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Annexure 6

Operation & Maintenance

SCOPE OF WORK

Routine or scheduled operation and maintenance works.

- 1.1. Mechanical
- 1.2. Electrical
- 1.3. Miscellaneous

Data Collection and reporting.

Minimum work force deployment.

Minimum tools, plants / equipment to be possessed

Unscheduled maintenance works - works not included under regular O & M.

Watch and ward

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 detailed procedures / format / documentation to carry out maintenance works would be given only to the successful tenderer.

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.

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- 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 contractor.
- 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 All other bolts in nacelle including tower top bolts are to be tightened to required torque value.
- 1.1.7 Change of oil filters for main gear and hydraulic system and brake pads of disc brake if required.
- 1.1.8 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.
- 1.1.9 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 contractor at no extra cost.
- 1.1.10 Collecting of gear oil samples (2 samples per gear box every year), testing and certification of the same from authorised agencies.
- 1.1.11 Checking of cable twist sensor mechanism, the actual condition of cable twist and if required manually correct the twist.
- 1.1.12 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.
- 1.1.13 Loading and unloading of spares received at site from BHEL, and those to be despatched to BHEL from site.

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

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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 contractor at no extra cost. This includes cable preparation if required, supply and crimping of fresh lugs of 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 should 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 should be monitored daily.
- 1.2.2.2 Transformer has to be meggered using a megger of correct range. The connection to the transformers both L.T. & H.T. side are to 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.

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- 1.2.2.3 The colour of silica gel in the breather should be monitored regularly and when warranted, reactivated by heating.
- 1.2.2.4 Collection of samples (2 samples per equipment), testing and certification by authorised agency of transformer oil, CT & PT oil 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 value shall be > 40KV.
- 1.2.2.5 Upkeep of the fire extinguishers, fire buckets, testing & 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 to be done every 3 months. Earth pit curing including watering to be done as required i.e. earth resistance to be maintained as per IE rules. (I.S.3043)
- 1.2.2.8 The metering and transformer yards should 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 EQUIPMENTS, 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 is to be carried out through OEM / authorised agency and the certificate is to be submitted to BHEL. Cost of all tests, calibration, repair shall be borne by the contractor. Only spare cost / spares would be supplied by BHEL / customer. Note: Proper prior permission is to be obtained from EB and BHEL for the 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 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.

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1.2.3.4 It is the responsibility of the contractor to maintain the entire electrical system / components in the windfarm, with relevant supporting document as per 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. Collection of generation data of the entire area as prepared by EB or any other regulatory body and sending the same to NP-WEG, BHEL, Ranipet, 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 contractor.

1.3.4 The following items are not in the scope of the 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 contractor at reasonable rates after mutual discussion with BHEL.

2 DATA COLLECTION AND REPORTING

2.1 Data related to the installed WEGs should be collected on a regular basis or as instructed and maintained in proper registers /formats. Reporting should be done in the format provided, formats of the reports would be given to the successful tenderer only from NP - 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 and one copy should be posted to NP-WEG department. The postal charges, stationary cost, copying charges etc. are to be borne by the contractor. Reporting should be done under the following categories.

2.2 Daily log sheet / maintenance sheet of WEGs and related equipment.

2.3 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., should 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 should be submitted to site Engineer on the **first day of the following week**. 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 to the site incharge if available at site or send it to BHEL, Ranipet on the **first day of the succeeding month**.
- 2.6 History of faults of each turbine in chronological order should be maintained. This should also include the fault rectification details, spares used etc.
- 2.7 Report on the use of spares/consumable either supplied by BHEL/customer/ contractor once in a month. Inventory of the spares and consumables is to be maintained and monthly report of the same should be submitted / sent to BHEL, Ranipet every month during the first week.
- 2.8 **Maintenance reports for half-yearly and annual maintenance** should 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 / New Products. Within **24 hrs**. For all machine faults resulting in more than 01-hour stoppage, the contractor should separately intimate the nature of fault & 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.

3 MINIMUM WORK FORCE DEPLOYMENT

- 3.1 **Minimum required employees (excluding relievers)** will be intimated in the tender documents Shall have knowledge in mechanical, hydraulics, electrical and electronics engineering & should be in the rolls of the tenderer for this contract. At any point of time persons as mentioned in

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the shift roster shall be available in duty at the wind farm. The successful tenderer should submit shift roster certified by him every week well in advance.

- 3.2 **The supervisors should hold valid electrical license certificate (C-certificate) or as required by local electricity board.**
- 3.3 All operators should have minimum ITI qualification.
- 3.4 All security guards should have minimum qualification equivalent to semi-skilled workers
- 3.5 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. In no case, shall the persons in the particular ongoing shift be engaged by the contractor, when the above monthly/annual maintenance work is being carried out.
- 3.6 Movement of the contractor personnel / facilities for operation and maintenance etc., is the responsibility of the contractor and the contractor should see that required number of two wheelers are to be in site in working condition for proper execution of contract.
- 3.7 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). (at site) of the supervisor / contact person(s) shall also be submitted within 15 days of commencement of contract.**

4 MINIMUM TOOLS AND PLANTS TO BE POSSESSED BY THE CONTRACTOR

- 4.1 Tong tester / clamp meter of sufficient range. (Analogue and digital)
- 4.2 Multi-meters (analogue and digital)
- 4.3 Megger - (500V and 1000V)
- 4.4 Earth resistance-measuring equipment.
- 4.5 Pressure gauges (0-100 & 0-150 bar)
- 4.6 Air lock-releasing hose
- 4.7 Crimping tool (up to 240sq.mm)
- 4.8 Tapping equipment
- 4.9 Screw jacks
- 4.10 Vacuum cleaners / blowers for maintenance of all components in controllers.
- 4.11 Torque wrenches. (Capacity - upto 1000 Nm)
- 4.12 Impact wrenches.
- 4.13 Soldering iron and desolder pump.
- 4.14 Portable drilling machine.
- 4.15 Portable grinding machine.
- 4.16 Safety belts.
- 4.17 Wheel Pullers
- 4.18 Chain pulley - 3 tonnes
- 4.19 Should be able to arrange arc welding machine, oxy-acetylene flame cutting and gas welding set with gas cylinders as and when required.

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Other standard tools & equipment for daily and routine maintenance like ratchets; spanners, hammers, etc. are to be arranged by the contractor. Minimum safety equipment like RUBBER GLOVES, SAFETY SHOES, DISCHARGE RODS should also be available with the contractor.

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.

4.20 Torque wrenches above 1000 Nm including hydraulic torque wrenches.

4.21 Fixture assemblies for generator replacement, blade tuning etc.

5 UNSCHEDULED WORKS.

5.1 The rates for the following unscheduled works to be quoted under rate schedule.

5.1.1 Replacement of generator

5.1.2 Blade tip changing

5.1.3 Blade tip rope changing

5.1.4 Blade tip spring changing

5.1.5 Blade angle tuning

5.1.6 Changing of transformer

5.1.7 Brake disk replacement

5.1.8 Filtration of transformer, CT, PT oil

5.1.9 Replacement of gearbox oil. (Movement of oil barrels from site office store to individual WEGs and back).

5.1.10 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.

5.1.11 Filtration of hydraulic oil for each WEG if required is to be carried out.

5.1.12 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 correct specification. 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.

5.1.13 Labour Charges for decommissioning, dismantling and loading on to the transport vehicle of WEG Nacelle.

5.1.14 Labour charges for unloading from transport vehicle, erection and recommissioning of WEG.

5.1.15 Labour charges for replacement of Gear Box.

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- 5.1.16 Labour charges for replacement of high speed gears, bearings in the gear box without dismantling the nacelle including change of gear oil.
- 5.1.17 Hire charges per day (including mobilisation and demobilisation) of 10T Hydra crane.

6 SPECIAL CONDITIONS

- 6.1 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.

7 EXECUTION OF WORKS

- 7.1 The work shall be executed in a disciplined manner and to the entire satisfaction of the Engineer-in-charge.
- 7.2 The Engineer-in-charge will communicate or confirm instructions to the contractor in respect of the execution of work in a **work site 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.
- 7.3 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.
- 7.4 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.

8 SITE CLEARANCE

- 8.1 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 should 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 should remove all debris and clear unwanted materials.

9 PROJECT INFORMATION

Round the clock operation & maintenance of WEGs at BHEL windfarms, Ramagiri & Kadavakallu, Andhra Pradesh. The windfarm sites are located approximately 70 / 45 kms

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respectively. from Anantapur. Nearest railway stations are Dharmavaram / Tadipatri, which are approximately 15 / 10 Kms from the windfarm sites respectively.

Note: Bidders are requested to visit the site and verify for themselves about the actual distances and access to the site, etc. before quoting for the job. No compensation whatsoever on this account will become payable to the contractor.

11. TOOLS & PLANTS

- 11.1 No tools will be issued except those mentioned explicitly under special tools & equipment of the contract / tender documents.
- 11.2 The successful tenderer should 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 contractor may not be allowed to continue the contract work.
- 11.3 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.

12. GENERATION REPORTS

- 12.1 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.

13 MANPOWER DEPLOYMENT / NON-AVAILABILITY

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

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RATE SCHEDULE

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.

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.

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, **Service Tax**, 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.

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.

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.

Evaluation of offers / quotes against this tender shall be on the overall / aggregate amount quoted for the total scope of work, excluding unscheduled works.

In the event of more than one party being L1, BHEL reserves the right to split and award the contract.

The unscheduled works shall be operated on the successful tenderer(s) at the pegged rates.

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.

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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.

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%.

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.

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.

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Annexure 7

WATCH and WARD

- 9.1 Prevention and protection of the following against theft, loss or damages by all forces other than those explicitly categorised under force majeure.

Wind Electric Generators and its accessories in the windfarm, stored materials, including the following WEG towers, all assembled members & fasteners etc.

Cables including power, lightening arrestor and control cables from controller to nacelle.

Nacelle, blade, hub assembly and all components forming integral part of nacelle.

Controller and its integral components.

Control room adjacent to each WEG and its attachments both inside and outside like tube lights, switchboards, safety equipments etc.

Transformer yard, including transformer, transformer oil, fire buckets and other accessories.

Central metering yard consisting of VCBs, meters, safety equipments and other accessories.

Materials/components/spares, packing materials, tools & tackles kept in open storage yards.

Central control room with all its contents like CMCS, PC, monitor, printer, UPS, A.C., etc.

- 9.2 Specified no. of security supervisors and guards as per contract must be available always in each shift at site and in each area. In case of shortfall in manpower availability the penalty deducted shall be as per clause of special conditions.
- 9.3 It is the responsibility of the Security Contractor for the loss & damage of any materials / components due to theft and group clash etc., all reasons other than those categories under Force Majeure. As security agency, you are fully responsible for all the BHEL materials at site.
- 9.4 It is the responsibility of the tenderer to report in writing to the concerned BHEL Site Incharge in case of such incidents of theft or group clashes within 12 hours from the time of occurrence of the incidence and to AGM/New Products., BAP, RANIPET-632406 within 24 hours.
- 9.5 It is the responsibility of the security contractor to file/lodge a police complaint, obtain copies of FIR and forward the copies to the site-incharge. Failure to do so within 7 days, the amount of damage / loss as assessed by the site-in-charge/BHEL Personnel at site/Management would be recovered by BHEL from subsequent Payments/Security Deposits.
- 9.6 It is the responsibility of the security contractors/tenderers to safeguard all the materials and components (as per the list prepared jointly by the tenderer/contractor and BHEL Site

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Incharge) against theft and group clashes. Failing which the amount of loss will be recovered from the bills of the contractor.

- 9.7 PROPER log sheets/records are to be maintained for movement (both in & out) of vehicles, personnel and material from the wind farms. The log sheets to be maintained and produced on demand.

10 SPECIAL CONDITIONS

- 7.1 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.

11 EXECUTION OF WORKS

- 11.1 The work shall be executed in a disciplined manner and to the entire satisfaction of the Engineer-in-charge.
- 11.2 The Engineer-in-charge will communicate or confirm instructions to the contractor in respect of the execution of work in a **work site 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.
- 11.3 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.

12 SITE CLEARANCE

- 12.1 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 should 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 should remove all debris and clear unwanted materials.

13 PROJECT INFORMATION

Round the clock 24 Hour vigilance & watch and ward, of WEGs at BHEL windfarms, Ramagiri & Kadavakallu, Andhra Pradesh. The windfarm sites are located approximately 70/45 kms

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respectively from Anantapur. Nearest railway stations are Dharmavaram / Tadipatri, which are approximately 15 / 10 Kms from the windfarm sites respectively.

Note: Bidders are requested to visit the site and verify for themselves about the actual distances and access to the site, etc. before quoting for the job. No compensation whatsoever on this account will become payable to the contractor.

14 TOOLS & PLANTS

- 14.1 In case of damage to tool / plants & equipment of BHEL / customer, 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.

15 SITE STATUS REPORTS

- 15.1 Site status 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 status reports and the status registers are also to be submitted every week.

16 MANPOWER DEPLOYMENT / NON-AVAILABILITY

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

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RATE SCHEDULE

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.

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.

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, **Service Tax**, 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.

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.

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.

Evaluation of offers / quotes against this tender shall be on the overall / aggregate amount quoted for the total scope of work, excluding unscheduled works.

In the event of more than one party being L1, BHEL reserves the right to split and award the contract.

The unscheduled works shall be operated on the successful tenderer(s) at the pegged rates.

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



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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.

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.

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%.

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.

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.

BHEL

Contractor