

## **General term and condition for Performance Based Annual Maintenance contract of Field Instruments**

### **4.1 TECHNICAL REQUIREMENT:**

1. Bidder should have minimum **3 years of experience** in the Annual Maintenance contract of Field Instruments (Attach Certificates / related supporting documents)
  2. Bidder should provide minimum two reference of having contract value Rs. **25 Lakhs** (Indian Rupees Twenty five Lakhs) for successfully Annual Maintenance contract of Field Instruments in last five years. (Attach Certificate of Experience and Satisfactory Completion of work awarded from concerned Establishments / Companies)
  3. Bidder should furnish **List of Clients** for whom they have done Annual Maintenance contract of Field Instruments during the last 5 financial years i.e., FY 2018-19, FY 2019-20, FY 2020-21, FY 2021-22, and FY 2022-23 as per nature of contract. (Attach Certificates from concerned)
  4. Bidder / Tenderer should preferably have ISO 9001 / ISO 14001 certification or must give an undertaking for its willingness to obtain the same within 2 months of qualification for the work.
- If any actual K- Factors reduce below 80% then that shall be treated as a noncompliance. Such repeated noncompliance on performance parameters for 3 times in the tenure of the Contract will be considered as breach of contract and will be dealt with no payment of monthly bill or termination of contract at buyer's discretion.

### **The area covers under these scope and General scope are as follows:**

1. Field instruments of Unit 1 to 5 Main plant (Turbine, Boiler, BOP), Ash Plant, DM Plant, Weighing System (Main Gate, Jemco, Silo area and common), Telephone, PA system Intruder alarm system SSF, ETP and DCS/PLC Panels maintenance.
2. Implementation and maintenance of 5S as per Tata Power Standard in the work area.
3. Shifting of materials from store to workplace and scrape to scrape yard
4. Compliance to Safety and statutory requirements as per TPCL Standard

## **AMC JOB SCOPE**

• **Preventive /Routine Maintenance Scope:** The contractor should be technically competent enough to carry out PM/RM/Calibration of entire instruments/analyser. Contractor shall ensure Calibration, Preventive maintenance (PM) and Inspection (Routine maintenance) of all field instruments mentioned. as per the PM/RM schedule in any time (24 Hr X 7 Days) based on availability of the equipment. The schedule of calibration, PM and Routine maintenance (RM) shall be forwarded to the contractor at the beginning of every month. The volume of PM activities may vary time to time due to availability of equipment. However, contractor has to carry out preventive maintenance on availability of the equipment's within the lead-time mentioned in the equipment/instruments list whatever may be the volume of PM/RM/Calibration Job.

Bidder has to submit **resource planning** along with offer to ensure adherence to PM/RM parameters mentioned in Annexure -I. however same can be finalize during post bid meeting. Bidder has to submit a monthly report of PM job attended (mentioning activity details, calibration report, spares consumed, PM planned lead time and actual lead time) with permit number along with invoice.

• **Breakdown Maintenance Job Scope:** Contractor shall carry out Break Down Maintenance (B M) throughout contract period for 24 Hr x 7 Days. The contractor should be technically capable enough to troubleshoot, diagnosis, repair to restore the breakdown equipment. After troubleshooting, equipment should perform as per the performance parameter/accuracy mentioned in the instrument list. Contractor has to carry out the breakdown maintenance within the time schedule/lead time mentioned in the instrument list wherever applicable. Contractor should attain any breakdown job immediately after receiving communication in any mode like phone, mail, hardcopy from our on duty TPCL Engineer. The volume of breakdown job may vary from breakdown of single equipment to multiple equipment / instrument of entire Jojobera station. But breakdown response and lead-time should not vary with the volume of breakdown jobs, to ensure response and lead time if required contractor has to mobilize additional resources.

Bidder has to submit **resource planning** along with offer to ensure adherence to BM parameters mentioned in Annexure -I. however same can be finalize during post bid meeting. Bidder has to submit a monthly report of break down job attended (mentioning activity details, calibration report, spares consumed, break down planned lead time and actual lead time) with permit number along with invoice.

• **Shut Down Scope:** Contractor shall carryout calibration and overhauling of all the instruments including Control valves and pneumatic actuator of a particular unit during annual shutdown. Alternately there are two to three shutdown (ASD) every year which varies from 25 to 35 days. To carryout ASD job party has to mobilize additional resources depending upon the volume of job, the quantity of additional resources has to be agreed by TPC. Party has to submit additional resource planning to attend shutdown job along with offer however same can be finalize during post bid meeting. There is no time frame in a day for the ASD job, if necessary, depending upon the availability of front bidder has to mobiles resources at any time in day or night. Bidder has to provide separate set of tools & tackles to carryout shutdown job. Apart from instrumentation tools following mechanical tools & tackles also to be provided by bidder as per requirements, meeting Tata power quality standard.

1. D-Shackle as required
2. Sling as required

3. Chain Pulley as required
4. Hammering Spanner as required
5. Ring Spanner as required
6. Welding Machine.

- **PM & BM of PA System:** There are approx. 175 sets of PA system installed in out Jojobera plant. Contractor shall carryout **Preventive Maintenance** of PA system in all the unit including CHP and other off site area excluding servicing of electronics parts. Contractor has to check functionality of each device monthly and also to carry out trouble shooting (in case of break down) such as cabling and replacement of hand set & its accessories.

- **Emergency Handling:** Contractor has to provide enough resources in case breakdown of single power generating unit or multiple power generating units to ensure early revival of units. Emergency will be communicated to the designated officer of contractor over the phone and Contractor has to mobilize required additional resource within half an hour of communication as per emergency resource planning. Contractor has to submit emergency resource and its **mobilization planning** along with offer however same can be finalize during post bid meeting with TPCL. Bidder has to maintain two emergency number , one cell and one landline of two different service provider for all kind of communication. Maintaining healthiness of the communication is responsibility of bidder.

- Party has to do all other instrumentation jobs not covered in the tender document / scope of work, but required to maintain the functionality / reliability availability of power plant of the system.

- Contractor has to ensure availability of all major tools, tackles and master calibrator as per the list at their site office, however party has to provide any number of any tools and tackles required to execute this AMC Job. Contractor has to submit monthly healthiness / functionality report of the same. All master calibrator should have NABL certified calibration report.

- Each and every job to be performed as per the EPM process, HIRA (Hazard Identification and Risk Assessment) and OCP with proper work permit and safety. Contractor supervisor has to ensure this by all means.

- Contractor shall provide all assistances required by the TPCL engineers during trouble shooting of any problems in the plant for 24 Hr x 7 Days.

- Contractor should be capable of handling emergency situations either be it tripping of any unit or blackout of entire Jojobera station.

- Contractor to ensure Quality of Workmanship to avoid repetitive failure of any instrument once in two months. • Party has to do Housekeeping of the area where job is being carried out.

- Contractor's supervisor shall discuss with the TPCL engineer daily about the various activities related to job and day to day program.

- The contractor shall work in close co-ordination with the TPCL engineer. The jobs shall be done as per schedule & priority based on inputs from Engineer in charge. Jobs to be performed at all (HRJB & LRJB ) as per tata power standard . Party has to ensure the necessary safety Appliances.

- The contractor shall prepare the consumption report for spares and consumables during maintenance, area wise on monthly basis. The report should be signed by contractor supervisor, and submitted to IMD department along with bill every month.
- After each calibration vendor has to put a given tag on the instrument which shall have the following information clearly mentioned. A) Tag number B) Date of calibration C) Due date of next calibration D)- Status of the instrument. Tags shall be provided by TPCL.
- To arrange for collection of the material as per the requisition made by the TPCL from the stores/designated area including loading and unloading. Materials installed shall be strictly as per specifications.
- To ensure that the work planned by Engineer-in-charge is completed in schedule. In the event of back log, the contractor has to give report with proper justification for non-completion of the job. The contractor to increase the resources to make up for the unfinished work and to work during extended hours or round the clock without any extra cost to TPCL. Contractor's Supervisor shall maintain the records of all the jobs executed as well as the reasons for pending jobs, if any.
- Supervisor should be capable to take self decision for rectification of problem identified like repair by replacement of part or by minor welding/metalizing, turning/machining, polishing and fabrication of small parts etc according to available resources. Also ensure whether technicians are using proper tools/spanner and lifting tools. Briefing Toolbox Talk (Risks & Hazards related to job) before start of each job.
- It will be the responsibility of the supervisor to maintain a log book shift wise. The shift report should be properly signed by the supervisor, area engineer, area In charge and submitted to IMD department on a daily basis.
- Supervisor shall also submit any other reports not specifically mentioned in scope but required by Engineer In charge from time to time.
- Break down report for each event should be made and submitted to TPCL within next two days.
- Contractor has to mobilize required resources positively within Half an hour in sufficient quantity to cater exigency /emergencies irrespectively of holidays, Sundays & working hours.
- Any part which is surplus/ removed or replaced by the contractor shall be returned to TPCL along with material. Disposal of scrap after completion of any work at designated located shall be done by contractor.
- All spares & Consumables will be in TPCL scope. However, contactor supervisor should submit reconciliation report of spares being used.
- During and after each maintenance activity, vendor to ensure that good housekeeping is maintained at working area/ site (like Cleanliness, waste disposal, Liquid Drain in trays/bucket, proper disposal of Cotton/Metal/Rubber scraps etc).
- Any abnormalities found during Maintenance (like Misalignment of line flanges, Line Tension on valve flanges, leakages, missing fittings/bolts/nuts/cable glands/cracks in metal/damages/ erosion/ corrosion/cavitations/foreign particles/blockage etc), immediately should communicate to TPC and get rectified.
- During each maintenance, it has to ensure following:

- Proper sized Bolts/Nuts are being used & maintaining even height/gaps between flanges studs/tightening etc.
- Proper supporting to Instrument, Accessories, Tubing etc. - Proper orientation of Instruments, Accessories, Tubing etc
- Proper alignment of complete assembly (like flange gap/orientation should even to all around, etc).
- Proper monsoon protection is in place.
- Jobs are carried out as per standard operating procedures given by engineer In charge.
- All safety norms are to be complied with TPCL Standards.
- The contractor has to submit the bill on monthly basis on scheduled dates as agreed by engineer in charge. Invoice should have supporting documents of job executed in proper format.

Safety requirement: -

- i. Party should adhere to Tata Power Business Associates Safety Code of Conduct (BASCC) Guideline strictly.
- ii. Noncompliance of safety rules may cause to cancellation of gate pass or spot fine & it will be deducted from the Final Bill amount. If Safety noncompliance found regular / deliberate / chances of higher potential damage, Purchase Order will be closed with short notice & Party will be liable for that.
- iii. Party must commence work on an equipment only after getting clearance from User department along with PTW copies.
- iv. Party must depute trained safety stewards round the clock for ensuring safety at workplace.
- v. Party should submit valid test certificates issued by competent authority of Jharkhand Government before start of job.
- vi. Lifting tools & tackles older than 2 years (from purchasing date) cannot be used in TPCL premises. Hence, necessary purchasing documents of lifting tools and tackles must be submitted.
- vii. All electrical tools to be certified by Tata Power Electrical department before use for work.
- viii. TPSDI L1, L2 skilled & L3 certified employees to be deployed at site.

#### **Documents Attached for reference:**

1. Tentative Instruments list of Main Plant
2. Major Instruments List of Ash Plant
3. Major Instruments List of DM Plant
4. PMP schedule of last three month
5. Break Down Job of last three month
6. List of Minimum number of Tools & tackles and Master Calibrator
7. Tentative shut down planning.
8. Performance Summery Sheet

9. Annual Shut down Resource Planning format
10. Emergency resource planning format of one unit
11. Emergency resource planning format of two units
12. Emergency resource planning format of multiple units