



Tender No.: HOGPL/2021-22/C&P/015



**HPOIL GAS PRIVATE LIMITED  
(A Joint Venture of HPCL & OIL)**

**TENDER FOR  
PROVIDING OPERATION AND MAINTENANCE SERVICES FOR CGD  
NETWORK AT KOLHAPUR GA**

**TECHNICAL VOLUME**

**TENDER NO : HOGPL/2021-22/C&P/015**

**Date : 22.10.2021**



## 1. PROJECT DESCRIPTION

HOGPL has got the PNGRB authorization for city gas distribution in KOLHAPUR. HOGPL is a joint venture Company of two navratna PSUs viz. HPCL & OIL with the mission to supply clean and green (eco-friendly) fuel.

HOGPL requires various support services through Contractor to provide uninterrupted supply of natural gas to domestic, industrial and commercial consumers. HOGPL has laid underground MDPE gas pipeline network in various parts of Kohapur & Ichal karanji & adjoining industrial area as well areas for the supply of natural gas to its customers. HOGPL is operating and maintaining various sizes of Steel (4", 6", 8" and 12") and MDPE pipeline from 20 mm to 125 mm and GI/Copper network for domestic, commercial & industrial connections.

## 2. OBJECTIVE

The objective of the subject contract is to respond to emergency situation like third party damage to HOGPL assets, customer complaints, equipment breakdown etc. Also, the scope includes carrying out the periodic maintenance of MDPE network and PNG connections installations including functional checks in order ensure smooth functioning. It is proposed to engage a service provider who shall become patent enough to execute repairs to the various components of the installations. The maintenance activities on these installations shall be carried out onsite.

Contractor's scope of work for subject services is not limited up to following but include and covers all activities like Liasoning, coordination, emergency response, supervision, monitoring, maintenance, document recordig, customer complaint and service request handling etc. whichever is required to ensure 24X7 gas supply to customers, healthiness of the HOGPL assets and also the instruction given by EIC. The work described herein shall be carried for the operation and maintenance as per applicable technical specifications enclosed along with the tender document.

Zone	Particulars	Current Status	Expected Increase
		20.05.2021	FY 2021-2022
KOLHAPUR City & adjoining Area Under KMC	MDPE P/L: KM	13.76	249.325
	Connection Nos:	2371	17998



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<b>ICCHALKARANJI Laxmi Industrial/Hatkangale</b>	MDPE P/L: KM	29.232	80
	Connection Nos:	900	10425
<b>MIDC (Kagal/Shiroli/Gokul Shirgaon)</b>	MDPE P/L: KM	89.414	10
	Connection Nos:	129	171

For reference purpose our existing network at KOLHAPUR and Proposed plans for future network is as given below

**Total Steel network laid is around 85 KM under HOGPL Kolhapur GA.**

Note: The above details are provided only for indicative purpose to show case our existing and proposed network expanse.

Any additional pipeline laid under GA will be also part of this tender.

### **3. SPECIAL CONDITION**

- i. The services shall be provided in terms of shift patterns as mentioned in the tender document.
- ii. The contractor is required to carry out all services as mentioned in the scope of service and schedule of rates as mentioned in the tender document on all the 365 days including **Sundays, All Holidays & National Holidays.**
- iii. The contractor shall allow weekly off to his workmen and daily working hours will be fixed as per relevant Act / Law and rules made there under. However, no work shall be left incomplete/unattended on any holiday / weekly rest. The contractor or his authorized representative shall interact with Engineering In-Charge daily for smooth operation and maintenance of all the stations.
- iv. Regarding work allocation and completion, the decision of the Engineer in Charge shall be final.
- v. The contractor shall make his own arrangement to provide all facilities like accommodation, transport medical attention etc. to his workmen. HOGPL does not make any commitment to provide his employees with facilities such as office accommodation, transport, canteen, tea, toilet, telephone etc.
- vi. All personnel of the contractor entering on work premises shall be properly and neatly dressed and shall wear uniform, badges while working on premises of the company including work sites.
- vii. The contractor will strictly adhere to all the laws, acts, safety rules and regulations prevailing and applicable from time to time at the installations as directed by HOGPL, Government and Local



- bodies etc. Contractor will provide and maintain the required PPE's to all the employees at his own cost.
- viii. It will be the responsibility of the contractor to pay the wages as per the minimum wages of the appropriate government rules applicable. Weekly Off to be provided to the employee as per Local Labor Laws. Contractor ensures the reliever of the person on leave and weekly off etc. Payment shall be done on certification of attendance along with prior data:
- ix. Overtime to be paid by contractor as per Local Labor Laws applicable to work location/sites and No separate payment will be made against over time by HOGPL.
- x. Any statutory variations in Minimum wages as per Minimum Wages Act 1948 of the labor laws shall be paid to contractor. HOGPL HR Dept. will share Govt notification for revision in minimum wages and same will be circulated with contractor and accordingly HOGPL will modify unit rates in SO after approval. Contractor has to pay the wages as per the notification of government with immediate effect. The contractor can claim the differential amount (if any) on submission of documentary to HOGPL
- xi. Bidder has to quote the Service charges inclusive of all Taxes & duties EXCEPT service tax for the mentioned man power rates.
- xii. Four National Holidays payment will be paid to the contractor as per the Labor Laws.
- xiii. Bonus can be pay able annually/quarterly/monthly, subject to written permission and approval to that effect from EIC.
- xiv. In case where ESIC is not applicable, under such circumstances Employee Compensation Act 1923 will be applicable and contractor should subscribe such policy in the said Act. HOGPL will reimburse such expenses on production and submission of policy with other relevant documents.
- xv. If the contractor finds any discrepancy in the payment, such discrepancy should be brought to the notice of the Company within 3 months from the date of such payment failing which the said discrepancy will be ignored and the contractor will not be entitled to any payment therefore. This right of the Company is without prejudice to any other right; the Company is having under this agreement Orin law.
- xvi. If at any time during the currency of this agreement the Contractors fails to provide manpower and or fail to perform its duties as provided herein and/or fails to perform the various other obligations specified in this contract, the Company shall at its sole discretion and without prejudice to any other



- right and remedies engage the services of other Agencies to perform the obligations of the Contractor and in such an event the Contractor undertake store imbrues the Company all the additional expenses incurred by the Company in this connection.
- xvii. Nothing herein contained shall prevent the Company from engaging any other Contractor (s) to carry out the work similar to the work entrusted to the contractor(s).
- xviii. The Company will have the right to deduct any amount payable by the Contractor to the Company from any amount payable by the Company to the Contractor under this contract.
- xix. It is agreed between the parties that if the quality of jobs carried out by the Contractor are not of standard as required by Company and breach of any of the terms and conditions herein mentioned, the Company is at liberty to terminate this Agreement at the option of the Company by giving one-month notice in the writing to the Contractor or without assigning any reasons thereof.
- xx. On the termination of this Agreement, the Contractor will immediately remove him and his directly Orin directly employed or deployed manpower from the said premises with all the goods, if any, property and effects belonging to him. The Contractor shall not cause any hindrance or objection in such circumstances.
- xxi. Double duty by any contractual manpower will not be accepted by HOGPL. Contractor has to appoint the reliever in such cases, failing which penalty will be applicable. In exceptional cases (Like Festival season, religious occasion, emergency etc.) double duty will be allowed with prior written permission or approval from EIC. HOGPL is not responsible to pay any sort of compensation for the extra working hour.
- xxii. The contractor has to provide required Manpower within 15 days' time period from the date of issue of Letter/instructions by HOGPL. If a contractor fails to provide the required manpower as per HOGPL, it will be treated as absent or non-availability of manpower.
- xxiii. Contractor has to inform and take written approval for any replacement, mobilization and demobilization of manpower etc. Form EIC.
- xxiv. Contractor has to inform HOGPL minimum 1(one) month prior for replacement of manpower, in the case of resignation, demobilization etc. Contractor has also ensured the replacement without any delay i.e within one week with proper handover takeover of the both.
- xxv. Contractor should ensure his manpower to get trained properly and possess STC card before deploying at site. Without STC training manpower should not allow to do the PNG O&M activity.



- xxvi. Contractor should provide its photo identity card and uniform to all the employees deployed for PNG O&M. These I-card and uniform are to be carried constantly during the duty hours. The ID card should be reissued immediately in case of lost or damage.
- xxvii. Contractor should submit shift schedule to EIC on monthly basis before 25<sup>th</sup> of every month, for each preceding month and display it in the office Contractor should also display the daily shift wise present manpower as per format on a board in the office and report the same to Emergency Control Room.
- xxviii. Shuffling of manpower from one area to other in consultation and approval of EIC.
- xxix. Stationary required in the day to day operations e.g. envelopes papers, calculator, Register, board; notice board etc. is in the scope of contractor.
- xxx. Contractor has to maintain record as advised by HOGPL.
- xxxi. The Contractor should provide qualified & trained manpower to perform the PNG O &M activity.
- xxxii. Manpower will be deployed as per the requirement of work. EIC will take decision for appointment of manpower.
- xxxiii. All expenses towards mobilization at site and demobilization including bringing in equipment, work force, materials, dismantling the equipment etc. shall be deemed to be included in the prices quoted and nose pirate payment s on account of such expenses shall be entertained.
- xxxiv. The contractor shall take care for cleaning the working site from time to time for easy access to work site and also from safety point of view.
- xxxv. Working site should be always kept cleaned up to the entire satisfactions of the EIC. Before handing over any work to HOGPL, the contractor in addition to other formalities to be observed as detailed in the document shall clear the site to the entire satisfaction of the EIC.

#### **4. PNG O & M SCOPE**

- The scope of PNG O&M Contractor covers all the necessary requirements like tools, equipment, material, manpower, liasoning, and coordination, etc. to ensure the 24x7 gas supply to the customers and as per instruction given by EIC.
- Contract also covers Daily Patrolling of Steel, MDPE Pipeline, Meter & Flow Readings of Industrial, Commercial establishments. Responding to all emergency situations such as Line damage, Gas Leakage, Gas smell, Gas stop, etc. Onsite maintenance of MDPE, GI/Cu Installations, Meters and Regulators, DRS, MRS, valve etc. as per schedule and requirement of HOGPL.



- The emergency response time and service restoration time should be within the timelines set as benchmark by HOGPL, time to time. The communication protocols should be followed for the escalation of Emergency Cases and incidents, as per the matrix provided by EIC.
- The emergency response time is **30 minutes**. Contractor has to respond within the given timeline. Failing which a penalty of Rs 20,000 per incident is applicable.
- Contractor has to schedule and perform the month wise preventive maintenance of the HOGPL assets as per direction of EIC.
- Cleaning of valve chambers, DRS, MRS, DCSSV and its are as & maintaining it neat and clean.
- Regular leak checks and up keeping of DRS, MRS & SERVICE REGULATOR, SV Leak detection & LPT test to be performed of MDPE & Steel network etc.
- Periodic cleaning of establishment, Leak Detection of all domestic, Industrial & Commercial Connections on need base.
- Checking of all filters, PRV (Active/Monitor), SSV, SRV, PCV etc. & monthly monitoring of Diff Pressure of DRS, MRS Skids etc.
- If leakage is found in any of the PNG network flange joint, contractor team has responsibility to arrest the same. Work should be carried by tools & tackles through flange-joint then attend the leak by tightening the bolts with torque wrench suitable for the flange size and its pressure rating. If this does not rectify the leak replace the gasket.
- If there is leakage from the isolation valves, make arrangements for positive isolation by using blind flange.
- All the maintenance activities covered under this contract shall be carried out at site. The contractor shall be responsible for providing transportation /conveyance facilities for all his personnel like motor bike etc.
- The contractor shall take all the necessary precautions to prevent hazards during the execution of the work.
- During the integrity checks, respective customer meter's photograph or video should be taken during the visit.
- Submitting the JMR/Site/Service Report duly signed by customer is must for billing purpose.
- During the maintenance of steel valve chambers, contractor shall carry painting (Oil Paint) of steel pipeline, valves etc. as directed by EIC.



- The contract also covers liasioning with Local public, government authorities, third party agencies, traffic etc. to execute the work, emergency work and ensure the continuous gas supply to the customers.
- Coordination and monitoring of third-party excavation etc. as per direction of EIC.
- **In General, the frequency of activities to be performed by the contractor is as follows**
- Contractor has to install the biometric machine for the daily attendance in the office and has to share the same with EIC. Contractor has to submit the same in monthly bill and payment will be released accordingly.
- For close monitoring of the vehicle, patrolman, other manpower etc. contractor has to install the vehicle tracking system (VTS) in ERV and GPS tracking for the manpower. It is contractor's responsibility to track the and manpower to ensure the optimum use of resources **and needs to keep the date wise record (hard or soft) of the same as per the satisfactory of EIC. On demand contractor has to submit the same data to the HOGPL.**
- HOGPL is developing & updating the system and moving towards the automation and digitalization. So contractor shall ensure that the system like VTS, GPS tracking etc. shall be compatible with HOGPL software for the live integration with the main server.
- The tracking system as VTS (Vehicle Tracking System) & GPS for manpower shall give all information such as live tracking, daily report generation, etc. and also can generate the report as per requirement of HOGPL.
- Site in-charge is reconcilable for preparation of shift schedule, preparation of PM schedule, preparation of excavation reports & mailed to HOGPL on daily basis. deployment of manpower as per site conditions and coordination, response to emergencies like Leakage/damage/shutdown/fire etc. within the timeline, Monitoring complaints & service request to be done on time, DPR preparation and submission on daily basis, Liasioning with local public, authority's, contractors, third party excavating agencies, maintaining daily Log Book of all activities, monitoring of customer complaints and service requests etc. and as instructed by EIC.
- Contractor has to appoint a coordinator for the contract compliance at his own cost. He is responsible for such work like Police verification, preparation of Monthly bill etc. contractor cannot assign the seor any such job to the manpower mobilize for the HOGPL, they will act as emergency response team and as per the requirement of HOGPL only. The coordinator should manage to provide 24 X 7





on-site support to the team, in case of emergency and requirement of HOGPL.

- Contractor shall ensure the office decorum and ethics around the clock, if any employee found under influence of alcohol, tobacco and misbehaves, HOGPL has to right to terminate the employee and contractor has provided immediate replacement in place of the terminated person or the contract, without any notice to contractor or also can execute the contract from other party at contractor's risk and cost.
- As we are the public utility and comes under emergency & essential services any kind of strike by the Contractor's employees or lock out shall not be aground or any excuse for not executing the work, in that case contractor has to coordinate and ensure the smooth and continuous execution, failing which will attract the penalty.
- Contractor ensures the immediate application of all manpower for Police verification and submits the copy to HOGPL. Police verification has to be done within 90 days and submit to HOGPL

Contractor scope of work for subject services shall include but shall not be limited to the following. The work described here in shall be carried for the O & M as per applicable technical specifications enclosed along with tender documents.

- Operation & Maintenance of City Gas Distribution (CGD) Network from downstream of City Gas Station (CGS) to the consumer end by keeping it in the healthy condition to provide uninterrupted gas supply to Domestic, Commercial and Industrial customers. All operation & maintenance activities are need to be performed as per Annual O&M plan of HOGPL, Leak survey along the pipeline route once in every quarter, Responding to all emergency situations like third party damage to Steel & MDPE network, HOGPL assets, customer complaints, equipment break down etc., Meter & Flow Readings, Onsite maintenance of Steel / MDPE pipelines consisting of 20mm to 180mm size including excavation, laying, shifting, jointing, testing, commissioning, backfilling, restoration etc. GI/Copper Installations, DRS, Odorizing unit, industrial skids & installations, Meters, Regulators, etc. as per schedule plan.
- Housekeeping including painting, removal of obstacles, grass, and other potentially hazardous materials, in and around of equipment and inside enclosures of all DRS, industrial skids, valve chambers, TLPs, etc. on monthly basis and as per HOGPL directive.
- Maintenance of GI/Copper pipeline system including meter and regulator for domestic/industrial/commercial and attending customer's complaints. For Domestic customers



Contractor Scope shall be limited up to burner of stove in customer's kitchen. For others up to the meter flange/MRS outlet.

- Attending and resolving to meter/flame/pressure/leakage related problems.
- Manpower supply as per SOR and as directed by HOGPL in charge. Contractor to provide additional manpower as and when advised by the EIC.
- HOGPL reserves the right to increase / decrease/ re-deploy/rearrange the manpower at control rooms etc. As per job requirement any number of times during the contract.
- Compliance of statutory and safety requirements.
- Transportation of HOGPL issued free of cost material from HOGPL warehouse to contractor's store/works it is included in the scope of work.
- Reporting Management Information System (MIS) and communication system / training to O&M team.
- Inventory management, procurement and supply of spares, consumables, tools & Tackles. Bidder shall identify, procure and hold the needs for all equipment's, tools & tackles for O&M of Network and assets (Annexure list is attached). Bidder will take prior approval from EIC before procurement of spares / tools & tackles. Bidder will review the list of spares provided by owner and shall reconcile all spares / consumables / equipment's / tools & tackles after completion of work or as directed by owner.
- Periodic cleaning of establishment, Leak Detection & Rectification of all domestic, Industrial & Commercial connections & HOGPL Assets.
- Alteration/Modification/shifting /dismantling of existing PNG service connection.
- Cleaning of filter element, Checking, monitoring, maintenance and setting of PRV(Active/Monitor), SSV, SRV, PCV, Meters etc. in DRS & industrial Skids etc. as per schedule plan. Bidder will arrange necessary training for their staff on their own cost.
- Emergency & security management.
- Monitoring of Cathodic protection system.
- All the maintenance activities covered under this contract shall be carried out at site. The contractor shall be responsible for providing transportation / conveyance facilities for all his personnel.
- Bidder shall ensure proper upkeep of utility system / services such as emergency vehicle; owner's supplied tools/tackles /materials, other accessories, etc., if any.



- Bidder shall co-ordinate and assists for the services related to the operations, e.g., electricity, telephone, water supply, testing & calibration, statutory issues etc. From time to time.
- Co-ordination with statutory and local authorities, other utility service providers, etc. to protect our pipeline from damage during their work.
- The contractor shall take all the necessary pre-cautions to prevent fire hazards during the execution of the work.
- Manned facilities: emergency control room will be manned (refer manpower deployment chart given in the tender) 24x7 by teams operating in shifts, to perform all the activities of O&M, emergency handling for an uninterrupted gas supply to all industrial, commercial and domestic customers.
- Unmanned facilities: all other stations like DRS, Metering Installations at all customer premises, etc. are unmanned, but are controlled from the control room as per scheduled visits, planned maintenance, patrolling and on emergency requirement.
- HOGPL reserves the right to change and alter the scope of the job to include any operational function related to our entire scope of company's operation including existing or newly started facilities/network/filling stations etc. or exclude any function of our operation against this contract at any stage during the validity of the contract.
- Apart from the above-mentioned scope any other activity required for satisfactory completion of O&M job shall also be in contractor's scope.

Sr. No.	Activity	Frequency
1	Pressure Monitoring at DRS, industrial skids (Inlet/Outlet/Differential)	Daily
2	Logbook Maintaining (To maintain every activity carried out in each shift and record process parameters like, pressure, temperature, flow, etc. from DRS and industrial skids)	Shift/Daily
3	Preventive Maintenance of DRS, industrial skids& installation, Riser, Valves, PNG connections for domestic & commercial customers, etc	As per PM Schedule
4	Draining/Venting of Filters of DRS	Weekly
5	Housekeeping (In & Around Fenced Area and inside enclosure of all DRS and industrial skids, valve chambers, TLPs, etc.)	As per schedule



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6	Leak Check/Testing of installations	As per Planning
7	Spares Consumption record/Inventory management/inward & outward of material	Monthly
8	On Line Testing, Resetting/Changeover of Stream, Active, Monitor, SSV, SRV, Cleaning of Filters, Solar System, Meter Oil Filling, Battery Checking etc of DRS and industrial skids	Quarterly
9	Attending GasLeak, Over Pressure, Under Pressure, Gas Stoppage, third party damage, disconnection, reconnection, modification, new gas stove connection etc	As when Required
10	Monitoring of cathodic protection system (taking TR Unit reading sand PSP readings from TLP)	Daily
11	Checking & maintenance of meter for industrial, commercial, domestic connection	As per schedule
12	Monitoring and Patrolling of Steel, MDPE pipeline &HOGPL Assets	Daily
13	Industrial, Commercial Meter Reading	Daily
14	DRS Pressure Monitoring (Inlet/Outlet/Differential)	Daily
15	LPT & LDT testing	As per schedule
16	Foot Patrolling on MDPE & Steel Pipeline	Quarterly
17	Steel MDPe Tap-Off Valve Operational Checks, Cleaning	Quarterly
19	Steel Line Valves Operational Checks, Housekeeping	Bi-Monthly
20	Attending the Gas Leak, Under Pressure, Over Pressure, Gas stoppage, etc.	As & when required
21	Emergency complaint handling	As per schedule
22	Attending pre commissioning & commissioning of new laid pipeline, DRS, MRS, DCU, Steel, MDPE, SR	As per schedule

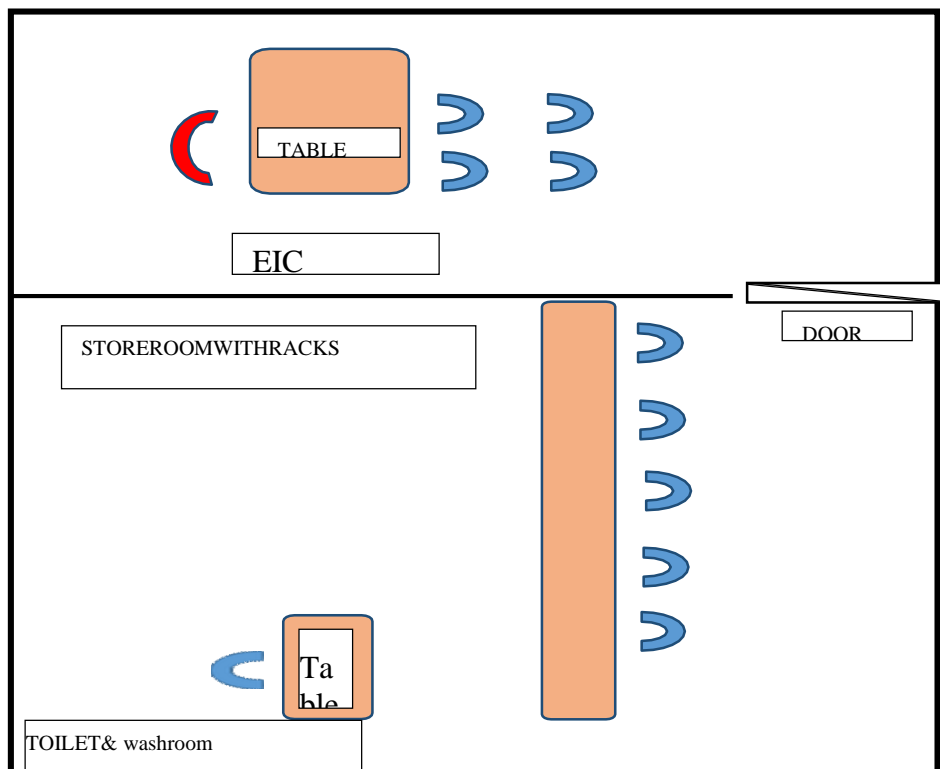
Some other activities are also in the contractor scope and contractor has to maintain the records for the same.



Sr.No.	Description
1	Preventive maintenance of DRS, MRS, SV
2	Temporary disconnection data
3	Permanent disconnection data
4	Third party damage and execution details
5	Faulty Meter replacement data
6	Material Reconciliation
7	Complaint's data
8	Asset record etc.
9	Any other data etc. as per the instruction of EIC.
10	Actual Field Meter Reading in excel format
11	Patrolling Report with GPS Tracking System generated proofs
12	ERV Movement with GPS Tracking System generated proofs
13	Any other report/documents required as per EIC.

**5. OFFICE SETUP**

Offices should be equipped with required infrastructure namely Furniture, Landline telephone,





Computer, Printer, Stationary, Scanner, Internet connectivity, proper car parking facility for ERV and others vehicles, washroom facility etc. Since O&M activities are carried out round of the clock, contractor has to ensure access to the office 24x7 with provision of CCTV and security as per safety concern as per direction of EIC. Contractor has to ensure that Minimum office space for Monitoring and Safe Storage of materials and HOGPL Assets like emergency spares special tools, Gas flow meters etc. The minimum office area should be as per mentioned in the SOR & centrally located of the working territory for respond to the emergencies. The same should get the office set up verified by concerned HOGPL. Copy of Registration Papers/ Agreement, address proof document of the office should be submitted along with the documents of contract acceptance before the commencement of contract period. Periodic inspection of the same offices will be done, any kind of non-compliance observed in the inspection will attract penalty as per the penalty clause. The draft office layout is below and will be finalize as per the site for close coordination and identification of HOGPL assets contractor has to install the pipeline route drawing in the office as per the guidance of EIC.

The tentative office location and area is defining in the table. The Strategic office location considering the response time etc. shall be decide and finalized by HOGPL and will be communicated to contractor.

Sr. No.	AREA	TENTITAVE OFFICE Location
1	KOLHAPUR	Inside City
2	ICCHALKARNAJI	Inside City

**6. EMERGENCY RESPONSE VEHICLE (ERV) & PNG VEHICLE:**

The contractor has to provide Mahindra Bolero or equivalent with CNG to HOGPL as per Branding & Necessary Modification (Internal & External) to perform O&M activity for round the clock for 24 hrs. the vehicle shall be latest model 2020 make with minimum 1.5Ton Payload capacity and minimum seating arrangement of Driver + 4 person and necessary provision to store tools & tackles, fittings, Generator 5.5 kva, Fusion machine, etc. Model shall be BSVI having running KM not more than 15000 KM. Contractor has to ensure the compliance with prevailing RTO Regulations and shall be passing from local RTO. Driver is in the scope of contractor as a part of EVR services and he has to ensure the all compliance for the same. The Average ERV running per month is 3000KM, and will be reconciled in 12 months, if there will be any extra KM running of the vehicle, same will be paid as per the SOR. In this case HOGPL can demand for the tracking take of the vehicle and contractor has to submit it.



The L1 contractor has to provide Maruti Ecco/Wagon R/Celerio (CNG vehicle) etc. as per EIC, for minimum 12 hours in a day for PNG O&M activities. Contractors ensure the model year 2020, BS VI, Running KM not more than 15000 KM. Contractor has to ensure the all compliance like RTO Regulations etc. SOR covers the appointment of the Driver by contractor, maintenance, fuel etc. The average vehicle running per month is 2000 KM, and will be reconciled in 12 months, if there will be any extra running KM of vehicle and the extra hours (pre-approved by EIC), same will be paid as per the SOR. The motorbikes and ERVs should be of RTO Maharashtra Passing and with MH XX number plate as per RTO regulations.

The vehicle must have the 'Fast Tag' with minimum balance required from 1 month. Special permissions to cross LBT/ Octroi / Toll area without stoppage in case of big emergency, contractual clauses to draw manpower/ equipment from running PE contractor, blanket digging permission from local authorities etc. is in the scope of Contractor only. Only Statutory payments shall be in the scope of HOGPL which shall be reimbursed on submission of the documentary proof.

ERV shall be equipped with VTS (Vehicle Tracking System) which shall give all information such as Live tracking, daily report generation, etc.

The contractor to maintain the minimum fuel level required for 48Hrs. Minimum Two Drivers are to be deployed; single driver should not perform continuous duty for more than 12 Hrs as a safety regulation. Non availability of Fuel / Driver will be considered as Non-Availability of ERV Services and will attract to penalty.

The HOGPL LOGO as per standard & emergency vehicle shall be written inert color on both side of vehicle. The marking and painting shall be under the scope of contractor without extra cost to HOGPL.

## **7. MATERIALS, TOOLS AND EQUIPMENTS**

### **➤ Owner's Scope of Supply (Free Issue Material)**

The following material will be supplied by HOGPL to perform the job:

- MDPE Pipes
- Domestic and Nondomestic meters
- Domestic and Nondomestic regulators.
- Service Regulator with and without module
- MDPE Stop off valves.
- In every RA bill contractor shall submit the consumption details of the owner's supplied



material.

- All materials issued by HOGPL shall be preserved against deterioration and corrosion etc. Any damages/losses suffered on account of poor or improper storage while under CONTRACTOR'S custody and non-compliance with the requirements stipulated herein shall be considered as losses suffered due to will full negligence on the part of the CONTRACTOR and he shall be liable to compensate the COMPANY @i.e. 125% of landed cost of the material, tools, equipment etc. for the losses suffered, at penal rates as elaborated elsewhere in the bid document.
- All materials supplied by the COMPANY shall be duly protected by the CONTRACTOR at his own cost with appropriate preservative like primer/lacquer coating, grease etc, if required.
- As far as possible materials shall be transported to the erection site, just prior to their actual erection and shall not be left laying around indefinitely. Instructions for the Engineer-in-charge shall be followed strictly in this regard.
- The contractor shall be responsible for proper storage, preservation and watch & award of the materials.
- In special cases like Temporary Disconnection, Permanent Disconnection etc., the assets removed from the customer's premises are to be kept in the safe custody of CONTRACTOR till they are reconnected back or returned to HOGPL Store as per EIC.
- Contractor has to keep the record of used, faulty, scrap material which removed from site after performing the operation & maintenance activity and ensure timely return to HOGPL after verification.
- Any Shortfall in the HOGPL Assets like Domestic Meter, Meter Regulator (if not reconciled properly) will attract to the penalty as per the HOGPL pre-defined terms.

➤ **Contractor's Scope of Supply**

- All materials except what is under Owner's scope of supply as mentioned in above and required for successful completion of works in all respects shall be supplied by the Contractor with the submission of all TC and the cost of such supply shall be deemed to have been included in the quoted price without any additional liability on the part of Owner.
- The procurement and supply, in sequence and at the appropriate time, of all materials and consumables required for completion of the work as defined in this Bid document except the materials specifically listed below, shall be entirely the CONTRACTOR'S responsibility and





item rates quoted for the execution of the CONTRACT shall be inclusive of supply of all these materials.

The material to be supplied by the Contractor shall be as per specification and preferred make as indicated in Appendix-I or duly approved/ recommended for use by HOGPL. The materials will be, but not by way of limitations, as follows:-

- All materials except what is under Owner's scope of supply (Free Issue Materials) as mentioned above, and required for successful completion of works in all respects shall be supplied by the Contractor and the cost of such supply shall be deemed to have been included in the quoted price without any additional liability on the part of Owner.
- The materials shall be procured as per the standards specified in the PNGRB Regulations for Technical Standards and Specifications including Safety Standards for City or Local Natural Gas Distribution Networks.
- The contractor is to procure all bought out items from approved vendors and accordingly keep HOGPL informed. The inspection of bought out items would be carried out by HOGPL/Third Party Inspection or as instruction by EIC.
- Supply of Tools & Tackles, Equipment & Machinery by bidder:
- In addition to above, the contract or must have dedicated bar coded electro fusion (Automatically readable) machine with power generator (at any point of time minimum 2 nos.), Pipe Cutters (like circular guillotine), End Scrapers, Pipe Straightener, approved Top loading clamp for fusing saddle tapping tee, clamps of all sizes for Electro-fusion fittings, re-rounding tools and test ends etc. for pipes of following diameters 180mm, 125mm, 63mm, 32mm & 20mm for this project. Contractor has to arrange his own all equipment for trenchless crossings such as HDD, rock cutting (Breaker) equipment, HDPE fusion equipment at the site whenever required.
- Contractor must also have to arrange his own equipment for restoration work like water tanker and jumping jack compactor whichever is required for compaction of work.

➤ **Make of Materials**

- All equipment and materials to be supplied under this contract shall be from approved vendors as indicated to Particular Job Specification.
- Where the make of materials are not indicated in the Bidding Document, Contractor shall furnish details of proposed makes and supply the same after written approval of Owner. Proposed makes



will be considered, provided sufficient information are furnished to the Owner to assess the makes proposed by the Contractor as equivalent and acceptable.

- **D. PE Pipes** All MDPE pipes required for repairing damages, shall be provided by free of cost from HOGPL warehouse at vendor to transport it to control room/ work site free of cost.

- **List of Specifications of Piping Materials used in CGD Network**

**Galvanized Iron Pipes:** IS 1239 (Part-1) Steel Tubes, Tubular and Other Wrought Steel Fittings - Specification - Part 1: Steel Tubes

**Copper Tubes:** BS EN 1057 Copper and copper alloys. Seamless, round copper tubes for water and gas in sanitary and heating applications

**Copper Fittings:** BS EN 1254 PART 1 Copper and copper alloys. Plumbing fittings. Fittings with ends for capillary soldering or capillary brazing to copper tubes

**Brass Ball Valves (Up To 2''): BS EN 331** manually operated ball valves and closed bottom taper plug valves for gas installations in buildings

**Brass Fittings:** IS 319 Free Cutting Leaded Brass Bars, Rods and Sections – Specification.

**Manpower:** The indicative numbers for deployment of manpower for PNG O&M activity is as below.

- **All manpower qualification & experience deployed at site shall be as per following.**

**The reliever is not indicated in the table, but contractor has to provide the reliever of the manpower on weekly off, leave etc.**

Item No.	Description of Item	Qualification	Experience
1	<b>Manpower</b>		
1.1	Overall coordinator PNG O&M	BE Mechanical/Electrical /instrument	Minimum 2-3yearsexperiencein CGD industry. Preference will be given for handing of PNG(O&M)
1.2	Shift Supervisor for PNG O&M	BE /Dip Mechanical/Electrical/ instrument	Minimum 1-3yearsexperiencein CGD industry. Preference will be given for handing of PNG(O&M)



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1.3	Technician/Plumber for PNG O&M	Minimum SSC	Minimum 1-2-year experience in CGD emergency control room.
1.4	PE Welder for PNG O&M	Minimum SSC	Minimum 1-2-year experience in CGD Emergency control room.
1.5	Helper	Pref. 8 <sup>th</sup> pass/Literate	Preferably 1-2 year experience Emergency control room. (Age below 45 Year)
1.6	Patrolman	Pref. 8 <sup>th</sup> pass/Literate	Preferably 1-2 year experience in patrolling or Emergency control room. (Age up to below 45 Year)
1.7	Electrician	ITI/Diploma	Minimum 1-2 year/experience in GAS field. Preference will be given for handling of PNG/CNG (O&M)
1.8	HSE Supervisor	Graduate in B.SC with Diploma in industrial safety, working knowledge in computers	02 years in Natural Gas or Hydrocarbon Sector.
1.9	Supervisor / Customer Relation Manager [CRM	Graduate in any Discipline, working knowledge in computer	03 years in similar field (Local Customer Care Office
2.0	Front desk Executive	Graduate in any discipline, working knowledge in computer	02 years in similar field Local Customer Care Office
2.1	Data entry operator	Graduate in any B.COM, working knowledge in computer/Account	02 years in similar field Local Customer Care Office



## 8. Establishing Offices

- **Area Emergency Office [AEO]**

Setting up of Area Emergency Office (AEO) and it is comprising of about [approximately 1500 Square Foot] with stores and parking facilities, in order to accommodate required manpower & vehicle for performing operation and maintenance activities. It should be with necessary facilities viz.; Office space for O&M team, Pantry, toilet, ERV parking, Stores for spares/ fittings (including free issue material), Tools & tackle, Telephones as per requirement/ EIC instruction, 02 numbers Desk top Computer with i3 or higher processor configuration, Printer [A3 and A4 Sizes for common], Furniture as per requirement/ EIC instruction etc. AEO shall be situated at a particular point of GA from where, the response period is optimum. Following services shall include but not limiting to the following;

- i. Receiving of emergency calls and customer complaints and/or calls diverted through Local Customer Care.
- ii. Co-ordination with CCC & LCC for monitoring the complaints and updating status of complaints to GA Head/ Designated officer/CCC/LCC.
- iii. Repair/ rectification/ modification/ new urgent connections and as directed by EIC from time to time.
- iv. Repairs in Steel & PE pipeline damage, GI leakage, liaison with statutory/ local authorities, conversion of burners (emergency cases) including welding of Steel pipes by certified welders only. Team shall reach incident site within minimum time to attend complaints & as per direction of EIC from time to time.
- v. Scope shall include maintenance of Steel pipeline network of various dia. It also Includes excavation, laying, depressurization, purging with nitrogen, welding, testing, commissioning, backfilling and compaction & barricading all open pits etc. including during emergency as per the direction of EIC.
- vi. Maintenance of Telecom / instrumentation facilities related to SCADA. This includes carrying out excavation, laying, splicing/jointing, testing, commissioning, backfilling and compaction & barricading all open pits etc. during repair of OFC cuts as per the direction of EIC
- vii. Alteration / Modification / shifting / dismantling of Steel, PE, GI Pipe, Cu Pipe, Domestic Meter, Regulator etc. as and when required.



- viii. Transportation of free issue materials from HOGPL stores to ECR /AEO /Site and vice versa as & when required.
- ix. Operation & rectification of PE pipeline network consisting of 20mm to 125mm size of PE pipes. It also includes excavation, laying, depressurization, purging with nitrogen jointing (Electro fusion), testing, commissioning, backfilling and compaction & barricading all open pits etc. during emergency as per the direction of EIC.
- x. Periodic cleaning of MRS/ DRS/ Valve Chambers/ Industrial skids/ TLPs/ Route Markers/ Plate Markers, Leak detection & its rectification of all domestic, Industrial & Commercial connections & HOGPL assets.
- xi. Cleaning of filter element, Checking, monitoring, maintenance and setting of PRV (Active/Monitor), SSV, SRV, PCV, Meters etc. in DRS & industrial Skids etc. as per instruction of EIC.
- xii. Leak detection test (LDT) and survey to identify and locate leakage in pipelines with the help of gas detector. LEL meter shall be provided by the contractor.
- xiii. Surveillance of existing pipeline network using gas detectors, Attending Gas Leak, Over Pressure, Under Pressure, Gas Stoppage, third party damage, etc.
- xiv. Carrying out Lock pressure test (LPT) to identify damage in pipelines.
- xv. Monitoring of cathodic protection system (taking TR unit readings and PSP readings from TLP)
- xvi. Compliance to all statutory and safety requirements.
- xvii. Positioning and maintenance of markers for identifying the underground pipeline route.
- xviii. Checking and up keepment of odorant level up to farthest point in the network. The maintenance of other facilities like above ground pipeline, valves, Electrical & Mechanical maintenance of CGS is also in the scope of contractor (without spares).
- xix. The Compressor and Dispensers are covered annual AMC contract with their respective OEMs. Providing services for Repair and maintenance of SS tubes, Electrical equipment's, cables, outdoor lighting, earthing pit etc. installed at various CNG station.
- xx. Providing and maintaining all tools & tackles at AEO (in good & working condition) related to Steel, PE & GI/Cu work for handling emergency.
- xxi. Compliances/ log registry related to O&M and forwarding to EIC.
- xxii. Manning of the Emergency Control Room on Round 'o' Clock basis and deploying Two-



Wheeler for attending operation and maintenance activities.

xxiii. Biometric attendance to be implemented at above Office. Biometric Device shall be provided by Contractor. Attendance shall be considered for billing cycle.

<b><u>Shift Wise Manpower Deployment For PNGO&amp;M Activity in Kolhapur area</u></b>						
<b>Sr. No.</b>	<b>Manpower</b>	<b>I shift</b>	<b>II shift</b>	<b>III shift</b>	<b>GenShift</b>	<b>Total</b>
	Shift Timing	Will be decide as per Requirement of HOGPL				
<b>KOLHAPUR WITH SMALL OFFICE 1<sup>st</sup> year Manpower deployment plan</b>						
1	Overall Coordinator	1				1
	Shift Supervisor		1	1	0	2
	Technician/ PE welder	1	1		0	2
	PLUMBER	1	1		0	2
	Petrol Man	1	1		0	2
	Helper	1	1	1	0	3
	Electrician	-	-	-	1	1
<b>KOLHAPUR WITH SMALL OFFICE 2<sup>nd</sup> year Manpower deployment plan</b>						
2	Overall Coordinator	1				1
	Shift Supervisor		1	1	0	2
	Technician/ PE welder	1	1		0	2
	PLUMBER	1	1		0	2
	Petrol Man	1	1	1	0	3
	Helper	1	1	1	0	3
	Electrician	-	-	-	1	1
<b>ICHALKARANJI WITH SMALL OFFICE 1<sup>st</sup> year Manpower deployment plan</b>						
3	Shift Supervisor				1	1
	HSE Supervisor	-	-	-	1	1
	Technician/ PE welder	1		1	0	2
	PLUMBER	1		1	0	2
	Petrol Man	1	1		0	2
	Helper	1	1	1	0	3
	Electrician	-	--	-		
<b>ICHALKARANJI WITH SMALL OFFICE 2<sup>nd</sup> year Manpower deployment plan</b>						
4	Shift Supervisor	1	1			2
	HSE Supervisor	-	-	-	1	1
	Technician/ PE welder	1		1	0	2
	PLUMBER	1		1	0	2
	Petrol Man	1	1	1	0	3
	Helper	1	1	1	0	3
	Electrician	-	--	-	1	1



- Local Customer Care Offices:**

Contractor shall establish, operate & maintain Local Customer Care Office at the designated space decided by EIC for providing an efficient, state of art, customers care facilities to consumers of HOGPL and for this purpose HOGPL intends to engage the service provider for Local customer care, to offer its services for maintaining customer care relation, for grievances/ queries received through calls, letters, emails, through toll free number and other modes/ receiving calls directed from Central customer care center / emergency handling of complaints, Teller/ account services, Billing & Meter reading related works and intimation to AEO/ECR for O&M activities as per customer complain / resolution of queries as required for industrial, commercial & domestic customers. The Local Customer Care Office shall be located in the city/ urban areas of GA and shall be manned accordingly

<b>Local customer care centre 1<sup>st</sup> Year Manpower deployment plan</b>					
<b>GA name</b>	<b>KOLHAPUR</b>				
<b>Description</b>	<b>I Shift</b>	<b>II SHIFT</b>	<b>III SHIFT</b>	<b>GS</b>	<b>TOTAL</b>
Supervisor/CRM (Highly skilled)	-	-	-	1	1
Front desk executive (Skilled)	-	-	-	1	1
Data Entry Operator	-	-	-	1	1

<b>Local customer care centre 2<sup>nd</sup> Year Manpower deployment plan</b>					
<b>GA name</b>	<b>KOLHAPUR</b>				
<b>Description</b>	<b>I Shift</b>	<b>II SHIFT</b>	<b>III SHIFT</b>	<b>GS</b>	<b>TOTAL</b>
Supervisor/CRM (Highly skilled)	-	-	-	1	1
Front desk executive (Skilled)	-	-	-	1	1
Data Entry Operator	-	-	-	1	1

**Note:**

- The manpower deployment schedule shown above is minimum and will depend upon the



traffic (number of queries/calls handled by LCC). Contractor has to deploy as per site requirement in phased manner or direction by EIC. The intimation regarding the deployment of Manpower's shall be issued by EIC on as & when required basis.

- Deployed manpower will be utilizes/mobilise as per HOGPL EIC as and when required.
- Contractor has to provide uniform to all personnel & PPE as per requirement.
- Contractor has to take approval regarding uniform type & colour prior to procuring from EIC.
- Contractor shall appoint well trained front desk executive to handle queries/complains of customer/ obtaining of customers feedback about LCC and provide solution to their utmost satisfaction based on data available.
- Qualification and Experience

**Note:** AEO & LCC office will be well equipped with Signage & LOGO of HOGPL as per EIC instruction of HOGPL.

**Placement of manpower would be decided by HOGPL EIC/authorized representative as per above** Qualifications and experience, documents related to proof of qualification etc. has to be submitted to HOGPL.

**Note:**

- a. The manpower deployment schedule shown above is indicative. The deployment of manpower will be in phased manner per ZONE and may be increased /decreased as per actual site requirement/growth of CGD network or direction by EIC. The intimation regarding the deployment of Manpower's shall be issued by EIC on as & when required basis.
- b. Contractor has to provide uniform & PPE to all personnel. Contractor has to take approval regarding uniform type & Color prior to procuring from EIC.
- c. The Emergency Control Room (ECR) shall be manned round the clock by Contractor, with placing defined AEO manpower in the ECR and same shall be decided by HOGPL/EIC as per readiness of ECR/ HOGPL requirement. GA head will be responsible for all media communication. Contractor should not interact with media without written approval from HOGPL in any situation.
- d. In future, depending upon operational convenience in spread of CGD Network and response time, one or more AEO along with ERV will be set up as per the requirement of different charged areas in a GA. ERVs may also be deployed separately for proper management based on growth of PE network & CNG/Steel network.
- e. Initially only one zone shall be operated. However, during course of time, when network expands,





then based on requirement, Contractor shall set-up AEO/LCC in the next zone of the GA.

\*Shift & nos. shown above are tentative and only for indicative purpose. Final manpower placement & duty timings will be communicated before actual deployment of manpower and commencement of the contract. Manpower deployment will be reviewed on quarterly basis and resources deployment wrt augmenting the resources or re aligning them among the control rooms will be advised to the vendor by HOGPL. Vendor will be allowed 15 days' time for deploying any additional resource.

Deployment schedule Technician/Plumber & Patrollers will be communicated at the time of job execution depending on site requirements.

- The manpower shown in the table above is only directional and actual requirement of manpower (increase/decrease) would be communicated by owner from time to time to contractor.
- Vendor to keep provision for provident fund, leave/weekly off/holidays as per standard labour laws.
- Vendor to prepare monthly shift schedule well in advance & get its approval by HOGPL.
- Vendor will submit the CV of personnel's to the owner (HOGPL) for approval of recruitment on his role till the end of the tenure. Necessary interview shall be taken by owner (HOGPL) prior to deploying under the Scope of work.
- The job mentioned under scope of work shall be carried out as per the work instructions documentation and recommendation of the concerned and as per the guidelines / directions given from time to time to the contractor by EIC or his authorized representative.
- All jobs to be carried out within the stipulated time period as specified under the Price Reduction Clause. If the contractor fails to carry out job within the time stipulated and as per guidelines given by the EIC, HOGPL will have full right to get the job done by any other party at the sole risk and cost of the contractor.
- Personnel of contractor shall a bid by the rules and regulations in respect of safety & security of prohibited areas and follow the procedures laid down by HOGPL from time to time.
- In case any unscheduled failure of the installations serviced by the contractor within the contract period, it shall be binding on the contractor to mobilize his manpower along with the required tools and equipment immediately to attend the complaint. It shall be in the scope of the contractor to reach the site along with trained and competent persons, fully equipped with the necessary tools to carry out the maintenance activity.
- Contractor shall maintain Log Book of all activities on day to day basis. All the Formats & Log Books



are in the scope of Contractor & to be printed as per the formats provided by HOGPL.

- All free issue materials, tools & tackles issued by the company to the successful bidder shall be preserved against deterioration and corrosion while under contractor's custody. Any damages or losses suffered on account of non-compliance as losses suffered due to willful negligence on the part of the contractor and he shall be liable to compensate the company for losses suffered at penal rates.
- All expenses towards mobilization at site and demobilization including bringing in equipment, work force, materials, dismantling the equipment etc. shall be deemed to be included in the prices quoted and no separate payments on account of such expenses shall be entertained.
- The contractor shall take care for cleaning the working site from time to time for easy access to work site and also from safety point of view. Working site should be always kept cleaned up to the entire satisfactions of the EIC. Before handing over any work to HOGPL, the contractor in addition to other formalities to be observed as detailed in the document shall clear the site to the entire satisfaction of the EIC.
- The contractor shall provide Mahindra Bolero Camper / TATA 207/ Xenon or equivalent with CNG for 24x7 Emergency works (Model no older than 1year from the date of award of contract). (With necessary provision to store tools & tackles) Contractor's personal should have communication facility like mobile phones provided to emergency crew & landline phone to communicate with office staff stationed at contractor office. In charge, shift in charge, Technician & patroller need to have smartphones.

**9. O&M Manpower: JOB Responsibilities and other item specifications**

- Job descriptions defined for each category like site supervisor, technician/plumber, PE Welder are although their primary job responsibility but in no way does it implying that they are the only job responsibilities. All staffs including of overall coordinator, site supervisor, technician, plumber PE welder, patrolman, HSE supervisor shall handled their primary job responsibility and shall also handled any job of assigned by engineer in charge HOGPL as and when required. Any workmen deployed will have to carry out the related work with respect to dealing with the emergency situation and carryout out any assigned job as per site instructions for HOGPL EIC/representative.
- Manpower will be deployed on as and when required basis since the work involved is occasion align nature.
- Late arrival for duty and early departure from duty will attract half day wages only for that workman. All workmen are expected to report well before the working time and take charge from



the preceding shift workman. HOGPL reserves the right to forego such deduction in cases such delays are beyond the control of the workman. HOGPL decision in this regard will be final and binding.

- All contract workman deployed will have to take prior permission from vendors Site In-charge, and keep the HOGPL EIC/representative intimated well in advance and at least before 24 hrs. In any case, before leaving the town/city limits for which this contract is being awarded. HOGPL reserves the right to cancel such permission as per job requirement/site condition.
- Duty log books to be maintained at all control rooms wherein all the events, complaints received etc. are entered date-wise in real time basis as well as shift handing over and taking over entries are made by the workman deployed. HOGPL reserves the right to inspect this log book register on regular basis and in case of non-compliance reserve the right to deduct half day wages for the defaulting workman.
- HOGPL will finalize control room wise shift timings as well as shift timings for the work man deployed. Shift timings for various categories of workman deployed will be as per job requirement and can be changed with 24hrs. Notice.
- Wages to be disbursed to the work man through e-payment mode only directly into the workman's bank account. Only in cases where e-payment facility is not available payment through cheque will be permitted. Vendor to take work man specific approval from EIC. Deviation from this clause will be considered as flouting the tender terms and condition i.e. not carrying out the job as per tender terms and condition and attract penal action as per tender terms and condition including contract termination as well as action wrt holiday listing/blacklisting.
- Monthly wages to be disbursed before 7<sup>th</sup> of succeeding month. Any delay in this regard will not be permitted and deduction as per Price Reduction Clause of this tender, on the service charge element of manpower will be levied.
- Vendor to submit identity documents like aadhar card, voter IDcard etc. of all manpower deployed for O & M work and ensure the it police verification.
- All monthly bills to be submitted latest by 10<sup>th</sup> of the succeeding month with all necessary documents as listed below.
- Copy of the statements into Bank for payment for payment wages to labour. Bank statement copy to be enclosed showing transfer of funds to workman
- Copy of the attendance register in Form D as per Contract Labour Act1970for the month



- Copy of the ESIC hall and with list of persons for the month
- Copy of PF Challan with list of persons for the month
- Every worker engaged by the Contractor should be enrolled under the following scheme:
  - **Pradhan Mantri Jeevan Jyoti Bima Yojna (PMJJBY)**
  - **Pradhan Mantri Suraksha Bima Yojna (PMSBY)**

Under the two schemes, applicable annual premium amount (presently Rs. 342/- per person) shall be considered by the prospective bidder while submitting the price bid. Proof of payment towards the above two scheme shall be submitted by the Contactor to EIC for verification of the same from time to time.

**Very Important Note:** Bills will be considered as incomplete if item no. 1& 2 are not submitted and will not be processed for payment purpose. In case item 3&4 are not submitted along with the bill, payment will be released after withholding appropriate amount towards ESIC & PF element and released on submission of ESIC/PF challans.

**In case of need, vendor may be advised to publish advertisement in the newspaper for hiring of the competent manpower.**

- **Duties of Overall Coordinator /Shift Supervisor**
  - 1) He will work as coordinator to interact/interface with HOGPLEIC/Representative.
  - 2) O&M In-charge will be responsible for planning, organizing & required supervision & technical, Safety guidance for execution of all O&M activities, Covering schedule monitoring, Statutory compliance, breakdown maintenance & submission of various reports.
  - 3) He will be responsible for inventory management of essential spares for all O&M activities in emergency van/Stores/Office.
  - 4) While carrying out any O & M work, He should follow and ensure compliance of HOGPL HSE norms.
  - 5) He will responsible for timely response during emergency/leakage.
  - 6) He will be responsible for reconciliation of material & submission of materials to HOGPL Store from Permanent disconnection.
  - 7) He should ensure the availability of manpower for O & M activities & uninterrupted gas supply to customer. Safe handling of various emergencies like gas leak, fire explosion & maintain integrity of the network.



- 8) In case of excavation near gas pipe line, coordinate with the third party agency/ their site supervisor & get detail like type of work, depth of excavation, distance from gas pipe line, work duration & name of contractor, address & contact details.
- 9) Divide total network route in Sub-route/Section such that total network can be patrolled once in month.
- 10) Ensure that each member of patrolling team aware about the route of pipeline, & depth.
- 11) Observation of Civil work/Construction near gas pipeline.
- 12) Observation of erosion of soil from gas pipeline route.
- 13) Observation of valve chamber & its cover.
- 14) Timely response of any excavation work near gas pipeline from third party.
- 15) Provide the workman awareness about gas network, its hazards & pipeline drawing & brief the safety precaution to be taken to prevent damage to gas pipeline.
- 16) Report the finding so patrolling team's activity/observations in specified format to HOGPL.
- 17) Coordinate with HOGPL O&M department & keep them informed about digging / third party activities.
- 18) In case of need make deposits at specified bank and submit deposit slips to HOGPL site in-charge and maintain accounting for such receipts/deposits.
- 19) Carryout any another activity for as advised by HOGPL site in-charge for completing the activity ensure smooth operation and maintenance of HOGPL facilities. Shift In-Charge/supervisor He is responsible to handle the various customer complaints effectively & safely in specified response time, especially the complaints of PE damage, Gas smell, Gas leak, Fire & explosions.
- 20) He is responsible to handle the various customer complaints effectively & safely in specified response time, especially the complaints of PE damage, Gas smell, Gas leak, Fire & explosions.
- 21) In co-ordination with O&M In-charge he should execute & supervise all activity as schedule maintenance plan.
- 22) He should ensure availability of essential spares & their replacement after use
- 23) He will Co-ordinate with patrolling team for third party excavation work in respective location.
- 24) He should ensure HSE norms compliance while executing & supervising various O & M activities.



- **Technician/Plumber Duties**

- 1) For carrying out the leak age test of the facility at the customer's premises on a regular basis as per weekly/monthly plan provided by HOGPL.
- 2) Attending leakage complaints on top most priority and reach the customer's premises within 30 min of reporting.
- 3) Carry all important tools and tackles and required spares for carrying out the leakage tests and repairs
- 4) Should be in proper dress, well-groomed and behave in a courteous manner with the customers.
- 5) Should remove his shoes prior to entering the customers house/kitchen
- 6) Should clear all the mess/dirt created at customer's premises/kitchen, while carrying out the repairs, before leaving the house.
- 7) Appraise the customers about the safety precautions to be taken while using PNG connection
- 8) Customer's acknowledgement to be obtained on the service report towards the cost of the chargeable items and services only by clearly mentioning the total amount of such costs in the service report.
- 9) Should not enter into arguments with the customer and in case of any dispute report the matter to the Shift In-charge/In-charge immediately and follow instructions/directions given.
- 10) Check for any unauthorized fittings, non-standard hose pipe, damaged hose pie etc. while carrying out the regular checks/ maintenance and report the matter to Shift In-charge/In-charge and record such details in the service report and obtain customer signature.
- 11) Always use PPE while carrying out the job.
- 12) **Point no. 3 to 11 except point 5 as stated under Patrollers duties are also applicable for Technicians/Plumber.**
- 13) Carry a valid insurance cover for the 2wheeler being utilized for conveyance purpose.
- 14) By regular check, he should ensure working of tools, tackles essential for job, & ensure availabilities of minimum stock of spares required for emergency repair, maintenance, and attend all O & M complaint received from his in-charge/supervisor/ HOGPL rep.
- 15) Technician shall be responsible for safe handling of emergency/break down maintenance in response time & must wear all recommended PPEs while on job.

- **Patrolman**

- 1) Daily patrolling of Steel & MDPE network around 70 km per shift per patrolman.



- 2) Patrolling vehicle should be equipped with GPS tracking
- 3) For carrying out the leak age test of the facility at the customer's premises on a regular basis as per weekly/monthly plan provided by HOGPL.
- 4) Attending leak age complaints on top most priority and reach the customer's premises within 30min of reporting.
- 5) Carry all important tools and tackles and required spares for carrying out the leakage tests and repairs
- 6) Should be in proper dress, well-groomed and behave in a courteous manner with the customers.
- 7) Should remove his shoes prior to entering the customers house/kitchen
- 8) Should clear all the mess/dirt created at customer's premises/kitchen, while carrying out the repairs, before leaving the house.
- 9) Appraise the customers about the safety precautions to be taken while using PNG connection
- 10) Customer's acknowledgement to be obtained on the service report towards the cost of the chargeable items and services only by clearly mentioning the total amount of such costs in the service report.
- 11) Should not enter into arguments with the customer and in case of any dispute report the matter to the Shift In-charge/In-charge immediately and follow instructions/directions given.
- 12) Check for any unauthorized fittings, non-standard hose pipe, damaged hose pie etc. while carrying out the regular checks/ maintenance and report the matter to Shift In-charge/In-charge and record such details in the service report and obtain customer signature.
- 13) Always use PPE while carrying out the job.

- **PE Welder**

- 1) MDPE (Mild Density Polyethylene), PE welder will be responsible for jointing of PE pipes & fitting by using Electro fusion welding machine for repair maintenance jobs on laying MDPE network.
- 2) He should have the trouble shooting knowledge of Electronic Fusion welding machine. He should also ensure the working of EF welding machine, portable generator & other major components essential for his job. He must wear all PPEs while on job.
- 3) He should work with others periodic/breakdown/shutdown work on PNG/Valves/other equipment's and carryout any other related O&M job allocated as per directions from in





charge/Supervisor/ HOGPL site in charge.

- **Electrician Services**

- 1) Providing support services for maintenance of electrical sub-station, panels and feeders. Upkeep and maintenance of indoor / outdoor lighting system. Monitoring of earthing system and its maintenance. Monitoring of power availability / quality. Liasoning with lineman of MSEDCL for proper supply, restoration of power and assisting in overall electrical operation and maintenance of the station.
- 2) Monitor and logging all essential parameters of the electrical equipment and report/record if any discrepancy in operational parameters. Responsible for updating logbooks/records/registers for electrical readings, data capturing, maintenance activities, DG set records etc.
- 3) Providing services for monthly monitoring of PCP values at TLP points in Under GA Daily monitoring of TR unit installed. Monthly monitoring of Transformer oil level and silica gel condition and assisting for carrying out transformer oil filtration, dielectric test etc every year to comply the CEIG inspection.
- 4) Maintenance of DG set, UPS and batteries installed at CGS / Mother Station and all CNG stations. Maintaining records and Reconciliation of diesel used for DG sets on daily basis. Ensuring unit power factor at CGS / Mother Station by replacing capacitors as and when required.
- 5) Observing flow meters and panels at CGS / Mother Station and informing Shift I/C in case of abnormality. Recording of various parameters like Pressure, Temp, Flow Rate etc and any malfunctioning report of the valves, instruments / equipment's to be given in HOGPL control room whenever occurs.
- 6) Removal and reinstallation of Mass Flow sensor/transmitter and its re-wiring and complete loop checking etc.: RFT to be isolated electrically, replacement of new RFT, re glanding and rewiring. Removal and reinstallation of Mass Flow Meter sensor and complete loop checking upto control panel. Upkeep and maintenance of Pressure Gauge (PG), Temperature Gauge (TG), Pressure Transmitter (PT), Temperature Transmitter (TT), Diff. Pressure Transmitter (DPT), Level Gauge/transmitter (LT), Pressure Switch, and its complete loop checking: Checking and maintenance of Hydraulic/ Pneumatic Unit and its instruments for proper functioning at SV stations. Any other works which are not mentioned under scope has to be carried out as per directions of EIC. The personnel provided for support services must strictly adhere with and





follow the latest SOP's (Safe Operating Procedures) provided/displayed by HOGPL

- **Helper/Labour**

- 1) He should work as per instructions of technicians/shift engineer/HOGPL site in charge.
- 2) He will responsible for safe excavation during repair maintenance of network.
- 3) He should carry out the housekeeping at site & in Office as and when required.
- 4) At site, during the course of job, he should give tools tackles to his superiors as demanded & return back the same in the van after completion of job. He must wear all PPEs while on job.
- 5) While in control room he should work as office assistant and carry out any assigned job and handle/manage/move any equipment as per directions from in charge/supervisor/ HOGPL site in charge.
- 6) Repairing & Installation of RCC & Pole Markers.
- 7) Carry out any other related O&M job as per directions from in charge /supervisor/ HOGPL site in charge.

- **Duties of Driver**

- 1) Driver should have valid driving license for LMV from regional transport office.
- 2) He should have basic knowledge & troubleshooting techniques of maintenance van.
- 3) He will responsible for driving the emergency vehicle.
- 4) Apart from driving of vehicle, he will provide assistance to technical group, at site & in office.
- 5) He should clean & will be responsible for the upkeep of the vehicle in good working condition.
- 6) He follows safety norms while driving.

- **HSE Supervisor**

Safety training & implementation of effective HSE policies, Guidelines & Procedures at Site. Ensuring Safety Norms maintaining records, Adhering PNGRB/ Audit compliance etc.

- **Supervisor / Customer Relation Manager (CRM)**

Interface with HOGPL GA head, O&M In charge. Leading LCO & reporting to AEO - Engineer In charge, possess highly skill related to public relation management. Ensuring timely redressal of complaints, with local authorities, Liaisoning like Dist./ NHAI/ Railways/PWD etc. Generation of complain numbers, forwarding to AEO/ ECR, monitoring & updation of complaints, billing, etc.

- **Data Entry Operator**



Bill generation based on meter reading, Account maintenance, Cheuqe/ Draft receipt etc

- **Emergency Vehicle:**

Providing Emergency vehicle make: Mahindra Bolero Camper/ Tata 207/xenon with 24x7 driver and fuel for round the clock duty, Model not older than 1 year date of award of contract with necessary provision to store tools & tackles, equipment etc.to carry out jobs at site.

Vendor to be responsible for all compliances as per RTO rules. Drivers to have valid licenses.

- Wages payable to the manpower hired need to be credited in their bank accounts and documentary proof need to be submitted to HOGPL in the form of either the contractor's bank acct. showing the debit or the manpower's bank acct. showing the credit. It will be the contractor's prime responsibility to ensure opening of bank accounts of the deployed manpower in bank. Any other mode other than transfer of amount to the hired manpower's bank account will not be entertained and will be considered as non-payment of wages and this act of the contractor will be liable for penalty or termination of the contractor both.
- Bidders quoting wages below the minimum wages will be summarily rejected and such bids will be considered as non-responsive
- Bidder's submitting abnormally low rates below 75% the estimated cost will be liable for rejection if the bidder is not able to justify the quoted rates. In case the bidder withdraws his offer after opening of price bid, such bids will be considered as non-responsive.
- PPE and dress allowance will be paid in the first bill of each year subject to submission of proof of provision of such PPE and dress to the manpower duly certified by HOGPL site in-charge/ EIC.
- Conveyance allowance will be paid to the individual manpower in their monthly wages
- **HSE REQUIREMENTS**
  - 1) Safety is of paramount importance while carrying out the maintenance activities.
  - 2) The contractor shall take all the necessary pre-cautions to prevent fire hazards during the execution of the work, necessary safety measures should be taken while venting the gas.
  - 3) The contractor shall provide all the PPE's to his workmen like safety shoes, safety helmet, hand gloves cotton, safety goggles, ear muffs, ear plugs, high visibility jackets, flame retardant clothing, 2 first aid box (1 For office and 1for ERV)etc.
  - 4) Contractor must provide safety equipment's like
    - ABC type- 10kgcapacity-2Nos,



- ABC type– 5kg capacity-1No.,
  - Barricades(cone & chain)– Min.6Cones
  - Signage/Caution board
  - Caution Tape
- 5) After the award of the contract, detailed Health, Safety and Environment(HSE) programmed to be followed for execution of contract under various divisions of works will be mutually discussed and agreed between Contractor, Client & KMC
  - 6) The Contractor shall establish document and maintain an effective Health, Safety and Environment (HSE) management system.
  - 7) The Contractor shall adhere to the Health, Safety and Environment (HSE) management system as per HOGPL Specification and General Conditions of Contract.
  - 8) It will be the Contractor's responsibility to acquaint this site staff and operatives of all current safety legislation, statutory requirements and HOGPL's safety standards. In addition, and before any work takes place all the Contractor's operatives shall be given training in site safety by the trained person under supervision of HOGPL. If the Contractor wishes to start any new operatives on site, he must first inform the SE, who will arrange for such training to be arranged.
  - 9) The Contractor shall conform to the requirements outlined elsewhere in the tender document. In addition, the Contractor shall observe safe working practices in the storage and handling of cleaning fluids, flammable fluids, etc, and ensure smoking or naked flames are not permitted in the vicinity when these materials are being used.
  - 10) The Contractor shall also protect all work sites with warning signs, barricades and night lighting. The Contractor shall inspect all fenced excavations daily, and maintain them in good order.
  - 11) The trenches/ pits shall not be kept open in night times. However, in case the same is essential the same shall be properly barricaded with proper lighting arrangements & manned.
  - 12) Any accident causing injury to any person or damage to property or equipment shall be reported to the EIC, Where the EIC determines that the work is being performed by the Contractor in an unsafe manner, he may suspend the Work until corrective action is taken by the Contractor.
  - 13) Contactor has to ensure the safety compliance at site and all the required PPEs, safety equipment's, lights, reflect or set c. are under the contractor scope.



## **10. HEALTH, SAFETY AND ENVIRONMENT (HSE)**

- Contractor shall obtain the necessary work permits while working at all sites from HOGPL & observe all the terms & conditions mentioned thereof. Contractor shall educate/instruct his labors for strictly obeying of“ NO SMOKING” at all sites.
- The contractor shall take all the necessary pre-cautions to prevent fire hazards during the execution of the work, necessary safety measures should be taken while venting the gas.
- Contractor shall ensure all prevailing norms for preserving the environmental aspects especially no throwing of oil, grease & other chemicals. Also, to ensure the cleaning of site after completion of job.
- Contractor shall ensure that existing installations at sites like cables, copper tubing’s, electrical installation, etc. are not damaged during the job.
- All personnel of the contractor entering on work premises shall be properly and neatly dressed and shall wear uniform, badges while working on premises of the company including work sites.
- Uniform (as per HOGPL norms) and PPE’s like Safety shoes, helmet, gum boot, safety goggles, reflective jacket, umbrella; Torch, stick etc. are in the scope of contractor. Contractor has to take approval regarding uniform type & Color prior to procuring from EIC.

## **11. PENALTIES:**

- In case proper barricading, along the trench and pits, as per technical specification is not provided, the work shall be immediately suspended till such time proper barricading, as per the technical specification is provided and penalty of 2000.00per instance.
- In case required numbers of safety equipment like Safety Harness belts, helmets, fluorescent jackets etc as per the Technical Specifications and Special conditions of the contract of the tender, could not bnt instance shall attract penalty of Rs. 5000.00 per instance with a notice to contractor. Subsequent non-compliance within 5 days shall lead to a deduction of up to 5% from RA bill at the discretion of the EIC and may also lead to black listing of the contractor for future jobs.
- In case of complete compliance of HSE norms throughout the contract period the contractor shall be issued a letter of appreciation by the Owner on recommendation by the EIC.
- If 'modification/rectification work done is not completed to the entire satisfaction of PNG customer as per standard/guidelines by the contractor, a penalty or Rs2000.00 per instance/per complaint shall he levied on the contractor.
- If at any point of time the deployed manpower (i.e. skilled & Unskilled) in any shift is found less in



nos. than the prescribed in the tender document o the additional manpower as intimated by EIC, the deduction at double the per day manpower rate of the manpower resource shall be levied per instance. In addition to, if number of such instances increase 4 per month per control room, then a sum of Rs. 5000 per month shall also be deducted. In case of in-charge, the deduction @ Rs,1000.00/-per shift shall be levied per instance,

- In case it is noticed that any fusion jointing or conversion is being carried out by personnel other than approved/qualified work man as per the Technical Specifications a penalty of Rs2000.00 per joint or conversion shall be levied.
- In case it is noticed that any manpower deployed by contractor at control room found under fraudulent/unethical practices with the customer, if proved, a penalty of Rs25000.00 per instance shall be levied. It is discretion of Engineer-in-Charge to impose penalty.
- In case there is delay in proving bank acct. details/opening of bank account by the contractor by more than one month of joining of their deployed manpower at control rooms, the same will attract penalty of 1000 per person per month. if such instance repeated consequent 3 (Three) months shall attract penalty of 20% of wage applicable for the manpower.
- In case any deployed manpower at control room found without uniform & ID Card, a penalty of Rs
- 500.00 per day per person shall be levied from contractor running bill.
- In case the manpower is found without the means of transportation as defined under for Operation of PNG O & M Job at Control Rooms, a penalty of Rs 500.00 per day shall be levied from contractor running bill.
- Any change in key persons working at site shall be informed to the Owner promptly.
- If there is delay in mobilization of man power at control room than the prescribed period, shall attract penalty of Rs 5000 per day per control room on prorated basis, In case of delay in mobilization of manpower beyond 15 days, HOGPL reserves the right to terminate the contract.
- In case any tool/ equipment as defined in "A. Major Tools / Tackles & Materials Mandatory to be provided at Control Room/Emergency Vehicle" for Operation of PNG O & M Job at Control Rooms of this bid document, are not maintained in Control Room, a penalty @ Rs 500.00 per day shall be levied &deducted from the bills.
- In case of non-compliance of statutory provisions penalty will be imposed by the owner as detailed below:
- Delay of more than 21 days from the date of work order in obtaining / submitting WC cover or taken



for shorter duration will result into penalty of Rs.5000/-per week or part thereof.

- Delay of more than 21 days from the date of work order in obtaining / submitting the required insurance policies as specified in the tender document will result into a penalty of Rs. 5000/- per week or part thereof.
- The contractor must obtain labour licence at the start of work at allotted site. Delay of more than 30 days from the date of work order in submitting the labour licence shall attract a penalty of Rs.5000/- per week or part thereof
- Delay of more than 21 days from the date of work order in obtaining I submit time. CPBC of requisite amount as well as timely extension of value and / or time period shall attract a penalty of Rs.5000/-per week.
- Refusal by any workman to carry-out any assigned job will make that workman liable for loss of wage for that particular day. In addition to that Rs50/-per person per day will be deducted by the contractor bills. In case of three repeated instances of refusal, misbehavior will make that workman to be replaced with another person.
- In case if the assigned and adequate workman do not report at the work site leading to delay in attending and controlling the emergency situation, full day wages will be deducted for the absentee workman. In addition Rs 1000/- will be recovered from the contractor bill along with the cost of the estimated gas loss @ gas procurement cost for that fortnight at the highest RLNG rates. HOGPL decision in this regard will be final and binding. All contract workman should wear their Personal protective wears (PPE's) at all times while they are on the job and on field duty. Failure to wear PPE will attract penalty of Rs 500/-per instance.
- In case of inordinate delay beyond 15th of the succeeding month in paying the wages to the workmen otherwise penalize.
- For non-availability of centralized office and associated utilities, will attract penalty up to Rs.20,000/- per month.
- For non-availability of office facility (Like Computer, Scanner, Telephone, Internet, and Printer etc.) will attract the penalty of Rs.3000/- per Month.
- For not doing patrolling activity will attract penalty of Rs.1000/- per day per shift.
- Non availability or not in operational of Cell phone, Landline, Net will attract penalty ofRs.500/- per set per day.
- Non availability of Emergency Rescue Van (ERV) or ERV Driver will attract a penalty Rs.2,000/-



per day.

- Not maintaining the log book & submission of records Rs.200/- per day per shift.
- If any employee found under influence of alcohol during duty hours will attract penalty Rs.2,000/- per incident per manpower & immediate termination by contractor.
- Non availability of safety equipment (like traffic cone, fire extinguisher, safety chain etc.) will attract penalty of Rs.500/- per day.
- Doing the gas geyser installations without HOGPL's authorization will attract penalty of Rs.1, 000/- per Incident & immediate termination by contractor.
- Non availability of GPS/GPS not working with Patrol man will attract penalty of Rs.500/-per day
- Non submission of biometric attendance shall attract penalty of Rs.3000/- per month
- Maximum Limit of the Penalty is 50% of the total invoice value of that part of month.

## **12. ADDITIONAL WORKS/EXTRA WORKS**

HOGPL reserves their right to execute any additional works/extra works, during the execution of work, either by them or by appointing any other agency, even though such works are incidental to and necessary for the completion of works awarded to the Contractor. In the event of such decision taken by HOGPL Contractor is required to extend necessary cooperation and act as per the instructions of Engineer-in-charge.

The services shall be responsible for deployment of additional manpower for planned maintenance activities within 4 working days from the date of intimation .Supervisor/Overall coordinator shall be responsible for supervision of all day to day activities of control room manpower deployed by contractor.

## **13. REQUIREMENTS FOR CONTRACTOR AT SITE**

- Contractor shall establish site office in the respective areas, allotted to them with adequate facilities like tables, chairs, telephone, and computer with mailing facility etc. for effective communication and documentation.
- Contractor shall provide as and when required a wagon(s) suitable for soil removal, for the delivery or rein statement material sand for the transport of pipe to and from site.
- Contractor shall supply transport for their technical staff and operatives to mover from site to site, and to move tools and equipment from site to site, this vehicle will also be fitted with a tow bar





suitable for the towing of a mobile air compressor or pipe trailer.

- Contractors shall make appropriate arrangements to ensure that their supervisors are adequately mobile and can attend sites or meetings with HOGPL, other authorities or customers as required, without any undue delay.
- Contractors shall provide cell phones to their supervisors for day-to-day communication with HOGPL and site representatives of HOGPL.
- The RCM/Site In charge must be a permanent employee of the contractor having desired qualification and work experience, any change in key persons working at site shall be informed to the owner promptly.
- Owner will not allow switching/swapping of key personnel of any contractor working at site from one contractor to another during the continuity of the contract.

#### **14. MATERIAL TO BE SUPPLIED BY THE CONTRACTOR**

All Materials, Manpower, equipment's and consumables shall be in the scope of supply of contractor and the quoted rates shall be inclusive of all necessary input to complete the job.

Contractor should arrange all tools tackles, consumables at Site within 15-20 days after award of contract.

Contractor shall arrange for proper storage of his material distinctly separate from free-issued material. Contractor shall require to appraise Owner regarding cover area, lock & key arrangement of its safe custody, resources marked safe and proper receiving, stocking, issuing, and maintaining all verifying records on regular basis.

Contractor will not transfer any free issue as well as his supplied material to any other site/any other contractor without prior written approval of the Engineer-In charge.

#### **15. COMPLETION DOCUMENT**

- a. Contractor in three sets shall submit the following documents in hard binder, as a part of completion documents:
- b. Copies of the Inspection / Test reports, Final drawings.
- c. Material Reconciliation.





- d. All other requirements as specified in the respective specifications.
- e. Completion Certificate issued by Owner's Site Engineer
- f. No claim certificate by the Contractor.
- g. Completion Certificate for embedded and covered up works wherever applicable.
- h. Recovery statement, if any.
- i. Statement for reconciliation of all the payments and recoveries made in the progress bills.
- j. Copies of deviation statement and order of extension of time, if granted.
- k. Copies of all documents related to statutory requirements like Labour License, CAR Policy, WCP, EPF, ESI challans etc.
- l. Any other contractual documents required on completion.

**16. GENERAL**

- All personnel of the contractor entering on work premises shall be properly and neatly dressed and shall wear uniform badges while working on premises of the Employer including work sites.
- The rates quoted by the bidder must be inclusive of all the taxes, duties & levies etc. except Service Tax.
- Contractor shall provide all labour and necessary supervision to carry out the work as per the scope of work as defined in tender document, which forms part of this contract in accordance with the conditions of the contract laid down in this part of contract read in conjunction with General Conditions of Contract.
- **MEASUREMENT OF WORKS**  
Measurement of WORKS shall be made in the units mentioned in the Schedule of Rates as per details given in Technical / Standards specifications. Wherever details are not available or inadequate in the execution drawings, physical measurements will be taken by the Contractor in the presence of the representative of the EIC. In such cases payment will be made on actual measurements.



The following components to be considered in arriving unit rate per service:

Item no	Component	Components To be calculated as mentioned
a	Basic day Wage	=As per Minimum wages Act,1948 per day w.r.t to its categories
B	EPF	=@ 13% of Basic day wage
C	ESI	=@ 3.25% of Basic day wage
D	Bonus	= (@8.33% of Basic) As per Minimum wages Act,1948 per day w.r.t to its categories
E	Leave allowance towards one leave for every 20 days of working	=@ 1.525 of one basic wage
F	Contractor service charges	= @



## **17. Patrolling of Pipeline**

- The scope of work covers all the existing and future steel pipeline and PE Pipeline laid/ to be laid in respective sites/locations of HOGPL Limited and will encompass the steel pipeline laid from the City Gate Station/Tap-offs to various Charge area within the city up to DRS as well as the PE Pipeline laid from various DRS to the end users/ customers. This includes the associated facilities required for transportation of natural gas through CGD pipeline network such as valves, terminals, DRS, PRS, MRS etc. The activities shall but not limited to broadly cover the following activities;
- The CONTRACTOR'S scope of work shall consist of providing patrolling services by deployment of suitable patrolling persons for pipeline patrolling with motor cycle and GPS enabled mobile devices for monitoring and surveillance & safety of HOGPL's Pipelines/ Installations etc.
- Patrolling service shall be provided on all days in general shift or Shift operation as and when required by HOGPL EIC.
- Patrolling of approx. 60-80 km of steel/ PE pipeline network or PE network of 2 DRS per patrolling person per 08 hours' duty.
- Intimating local control room for authorized or unauthorized work carried out along or across the HOGPL's assets including encroachment, third party damage etc.
- Providing pictorial evidence of JCB/ excavator/ machine with its registration number, manual excavation, incident report, assistance in lodging FIR (if required) for each occurred incident. The security agency shall facilitate the works on behalf of HOGPL and pass on the information to concerned HOGPL official immediately.
- Operating the valves in valve chambers in case of any emergency, taking periodic CP/ PSP readings as per schedule or otherwise as per instruction of EIC, carrying all necessary maintenance with tools/ tackles required for the purpose.
- Pipeline patrolling activity shall primarily involve reporting of;
- Work undertaken by other authorities and private organizations in vicinity of HOGPL's entire pipeline-network, including CGS.
- Interacting with Ros where OLS/ MS/ DBS are installed for ensuring their safety and security.
- Any other incident like fire, leakage etc.
- Planned or unplanned construction activities on pipelines like construction of public conveniences



etc. threatening operations and maintenance of pipeline.

- Status of HOGPL property like pipeline markers, manhole covers (Valve Chambers) etc.
- Detailed Procedure for Patrolling
- The procedure mentioned below shall be followed by the patrollers/ patrolling teams during the daily patrolling (365 days a year) of pipeline network;
- To start with the patrolling of the steel/PE pipeline, there must be an originating point from where the patroller will start his patrolling & an ending point where the patrolling will be finished. During the return patrolling the terminating point shall become the originating point & vice versa.
- For the effective monitoring of the job the GPS instrument will be provided to all the patroller on duty by contractor as per contract, before commencement of duty and hand over the same to designated person, after completion of patrolling duty. HOGPL will continuously monitor the movement of the deployed persons in the respective areas through this system. The contractor to take proper care of such systems/equipment and follow the instruction given by EIC from time to time.
- The patroller shall be given with the prescribed format along with a writing board & ball point pen which shall be used by him to note down the observations along the pipeline route during patrolling. The patroller should also carry waterproof carry bag to keep the patrolling format in the bag to protect the document from rain water during rainy season.
- The patroller will start the patrolling in the designated route and carry out a thorough patrolling & checks like Road/ Nalla/ Rail Crossing, Valve-Chamber, CP station/ Warning, Excavation on Pipeline, Gas Leakage if any, condition of Markers etc. during the patrolling.
- When the patrolling is finished by the patroller & arrive at the end point, the data / observations should be submitted to Supervisor by the patroller.
- If there is no observation found in the format, the verbal discussion shall be done with the supervisor to apprise him about any third-party activities which are going along the pipeline route. If any observation is noticed during patrolling, the patroller/ supervisor shall report the same to HOGPL engineer immediately from the site telephonically.
- In case of any observation is mentioned &/or narrated by the patroller, then the Supervisor along with the HOGPL engineer must immediately rush to the site of the vulnerable location to confirm the third-party activity. The vulnerable location format shall be filled by the patroller/ supervisor & shall



be submitted to the O&M in-charge of the respective site. The filled-up format after site visit & review shall be submitted to HOGPL engineer.

- The patrolling formats & vulnerable location formats duly filled & signed by the patroller & the Concerned Person (as per Direction of EIC) shall be handed over to the HOGPL representative of the respective site.
- Patroller shall intimate for unauthorized work carried out along or across the HOGPL' pipeline. Some works are very critical like HDD, excavation by JCB, Backhoe/ excavator, which should be taken care very seriously. Such activities should be immediately brought to the notice of HOGPL
- In case of emergency/Any suspicious/Abnormal activity, they will inform the same, to HOGPL Officials promptly.
- For each and every incident occurred, the patroller shall provide pictorial evidence of JCB / Excavator machine with its registration number by using camera in his mobile phone.
- Patrolling Person shall be able to operate the Valve (inside valve chambers), and it shall be the responsibility of patrolling person to operate the valve chamber in case of any emergency.
- All patrolling persons while doing patrolling along the pipeline should visit each and every SVs, DRS/MRS (up to battery limit of HOGPL) falling on that route. Details of duty and responsibility of individual patrolling persons shall be given on deployment. The pipeline patroller shall count all the pipeline route marker in the route and if any maker is found missing shall be reported to HOGPL designated representative.
- The upper age limit is 45 years for pipeline patroller.
- The patrolling services are to be provided on daily basis on each and every day of the year as per the instruction of EIC, on general.
- Contractor shall provide safety torches, umbrellas, stick etc. or any other safety equipment not mentioned herein however required for safe operations to each resource at his own cost.
- Contractor shall provide means of communications like mobile phone having provision of camera to each of his patroller. Provision for monthly sim charges etc. No separate payment towards Mobile phone instrument, activation charges, maintenance and monthly charges of mobile phones shall be made by HOGPL
- Boarding & lodging of the patrolling persons shall be in the scope of Contractor.



**18. Services for PNG [Steel & PE/GI]/ Installation [CGS/CNG/ DRS/ MRS/Valve]**

- The broad scope of services of repair & maintenance job related to CGD network/ Installation related activities as below:
- Mechanical works
- Contractor shall be responsible for any maintenance on Steel mainline & distributary/ service lines such as pipeline damage, gas leakages, fire & explosions, failure of joints, ROW maintenance & associated maintenances as well by applying best engineering practices & with due adherence of prevailing norms.
- For the leakages from the Steel pipelines either through damages or from any other source which includes,
- Damage of Steel pipelines.
- Unknown leakage from Steel pipelines through leak detection survey or / and lock pressure test, if required.
- Making the pipelines, installations repair and recharging the gas supply as per the as per O & M manual of HOGPL
- CONTRACTOR shall arrange Excavation / Pits or trenches, Lifting equipment, FJC crew, NDT crew, Consumables items like, Electrode, Sleeves etc. Steel gas pipeline Welders (approved vendors), Pay-welder, Dewatering pump, Generator set, PPE's, Fire Extinguishers, Tools & Tackles, etc.
- Contractor shall ensure that his dedicated supervisor having required experienced is present at site, till completion of work, as per planning given by HOGPL
- Contractor shall be responsible to arrange water and electricity at his cost for the execution of scope of work entrusted to him. Lighting arrangement at site in CONTRACTOR's scope.
- Contractor shall arrange the transportation of his manpower to and from the site.
- Contractor shall ensure effective communication from site to OWNER office through Mobile phone.
- Contractor shall make the Steel pipelines, decompressed, repair, test, and interties by N2 and recharge the gas supply as per HOGPL approved maintenance procedures.
- Contractor shall ensure such maintenance as per HOGPL. All relevant reporting for the same should be submitted to HOGPL along with photographs at the earliest Contractor shall recover the cost of



such damages from the responsible, if occurred during Third Party excavation.

- Contractor on behalf of HOGPL shall issue a notice & take a deposit amount for such occurrences. Final bill should be issued / settles as per Owner's SOR / norms

#### **19. Electrical works**

- Scope work shall include preventive, scheduled and breakdown maintenance, including operational activities like attending lighting maintenance job, cable laying and failure rectification, UPS problem rectification, AVR problems, motor & its starter problem identification and rectification, attending to problem related to capacitor bank, changeover switches and related switchgears at all HOGPL installations.
- Contractor has to provide basic tools to each resource to perform day to day activities and has to ensure availability of tools with each resource throughout contract period. In case, any of the tools is lost or damaged, same has to be made good by the vendor so as to ensure the availability of the tools to each resource throughout the contract period.
- Contractor has to provide PPE (Helmet, gloves, glasses, ear plugs, safety shoes – 1 set each year) etc. along with 2 set of uniform with the name of service provider mentioned on it. Service provider will get the approval from EIC before finalizing the uniform (color & fabric).
- Services involved will be related to repair & maintenance activities as specified by HOGPL Engineer at different locations.
- Trainings: The contractor, prior to providing services shall get his personnel trained on safety aspects training related to CNG which will be given by HOGPL fire & safety department.
- Instrumentation & Automation/ SCADA works
- Scope of work includes;
- To provide services for operation, maintenance and calibration of compressors, dispensers, metering skids, air compressors, air dryers, UPS, site monitors and other equipment at various CNG stations.
- To provide services for both preventive as well as breakdown maintenance.
- To provide OFC repair & maintenance works
- Assisting HOGPL's engineers in gas reconciliation.
- Assisting HOGPL's engineers for in house repairing of instruments.
- Contractor has to provide basic tools to each resource to perform day to day activities and has to ensure



availability of tools with each resource throughout contract period. In case, any of the tools is lost or damaged, same has to be made good by the vendor so as to ensure the availability of the tools to each resource throughout the contract period.

- Contractor has to provide PPE (Helmet, gloves, glasses, ear plugs, safety shoes – 1 set each year) etc. along with 2 set of uniform with the name of service provider mentioned on it. Service provider will get the approval from EIC before finalizing the uniform (colour & fabric).
- Services involved will be related to repair & maintenance activities as specified by HOGPL Engineer at different locations.
- Trainings
- The Contractor, prior to providing services shall get his personnel trained on safety aspects training related to CNG which will be given by HOGPL fire & safety department.
- Manpower must be trained by Swagelok / Parker for high pressure tube & SS fitting installation before deputed to any location allocated by Engineer in- charge. This training will be in vendor scope.

## 20. **PE Works**

- Contractor shall be responsible for any maintenance on PE mains & service lines such as pipeline damage, gas leakages, fire & explosions, failure of joints, ROW maintenance & associated maintenances as well by applying best engineering practices & with due adherence of prevailing norms. Contractor shall carryout the periodic Leak detection / Lock Pressure Tests (during non-peak hours or night hours) to ensure “ZERO” leakages as per AOMP. Some of the typical maintenance to be performed on PE network is as follows (not limited to).
- For the leakages from the PE pipelines either through damages or from any other source which includes,
- Damage of PE pipelines.
- Unknown leakage from PE pipelines through leak detection survey or / and lock pressure test, if required.
- Making the pipelines, installations repair and recharging the gas supply as per the as per O & M manual of OWNER.
- Following is a guideline for rectification of unknown leakages from the PE pipelines through leak detection survey or / and lock pressure test (if required) and following steps to be carried out,





however, Contractor shall submit his plan to be approved by OWNER for performing rectification.

- To prepare pit as per site requirement.
- To squeeze PE line at both ends.
- To cut and scrap of existing line.
- To check with soap solution for passing of squeeze on charged network.
- Connection of new pipe with charged PE line & installation of electro fusion fitting. Electrofusion welding & cooling of joint.
- Removal of squeeze tools / charging of new laid line and checking the Electro fusion welding the help of soap solution / gas detector equipment.
- In case of concealed GI, will be replaced by PE line as per instruction from OWNER.
- To backfill, compact and remove excess soil.
- Contractor shall arrange Excavation / Pits or trenches, PE Electrofusion fittings,
- Consumables items like
- Teflon tap, PE Welder (approved by OWNER), Tools & Tackles, Pulsecometer, Dewatering pump, Generator set, PPE's, Fire Extinguishers, Electrofusion Machine, etc.
- Contractor shall ensure that his dedicated supervisor having required experienced is present at site, till completion of work, as per planning given by OWNER.
- Contractor shall be responsible to arrange water and electricity at his cost for the execution of scope of work entrusted to him. Lighting arrangement at site in Contractor's scope.
- Contractor shall arrange the transportation of his manpower to and from the site.
- Contractor shall ensure effective communication from site to OWNER office through Mobile phone.
- Contractor shall make the PE pipelines, install, repair and recharge the gas supply as per OWNER's approved maintenance procedures.
- Contractor shall ensure such maintenance as per ERP. All relevant reporting for the same should be submitted to OWNER along with photographs at the earliest.
- Contractor shall recover the cost of such damages from the responsible, if occurred during Third Party excavation.
- Contractor on behalf of OWNER shall issue a notice & take a deposit amount for such occurrences. Final bill should be issued / settles as per Owner's SOR / norms.



## **21. City Gate Station (CGS)**

- Contractor shall be responsible for the safe, trouble free & uninterrupted operation of City Gate Station, which includes monitoring of parameters (pressure, temperature, gas flow, Odorant level etc.), leak detection, customer meter reading, data logging, visual inspection, odour / gas smell, etc. on following major equipments / installations;
- The skid at CGS comprises of knock-out drum/filter with accessories like safety relief valve for release of pressure in case of over pressure.
- The Shift Engineer shall maintain all relevant records and activities (testing, inspection, calibration, operation & monitoring) carried out on the CGS.
- Generally, following work activities / events / incidents are noted in the log book;
- Reports of unsafe fittings, conditions & appliances.
- Data pertaining to the parameters as per AOMP / MIS.
- Flow meter readings, composition of gas as per source available & updating with the help of flow computer and gas chromatograph.
- Inspections performed.
- Checks and surveys performed.
- Failures & defects found & rectification actions taken by the concerned.
- Incidents involving the failure of any fittings and control valves of CGS installation.
- Any incident relating to fire or break down of the equipment and their maintenance /correction procedures in details.
- Contractor must coordinate with Owner to ensure the safe, reliable & uninterrupted gas supply, installation and operation of all the equipments, pipelines, fittings, valves, etc.
- While venting the pipelines, the contractor shall strictly adhere to the HSE norms specified in the contract.

## **22. CNG Station**

- Preventive/ breakdown maintenance of equipment installed (including Maint. of Electrical facilities) at CNG stations as per instructions of HOGPL representative in case of emergency.
- All the jobs mentioned under scope of services shall be carried out as per sound engineering practices, work procedure documentation, and as per the guidelines / direction of respective in-



Charge of location or his authorized representative.

- Contractor has to provide basic tools to perform day to day activities and has to ensure availability of tools with each resource throughout contract period. In case, any of the tools is lost or damaged, same has to be made good by the vendor so as to ensure the availability of the tools to each resource throughout the contract period.
- Contractor has to provide PPE (Helmet, gloves, glasses, ear plugs, safety shoes – 1 set each year) etc along with 2 set of uniform for each manpower of contractor with the name of service provider mentioned on it. Service provider will get the approval from EIC before finalizing the uniform (colour & fabric).
- Services involved will be related to repair & maintenance activities of SS tubing/ fittings as specified by HOGPL Engineer at different locations.
- Training
- The Contractor, prior to providing services shall get his personnel trained on safety aspects training related to CNG which will be given by HOGPL fire & safety department.
- Manpower must be trained by Swagelok / Parker for high pressure tube & SS fitting installation before deputed to any location allocated by Engineer In-Charge. This training will be in vendor scope
- District Regulating Station (DRS) / Common Pressure Reduction Station (CPRS)
- Pressure regulating skid is installed with pressure control valve (active-monitor type), for reducing high supply pressure ranging between 7 – 49 bar (g) in the primary network to 1 – 5 bar(g) in the secondary network upstream of SR / PNG connection. This unit is provided with pressure safety valve to relieve excess pressure in case of contingency along with safety shut-off devices. Regular Pressure monitoring on the skid is very much essential for uninterrupted supply of gas.
- District regulation station located at various demand centers for domestic / commercial / Industrial users typically consist of:
  - Gas filter at inlet of DRS.
  - Pressure reduction skid comprising active and monitor combination with 100% redundancy with stream discrimination arrangement, including slam shut valve for over pressure protection.
  - Inlet and outlet isolation valves, metering system (if required), venting facility etc.
  - Contractor shall carryout the operation of DRS/CPRS skids as per O & M manual of OWNER



- Contractor shall also ensure & carryout the housekeeping, visual inspection, security measures, caution boards, etc. from time to time.
- Transition Boxes / Service Regulators
- CONTRACTOR shall be responsible for the uninterrupted supply of Gas to PNG customer by monitoring operation, & maintenance of various Service Regulators / Transition Boxes installed on CGD Network. Range / Capacity of Service Regulators / Transition Boxes vary from 50 M3/Hr to 1000 M3/Hr. Service Regulators / Transition Boxes are provided with regulating systems for reducing secondary network pressure ranging between 1-5 bar (g) to 110 mbar (g) in the tertiary network and are provided with in-built safety relief & shut-off devices.
- This skid is having single stream pressure control valve provided with over pressure safety shut off (OPSO), Under Pressure Safety Shut off (UPS0) and pressure relief valves at the outlet.
- Contractor shall be responsible for inspection and monitoring of smooth operation & maintenance of Service Regulator / Transition Boxes, which is very critical as it has no redundancy.
- Contractors should carry out Functional tests at periodic frequency as per the approved procedure.
- CONTRACTOR shall also ensure & carryout the housekeeping, visual inspection, security measures, caution boards, etc. from time to time.
- Valves
- The various types of valves are installed on U/G & A/G Network for CGD mainly comprises of Ball valves, Globe valve, check valve shall perform according to their function. Contractor shall be responsible for the proper operation of the valves installed and the Contractor's shall inspect/ check all valves installed at periodic intervals.
- Contractor shall be responsible to provide training to his technical personnel with correct procedure of valve operations.
- CONTRACTOR's operator shall open the valves gradually and cautiously stopping after every two or three turns to observe any unusual effect before opening it full. Valve shall not be forced opened so that it cannot be closed easily.
- All valves in piping circuit in natural gas conditioning skid, M.S. / PE Pipeline, Network PE valve assembly shall be checked before putting into operation.



- Contractor shall be responsible for the valve security to prevent service interruption, tampering, etc. as required. CONTRACTOR should also ensure tagging of valve such as “ON”, “OFF”, “DO NOT DISTURB”, “UNDER MAINTENANCE”, etc. for the precautions, as & when required.
- Metering & Regulating Skid (MRS) for Industrial Consumers / Connections
- Metering & regulating station is located at the premises of an individual industrial customer. Regulator may or may not be part of MRS.
- Contractor is responsible to take & convey of daily meter/fortnightly meter reading (as decided by EIC for) reading of all industrial Consumers/Commercial Connections.
- Contractor shall carry out operation & maintenance of MRS as per OWNER O & M manual.
- Contractor shall also ensure & carryout the housekeeping, visual inspection, security measures, caution boards, etc. from time to time.
- Supply & Application of Paint on Piping and Structure/Route marker/Pole Marker and Plate marker
- The scope of work includes painting of above ground terminal piping, vessels, /Route marker/Pole Marker and Plate marker valves, structural steel pipe supports, walk ways, platforms, railings, fire water line etc as per system S-1 in the Annexure- 1 (Given Below) and as per various terms, specifications and conditions of the contract, after surface preparation after removal of loose paint / rust material if any with wire brush, emery paper, cleaning with lint free cloth including supply of all necessary paint materials, consumables, brushes, emery paper, tools, tackles, test & measuring instruments and related calibration accessories, support for carrying out the cleaning & painting work as per scope, specifications & special conditions of the contract at various sites . The item includes complete cost of paint removal (wherever required) surface preparation, repainting including material (paint, primer etc.), labour, transportation, and re-lettering/Marking on the pipelines/Structures as per the drawings issued and to the satisfaction of Engineer-in-Charge.
- Paints and Primers of one of the following manufacturers only shall be acceptable under this tender-
  - Asian Paints
  - Berger Paints
  - Jenson & Nicholson
  - Shalimar Paints
  - Goodlass Nerolac Paints