premises after the shift is over.
30. No woman worker shall be required or allowed to work in the factory except between the hours of 6.00 am and 7.00 p.m.
31. The contractor shall comply with the provisions relating to welfare and health facilities as provided in the Contract Labour (Regulation and Abolition) Act read with the relevant state Government Contract Labour rules.

NOTICES OF ACCIDENTS

32. Notwithstanding anything contrary to this, in the event of accident the contractor shall be required to fill injury report and submit the Engineer-in-charge immediately and ensure the compliance of ESI / Workmen's Compensation Act, Factories Act and Rules made thereunder. He shall also maintain a register of accident as per the act.
33. The contractor shall get the labour engaged by him insured under Workmen's Compensation policy from General Insurance Corporation of India. The insurance coverage should be for the entire period of contract. The contractor shall comply with the provisions of the Workmen's Compensation Act. (This should be read in conjunction with the provisions of ESI Act)
34. The contractor shall ensure that all his workers are covered under the Employees State Insurance Act and produce to BHEL such Registration Number/Enrolment number before executing the contract work.

DECLARATION SHEET

I / We certify that all the information and data furnished by me / us with regard to this tender specification no. _____ Dtd. _____ are true and complete to the best of my knowledge.

I further certify that I am the duly authorised representative of the under mentioned firm / company and a valid power of attorney to this effect is also enclosed.

I / We have carefully perused the following document related to the above work and agree to abide by the same.

TENDER SPECIFICATION AND INSTRUCTIONS TO TENDERERS
SCOPE OF WORK.
RATE SCHEDULE.
ANNEXURE A-F & I.
DECLARATION SHEET.

I / We have deposited / forwarded herewith the earnest money deposit / bank guarantee in the form prescribed and as stipulated towards the earnest money deposit for a sum of Rs. _____ (Rupees only) vide BHEL cash receipt no: _____ Dtd. _____ / Demand draft no: _____ Dtd. _____, which shall be refunded in case our offer is not accepted. If our offer is accepted by you, I / we further agree to deposit an additional sum to make up the security deposit for the works as per the clause 7 of Section - I of tender specification and instructions to tenderers.

Signature of tenderer:

Name of tenderer:

Address of tenderer:



PROFORMA FOR CONTRACT AGREEMENT

Agreement No: EDC: WEG

Date:

Name of Work:

Name of the Contractor with full address:

Amount of tender accepted:

Letter of Intent No:

Time allotted for completing the work
(date of completion):

[Officer authorised to sign the agreement]

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1. This agreement made this day, the _____ of _____ between the Bharat Heavy Electricals Limited, Ranipet having its Registered Office at 'BHEL House' Siri Fort, New Delhi 110 049 (herein after called in the FIRST PARTY of one part and Messers. _____ (herein after called the "CONTRACTOR") of the second party.
2. WHEREAS the first party is desirous of executing the work of _____ more particularly described in the appendices including drawings and specification attached herewith.
3. WHEREAS IN PURSUANCE of the said contractor's tender having been accepted, the first party has decided to give the above said work to the contractor, and WHEREAS the contract between the parties was concluded by virtue of a letter of intent issued by the First party under reference _____ dated _____
4. WHEREAS the said contractor has agreed to do the aforesaid work of the first party subject to the conditions herein contained in the presents, instructions to the tenderers, general conditions and special conditions, schedules, appendices letter of intent and specifications (here after referred as the said contract schedule) at the approval rates (herein referred as the said contract rate).
5. IN ADDITION, WHEREAS the said contractor has furnished a Bank Guarantee for a sum of Rs. _____ valid up to towards initial 50% security deposit and has further agreed for balance 50% security deposit being recovered at 10% of value of each running bill till the full security deposit is made up for the satisfactory completion and performance of the work whereas the validity of the said bank guarantee has to be extended by the contractor, if so required for the balance period of contract and in the event of his failure to do so, the contractor shall pay or accept recovery of this amount of Rs. _____ (Rupees _____ only), from the bills forthwith in one instalment and it has further been agreed that the failure to extend the validity of the bank guarantee or failure to pay the aforesaid amount in the manner specified above shall constitute to breach of contract, and first party reserves the right to take easy legal action deemed fit for recovering the said sum of Rs. _____ (Rupees _____ only). This amount of Rs. _____ will be refunded (and bank guarantee will be returned) to the contractor on satisfactory completion of the work as specified in the contract document.
6. Now THESE PRESENTS WITNESS that in consideration of the said contract schedule and said contract rate as also of agreement of good and faithful service to be rendered and performed by the contractor in the execution of the said work, subject to the stipulation hereinafter expressed.
7. That the said contractor will perform the aforesaid work subject to the conditions contained in these present instructions to tenderers, general and special conditions of contract and the contract documents attached herewith including the said schedule specifications, appendices, letter of intent, drawings attached and also such other drawings and instructions as may from time to time be given by the First party. And the said contractor shall be deemed to have carefully examined the specifications and conditions of contract, appendices, schedules, letter of intent, drawings etc., as aforesaid and also to have satisfied himself as to the nature and

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character of the work to be executed.

8. That the said contractors shall carry out and complete the execution of the said work to the entire satisfaction of the Engineer within the agreed time schedule.
9. That the First Party after proper scrutiny of the bills submitted by the said contractor will pay to him during the progress of the said work, at said contract rates and agreed terms of payment, a sum as determined by the First Party in respect of the work executed by the Contractor.
10. That the contract shall come into force with retrospective effect from the date on which the letter expecting the tender (Letter of Intent) has been issued to the contractor.
11. That whenever under this contract or otherwise ' any sum of money shall be recoverable from or payable by the contractor, the same may be deducted in the manner as set out in the conditions of contract as aforesaid.
12. That all charges on account of Octroi, terminal and sales tax or other duties on materials obtained for the work shall be borne by the said contractor.
13. That is agreed between the parties that the non-exercise of any of the powers conferred on the authorities of the first party will not in any manner constitute waiver of the conditions thereof contained in these presents and the liability of the said contractor either of past or further compensation shall remain unaffected.
14. That the expression of BHEL wherever occurring means THE BHARAT HEAVY ELECTRICALS LIMITED, RANIPET.
15. This contract is subject to RANIPET (Tamil Nadu) jurisdiction.
16. The document hereto attached viz., Shall also form part of this agreement.

17. General conditions of contract attached to the notice inviting tender shall form part of this contract in so far as any thing is not provided specifically in this agreement.

18. In witness here of the parties have respectively set their Signatures in the presence of:

Witnesses with full address:

1.

2.

Signature of the contractor
(to be signed by a person holding valid power of
Attorney for the company)

Date:

For and on behalf of BHEL

Date:

Witnesses with full address:

1.

2.

PROFORMA FOR SECURITY DEPOSIT

This deed of Guarantee made this day of _____ by Messers. _____ (hereinafter called the Bank) in favour of Messers. Bharat Heavy Electricals Limited, Ranipet having its registered office at New Delhi (hereinafter called the Principal)

Whereas Mesres. _____ (hereinafter called the contractor) has entered into a contract with Bharat Heavy Electricals Ltd., Ranipet, arising out of Letter of Intent no. _____ dtd. _____ addressed by the Principal to the contractor (hereinafter called the said agreement) for _____

And whereas the said agreement provides that the contractor shall pay a sum of Rs. (Rs. _____ only) towards 50% of the full security deposit to be made in the form and manner therein specified.

And whereas the contractor has approached the Bank and at their request and in consideration of the agreement arrived at between the said contractor and the Bank, the Bank has agreed to give such guarantee as hereinafter mentioned to the Principal.

Now, therefore, these presents witness that we the Bank by the hand of Mr. _____ its lawful and duly constituted attorney, do hereby undertake to pay to the principal a sum of Rs. _____ (Rs. _____ only) without demur on demand being made by the principal and to keep the principal indemnified to the extent of Rs. _____ by virtue of this guarantee against any loss or damage caused or suffered by the principal by reasons of any breach by the aforesaid contract of any of the terms and conditions, stipulations or undertakings of any one of them contained in the said agreement (the decisions regarding the breach, loss, damage or payment due being solely in the discretion of the principal).

We further undertake to pay without demur the aforesaid amount in a lumpsum on demand or such part thereof as the principal may demand from time to time irrespective of the fact whether the said contractor admits or denies such claim or questions its correctness in any court, tribunal or arbitration proceedings or before any authority. The aforesaid guarantee will remain in force and we shall be liable under the same irrespective of any concessions or time being granted by the principal, to the contractor in or for fulfilling the said agreement between the contractor and the principal and the guarantee will remain in full force irrespective of any change of terms, conditions or stipulation or any variation in the terms of the said agreement irrespective of whether notice of such change or variation is given to us or not and claim to receive such notice of any change and /or variation of the terms and / or variation of the terms and / or conditions of the said agreement is hereby specifically waived by us. Further we shall not be released from this guarantee by any forbearance or non-enforcement of any powers or rights, modifications or change made in the said agreement or concessions shown to contractor by the principal is given to us or not.

The guarantee herein contained shall not be determined or affected by the liquidation or winding up or insolvency of or change in the constitution of the contractor but shall in all respects and for all purposes be binding and operative untill all payments of all money due or that may hereafter become due to the principal in respect of any liability or obligations of the contractor under the said agreement.

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We, the Bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the principal under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till the principal certifies that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor and accordingly discharges the guarantee subject to however that the principal shall have no rights under this guarantee after the expiry of six months from the date of completion of the contract (the date of completion shall be as certified by the principal) unless this guarantee is extended by agreement.

Any claim or dispute arising under the terms of this contract shall only be enforced or settled in the courts having jurisdiction over Ranipet (Vellore district, Tamil Nadu).

And lastly the bank undertakes not to revoke this guarantee during its currency except with the previous consent of the principal in writing.

The bank hereby declares that it has issued this guarantee under the Bank's Memorandum and Articles of Association and the undersigned has power to do so on its behalf under the power of Attorney granted to him by the proper Authority of the bank.

Date:

(Name of the Bank and Place)

Seal:

Designation of the authorised person
signing the guarantee

PROFORMA FOR NO DEMAND CERTIFICATE

1. Name of the work:

2. Agreement no and date:

3. I / We certify that

a) I/We have completed the above work to the entire satisfaction of BHEL.

b) I / We have handed over all the balance materials, components, tools and tackles, machinery and other equipment to BHEL.

c) I / We have received the final payment from BHEL for the above work.

d) I / We have no further demand whatsoever from BHEL.

I/We therefore request you to refund to me/us the security deposit of Rs. _____ (Rupees only) and the bank guarantee no: _____ dtd: _____ for Rs. _____ after deducting all cost of expenses or other amounts that are to be paid by me / us to BHEL under this contract or other contract entered into by me / us with BHEL.

SIGNATURE OF THE CONTRACTOR
WITH SEAL

Place:

Date:

Witness: 1.
2.
3.

BHEL

Contractor