



## EXPRESSION OF INTEREST (EOI) FOR MANPOWER SERVICES

Cairn Energy India Pty Ltd. ("CEIL") is the Operator on behalf of Joint Venture partners CEIL, Cairn Energy Hydrocarbons Limited and Oil and Natural Gas Corporation, of the Contract Area RJ-ON-90/1 at Barmer in the state of Rajasthan. The RJ-ON-90/1 Block contains oil discoveries namely Mangala, Bhagyam, Aishwariya and other fields. The Mangala field is the largest onshore oil discovery in India since 1985. The Mangala field is currently producing 125,000 bopd; the development of Bhagyam and Aishwariya is progressing. Mangala Processing Terminal (MPT) is the common processing hub for Mangala, Bhagyam, Aishwariya and other smaller fields.

CEIL, on behalf of the joint venture partners, seeks Expression of Interest under the Competitive Bidding Process ("CB") from suitably experienced Contractors for the annual maintenance services including supporting services as mentioned below:

### **Manpower services for (Fabrication, Erection, Rigging & Supporting)**

The Scope of Work includes, but is not limited to, providing all work crew, materials, equipment, tools, and services required to provide full professional mechanical maintenance, on properties owned by Cairn energy India limited

In general the work includes:

- Supporting services for all types of Mechanical Maintenance jobs
- The Contractor is responsible for pre fabrication, erection of structures, piping and Rigging services as per CEIL requirement.
- The Contractor should be able to perform the fabrication activities at THREE different locations with each crew/team and to the same requirement of machinery and consumables to be supplied.
- The Contractor shall provide a competent supervisor satisfactory to the Maintenance and fabrication supervision, authorised to act for the Contractor.
- The Contractor shall promptly remove any work men/ supervisor from the work site If the conduct / Work Performance is not satisfactory to the CEIL Maintenance department.
- All the tools and tackles & consumables required for Prefabrication and installation is in Contractor scope.
- Supply of equipments & fuel (diesel) consumables welding rods and filler wires required to weld - CS, SS and dissimilar metals for the SMAW/GTAW process electrodes baking Mother oven, and Portable oven, Argon welding set, Regulators etc. , Gas cutting set, with multi stage regulators, flash back arrestor / NRV on both sides of the torch and cylinder side, Cutting hoses shall be as per standard make of MESSER or Equivalent will be under scope of Contractor. No Extra payment will be entertained by the CEIL for above equipment and spares.
- Cost of consumables should be considered for quoting as per the manpower supply rate, mentioned in Annexure II.
- Welding machine requirements: Miller welding machine -Miller Single Operator Tire Mounted Diesel Engine Driven Welding Generator MODEL: BIG BLUE 400X
- A set of copper cables, double insulated and length of cable approximately -50 meters for each welding cable and earthing cable for the job.
- The welding generator shall be with two local earthing connectors to the ground
- No Jointing is allowed in any cables. Welding ,grinding ,earthing etc



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- Welding holders shall be fully insulated and with proper lugs at the end of the cables.
- Fully insulated welding electrode holders and earthing holders only to be used
- Grinding machines -AG7, AG5, AG4, GQ4 and FF2 /Pencil Grinder and sufficient grinding and cutting wheels.
- The cutting and grinding wheels make shall be CARBORANDUM / GRINDWELL NORTON only with valid date of usage.
- Contractor has to maintain sufficient stock of Acetylene and Oxygen cylinders in plant premises with proper storage facility as per OISD standards.
- Acetylene and Oxygen -hand trolley should be having proper locking arrangement.
- Shifting of machines, prefabricated piping and structural materials etc to the work location shall be in Contractor scope.
- Hand trolleys for shifting of hand tools and consumables to the work location will be in scope of Contractor.
- Contractor is responsible to engage a qualified and experienced manpower for the fabrication and rigging activities.
- Competency test shall be conducted to the entire crew including supervisor by CEIL.
- All welders should have to be qualified, tested and approved welders as per Cairn QA&QC policy. The Piping/ Pipeline welders shall be 6-G qualified as per ASME Section IX in SMAW, GTAW Process as per approved WPS and PQR. IBR approved welders shall work to execute works in the boilers maintenance activities for IBR/non IBR works.
- UG (underground piping) piping repairs and wrapping coating to be carried out as and when required as per approved procedures and CEIL requirements.
- All the above jobs shall be carried out as per CEIL HSE and QA/QC policy.
- Good housekeeping at the workplace during and after completion of every activity of works.
- Contractor's scope includes providing all PPE gears to all the contract personnel.
- Hard shoe, helmet with strap, coverall, hand gloves, and goggles transparent and dark should be provided to all workmen by the Contractor.
- Contractor shall provide the full cover face shield with hard helmet for grinders, leather hand gloves with apron for gas cutters and full leather apron and gloves for the welders and sufficient stock has to be maintained
- Trolleys for shifting of hand tools and consumables to the work location will be under scope of Contractor.
- Shifting of unwanted / Waste material / MS beams / Pipes etc to designated scrap yard will be in Contractor's scope.
- Mobilising additional engine driven welding generator and cutting set with flashback arrestors for shutdown works at Well pads & MPT also Contractor's scope.
- Power will not be supplied by CEIL for welding machines, grinding machines, drilling machines etc.
- Fabrication yard/workshop is not available at site (planned to be made by CEIL in future), however Vendor to make proper Shade/Booth/Habitat for performing Fabrication/welding jobs.
- Chain blocks, web slings and metallic slings and D- shackles required for erection of heavy lifts shall be provided by contractor which has to be certified by third party certification (in Contractor scope).
- Understanding of Work Permit, tool box talk, JSA.
- Understanding of STOP (Safety Training observation program)...

QA/QC Requirements/Specification

- Welding machine shall have calibrated Volt / Amp meter to monitor Voltage / Current during welding which is a part of welding procedure / code requirements.
- One dedicated QA/QC person is required from contractor side at its own cost.

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- To bring portable and mother oven for electrode pre-heating and maintaining heating during welding
- List of proposed welders (IBR / Non IBR (ASME welders) and welders for structures welding as per AWS D1.1 for critical load bearings weld joint in beam etc.) Vendor to provide approved Welder Qualification record in advance of three (3) weeks prior to deployment to CEIL QA/QC (email: [RJON.ManagerQA/QCMPT@cairnindia.com](mailto:RJON.ManagerQA/QCMPT@cairnindia.com)) for verification.
- Supervisor having total fabrication knowledge with basic awareness on quality / inspection requirements and all test procedures and methods, i.e. Hydrostatic test etc.
- Portable current regulator with each welding machine with long cable to control the current at the location of welding.
- Portable Voltage / Current Clamp / multi meter for welding parameters monitoring and measurements
- For identification / punching of welder no., etc. Hard Punch (low stress, small and big - 3 mm and 6 mm size) alpha - numerical, A-Z and 0-9 Nos.
- Buffing machines with brushes / FF2 Pencil grinder for small bore piping inside grinding etc.
- Proposed list of electrodes with size / specifications / details of proposed dealers / supplier (make shall be Advani / D&H / Lincoln) being maintained by contractor
- Scope clarity on NDT and heat treatment, Painting and coating / coating materials, availability of skilled manpower for coating / wrapping, etc.
- Contractor should capable enough / clarity on preparation of sketch for starting the work and final ISO / As-built scope
- Availability of Contractor facilities for Hydrostatic test facilities including all range of pressure gauges / temperature and pressure recorder / rated flanges and other associated tubing / facilities to perform the h Hydrostatic test of various equipments. Pressure gauge duly calibrated and valid. (Validity period of 6 months)
- Separate identification procedures / list of all hand tools including grinding machines etc. for stainless steel fabrication as well as for Carbon Steel / Alloy steel fabrications
- Contractor facility for Induction coil heating (Electrical) for High thickness CS / Alloy steel pre-heating and post heating requirements required before / during / after welding
- Thermo choke / temperature stick to check preheating / interpass temp. during welding
- List of Instruments for measurements and inspection during fabrication, with appropriate calibration certificate and validity dates should only be accepted.
- Contractor to ensure that all the consumables as in their scope (Electrode, Ultra pure argon gas, etc.) being purchased with mfrs. Test Certificates
- Training from Cairn side to contractor for informing agenda / points to discussed before starting any fabrication job for understating of the jobs (i.e. Mechanical / user department and QA/QC, etc.)
- Contractor capability / man power availability and understanding on Maintaining all fabrication records (technical details) including material history / welding reports and documentation
- Procedure to debit / payments of Changes / payments for all welder qualifications / Welding procedure qualification as per ASME / IBR / AWS D 1.1 and other applicable codes requirements
- Cutting set with flash back arrestor, Acetylene and Oxygen cylinders (cylinders should be hydro tested and certified should with limited validity of maximum 3 yrs) in sufficient numbers and associated accessories, with good quality hoses (expiry date of maximum of 24 months) and regulators (ESAB or equivalent) and all required consumables are with valid calibration and MTCs in the scope of contractor and as per the specifications of the CEIL.
- Arc welding machine of suitable capacity of minim equivalent of ESAB/Miller
- In case of DG set it should be supplied with proper electrical protection devices (i.e. ELCB, MCB)



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- Welding Generator /rectifier should be compatible for maximum size of the electrode being used.
- Fire blankets of suitable standards and non asbestos to be provided.
- All PPE's to be as per CEIL standards.
- No field cable joint will be allowed for welding cables, vendor to provide suitable length cables.

### Supervisor

- should have minimum of Diploma in mechanical Engineering with 10 years experience in fabrication of piping, structure and erection and planning activities.
- He should be capable of reading drawings i.e. GA, P&IDs, Isometrics and instructions.
- He should understand and implement CEIL HSE / QAQC procedures with his team members.
- Supervisor shall be responsible to prepare work instructions, daily reports, Fit up, Welding, NDT, Line history sheet, Mechanical clearance reports, hydro test reports As built drawings.
- Shall be able to prepare hand sketches, bill of materials on daily basis. Also shall be responsible to guide the people to carry out hydro test, Pneumatic test flushing, and purging activities as per approved procedures and CAIRN specifications.
- Upon completion of activities, he should prepare a FINAL dossier and submit to CAIRN / TPIA QA/QC Dept.
- Capable to support the Fabrication activities at different elevations.
- Should be aware about hazards in Oil and Gas industries and safety procedures to be followed while executing Rigging jobs.

### Fabrication Riggers

- Minimum seven (7) years of Industrial experience with H.S.C completion (10th std).
- Heavy rigging experience should be involved in piping /structure fabrication.
- Should have sound knowledge about lifting tools and tackles.
- Should be capable for Planning and executing the heavy lifting jobs.
- Should have proven experience in Crane signalling and usage.
- Capable to support the Fabrication activities at different elevations.
- Should be aware about hazards in Oil and Gas industries and safety procedures to be followed while executing Rigging jobs.

### Welders

- Minimum 7 years of Industrial experience with ITI OR equivalent certificate for welder.
- Should have proven experience in piping fabrication (S.S. /C.S) /structure fabrication/Miscellaneous repair jobs related to TIG and ARC welding.
- Capable to support the Fabrication activities at different elevations.
- Should be aware about hazards in Oil and Gas industries and safety procedures to be followed while executing welding jobs.

### Gas Cutters

- Minimum 7 years of Industrial experience with HSC (10 TH STD) or equivalent certificate.
- Should have proven experience in piping fabrication (S.S. /C.S) /structure fabrication/Miscellaneous repair jobs.
- Capable to support the Fabrication activities at different elevations.



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- Should be aware about hazards in Oil and Gas industries and safety procedures to be followed while executing gas cutting jobs.

### **Grinders**

- Minimum 7 years of Industrial experience with HSC (10 TH STD) or equivalent certificate.
- Should have proven experience in piping fabrication (S.S. /C.S) /structure fabrication/Miscellaneous repair jobs.
- Capable to support the Fabrication activities at different elevations.
- Should be aware about hazards in Oil and Gas industries and safety procedures to be followed while executing grinding jobs.

### **Fitters**

- Minimum 7 years of Industrial experience with ITI OR HSC (10 TH STD) or equivalent certificate.
- Should have proven experience in piping fabrication (S.S. /C.S) /structure fabrication/Miscellaneous repair jobs.
- Capable to support the Fabrication activities at different elevations.
- Should be aware about hazards in Oil and Gas industries and safety procedures to be followed while executing jobs.

### **Manpower Services for Skilled Mechanical Riggers**

Services included but not limited to the following:

#### **Maintenance:**

- Crane signalling and rigging activity, selection of lifting tools and gears, load plan etc.
- Heavy pipe erection, bolting and dismantling works.
- Carry out servicing, removal and installation of manual valve, control valve, PSV,PVSV for steam, water and hydrocarbon service)
- Equipment housekeeping. Area cleaning.
- Tank cleaning and support services.
- Assist in Preventive /Predictive maintenance as per instruction by the CEIL Engineer.
- Assist in Corrective maintenance of equipment as per instruction by the CEIL Engineer.
- Attending equipment break down as per instruction by the CEIL Engineer.
- Equipment over hauling activity including heavy equipment handling, supporting, box up and dismantling.
- Carrying out Corrective actions to comply and close out HSE CAR points
- Carrying out condition monitoring checks on daily basis (LLF check)
- Carrying out annual turn around jobs
- Carrying out hydro tests
- Operation support services involve valve operation at MPT and wellpads.
- Erection and Commissioning of new units / equipment / skids
- Safety watch for the assigned plant area during the execution of any work
- Understanding of Work Permit, tool box talk, JSA.
- Understanding of STOP (Safety Training observation program)...
- Maintenance of all tools and tackles
- Shifting of materials from ware house /stores to work place /workshops



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- Other works related to maintenance and operation as instructed by the concern Superintendent/Engineer.

### **Performance and skill requirements of manpower**

- In addition, all personnel shall have necessary skill in fire fighting operation and ready to fight fire, if needed. They shall make themselves familiar with fire fighting equipment.
- Working in confined space, capable of donning SCBA/positive air mask.
- Contractor shall ensure that its Personnel on duty will perform their assigned duties effectively and efficiently. Company reserves the right to carry out any training, organise drills, inspections and / or checks it considers necessary or desirable at any time whatsoever.
- Contractor's personnel shall report to the Engineer In charge or Mechanical Superintendent / Engineers. Contractor's personnel shall be prepared to work overtime as and when required by Company.
- The productivity of the Contractor's personnel should be to the satisfaction of Engineer In charge or designated Superintendent/ Engineers.
- Company reserves right to reject Contractor's personnel if it is not satisfied with their productivity, QHSE performance, General behaviour or any other aspect
- The Contractor should maintain following documentation.
- Time sheet / Muster roll / Attendance register shall be carried out and invoices shall be raised as per the projects executed.
- Statutory documents as required by labour law and as per CEIL requirement to meet statutory compliance.
- Monthly invoice shall be submitted to section superintendents with time sheet duly signed by section head /managers.

### **Skill Set Requirement**

#### **Mechanical Riggers:**

- Minimum seven (7) years of Industrial experience with H. S.C completion (10th std).
- Heavy rigging experience should be involved in Shutdown activities of big/medium scale plant.
- Should have sound knowledge about lifting tools and tackles.
- Should be capable for Planning and executing the heavy lifting jobs.
- Should have experience in Crane signalling and usage.
- Capable to mounting and dismounting of manual valves, Control valves, pumps, motor, turbines, compressors, blowers, pressure safety valves and piping of various sizes.
- Capable to support the fabrication activities at different elevations.
- Should be aware of record keeping and maintenance of lifting gears.
- Should be aware about hazards in Oil and Gas industries and safety procedures to be followed while executing Rigging jobs.
- Should have knowledge and experience about pipeline pigging activities.
- Capable to support the valves operation, line flushing, hose connections, pressure testing, leak testing etc.

### **Manpower Services for Mechanical Maintenance Support Services at Well Pads**



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### Maintenance:

- Preventive /Predictive maintenance as per the annual maintenance schedule
- Corrective maintenance of equipment as per notifications
- Attending equipment break down
- Equipment over hauling
- Carrying out Corrective actions to comply and close out HSE CAR points
- Carrying out condition monitoring checks on daily basis (LLF check)
- Carrying out annual turn around jobs
- Carrying out hydro tests
- Operation support services
- Commissioning of new units / equipment / skids
- Safety watch for the assigned plant area during the execution of any work
- Report preparation / documentation
- Work Permit processing.
- Maintenance of all tools and tackles
- Shifting of materials from ware house /stores to work place /workshops
- Equipment housekeeping and area cleaning
- Other works related to maintenance as instructed by the concern Superintendent/engineer.

### Performance and skill requirements of manpower

- In addition, all personnel shall have necessary skill in fire fighting operation and ready to fight fire, if needed. They shall make themselves familiar with fire fighting equipment.
- Working in confined space, capable of donning SCBA/positive air mask, interpretation of O2 analysis and its cause and effect.
- Contractor shall ensure that its Personnel on duty will perform their assigned duties effectively and efficiently. Company reserves the right to carry out any training, organise drills, inspections and / or checks it considers necessary or desirable at any time whatsoever.
- Contractor's personnel shall report to the Engineer In charge or Mechanical Superintendent / Engineers. Contractor's personnel shall be prepared to work overtime as and when required by Company.
- The productivity of the Contractor's personnel should be to the satisfaction of Engineer In charge or designated Superintendent/ Engineers.
- Company reserves right to reject Contractor's personnel if it is not satisfied with their productivity, QHSE performance, General behaviour or any other aspect
- The Contractor should maintain following documentation:
  - Day to day records of maintenance, operations in the form of logbook.
  - Time sheet / Muster roll / Attendance register shall be carried out and invoices shall be raised as per the projects executed.
  - Statutory documents as required by labour law and as per CEIL requirement to meet statutory compliance.
  - Monthly invoice shall be submitted to Manager-Maintenance with time sheet duly signed by section Superintendents.
  - Understanding of Work Permit, tool box talk, JSA.
  - Understanding of STOP (Safety Training observation program)...

### Skill Set Requirement



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### Site Supervisor

- Should have Degree/Diploma in mechanical engineering with minimum 5-8 years experience preferably in Oil and Gas industries/Petrochemical industry.
- Should have very good knowledge of various types of PTW systems, JSA, Tool box talks etc.
- Supervisor is included in Contractor scope, no extra wages is entertained, Contractor has to demonstrate the competency of site supervisor.
- Should be responsible for coordination of day to day maintenance jobs.
- Should be responsible for coordination of HSE/QAQC audit requirement
- Should have capability to handle a crew of 40 Nos. and should be a good team leader.

### Mechanical Engineer:

- Should be Degree/Diploma with min 5-8 years of experience in Petrochemical/Fertilizer/Power and Utility/Oil and Gas
- Hands-on experience on centrifugal pumps (mechanical seals), Vertical can pumps, reciprocating pumps and Air cooled exchangers (fans). Should be able to do maintenance jobs in steam turbines, reciprocating compressors and diesel engines, boilers and water treatment equipments.
- Execute alignment jobs, Scheduled maintenance jobs in steam turbines and compressors. Having exposure to carryout Preventive Maintenance jobs and exposure to PM schedules. Awareness of SAP PM /MM module.
- Should be aware about hazardous in Oil and Gas industries and safety procedures to be followed while executing maintenance jobs.
- Able to read engineering drawings; exploded view /cross sectional drawings of Equipments) Exposure to computers, spares (part numbers),
- Should maintain History records.
- Should have very good knowledge of various types of PTW systems, JSA, Tool box talks etc

### Mechanical Technician:

- Should ITI/Diploma with min 8-10 years of experience in Petrochemical/Fertilizer/Power and Utility/Oil and Gas
- Hands-on experience on centrifugal pumps (mechanical seals), reciprocating pumps and Air cooled exchangers (fans). Should be able to do maintenance jobs in steam turbines, reciprocating compressors and diesel engines.
- Execute alignment jobs, Scheduled maintenance jobs in steam turbines and compressors. Having exposure to carryout Preventive Maintenance jobs and exposure to PM schedules.
- Should be aware about hazardous in Oil and Gas industries and safety procedures to be followed while executing maintenance jobs.
- Able to read engineering drawings; exploded view /cross sectional drawings of Equipments) exposure to computers, spares (part numbers).

### Mechanical Millwright Fitter:

- Minimum seven (7) years of Industrial experience with HS.C completion (10th STD).
- Hands-on experience in alignment works of different types of Rotating equipment and vessels erection.
- Involved in Shutdown activities of big/medium scale plant. Sound knowledge about lifting tools and tackles.





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- Should be aware of record keeping and maintenance of lifting gears.
  - Should be aware about hazards in Oil and Gas industries and safety procedures to be followed while executing Rigging jobs.
  - Exposure of Fits/Tolerance surface smoothness standards.
  - Exposure of carrying out engineering measurements, and conversant with engineering drawing standards.

### **Structural / Piping Fabrication Engineer**

- Having degree OR diploma in mechanical engineering and having minimum 7 years experience in piping and structural activities.
- Able to read and prepare drawings, Isometrics and updated in P &ID and BOQ.
- Should have experience in Oil and Gas /Petrochemical industries.
- Exposure to piping fabrication and structural jobs.

### **SAP support and planning engineer**

- Having degree OR diploma in mechanical engineering and having minimum 7 years experience.
- Exposure to primavera /M.S.Project/SAP scheduling.
- Knowledge of PR-PO process, PM and MM Module.
- Creation of Notification, Maintenance order, tracking of material and services, item codification, billing through SES.
- Should have experience in Oil and Gas /Petrochemical industries.

### **Civil Engineer**

- Having degree OR diploma in civil engineering and having minimum seven (7) years experience.
- Exposure to billing/execution of civil jobs/SOW preparation/Load calculation and cost estimation, road laying, concreting, civil construction and modification jobs
- Able to read civil structural, foundation and layout drawings.
- Able to understand civil surveying.
- Operation and Maintenance support for civil related job activity.
- Structural load calculation and estimation of cost.
- Should have experience in Oil and Gas /Petrochemical industries.

### **Manpower Services for Instrumentation Maintenance**

#### **Maintenance:**

- Preventive /Predictive maintenance as per the annual maintenance schedule
- Corrective maintenance of equipment as per notifications
- Attending equipment break down
- Equipment over hauling
- Carrying out Corrective actions to comply and close out HSE CAR points.
- Carrying out condition monitoring checks on daily basis (LLF check)
- Carrying out annual turn around jobs



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- Carrying out hydro tests
  - Operation support services
  - Commissioning of new units / equipment / skids
  - Safety watch for the assigned plant area during the execution of any work
  - Report preparation / documentation
  - Work Permit processing.
  - Maintenance of all tools and tackles
  - Shifting of materials from ware house /stores to work place /workshops
  - Equipment housekeeping.
  - Other works related to maintenance as instructed by the concern Superintendent.

**Performance and skill requirements of manpower**

**Skill Set Requirement**

**Instrument Engineer:**

- Should be Degree/Diploma with min 5-8 years of experience in Petrochemical/Fertilizer/Power and Utility/Oil and Gas.
- Should have exposure to preparation of Maintenance schedule and adherence to the various schedules like PM, CM &CFT.
- Should be able read/understand drawing/documents (i.e. P&ID, cause and effect, logics, manuals, JB schedule, panel wiring drawings etc.)
- Should be familiar with international standards.
- Should have the good hands on experience of trouble shooting and rectification of various field instrumentation systems.
- Should have the good knowledge & hands on experience in fire and gas system.
- Should have good control system knowledge and hands on experience in DCS, PLC (GE Fanuc, AB, Siemens etc) and SCADA systems.
- Should have to maintain calibration schedules and records of the instruments like PT/FT/TT/RTD/TC etc/
- Should maintain History records.
- Should have very good knowledge of various types of PTW systems, JSA, Tool box talks etc.

**Instrument Technician:**

- Should be ITI/Diploma with min 8-10 years of experience in Petrochemical/Fertilizer/Power and Utility/Oil and Gas.
- Should be able read/understand drawing/documents (i.e. P&ID, cause and effect, logics, manuals, JB schedule, panel wiring drawings etc.)
- Should have good hands on experience of trouble shooting and rectification of various field instrumentation systems like TT/FT/PT
- Should have the good knowledge & hands on experience in fire & gas system.



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- Should have good control system knowledge & hands on experience in DCS, PLC (GE Fanuc, AB, Siemens etc) and SCADA systems.
  - Should have very good knowledge of various types of permit systems.

### **Instrument Tube Fitter:**

- Should be ITI with min 8-10 years of similar kind of experience in Petrochemical/Fertilizer/Power &Utility/Oil & Gas
- Should have hands on experience for providing SS tubing for various types of instruments and various type installations.
- Should be able to read and understand the hook-up drawings.
- Should have hands on experience in fabricating mounting stands, supports of instruments, JB frame, anchor fastening etc.
- Should have hands on experience in servicing and box-up of various instrument items like transmitters, control valve from line etc.
- Should have general knowledge of various types of permit systems.
- Should aware of lifting techniques and safe shifting of instrument items.

### **Manpower Services for Electrical Maintenance Maintenance:**

- Preventive /Predictive maintenance as per the annual maintenance schedule
- Corrective maintenance of equipment as per notifications
- Attending equipment break down
- Equipment over hauling
- Carrying out Corrective actions to comply and close out HSE CAR points
  - Carrying out condition monitoring checks on daily basis (LLF check)
  - Carrying out annual turn around jobs
  - Carrying out condition monitoring tests on transformers, panels and motors
  - Operation support services
  - Commissioning of new units / equipment / skids
  - Safety watch for the assigned plant area during the execution of any work
  - Report preparation / documentation
  - Work Permit processing.
  - Maintenance of all tools and tackles
  - Shifting of materials from ware house /stores to work place /workshops
  - Equipment housekeeping & area cleaning
  - Other works related to maintenance as instructed by the concern Superintendent/engineer.

### **Performance & skill requirements of manpower**

#### **Skill Set Requirement**

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### **Site Supervisor**

- Should have Degree/Diploma in Electrical engineering with minimum 5-8 years experience preferably in Oil & Gas industries/Petrochemical industry.
- Should have very good knowledge of various types of PTW systems, JSA, Tool box talks etc.
- Should be responsible for coordination of day to day maintenance jobs.
- Should be responsible for coordination of HSE/QAQC audit requirement
- Should have capability to handle a crew of 40 Nos. & should be a good team leader.

### **Electrical Engineer:**

- Should be Degree/Diploma with min 5-8 years of experience in Petrochemical/Fertilizer/Power &Utility/Oil & Gas.
- Should have necessary license (C license) as per state electricity board rules / regulation
- Shall understand & read electrical single line diagrams, control drawing etc.
- Troubleshooting in High Voltage & Low Voltage Switchboards
- Hands on Maintenance of Electrical equipments such as motors, starters, panel etc.
- Awareness of flameproof & weatherproof electrical equipments
- Electrical Engineers shall have hands on experience in operation, maintenance and troubleshooting of the following systems
- HT: 6.6 KV generators, HT panels, VCB, protection systems, Motors.
- LT: Transformers, PCC, MCC, PMCC, Emergency generators, motors, VFD, protection systems.
- Auxiliary systems: UPS, Battery chargers, Battery banks, Solar Arrays, Air-conditioning, building wiring, Paging, heat tracing, portable equipments, Earthing etc
- Should maintain History records.
- Should have very good knowledge of various types of PTW systems, JSA, Tool box talks etc
- Should be aware about hazardous area classification in Oil & Gas industries and safety procedures to be followed while executing maintenance jobs.
- Should be able to read single line diagrams, scheme drawings, equipment manuals etc.
- Should maintain History records.
- Out of 10 engineers 2 engineers shall have the additional qualification as below to ensure proper documentation of the maintenance activities.
  - Very good English knowledge to communicate through mail
  - Material inspection and issue from Sub stores
  - Computer literate having knowledge in MS word, Excel and SAP
  - Compiling audit reports, follow up of pending punch points etc
  - Updating of drawings
  - Upkeep of records, files, checklists etc.

### **Electrical Technician:**

- Should be ITI/Diploma in Electrical Engg with min 8-10 years of experience in Petrochemical/Fertilizer/Power &Utility/Oil & Gas
- Troubleshooting in High Voltage & Low Voltage Switchboards
- Hands on Maintenance of Electrical equipments such as motors, starters, panel etc.
- Awareness of flameproof & weatherproof electrical equipments
- Use of Electrical Measuring Instruments
- Control & panel wiring



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- Shall have hands on experience in operation, maintenance and troubleshooting of the following systems  
HT: 6.6 KV generators, HT panels, VCB, protection systems, Motors, Transformers  
LT: Transformers, PCC, MCC, PMCC, Emergency generators, motors, VFD, protection systems.  
Auxiliary systems: UPS, Battery chargers, Battery banks, Solar Arrays, Air-conditioning, building wiring, Paging, heat tracing, portable equipments, Earthing etc

### Manpower Services for Production Support

#### Performance & skill requirements of manpower

- All personnel (Engineers/Technicians) shall have necessary skill in fire fighting operation and ready to fight fire, if needed. They shall make themselves familiar with fire fighting equipment.
- Working in confined space, capable of donning SCBA/positive air mask.
- Contractor shall ensure that its Personnel on duty will perform their assigned duties effectively and efficiently. Company reserves the right to carry out any training, organize drills, inspections and / or checks it considers necessary or desirable at any time whatsoever.
- Contractor's personnel shall report to the Engineer In charge or Superintendent/ Engineers. Contractor's personnel shall be prepared to work overtime as and when required by Company.
- The productivity of the Contractor's personnel should be to the satisfaction of Engineer In charge or designated Superintendent/ Engineers.
- Company reserves right to reject Contractor's personnel if it is not satisfied with their productivity, QHSE performance, General behaviour or any other aspect
- Contractor's Personnel shall be prepared to work overtime as and when required by Company.
- The contractor should maintain following documentation:
  - Day to day records of maintenance, operations etc
  - Updated records of isometric drawings
  - Daily Progress Report
  - Time sheeting shall be carried out and invoices shall be raised as per the projects executed.
  - Statutory documents as required by labor law and as per CEIL requirement to meet statutory compliance.
- Time sheet / Muster roll / Attendance register shall be carried out and invoices shall be raised as per the projects executed.
- Monthly invoice shall be submitted to section superintendents with time sheet duly signed by section head /managers.
- Should have knowledge on hazardous area classification and maintenance of flame proof equipment in Oil & Gas industries and safety procedures to be followed while executing maintenance jobs.
- Able to read electrical scheme and control drawings, single line diagrams etc.,
- Should be skilled to perform cable glanding and termination.

#### Skill Set Requirement

- 1) For the position of Production Lead Operator candidates should be at least a diploma holder or a science graduate with minimum of 6 to 8 years experience in the relevant industries like oil and gas, refineries and petrochemical industries and shall possess necessary skills/leadership qualities to lead a team of skilled man power.
- 2) For Production Operator the candidates shall be a diploma holder or a science graduate with minimum of 4 years experience.



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- 3) Contractor's Personnel shall possess relevant experience in the area of Production activities in similar works in Oil and Gas industry / Refineries / Petrochemicals.
- 4) For candidates pertaining to Utilities and Power, relevant Boiler Operations certification will be preferred.
- 5) All the candidates should be familiar with Permit to work systems and other safety requirements to perform activities in an oil and gas processing unit.
- 6) All the Personnel required shall possess multi skill for the present operation and shall be ready to carry out multidisciplinary task, if requested.
- 7) All Personnel shall have necessary skill in fire fighting operation and ready to fight fire, if needed.
- 8) Excellent condition of physical fitness.
- 9) Proven good conduct and character.

### Manpower Services for Laboratory

Lead Chemist  
Chemist

Only those companies / consortium possessing substantial and proven record of performance in executing similar contracts of this magnitude should respond to this notice.

**In addition to the above requested documentation, bidders shall also submit credentials to support the specific qualification criteria for each package.**

Companies are requested, as a minimum, to submit the following documents and details for prequalification:

1. Letter of interest with detailed company information like Organisation structure, List of manpower with CVs of key personnel.
2. Lists of similar work successfully executed in the last five years and similar projects/agreements currently under execution (with particular emphasis on work carried out with Oil and Gas Operators, Refineries, Large Petrochemical Complex). Contact details from earlier projects shall be provided.
3. List of policies, procedures and quality assurance practices currently in place for the execution of similar work.
4. Health, Safety and Environment (HSE) policies, procedures and statistics covering last 4 years.
5. Corporate financial details for last 3 years with details of turnover from similar work.

### PRE-REQUISITES FOR CONTRACTOR QUALIFICATIONS

1. Contractor shall have a minimum of 8-10 years of experience in field of Oil & Gas,
2. Petrochemical, Refinery, Steam Generation & Power plant and Utilities system. They should have supplied of executed to reputed well known industries since last three years
3. Contractor shall submit the self attested copies of the following documents along with the bid.
4. PF Registration with PF code number.
5. ESI Registration
6. Valid License issued in respect of Contractors by Regional Labour Commissioner
7. Valid license issued in respect of contractors by Electrical Inspectorate.
8. Valid license authorised by DGMS office for undertaking works in oil mines.
9. Details of similar manpower supplied to reputed Oil & Gas, Petrochemical, Refinery, Steam
10. Generation & Power plant Company in the last 3 years.
11. Contractor should have at least minimum annual turnover of Rs 01- 02 Crores.
12. List of Arbitration cases (if any )



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13. Copies of certificates/allotment letter of Service Tax and PAN Number.
14. Details of Organogram along with managerial, supervisory, skilled manpower and available other staff for administration and coordination.
15. Undertaking of the agency confirming the availability of the adequate manpower of requisite qualification and experience for deployment at CEIL, Barmer, Rajasthan Site.
16. Copy of Last three years income tax return.
17. Certificates provided for the works detailed in 1d) above shall clearly indicate the scope and nature of work undertaken and the value of various components of work as executed, in order to confirm conformity to the defined similar works.
18. Contractor shall submit details of organisations, where he has undertaken such similar services.
19. Contractor shall follow all the safety regulation of CEIL which includes the permit to work system

CEIL request interested Contractors to submit their Expression of Interest along the requested details within ten (10) days of publication of this Eol by email as attached PDF File and via courier to:

**Director - Procurement and Supply Chain Management**  
Cairn Energy India Pty. Limited  
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Sector 54, Gurgaon 122002 [Haryana], India  
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