



TECHNICAL SCOPE

FOR MAINTENANCE ACTIVITY IN EXISTING/UPCOMING CNG STATIONS ACROSS GGL

Document No: GGL/TS/CNG/MAINTENANCE/CNG STATION/SOW

03	ANNEXURE 3	Updation of <u>Scope of work for Hiring 4-wheeler Vehicle</u>	03.07.2025
02	ANNEXURE 3 ANNEXURE 8	Prover dimensions are added Additon of GGL API details and JSON Data format for VTS system	25.09.2024
01	11.5 14 ANNEXURE 6 ANNEXURE 7 ANNEXURE 8	Updation of First Aid Box Content Additon of Penalty Term for CPAR and Injury Cases Additon of CPAR Requirement Additon of QHSE Requirement Additon of VTS Requirement	14.08.2024
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1. INTRODUCTION

GGL is a Gujarat State Government-undertaking involved in PNG & CNG to industrial, commercial, transportation, residential segments of major cities / towns of Gujarat & outside Gujarat. GGL is rapidly into a developing a multidimensional operational network that fulfils the India's energy needs by exploring, developing and harnessing newer energy services. It is leading through action towards a hydrocarbon economy in India with sustainable environmental activities, with the vision of becoming a "Complete Energy Company".

CNG is a mixture of hydrocarbon gases and vapors consisting of principally methane in gaseous form, which are compressed to a pressure of 200 - 250 barg for use as a vehicular fuel. CNG has been identified as one of the alternate fuels to liquid petroleum fuels, which has added environmental benefits.

Natural Gas (NG) is today increasingly gaining popularity over as alternate auto fuel primarily because it is environment friendly, economical and more efficient as compared to other conventional auto and kitchen fuels. Emission of harmful oxide and other polluting particulates is minimal in case of CNG.

GGL invites the competent bidder for the generic Maintenance of COCO & Co-located CNG Installation facilities like Cascade, SS Tubing, and LCV Fill Point to provide uninterrupted supply with due compliance of all the prevailing statutory and HSE norms keeping in view of the customer satisfaction.

Forecourt Maintenance for Existing / Upcoming CNG station will consists but not limited to:

- (i) Minor maintenance, Minor breakdown of Electrical equipment, SS Tubing, LCV Fill Point, Mobile Cascade and Stationary Cascade and diesel top-up in DG.

2. GLOSSARY

"CNG"	Natural Gas Produced From Gas Wells, Gas Condensate Wells Or Oil Wells And The Residue Gas Remaining After Conditioning Being Compressed, Stored and Dispense As An Alternative Automotive Fuel
"OWNER"	The Principal Requesting the Works to Which the Agreement relates i.e. "GGL".
"OEM"	Original equipment manufacturer
"BIDDER"	The Party / Person, who are bidding for obtaining the Job,
"Equipment"	Gas conditioning unit including knock-out-drum (KOD), filters, dryers (if, required), natural gas compressor, CNG Storage Cylinder Cascade, pressure regulator, gas flow meters, odorizer, dispensers, piping / tubing, valves, air compressor, IJ, tire inflator, electrical and instrumentation equipment and accessories owned by Owner for dispensing of CNG in Vehicles / Mobile Cascades.
"Safety Procedures"	The Procedures, Direction, Guidelines and Measures as communicated from time to time by OWNER to the BIDDER for Safe Handling, Storage and Dispensing of CNG.
"Vehicle"	A Light Motor Vehicle (Cars and Three Wheelers) and Heavy Motor Vehicle (Bus) as defined under the Motor Vehicle Act, 1988.

"MIS"	Management Information System
"AOMP"	Annual Operation and Maintenance Plan.
Cylinder Appurtenances	Devices connected to cylinder for safety, control or operation purpose
CNG mother station	CNG facilities connected to natural gas pipeline and having compressor meant for primarily to fill stationary cascades for CNG gas dispensing to vehicles (bus, car and auto). It has also CNG gas filling facility for filling LCV mounted mobile cascade for dispensing the CNG to vehicles.
CNG online station	CNG facilities connected to natural gas pipeline and having a compressor primarily to fill stationary cascades for dispensing CNG to vehicles. It does not have facility to fill mobile cascade mounted on LCV for dispensing CNG gas for vehicles (car and auto).
CNG daughter station	CNG facility not connected to natural gas pipeline and dispensing CNG to the vehicles through mobile cascades.
CNG daughter booster station	CNG facility not connected to natural gas pipeline and dispensing CNG to the vehicles through mobile cascades with the help of hydraulic / reciprocating type electric motor driven, booster compressor of normally 150 SCMH to 500 SCMH capacity at suction pressure approximately 30 Kg /cm ² g.
Base Location	Location at which service setup of bidder is present for handling Maintenance activity of co-located CNG station
Statutory Authority	Govt. of India or its agency responsible for ensuring compliance to particular regulator. 'Chief Controller of Explosives' is the statutory authority for administration of the gas cylinder rules and SMPV rules.
Bulk storage	It is a facility for storing CNG in stationary and mobile storage exceeding the capacity of 1000 Lt. These pressure vessels shall conform to the static and mobile pressure vessels (unfired) rules latest edition.
Capacity	The gross capacity of a storage container in water litres at 15 degree C.
Cascade (gas storage unit)	This is a group of gas cylinders with a total water capacity not exceeding 4500 litres, contained within a length of 5.5m, a height of 1.6m and a width of 1.2m in case of cylinders kept vertical, or 5.5m, 1.6m and width of 1 cylinder upto 2m in case of horizontal cylinders. Either arrangement used shall be interconnected by high-pressure SS tubing to form a single gas storage unit referred as cascade hereafter. ('M' denotes meters)'. The cascade is also used for transportation of CNG in the structural container having facility for lifting and placement.

Cascade Storage unit isolation Valve	This is a quick action valve for stopping gas in storage unit
Cylinder	A pressure vessel having capacity exceeding 500ml constructed as per IS: 7285 or other international standards having approval from statutory authority under gas cylinder rules. These may be of varied capacities to suit vehicles and storage.
Dew point	The temperature at which the water vapor begins to condense.
Emergency shut off valves	A quick action shut off valve, which operates from full open to full closed condition in less than one complete turn.
Hazard	Substance or circumstance which may cause injury or damage due to being explosive, flammable, poisonous, corrosive, oxidizing or otherwise harmful.
Manifold	The assembly of piping and fittings used for interconnecting all cylinders / vessels to a common pipeline.
Pressure relief device	Device designed to prevent rupture of vessel / container by releasing excessive pressure build up as specified in clause 18 of SMPV rules 1980. The systems and components of CNG facilities are required to be certified for CNG use and marked accordingly.
Set pressure	The valve opening pressure in a relief valve which shall not exceed the marked service pressure.
SMPV rules-1981	The static and mobile pressure vessels (unfired) rules, 1981, (with latest amendments) abbreviated as SMPV. These are rules governing the storage, transportation, handling etc. of compressed gas in vessels exceeding 1000 litres in the volume. These rules are framed under the Indian explosives act, 1884 and administered by chief controller of explosives.
Gas cylinder rules-2016	Rules governing the fabrication, storage, transportation, handling etc. of cylinders. These rules are framed under the Indian explosives act and administered by chief controller of explosives.
Sources of ignition	Devices or equipment which, because of their mode, use or operation, are capable of providing required thermal energy to ignite flammable CNG air mixture when introduced to such a mixture or when such a mixture comes into contact with them.
Working pressure	The pressure for which the equipment was constructed or if conditions have changed, the maximum pressure at specified temperatures, permitted at the most recent inspection.
Vehicle refueling probe	This is a CNG refueling device fitted at the end of the refueling hose at the dispenser units suitable for insertion into the vehicle refueling valve

receptacle.

Vehicle refueling shut off valve	A quick action valve for stopping gas flow and having the facility for venting residual high pressure gas in the refueling line after completion of the vehicle refueling operation.
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Transport vessel	A cascade / bulk storage mounted and installed on a light / heavy commercial vehicle, trainer, or semi-trailer for movement of CNG on road and governed by statutory regulations.
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AMC	Annual Maintenance Contract
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EIC	Engineer-in-charge
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"References" to a person shall include natural person, companies, bodies corporate and associations, whether incorporated or not.

References to Articles, Clauses, Schedules and Annexure are to Article, Clauses of, Schedules and Annexure to this bid.

3. MAINTENANCE POLICY AND STATEMENTS

GGL is committed to carry out management of Maintenance of its COCO & Co-located CNG station at various location of Gujarat and outside Gujarat, with the prime objective of ensuring safe and reliable gas supply to its customers, prevention of accidents to minimize loss of life or bodily injury to bidders' and own employees and damage to its physical assets.

GGL believes that, apart from achieving the desired intent, Good management can also minimize the loss in dispensing and property resulting from accidental occurrences.

Well-designed management is one aspect of the company's main policy, and is the direct responsibility of line management and bidders. All management functions, and bidders, will comply with 'GGL' requirements applicable to the Maintenance activity. When conformity with any of these requirements is not practicable or cost effective, an amendment to such a requirement will be considered. Reviews for compliance with this policy will be performed on a selective basis.

4. NATURAL GAS COMPOSITION AND PROPERTIES

4.1 General

When handled properly Natural Gas is a safe fuel. It is a non-poisonous, non-toxic combustible source of energy.

Natural Gas is composed essentially of methane with minor quantities of ethane, propane, carbon dioxide and traces of higher hydrocarbons and oxygen. It has a specific gravity of 0.6, which means it is only 60% as heavy as air and it will rise under normal atmospheric conditions. Thus, it disperses in to air very easily, if leaked.

Natural Gas within the distribution system will be given a distinctive odor, which will be designed to be detectable by the nose in the atmosphere.

Natural Gas will burn within the range of 5% and 15% of gas in air (by volume), and it is readily ignited by spark or other forms of ignition within this range. Thus, it is safer due to wide flammability limit.

4.2 Natural Gas can be hazardous in the following ways:

From Asphyxiation - through over exposure to natural gas, caused by leakage due to mechanical or accidental failure of equipment usually in a confined space of inadequate ventilation.

From Explosion - through an accumulation of escaping gas, also usually in a confined space, being ignited when mixed with air.

From Fire - Through uncontrolled burning of gas usually after an explosion.

From Over Pressure - Through gas facilities such as regulators, valves, gauges, etc, to pressures in excess of their maximum working pressure.

4.3 The typical Natural Gas composition and properties are given below:

Normal Gas Composition:

Methane	82% -95% Mole
Ethane	1% to 5% Mole
Propane	1% to 5% Mole
Butane	0.1% to 2% Mole
Pentane	0% to 1% Mole
Hexane	0% to 1% Mole
CO ₂	0% to 1% Mole
Nitrogen	0% to 1% Mole

4.4 Properties:

Specific Gravity (air - 1.0)	0.56% to 0.67%
Boiling Point	-161degC
Melting Point	-182degC
Flash Point	-161degC
Auto Ignition Temperature	560deg C
Flammable Limit	5% to 15% by volume in air.

Note: Gas composition / characteristic may vary subject to source available from time to time.

Table 1: Material Safety Data Sheet - Natural Gas

1. CHEMICAL IDENTITY:			
Chemical Name: Natural Gas		Chemical Classification: Highly Flammable Gas	
Synonyms: Methane; CNG		Trade Name : Natural Gas	
Formula: CH4	C.A.S. No.: 8006-14-2	U.N. No.: 1971	
Shipping Name: Natural Gas; LNG; CNG			
Codes/Label: 2.1/2		NFPA Code: H 1 ;F 04 ;R 0	
Regulated Identification:		Hazchem No: 2WE	
Hazardous Waste I.D. No.: Not classified as hazardous waste			
Hazardous Ingredients:		C.A.S. No.	Hazardous Ingredients:
		C.A.S. No.	
(1) Methane	74-82-8	(3) Propane	74-98-6
(2) Ethane	74-84-0	(4) Ethyl Mercaptan	75-08-1
2. PHYSICAL AND CHEMICAL DATA:			

Boiling Range / Point: -161.4°C; Physical State: Gas; Appearance: colorless
Melting / Freezing Point: -182.5°C; Vapour Pressure: Not applicable
Vapour Density: 0.6 to 0.8 (Air = 1) Solubility in water: Slightly
Specific Gravity: 0.62 to 0.70 (Water = 1); pH: Not Determined
Odour: odorless (Mercaptan odour when odourized)
3. FIRE AND EXPLOSION HAZARD DATA;
Flammability: Yes LEL: 5 % Flash Point: N.A. Autoignition Temperature: 540 °C
TGD Flammability: Yes UEL: 15% Flash Point: flammable
Explosion Sensitivity to Impact: Sensitive to mechanical impact; flammable
Explosion Sensitivity to State of Electricity: Static charged; flammable
Hazardous Combustion Products: NO _x , CO, CQ ₂
Hazardous Polymerization: Will Not Occur Combustible Liquid: Explosive
Explosive Material: Hydrocarbon Corrosive Material: N. A.
Flammable Material: Yes Oxidizer: Incompatible with Oxidizing agents ____ Others: —
Pyrophoric Material: None Organic Peroxide: Incompatible with peroxide; Risk of fire
4. REACTIVITY DATA:
Chemical Stability: Stable
Incompatibility with other Material: N. A.
Reactivity: Heat, Oxidizers
Hazardous Reaction Products: CO (if incomplete combustion takes place)
5. HEALTH HAZARD DATA:
Routes of Entry: Normally by inhalation; Natural gas is primarily inhaled. However, most often, the inhalation hazard is carbon monoxide caused by the incomplete combustion of natural gas.
Effects of Exposure / Symptoms: On loss of containment this gas can cause suffocation by lowering the oxygen content of the air in confined areas. Chronic Effect not known.
INHALATION: Non irritant-Asphyxiant. May causes headache, nausea, coughing, wheezing, inactivity, sedation, breathing and convulsions.
EYES: Non irritant. SKIN: Non irritant. INGESTION: Not applicable
Emergency Treatment: Fresh air, rest. Artificial respiration if indicated.
INHALATION: If exposed to excessive amounts of natural gas due to a leak, remove person to fresh air using proper protective equipment. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately. If exposed to excessive amounts of carbon monoxide due to products of incomplete combustion, remove person to fresh air using proper protective equipment. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.
EYE CONTACT: If irritation/redness develops, move victim away from exposure into fresh air and flush eyes with clean water.

SKIN: First aid is not normally required. Wash thoroughly with soap and water. Wash clothing before reuse, if Irritation occurs, get medical attention.

ON FROSTBITE: Rinse with plenty of water, do NOT remove clothes. First rinse with plenty of water for several minutes, and then Refer for medical attention.

INGESTION: Unlikely route of exposure as this is a gas at normal room temperature and pressure. Never give anything by mouth to an unconscious person. Have patient drink several glasses of water then induce vomiting by having patient tickle back of throat with finger. Keep airway clear. Get medical attention immediately.

Antidotes/Dosages: Not Known.

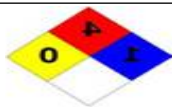
TLV (ACGIH): Asphyxiant **STEL:** N.A.

Permissible Exposure Limit: N.A. **Odour Threshold:** Not Known

Acute Oral LD50 (Rat): Not applicable **Human Odour detection limit:** 0.4 ppb

Acute Inhalation LC50 (Rat): Not applicable **IDLH:** Simple Asphyxiant

NFPA Hazard: Health: 1 (Slight) **Flammability:** 4(Extreme) **Stability:** 0 (negligible)



Special: Not Known **Signals:**

6. PREVENTIVE MEASURES:

PERSONNEL PROTECTIVE EQUIPMENT: Safety Goggles, Face Shield, Self Contained Breathing apparatus

HANDLING AND STORAGE PRECAUTIONS: To be handled by trained personnel only and approved operating procedures to be followed.

Handling: Avoid breathing gas. Use approved respiratory protection if there is potential for exposure above the exposure limit and possibility of Asphyxiated atmosphere. Keep away from sources of ignition, closed system, ventilation, explosion-proof electrical equipment and lighting. Stay away and upwind of spill/release. Use non-sparking tools. Avoid static built up. Vent to outside atmosphere with precaution and control venting. Monitor concentration in atmosphere with gas measuring equipments while venting or draining.

Storage: "No smoking or open flame in storage area". Keep away from source of ignition. Use of appropriate warning, Store cylinders in well ventilated, low fire risk area.

7. EMERGENCY AND FIRST AID MEASURE:

FIRE:

Fire Extinguishing: Water spray, Powder to extinguish a natural gas fire, stop the flow of natural gas, use dry chemical, carbon dioxide, halon or water. Special note, the fire should not be extinguished unless flow of gas can be immediately stopped. Fire fighters should wear SCB A in case of Oxygen deficient atmosphere.

Special Procedures: Keep cylinder cool by spraying with water. Combat fire from a sheltered position. Shut off supply from safe location; if not possible and no risk to surroundings, let the fire burn itself out; in other cases extinguish with water spray, powder, carbon dioxide. Evacuate all unnecessary personals to Assembly point.

Unusual Hazards: Asphyxiant atmosphere. Wear Safety glasses and leather gloves. In poorly ventilated area or where an inhalation risk exist use full face air line respirator or SCB A.
EXPOSURE: Gas is lighter than air and will disperse readily in well ventilated areas.
First Aid Measures:
SKIN: First aid is not normally required. Wash thoroughly with soap and water. Wash clothing before reuse, if Irritation occurs, get medical attention.
INHALATION: Remove to fresh air, if breathing is difficult, have trained person administer oxygen. If respiration stops, have a trained person administer artificial respiration. Get medical attention immediately.
INGESTION: Unlikely route of exposure as this is a gas at normal room temperature and pressure. Never give anything by mouth to an unconscious person. Have patient drink several glasses of water then induce vomiting by having patient tickle back of throat with finger. Keep airway clear. Get medical attention immediately. (Refer Point No.5-Emergency Treatment)
Antidotes/Dosages: Not Known.
SPILLS:
Steps to be taken: Evacuate area. Call emergency services and gas supplier. For large releaser evacuate unnecessary personnel upwind of the leakage area. Remove or eliminate ignition source, minor leaks can be detect with soap solution applied at suspected leak points, never use flame to detect presence of methane. Suitable personal protective equipment to be used (SCBA, Safety goggles, etc).
Waste disposal Method: Vent to Outside atmosphere
8. ADDITIONAL INFORMATION / REFERENCES:
ACGIH = American Conference of Governmental Industrial Hygienists.
PEL = Permissible Exposure Limit (OSHA)
STEL = Short Term Exposure Limit (15 Minutes)
TDG = Transportation of Dangerous Goods. (CANADA)
TLV = Threshold Limit Value.
IDLH = Immediate Danger to Life and Health.
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5. SCOPE OF TENDER DOCUMENT

Mechanical Maintenance at CNG Stations involve activities as per the scope given below:

- 5.1 Carrying out Minor Maintenance of Mobile and Stationary Cascade, SS Tubing, and LCV Fill Point at COCO & Co-located CNG stations.
- 5.2 Loading of Diesel Barrels from Petrol Pump, Transportation and Unloading of Diesel Barrels and Top-up in DG-set as and when required.

- 5.3 Breakdown Maintenance of Mobile and Stationary Cascade, SS Tubing, and LCV Fill Point at all the GGL CNG stations in the respective GA.

6. MAINTENANCE OF CNG STATIONS (BIDDER'S SCOPE OF WORK)

6.1 LAWS - CODES - RULES AND STANDARDS

BIDDER shall carry out Maintenance of CNG Stations based on following applicable Codes / Standards, but not limited to;

- Laws, Codes, Rules and Standards as mandatory under the legislation of Gujarat and India including ASME B 31.8, OISD 179 and PNGRB regulations.
- ISO Standards and Euro Norms.
- The complete set of which are part of the present technical volume.
- The "Rules of good Practice" commonly used by the worldwide gas industry.
- The "Rules of Art" and "Sound Practices" of the engineering.
- NZS-5425 Code of practice for CNG Compressor and Refueling Station.
- NZGCP 2:1993.
- Gas Regulation-1993.
- Gas Act-1992.
- Gas Cylinder Rules-2016.
- OISD 179, NZS-5422
- IGE / SR / 16 for odorization.
- NFPA -52.
- SMPV rule.
- IS - 7285 or other international standard.
- Installation, operation and maintenance manuals of various equipment manufacturers.
- OISD-STD-137

6.2 BIDDER'S SCOPE OF WORK

6.2.1. Mechanical Maintenance services at GGL CNG stations should be as per the scope given below :

- Check/Monitor all the equipments as per the GGL issued checklist at predefined frequency (fortnightly, monthly etc.) for proper functioning & carrying out "Minor" Maintenance of Mobile and Stationary Cascade, SS Tubing, and LCV Fill Point at owned online/mother station along with attached Co-located Online/Daughter/Daughter booster CNG Stations. Checklist of "Minor" maintenance is given in Annexure.
 - Loading of Diesel Barrels from Petrol Pump, Transportation and Unloading of Diesel Barrels and Top-up in DG-set when required.
 - In case COCO station is not present in any GA the Base location will be considered. Bidder should setup his base location in the GA if there is no COCO station available.
- 6.2.2. BIDDER shall provide required tools and tackles (including any special tools).
- 6.2.3. BIDDER shall update history of all Equipments, and maintain a chronological record of all incidence/Routine/ Preventive/Breakdown Maintenance.
- 6.2.4. BIDDER shall advise GGL for procurement of recommended spares and maintenance for trouble free running of the equipments.
- 6.2.5. The services shall be provided 24 hrs. a day, 365 days a year at GGL owned station as well as co-located CNG station. BIDDER shall be responsible to provide effective and efficient services round the clock and ensure that there is no disruption in the services for want of any resources.
- 6.2.6. BIDDER shall allocate weekly off and daily working hours to his workmen as per the relevant Acts/Laws/ and Rules made there under. However, no work shall be left incomplete, unattended on any holiday/weekly off.
- 6.2.7. Technicians provided shall have minimum qualification of ITI and should be trained to handle SS tubing related maintenance jobs in trenching and on Cascades.

- 6.2.8. The work force deployed by BIDDER for maintenance services shall be of sound relevant technical and professional expertise, which is also essential for the safety of the personnel as well as installation. Refer table below for minimum qualification of manpower deployed.

TABLE 2: QUALIFICATION OF DEPLOYED MANPOWER

Type of Manpower	Qualification
Technician for CNG O&M	Relevant experience of 3 years in the required field and adequately qualified (min. ITI) and experienced with erection, commissioning, operation of CNG Equipments.

- 6.2.9. BIDDER has to ensure the safety of man and machine. Damages of equipment due to negligence will be recovered from the bidder.
- 6.2.10. The BIDDER shall strictly adhere to all the safety rules and regulations prevailing and applicable from time to time at the installations as directed by GGL.
- 6.2.11. BIDDER shall make his own arrangements to provide all facilities like traveling, lodging, accommodation / boarding, transportation, office expenses, courier charge, packing and forwarding charge etc. if any needed for attending to O&M activities/submission of documents to EIC.
- 6.2.12. All personnel of BIDDER entering work premises shall be properly and neatly dressed and shall wear uniform, badges and necessary personnel protection equipments like helmets, ear plugs, safety shoes, hand gloves, safety goggles etc. while working in premises of the company including work sites.
- 6.2.13. BIDDER shall maintain proper record of his working employee's attendance and payment made to them.
- 6.2.14. BIDDER shall be fully responsible for emergency management with full attention and correct and effective measures / remedies for break downs at correct time to save or replace the equipment.
- 6.2.15. BIDDER shall not allot subcontract any or part of the above job.
- 6.2.16. All persons engaged by the BIDDER shall be the BIDDER's own employees and they will claim no privileges from GGL. The BIDDER will be directly responsible for the administration of his employee as regard general discipline and courteous behavior.
- 6.2.17. In case of hazards like fire, leakage etc. due to gross negligence of the BIDDER personnel, GGL reserves the right to impose penalty up to actual damage cost and / or termination of work order depending upon the gravity of the situation.
- 6.2.18. Hot work shall be carried out only after permission of EIC and subject to shut down of station.
- 6.2.19. Work shall be carried out as per OEM service manual recommendation and requirement of GGL EIC.
- 6.2.20. Bidder shall perform yearly calibration of suction mass flow meter installed at LCV post of few Daughter Booster CNG Station

6.3 BIDDER'S SCOPE OF WORK FOR PREVENTIVE/ROUTINE MAINTENANCE

- 6.3.1. The BIDDER shall prepare and submit schedule of visit for covering all stations during the month for executing Preventive Maintenance of the COCO & co-located Mother/ Online/ Daughter/ Daughter booster CNG Station.
- 6.3.2. Preventive/ Minor maintenance of Cascade, SS Tubing, and LCV Fill Point at owned online/ mother COCO station along with attached Co-located Online/Daughter CNG Stations is in BIDDER's scope as per the check list attached in Annexure.
- 6.3.3. The spares if any required for carrying out preventive maintenance shall be collected from specified GGL store.
- 6.3.4. BIDDER personnel shall inform the exact time to the GGL before and after carrying out the maintenance. BIDDER shall himself familiarize for the work having obtained all necessary permit/ approval/ clearance/ authorization to carry work from the GGL before starting work at site.
- 6.3.5. Without limiting the generality thereon, BIDDER shall do all necessary work at each of the job which is complete in all respects.

- 6.3.6. BIDDER shall ensure that all required consumables such as cotton waste, cleaning solvent, insulation tapes, thinner, soap solution, Teflon tape are available on site.
- 6.3.7. BIDDER shall ensure that all required tools and tackles are available on site.
- 6.3.8. BIDDER shall note down the Equipment performance before and after carrying out the maintenance in service report.
- 6.3.9. BIDDER shall provide proper communication facilities to all BIDDER personnel such as engineers, technicians, etc. to ensure timely resolution of the complaints.
- 6.3.10. All preventive / routine maintenance shall be performed in consultation with GGL EIC All above maintenance activities shall be carried out within a reasonable time as per the guidance of EIC.
- 6.3.11. BIDDERS are requested to go through details Preventive Maintenance Check List in Annexure.

6.4 BIDDER'S SCOPE OF WORK FOR BREAKDOWN MAINTANANCE

- 6.4.1. On receiving information about breakdown of co-located online /Daughter/Daughter booster CNG station from GGL / Dealer, BIDDER shall ensure that, the service team reaches the concerned / affected station within 4 Hours to take immediate action for avoiding any further damage and rectify / repair within 12 Hours. Such services shall be extended by them on 24 x 7 basis subject to the force majeure. Minor Breakdown maintenance to be carried out for equipments installed at COCO & Co-located station.
- 6.4.2. Record of complaint logging and closing and preparation of reports as per EIC instruction.
- 6.4.3. Before proceeding to the station, the BIDDER personnel shall collect all necessary spares required for the repair depending on the nature of the complaints received.
- 6.4.4. The BIDDER shall coordinate with the GGL representative for instructions on undertaking the repair work.
- 6.4.5. After attending and solving the complaint, the BIDDER shall inform to GGL.
- 6.4.6. Unused spares should be returned to GGL accordingly.
- 6.4.7. Re-installation of CNG equipments in case of damage in accident / Incident by any vehicles / LCV /any other reason. Necessary Spares shall be provided by the GGL. Before execution of the job, Vendor to get approval from GGL on the work to be executed and expenses involved.

6.5 BIDDER'S SCOPE OF WORK FOR SAFETY

BIDDER has to ensure the safety of Man and Machine all the times. The BIDDER shall remain at all times liable to OWNER for any loss or damage caused to building plant and machinery, due to carelessness, negligence, inexperienced act of default of the BIDDER, his agents, representative or employees. OWNER shall be the sole judge as regards to the quantum of loss or damage and shall be deducted from the amount payable hereunder to the BIDDER for the cost of repairs or the amount of loss or damages. For safety- HSE (PTS and GTS), OISD-179 should be referred.

6.6 BIDDER'S SCOPE OF WORK FOR LOADING OF DIESEL BARRELS FROM PETROL PUMP, TRANSPORTATION AND UNLOADING OF DIESEL BARRELS

The scope/specification covers the minimum specified requirement for the various activities to be carried out by the Contractor toward the diesel transportation and related work at the aforesaid site.

- a) All the materials, equipment, appliances or other things of whatsoever nature required in or about the execution of the work, whether of temporary or permanent nature shall be provided by the Bidder.
- b) Bidder shall have approval/ clearances from RTO for the vehicles deployed. Attested copies of RTO shall be available for verification as and when required.
- c) Bidder's deputed personnel coordinating for this work should not be without Identity Card at Owner sites/ office as well as sites. The I Card shall be provided by Bidder.
- d) Bidder shall collect the Diesel Barrels from designated Petroleum Outlet authorized by GGL EIC.
- e) Bidder shall Transport and carry out unloading of Diesel Barrels at Owner Designated Sites/ CNG Station.

- f) Bidder shall ensure that the safety and security of goods being transported and shall protect it from theft, loss, damage and mishandling.
- g) In case of loss or damage of the material being transported by the Bidder as a part of this agreement, the Bidder shall be liable to pay back the equivalent amount to Owner.
- h) The work site would be on case to case basis, but no additional transportation charges/miscellaneous charges would be paid apart from the rate agreed upon.
- i) In case of any hazard like fire, leakage etc. due to gross negligence of the Bidder, Owner reserves the right to impose penalty up to actual damage cost and or termination of Work Order depending upon the gravity of the situation.

7. GENERAL JOB DESCRIPTION OF BIDDER

- 7.1 Bidder shall be responsible for stores/ assets management, co-ordination for Preventive/ breakdown maintenance jobs with OWNER
- 7.2 Bidder to attend preventive maintenance of equipment at mother station, nearest daughter station and online station (OMC / Franchisee) attached by GGL in time as per schedule at single or multiple locations.
- 7.3 Bidder should be competent to handle minor electrical works at electrical and instrumentation control room which includes:
 - junction box,
 - wiring,
 - lighting,
 - New light fittings,
 - Socket repairs,
 - replacement of bulbs,
 - Replacement light switches,
 - Fuse box repairs,
 - Fuses,
 - Meter reading, etc.
- 7.4 Bidder to handle all Minor electrical maintenance activity mentioned above at the GGL office which is available at COCO CNG stations.
- 7.5 BIDDER must ensure that his personnel deployed at station are well behaved, customer oriented, nonalcoholic or prohibited drugs addict. Any misbehavior with customer as well as OWNER'S representative shall be liable to be punishment and even to the extent of removal of those personnel from duties. The BIDDER shall not engage or employ any person with a criminal record / background.
- 7.6 BIDDER is responsible for handling phone calls beyond the duty hours in case of any emergency.
- 7.7 BIDDER shall provide relevant and adequate safety and necessary personnel protective equipments / appliances (PPE) like Hard Helmets, Safety / Rainy Shoes, Raincoats, Ear Plug / Muffs, Rubber / Cotton Hand Gloves, Electrical Shock proof Hand Gloves, etc. to personnel deployed for the job. All the above mentioned PPE's shall be replaced as and when damaged.
- 7.8 BIDDER shall provide relevant training (Technical/ Fire and Safety, etc.) to his personnel from time to time for better functioning of the station at his cost and risk, without affecting Operations. OWNER may provide special training, to be required; hence, BIDDER shall direct his personnel for such trainings.
- 7.9 In case COCO station is not present in any GA the Base location will be considered. Bidder should setup his base location in the GA if there is no COCO station available.

8. OWNER'S OBLIGATIONS

- 8.1. Owner shall provide supply of electricity for preventive maintenance.
- 8.2. Owner shall procure necessary spares and consumables as recommended by vendor / OEM or requisitioned by the Bidder. Owner shall take up issues pertaining to warranty / guarantee related to the package unit on receipt

of intimation from Bidder with the concerned vendor.

- 8.3. Insurance for entire CNG station shall be arranged / paid by the Owner. However, Bidder or its personnel shall assist OWNER in case of any assessment, claims, recovery, follow-ups, etc. there in.
- 8.4. During the tenure of the contract, Owner at its sole discretion can relocate the CNG equipment to any other outlet. In such event, the cost of the relocation will be borne by the Owner.
- 8.5. Owner shall provide / extend the list of the facilities or equipments, tools / tackles at the time of handing over the stations to the BIDDER.
- 8.6. Owner has all right reserves for any addition or deletion of equipment, assets, man, machine, etc. at the station at any time of the tenure.
- 8.7. Owner has all the rights reserved to carry out the job pertaining to the station from any other vendor, if found dissatisfactory or half / partial completion in terms of workmanship, duration, etc. In such case, necessary deduction from Bidder shall be made.
- 8.8. Owner shall inform about diesel transportation and top up to Bidder at least 2-3 hours before the activity is to be carried out.
- 8.9. The maintenance schedule may be advanced / postponed as per the requirement of GGL depending upon the prevailing operating conditions.
- 8.10. GGL shall provide free of cost the required spares for the maintenance. BIDDER will have to issue the same from GGL store located zone wise.
- 8.11. GGL shall provide site clearance / approval / work permit for carrying out the job.
- 8.12. GGL or its representative shall inspect the entire job.
- 8.13. GGL shall provide safety guidance and assistance as and when required.
- 8.14. GGL shall inform BIDDER about risk associated with the job and its control measure.

GUIDELINES FOR MAINTENANCE OF CNG STATION EQUIPMENT

9. INTRODUCTION:

- 9.1. The document covers the general guidelines for Minor Maintenance Activities of some equipment installed at the CNG stations.
 - Minor Breakdown / preventive maintenance (leak check) of Stationary and mobile cascades, LCV Fill Points, SS Tubing.
 - Minor electrical work like replacing of fuses, bulbs, tube lights, meter reading in electrical and instrumentation control rooms.
 - Minor Maintenance of Piping/SS tubing, mobile cascade filling system, valves and associated facility.
 - Leakage check of various piping / SS tubing / Cascades and other mechanical equipment and further reporting.
- 9.2. BIDDER along with EIC of CNG station shall inspect on monthly basis as per operational check list issued by GGL on the following;
 - General condition of installation.
 - Operation of SS ball Valves and fittings used for CNG dispensing.
 - Condition of Gauges.
 - Testing for gas leaks on fittings etc. using soap solution and water solution.
 - General condition of overall odorant system for odorant leakage for ensuring necessary maintenance through authorized vendor.
 - Periodic checking and tests of CNG Tubing, Fittings and Appliances.
 - Status of re-commissioning of various decommissioned instruments / equipments.
 - Periodic checking of operation of by-pass and stand by lines.
 - Monitoring and Recording the temperature, pressure, flow of gas as well as odorant.
 - Statutory requirements.

- Records to be maintained on the inspection/maintenance of;
 - Pressure regulator working parts (valve seat).
 - Filter elements.
 - Auxiliary pipe work and components.
 - Valves (as necessary).
 - Orifice plates (in the events of any orifice metering).
 - General condition of installation.
 - Condition of gauges, switches, sensors, etc.
 - Evidence of any spillage of odorant.
 - DG set.
 - Electrical panel (HT/LT), UPS

10. MAINTENANCE PHILOSOPHY (WHEREVER APPLICABLE)

10.1. Periodic / Preventive / Routine Maintenance of CNG Stations

To carry out “Minor” Maintenance of Cascade, SS Tubing, and LCV Fill Point at owned online/mother station along with attached Co-located Online/Daughter CNG Stations. Activities as given in Annexure.

10.2. Maintenance of Electrical and Instrumentation Systems / Installations

Electrical Equipment Maintenance

- a) The O&M bidder shall “assist” the Owner in ensuring that GGL authorized vendor will carry out Testing and Calibration of installed electrical equipment and recording the result of the Testing and Calibration in suitable documents.
- b) The O&M bidder shall “assist” GGL in ensuring periodic Inspection and testing of Electrical supplies, Electrical Panel, Electrical control room, Electric meters and relays, Transformer, DG Set, UPS with battery bank, UPS distribution board, A/C, Earth pits, Fittings and Connections, Cables at CNG refueling Station.
- c) BIDDER shall ensure cleaning of all electrical equipment’s on regular basis.

10.3. CNG Stations Maintenance

BIDDER shall assist GGL in carrying out maintenance work of the equipment’s commissioned in the CNG station by OEM/GGL Registered Vendors as per GGL EIC instructions

10.3.1. CNG Storage Cascade

- BIDDER'S personnel shall take all the readings of the cylinder pressure and check any leakage if required.
- BIDDER shall ensure that the foundation on which the cascade is installed is free of any damages.
- BIDDER shall also do periodic checking of cascade to verify that the frames of the cascade are sturdy to bear the entire load of the cylinder and it is fitted with lifting lugs and canopy for its protection from the sun and rain.
- BIDDER'S Personnel should ensure that the discharge gas pressure safety relief valve should be vented to a safe place where no injury / damage to personnel or public utilities occur.

10.3.2. Air Compressor

10.3.3. Tyre Inflator

Bidder to “co-ordinate” with GGL authorized vendor for the service.

10.3.4. Valves

Various types of Valves are installed in CNG station according to their function to be performed, mainly comprises of Ball Valves, Needle Valves, Globe Valve, Check Valve, etc. BIDDER shall be responsible for the

proper operation of the Valves installed at the station and at least once in year the BIDDER'S shall inspect / check all valves installed

10.3.5. Pressure Relieving Devices

Bidder to coordinate with GGL authorized vendor for the service.

10.3.6. Preventive and routine maintenance of electrical installation / equipment

To “assist” GGL in ensuring the “Minor” preventive maintenance of Electrical Installation located at different CNG stations across the Gujarat & outside Gujarat strictly in accordance with the schedule approved by GGL.

11. EMERGENCY / BREAKDOWN / SHUTDOWN

- 11.1. BIDDER shall be responsible to arrange sufficient personnel to assist in attending emergency / breakdown maintenance works as and when required all round the 24 hours of a day.
- 11.2. BIDDER shall “assist” GGL in arranging all the materials / items / consumables / spares required for carrying emergency maintenance works.
- 11.3. BIDDER shall be fully involved for assisting GGL emergency management with full attention and correct and effective measures / remedies for break downs at correct time to save or replace the equipment.
- 11.4. BIDDER shall provide training to his emergency response team members on first aid for injuries, damages, fire extinguishing methods and equipments / appliances. Bidder shall assist in providing all the medical facilities to injured persons, with the guidance of OWNER'S medical / rescue / security coordinator. The O&M team shall be equipped with communication system, which is necessary for quick response / attention to the severe breakdown / emergency services.
- 11.5. Bidder shall keep First-Aid Kit available during the execution of work. First-Aid Kit shall have following as Minimum contents.
 - Twelve small size sterilized dressings
 - Six medium size sterilized dressings
 - Six large size sterilized dressings
 - Six large size sterilized burn dressings
 - Six -15 mg packets of sterilized cotton wool
 - 200 ml bottle of suitable antiseptic solution
 - One pair of Scissors
 - Two rolls of adhesive plaster(2cms*1meter)
 - Eight pieces of sterilized eye pad in sealed packet
 - Twenty no. of Analgesic or Aspirin tablets
 - One dozen safety pins
 - One Poly ethylene bottle for eye wash
 - Twelve pairs of medical disposable gloves
 - One Dozen of Safety Pins
 - One copy of First aid leaflet

Actual requirement need to be conducted based on the advice by EIC from time to time.

- 11.6. BIDDER shall follow emergency handling procedures and guidelines for his persons operating in shifts, get it approved from OWNER and educate them.
- 11.7. BIDDER shall plan periodic meeting for improvements / suggestions through learning from experiences. This meeting will also be attended by OWNER representatives / coordinator or in charge for emergency handling / management.
- 11.8. BIDDER shall provide PPE/all the required safety equipments to his O&M team members while they are on emergency /breakdown maintenance work.

- 11.9. BIDDER's O&M team members shall shut down the pipeline inlet system at block valves of the all stations in case of heavy flooding, fire and major gas leak and upstream gas supply failure from the source.
- 11.10. The personnel of the BIDDER shall have the emergency phone number of their company, OWNER, police, traffic police, fire brigade, hospitals for medical assistance, if any injury to personnel occurs.
- 11.11. BIDDER's representatives shall not neglect even a small leak, if detected. He shall immediately act upon to check / arrest the leak, which may result into disaster if the leaking gas catches fire. In case of heavy leakage or burst pipes the exposed gas jet becomes potentially hazardous; hence, the area should be isolated, vent safely and replace the affected portion of the affected area. They should also inform to all the concerned.
- 11.12. BIDDER shall strictly adhere to the "Emergency Handling Plan / Procedures" advised by OWNER to tackle any emergency arising out of any Accident / Mishaps / Leak / Fire and Explosion / Heavy Rain / Earthquake / Floods, etc... Bidder must follow the on-site Emergency Plan. This manual must be thoroughly read, understood and practiced during mock-drills. Every individual's role must be clear to all concerned.
- 11.13. BIDDER shall put up his best efforts to attend emergency / breakdown maintenance works as and when required.
- 11.14. Before taking any shutdown or planned / breakdown maintenance or overhauling, BIDDER shall inform to GGL and obtain approval for the same.
- 11.15. On receiving information from GGL or Dealer/Franchisee of attached collocated CNG stations, BIDDER shall ensure that, the service team reaches the concerned / affected station for attending complaint and giving feedback to EIC and has to rectify Normal/minor Complaints. In case the break down needs to be attended by OEM or GGL authorized vendor, the same has to be conveyed by bidder to GGL for taking necessary corrective action as is needed. Such services shall be extended by them on 24 x 7 basis subject to the force majeure.
- 11.16. Before proceeding to the station, the BIDDER personnel shall collect all necessary spares required for the repair depending on the nature of the complaints received.
- 11.17. Upon reaching the retail outlet, the BIDDER personnel shall contact the GGL to advise his attendance on site, and confirm the breakdown report.
- 11.18. The BIDDER shall coordinate with the GGL representative for instructions on undertaking the repair work.
- 11.19. After attending and solving the complaint, the BIDDER shall inform to GGL.
- 11.20. Unused / replaced spares should be returned to GGL accordingly.
- 11.21. BIDDER shall put up all efforts to arrange all spares / items / consumables / materials required for carrying emergency maintenance works in case they are not readily available.
- 11.22. Bidder shall note down the equipment performance before and after carrying out the maintenance of equipment in his service logbook / report.
Bidder shall provide proper communication facilities to all bidders' personnel such as engineers, technicians, helpers, etc. to ensure timely attendance of the complaints.

12. STATUTORY COMPLIANCE

- 12.1. BIDDER shall ensure compliance with the Statutory requirements / Rules / Laws like Labor Laws, Minimum Wages Act, Payment of Wages Act, Workmen Compensation Act, Personal Injury (Compensation Insurance) Act, Industrial Dispute Act, Shop and Establishment Act, Employee Provident Fund Act, Family Pension and Deposit Linked Insurance Scheme or any other act related to the Employee's welfare. Any assistance / compliance required from the OWNER should be informed in time and followed up for compliance.
- 12.2. BIDDER shall be responsible for Insurance Coverage of the complete manpower engaged under the workmen's compensation Act / Group personal accident policy for the number of persons engaged by him at any point of time. He shall produce necessary documentation for the same to OWNER. He shall not engage any person less than 18 years of age and shall not pay less than what is prescribed under minimum wages act.
- 12.3. BIDDER shall at his own expenses comply with all labor laws and keep the OWNER indemnified in respect thereof. The OWNER shall be entitled to deduct directly from the bills to be paid to the BIDDER any sum, fines / penalty payable by the BIDDER and which sum / sums the company is required to pay as the principal employer on account of the BIDDER'S default in respect of all liabilities referred to in above clause.

- 12.4. BIDDER shall be liable to pay all remuneration, salary and other payments including statutory benefits and necessary insurance to his employees, OWNER shall not be concerned with the same. BIDDER shall indemnify OWNER against all / any claim by his employees including accident, remuneration, benefits or otherwise.
- 12.5. BIDDER shall be responsible for the payment of all salaries / wages, allowances, emoluments, gratuity and such other payments etc. as may be required to be paid to the employee by the BIDDER under any law or statutory rules applicable to the employee, and the BIDDER shall discharge all such liabilities promptly and keep OWNER indemnified and from same at all time.
- 12.6. BIDDER shall be responsible for the payment of contribution under Employee State Insurance Act, Provident fund and other statutory payment to be made under any law or statutory rules and regulations for the time being applicable to the staff engaged by the BIDDER for the work at the OWNER'S premises and the BIDDER shall discharge all such liabilities promptly and indemnify and keep the OWNER indemnified from same at all time.
- 12.7. Proof of payments made against all statutory payments like PF, ESI etc., are to be submitted along with bills. Payments made against statutory requirements will be audited for genuineness.
- 12.8. In view of death, injury or accident to employee, BIDDER should take Workman's Compensation Policy / Group Personal Accident Policy for the person being engaged with BIDDER at a time.
- 12.9. BIDDER shall be responsible to comply with all the liabilities and accordingly, BIDDER shall maintain all record and registers and produce before the competent Authorities under the Act or the OWNER as and when demanded.
- 12.10. By way of illustration of various Acts as stated in the contract, the BIDDER thereof shall comply with the following Acts prevailing from time-to-time or any amendments therein;
- The Employee's Provident Fund Act, 1952
 - The Employee's State Insurance Act, 1948
 - The Contract Labour (regulation and abolition) act, 1970
 - The Minimum Wages Act, 1948
 - The Payment of Wages Act, 1936
 - The Workmen's Compensation Act, 1923
 - The Payment of Bonus Act, 1965
 - The Factories Act, 1948
- 12.11. Any other statutory requirements of Local / State Government / Government of India shall be fully complied by the BIDDER and the same shall be included in his scope of work.
- 12.12. Statutory Compliance for CNG Station**
- 12.12.1. All the statutory approvals and Liasoning required for CNG operation (stamping - legal metrology from weight and measure department of government) will be in the scope of the BIDDER. However, OWNER will bear the statutory fee incurred for all such approvals. OWNER will pay directly to the concerned authority and provide necessary letters / documents to BIDDER or will refund the amount to the BIDDER on submission of valid proof of payment.
- 12.12.2. BIDDER shall obtain safety work permit for operation, maintenance and testing before commencing the work.
- 12.12.3. BIDDER shall fully comply with the safety work permit system of OWNER and shall submit various safety related reports as advised by OWNER.
- 12.12.4. BIDDER shall not discuss / disclose any information pertaining to the operation and maintenance of CNG Station to the statutory, local authorities during Audit / Inspection in verbal / writing without prior consent of OWNER pertaining to the CNG Station operations. Bidder can give information related to their firm in response to the queries if any raised by statutory authorization.
- 12.12.5. BIDDER shall obtain permit to work (PtW) to carry out hot work only after pertaining permission of GGL EIC.

13. REPORTING

- a. BIDDER shall prepare General Reports regarding the CNG station minor maintenance, and submit the same to OWNER, Soft as well as Hard copy in the format provided from time to time to the successful BIDDER.
- b. BIDDER shall submit O&M Report, and report on O&M Plan against execution to the OWNER.
- c. BIDDER shall maintain all Documents / Reports and submit to the OWNER.
- d. BIDDER shall ensure that all Near Misses occurred during execution of the contract are reported from time to time to the OWNER. Any Hazard spotted while on job shall be reported to OWNER for further mitigation. Any incident / Accident shall be reported to OWNER as per guidelines.
- e. BIDDER shall follow Quality Control / Assurance Plan, Standard Operating Procedures required for the operation of the CNG station issued by OWNER.
- f. BIDDER shall maintain register for the Complaint analysis report, firefighting equipment and submit the report for the same.
- g. BIDDER shall make correspondence in writing with the OWNER.
- h. BIDDER shall strictly follow/adhere the work permit system as per OWNER'S specification.
- i. Before taking any shutdown or planned / breakdown maintenance or overhauling by authorized vendors, BIDDER shall ensure that approval of the OWNER.
- j. BIDDER shall generate and produce the following reports, but not limited to the followings;
 - Reports of individual equipment as and when the undertaken for preventive maintenance.
 - Plan Vs Actual execution of maintenance carried out.
 - Equipment wise History card for every station updated by authorized vendor.
 - List of preventive maintenance of equipments carried out.
 - Monthly spares consumption for each station for preventive Maintenance and breakdown repair.
 - Monthly breakdown down repair details and analysis report.
 - BIDDER shall report all incidents in accordance with the requirements.
 - BIDDER shall provide a report of Lost Time Injuries (LTI), Restricted Work Day Cases (RWDC), Medical Treatment Cases (MTC), Medical Evacuations, First Aid Cases (FAC), Near Miss Reports and Frequency of Hazardous Occurrence (numbers of hazardous situations without details) for the entire work, if required by OWNER from time to time.
 - Vehicle Log Book

14. PENALTY TERMS

The following critical parameter describes the system performance and service level expectations and requirements during the Implementation phase of Contract. The service level includes target performance measures, unacceptable measures and the related penalties for not meeting required service levels.

The Bidder should ensure that all activities carried out at the Site shall be strictly in terms of Owner's documented procedure and HSE Norms and any deviation from it shall be dealt with strictly including imposing Penalty not limited to as per table below but termination of the Work order.

If any material / Asset damage during the execution of job then owner shall recover the actual amount from Bidder's bill.

The cumulative penalties arising out of Service Level Agreements detailed below shall be limited to 20% of the Monthly Invoice Value except for point no. 8 given in Penalty table 3.

Table 3: PENALTY TERMS

Sr. No.	LIST OF NON COMPLIANCE	PENALTY PER INSTANCE
1.	Any incident leading damage to Owner asset or major safety concern (Penalty in addition to the repair cost of Equipment)	Rs. 10,000/-
2.	Any employee found below the age of 18 years	Rs. 20,000/-

3.	PPE not worn by operating staff (After Two warning)	Rs. 1,000/-
4.	Noncompliance to any statutory & legal requirement (per instance)	Rs. 5,000/-
5.	Illegal use of Diesel Generator i.e. use of DG for other activities not mentioned in the technical Scope	Rs. 10,000/-
6.	Breakdown maintenance activity should be attended with 8 hours from time the breakdown is logged, If the time of attending is more than 8 hours Gujarat Gas Ltd debits Rs.1000 for every day.	Rs. 1000/-
7.	Non submission of documents to be submitted with invoice as given in bid (or as instructed from time to time) within 60 days from the last date of respective month	Rs. 1,000/-
9.	Penalty for postponement of preventive maintenance should be levied on the bidder.	Rs. 1000 per instance.
10.	If DG set is not operating due to non-availability of Diesel	Rs. 1000 per instance
11.	If bidder does not assist the GGL EIC for maintenance work or co-ordinate with third party or other utility then bidder will be penalized	Rs. 1000 per instance
12.	If bidder does not submit time to time reports/MIS for maintenance work	Rs. 1000 per instance

No penalty shall be applicable in case of;

- Force majeure.
- When GGL has instructed not to carry out the work, for which only written evidence shall be considered / granted.
- Reasons not attributable to Bidder.

Table 4: CPAR Related Penalty and Terms:

Sr. No.	Parameter	Service level Agreement	Penalty
1	CPAR Section Business Performance -	CPAR Score of Business Performance section => 75% of the applicable points	In addition to corrective action by contractor at his own cost, Penalty of Rs. 5,000 will be levied if monthly Business Performance points are less than 75% of the applicable points
2	CPAR Section Quality Control -	CPAR Score of quality control section => 50% of the applicable points	In addition to corrective action by contractor at his own cost, Penalty of Rs. 3,000 will be levied if monthly quality control points are less than 50% of the applicable points
3	CPAR Section - Contract Management -	CPAR Score of Contract Management - CPAR Section => 50% of applicable points	Penalty of Rs. 3,000 will be levied if monthly Contract Management - CPAR points are less than 50% of applicable points
4	CPAR Section - HSE and Life Saver Compliance -	CPAR Score of HSE & Life saver section => 50% of applicable points	Penalty of Rs. 3,000 will be levied if monthly HSE & Life saver points are less than 50% of applicable points

Show-cause Notice will be issued to Contractor/service provider in case their over-all monthly CPAR score is less than 60% CPAR Score in 3 successive months or less than 40% for successive two months. Further in case if the

response of show-cause notice is not satisfactory or performance of the contractor is still not satisfactory, GGL may take severe actions including but not limited to Termination/Debarment as per GGL Policy.

Note:

1. Contractor's/Service provider's performance data are captured on monthly basis as per CPAR (Contractor Performance Assessment Report) format.
2. Work allotment by GGL will be formally communicated to contractor before start of every month.
3. Contractor's/Service provider's need to visit GGL office (Office address and time suggested by GGL EIC) monthly basis for CPAR.
4. Less than 40% marks of applicable points in Business Performance section shall lead to Over-all CPAR score reduced to 0%.
5. Less than 50% compliance of applicable points in HSE + Lifesaver requirement shall lead to Over-all CPAR score reduced to 50%
6. Any fatality incident on GGL site shall lead to Over-all CPAR score reduced to 0
7. Any LTI incident on GGL site shall lead to Over-all CPAR score reduced by 50% of obtained score
8. Any MTC incident on GGL site shall lead to Over-all CPAR score reduced by 25% of obtained score.

PENALTY MATRIX RELATED TO INJURY CASES:

Sr. No.	Parameter	Penalty (INR)
1	Fatal incident	For each fatal case in an incident either 1,00,000/- or 10 % of total contract value, whichever is lower
2	Lost time injury	For each injury case in an incident either 20,000/- or 5 % of total contract value, whichever is lower
3	Medical Treatment case / Restricted workday case (Excluding animal/insect bite cases)	For each injury case in an incident either 10,000/- or 2 % of total contract value, whichever is lower

Note: Penalty shall be imposed over and above the payment & compensation that would be made by the service provider to the injured person or family of deceased vide the statutory provisions.

15. EMERGENCY AND SECURITY MANAGEMENT

The purpose behind the emergency and security management is to avoid the security threaten and promptly handling of any emergency arises, so as to maintain the facility in optimal condition most of the time. BIDDER shall ensure ERDMP (Emergency Response and disaster management plan) issued by GGL during the entire tenure of the contract. The major responsibilities and roles of the manpower supplied by BIDDER as defined in ERDMP, but not limited to;

15.1 Emergency Management

GGL has prepared the ERDMP and constituted the emergency response team. The ERDMP is prepared mainly for natural gas related emergencies, likely to occur during the operational activities of City Gas Distribution System including CNG station; it is recommended that the copy of location ERDMP should be given to location team, after imparting initial training on the subject.

The intent of these chapters is to highlight the importance and remind to those responsible about the main points of effective emergency handling, as listed below:

- Prevention and Control Measures
- Emergency Response Plan and Team
- Emergency Communication
- Initial instruction to informer

- Information sharing / contact with concerned authorities
- Situation Assessment and control measures

Bidder and his team members should go through the ERDMP document, prepare themselves for attending any emergencies in line with the ERDMP document/guidance from EIC.

15.2 Security Management

BIDDER shall be responsible for the physical and electronic security of CGD Network, Offices, Equipments, Installations, Establishments, Associated Facilities, etc. includes, not limited to;

- Security of Information (Documents, Drawings, Policies, etc.)
- Security of Material and Asset / Equipment, Spares, etc.
- Security of Manpower, Terrorist Threat, etc.
- Traffic Control for any site job.
- Security during the site work or CGS or TBs' or during LPT / LDT.

BIDDER and his personnel shall ensure the security of physical and electronic information, especially for confidential. OWNER shall terminate, if BIDDER or his personnel found involved and guilty in such cases, even may lead to the termination of contract.

16. QUALITY CONTROL / INSPECTION

16.1 Quality Control / Inspection

The Quality Control / Inspection indicate the requirement for various activities pertaining to the CNG station.

16.2 Inspection & Testing

All high pressure components such as Pressure Vessels / Cylinders, Tubing / Piping, Valves, etc. as well as fire protection systems should be periodically inspected and tested and all Pressure / Temperature Gauges, Sensors, Switches, Safety Relief / Shut-off Valves, Gas Detectors, etc. installed in CNG Station, should be periodically inspected and calibrated as per the norms laid down by the statutory authorities or by OWNER.

To "assist" GGL in ensuring periodic inspection and testing schedule individually to their serviceability, installation for obvious gas leaks, safe working condition of hoses, probes, gauges, sensors / detectors, valves, etc.

Bidder shall co-ordinate with GGL to carry out following inspections / checks for the Equipment / Instruments installed at the CNG station;

Gas Inlet Line	Leaks, Gauges, Corrosion.
Mobile and Stationary Storage Vessel (Cascade)	Leaks, Relief Valves for sealing and fit for purpose, Gauges, All Brackets are secured, Valves (Condition / Operation) Fence / Gate, No Smoking Sign, Restricted Entry Sign, Corrosion, Pressure Test Date.
Master Shut Off Valves	Leaks, Signs, Brackets Secure, Lockable (off), Pipe work.
Emergency Shut Off Valves	Leaks, Signs, Brackets Secure, and Lockable (off), Pipe work.

General

Log Book Entries, Emergency Procedures Available, Training, Records.

Owner / Owner's representative shall carry out the Quality Assurance, Periodic Safety Check and Test Schedule of all the Equipments and instruments at regular interval.

The Competent Quality Control Organization shall issue the inspection / test certificate for records on completion of the Inspection of the installation of Equipment and if found to comply with codes and standard (National and International).

16.3 Annual Safety Audit of CNG Station

BIDDER should assist GGL in conducting annual Safety Audit that will include, but not limited to the following;

- Review of all documents against testing and checking of all safety devices and all shutdown devices related to gas safety on each compressor unit, Air compressor unit, conditioning skid, Electrical / Instrumentation equipment and other facilities as per applicable national and international codes, GGL instructions.
- The testing, calibration and resealing of all the relief valves.
- The testing, calibration and resealing of relief valves on storage vessels / cylinders, (where applicable).
- Testing the serviceability of the emergency shutdown fittings.
- Hydro test of the cascade storage vessels / cylinders.
- All high pressure components such as Pressure Vessels / Cylinders, Tubes, etc. are periodically inspected and tested and all Pressure Gauges, Switches, Relief / Shut-off Valves, gas detectors, etc installed on CNG Compressor are periodically calibrated as per the norms laid down by the statutory authorities.

16.4 Guarantees and Warranties

16.4.1 Performance Guarantee of the Work

BIDDER shall assist GGL in ensuring that the work is executed by vendors as per the predefined quality and should be inspected at periodic intervals against poor workmanship, defective Equipment and material, etc. for certain period as per WO placed by OWNER.

16.4.2 Equipment and Material / Spares Warranty

All the equipments and materials, if supplied by BIDDER shall be warranted for trouble free operation for a certain period as specified by supplier.

In case of bought out items, BIDDER shall obtain such guarantees from the sub-vendor in favour of OWNER without prejudice to his liability for the performance of whole system including bought out items. BIDDER shall intimate to OWNER for any defect found in the material supplied by the OWNER promptly.

In case of any problem arising during guarantee period, BIDDER has to carryout necessary rectification at no extra cost to the OWNER.

17. SPARES & REFERENCES

17.1. Spares / Inventory Management

OWNER shall procure and provide relevant and adequate spares for the entire operations as per the industrial inventory practice or as recommendation by OEM / Vendor.

BIDDER shall;

- Keep proper record for the spare parts, and consumables utilized during the Maintenance activities.
- Maintain & Control Store, Inventory of spare parts, tools, supplies, and other consumables, maintain

- necessary records update and reporting to the OWNER as per MIS.
- Advise OWNER promptly, if any correspondence / warranty claim may be taken up with the supplier of the equipment / spares installed in the Plant or a claim may be made under any insurance policy.
- Ensure safety and security of all the spares / stores at all the times.
- Reconcile the spares issued by the OWNER as per MIS or as instructed. However, OWNER shall recover the cost against any damage, theft, shortage, found there in.
- Collect the required spares from GGL stores for preventive maintenance.

17.2. References

OWNER shall provide all the original reference documents such as, P&ID, OEM guidelines / manuals, drawings, statutory documents / license, etc. to the successful BIDDER for reference.

17.3. Tools and Tackles

Bidder shall provide relevant tools and tackles required for forecourt operations work for CNG stations as per recommendations of OWNER.

18. ANNEXURES:

Annexure-1: Preventive Maintenance Checklist

PREVENTIVE MAINTENANCE CHECKLIST		
Sr. No.	Description	Frequency
1	Storage Cascade (Mobile)	
1.1	Bidder shall verify that the cascade cylinders are hydro tested as per the statutory requirement and submit report for same.	Monthly
1.2	Bidder shall verify that equipments are being calibrated as per the statutory requirement and submit report for same.	Monthly
1.3	The cylinders are cleaned, visually checked for corrosion / damage and submitted reports for necessary action.	Monthly
1.4	Check leakages of all fittings.	Monthly
1.5	Check the tightness of all fittings.	Monthly
1.6	Check tightness of all cylinder clamps.	Monthly
1.7	Check Rupture Disk on each cylinder.	Monthly
1.8	Check leakages and Operations of SRV.	Monthly
1.9	Check tightness of Cascade mounted on LCV.	Monthly
1.10	Check the grouting of the cascade frame.	Monthly
1.11	Check for proper bracket-to-vehicle mounting.	Monthly
1.12	Check proper connection of Fuel and vent Hose.	Monthly
1.13	Check whether, Rubber mounting pads are in place or not, if not specify same in the report.	Monthly
1.14	Check condition/ maintenance validity of Fire extinguisher in LCV	Monthly
1.15	Check tightness /tension of Tie rope and tie rode for cascade (as applicable)	Monthly
1.16	Check Availability as per provided list of first aid items in First Aid Box	Monthly
2	Storage Cascade (Stationary)	
2.1	Bidder shall verify that the cascade cylinders are hydro tested as per the statutory requirement and submit report for same.	Quarterly
2.2	Bidder shall verify that equipments are being calibrated as per the statutory requirement and submit report for same.	Quarterly
2.3	The cylinders are cleaned, visually checked for corrosion / damage and submitted reports for necessary action	Quarterly
2.4	Check leakages of all fittings.	Quarterly
2.5	Check the tightness of all fittings.	Quarterly
2.6	Check tightness of all cylinder clamps.	Quarterly
2.7	Check Rupture Disk on each cylinder.	Quarterly
2.8	Check leakages and Operations of SRV.	Quarterly
2.9	Check the grouting/mounting of the cascade frame	Quarterly
2.10	Check proper connection of vent.	Quarterly
2.11	Check dual Earthing connection with earthing strips	Quarterly

2.12	Check whether, Rubber mounting pads are in place or not, if not specify same in the report.	Quarterly
3	SS Tubings	
3.1	Carry out leak check of each joint of tubing using soap and water solution and produce report for the same.	Quarterly
3.2	Check for condition of Trench Cover.	Quarterly
3.3	Check Clamps and Supports in trench	Quarterly
3.4	Any modification work related to SS H P Tubing within station premises	As and When Required
4	Air Compressor & Inflator	
4.1	Checking for Oil leakages of Air compressor and record. Checking of Belt guard of Air Compressor. Checking of functioning of the Air Inflator. Bidder to “co-ordinate” with GGL authorized vendor for the service.	Quarterly
5	LCV Fill Post	
5.1	Check for any CNG leaks from SS tube fittings using soap and water solution.	Quarterly
5.2	Condition of QRC Coupling with connector (L/M/H). Replacing of QRC 'O' rings, if required	As and When Required
5.3	Check Mass flow meter for its proper functioning at CNG Mother station	Quarterly
5.4	Check Clamps and Supports in trench	Quarterly
5.5	Replacing of spares required, if any.	As and When Required
5.6	Check for Earthing cable with clip (Replace if required).	Quarterly
5.7	Re-installation of LCV fill post in case of damaged by any accident / Incident	As and When Required
5.8	Condition of Pressure gauge, 2 and 3 Way ball valve, H P Filling Hose (L/M/H)	Quarterly
5.9	Vent height of LCV filling point should be (03 Mtr. From GL), modify if not.	As and When Required
Note:	Bidder shall take Work Permit from Authorized issuer and approved by respective site manager/engineer with all respect to carry out Minor Preventive & Breakdown Maintenance.	

Annexure-2: Vehicle Reconciliation formula

Vehicle Reconciliation:

Bidder shall deploy vehicle as per instruction provided by EIC with all necessary approvals.

Calculation of Extra kilometer run shall be carried out on GA-wise cumulative monthly basis in which all the vehicles deployed by the respective contractor(s).

The formula for reconciliation of Extra Km is as under:

Monthly Extra Km = Monthly Operational Km – Monthly Fixed Km

Whereas:

- Monthly Operational Km = Total Kms travelled by all the vehicles deployed by the respective Contractor(s) GA-wise in a month.
- Monthly Fixed Km = $(V1 \times 1000) + (V2 \times 2000) + (V3 \times 3000)$

Where,

V1 = Total no. of vehicles deployed in 0 to 1000 kms slab

V2 = Total no. of vehicles deployed in 0 to 2000 kms slab

V3 = Total no. of vehicles deployed in 0 to 3000 kms slab

ANNEXURE 3

Bidder's Scope of work for Hiring 4-wheeler Vehicle for Maintenance purpose at Co-located CNG stations

1. The Bidder shall provide commercial taxi passing vehicles on "Monthly basis Hiring of Vehicle" along with the driver.
2. Bidder shall provide the vehicle at the Base Location agreed between EIC and bidder. Base Location can either be COCO CNG station of Gujarat GAS or Gujarat Gas Office or the other location. A minute of meeting should be made between Bidder and EIC if any other location is decided by EIC.
3. Distance of the trip will be counted from Base location as decided by EIC of the company.
4. The vehicles deployed by bidder during the contractual period at any point of time should be well maintained and in perfect running condition as per Gujarat GAS's requirement with proper pollution check and valid pollution certificate.
5. The Bidder shall provide one-point contact person at each Cluster for resolving day to day operational issues.
6. In case of break down / servicing / repair, the Bidder shall provide alternate vehicle of same Make and model or higher failing which vehicle shall be hired from any other source / sources at the risk and cost of the Bidder.
7. In case of non-reporting / refusing to provide the requisite Vehicle, the same may be hired from any other source(s) at the risk and cost of the bidder, besides any other penal action which may be include termination of contract.
8. The maintenance cost, charges of fuel (petrol/diesel/CNG), road tax, salary of the driver, the overtime, overnight stay arrangement for driver and mobile phone charges of driver etc. are the responsibility of the Bidder and should be paid by the bidder. Bidder to pay toll taxes, parking charges.
9. Driver shall not be allowed to take Company's hired vehicle for his daily lunch / dinner during duty hours.
10. Insurance: Bidder to ensure insurance is available as per statutory norms.
11. Gujarat Gas reserves the right to get the meter calibrated or checked at any time at its sole discretion and in the event of any error / fault in the meter being noticed, the bill for the journey undertaken (including those undertaken earlier) would be adjusted, besides any other penal action which may even lead to termination of Contract.
12. The Vehicle sent to our office/site/ CNG stations on our requisition must have all relevant valid statutory documents like registration Book / Driving license / Insurance / Road Tax receipt / Permit fee / pollution certificates / mobile phone etc.
13. The bidder must provide the photocopy of the Registration Documents of the vehicle duly attested / notarized and certified by the owner of Contractor / Agency. However, the original registration paper shall be provided by the bidder on demand in case any further verification is required in case of any doubt.
14. The bidder shall maintain the Log Book for the vehicle. The Log Book should be duly signed by the Engineer Incharge which would indicate the Vehicle No, opening and the closing meter reading with time and date at the point of starting / ending the journey, Reason for travelling. It should be ensured that there is no overwriting in the Logbook. In no case Logbook without signature will be accepted for payment.
15. The bidder shall provide vehicles not older than five year from its manufacturing date and shall not be used for more than 1.5 Lakh kms. reckoned from the date of award of contract
16. Vehicle should be (Petrol/Diesel/CNG) and complying to emission norm of Bharat Stage VI/ latest version.
17. Vehicles details are shown as under and the same shall be taken in to consideration by the bidder while quoting rates in Commercial Bid.

Type of Car: Hatch Back or Sedan with AC and shall suitable for transportation of GGL prover. Approx. size of prover shall be:

- a. Length: 4 feet
- b. Width: 3 feet
- c. Height: 2 feet

Engine: Minimum 1175 CC

Make of Car: - Tata, Maruti-Suzuki, Ford, Toyota, Nissan, Renault, Datsun, Fiat, Hyundai, Honda, Kia etc.

Van/Mini Van or similar type vehicles are not accepted (e.g. Maruti Suzuki Eeco)

- 18. Bidder needs install VTS system in the vehicle for monitoring and payment purpose. VTS specification is provided along with this document saperately.
- 19. All kinds of repairs / maintenance cost, charges of petrol/Diesel/CNG, oil, lubricant, fee towards licenses/registration taxes such as road tax etc., salary/ overtime of the driver, insurance premium etc. are the responsibility of the bidder and shall be borne by the bidder all along.
- 20. Rates given in the contract will remain firm for entire contract period. No escalation will be provided to bidder if there is a change in CNG rates.
- 21. Bidder shall ensure that any person entering inside maintenance vehicle has insurance.

PENALTY TERMS:


- 1. If the vehicle is not available for any Maintenance activity then a penalty of Rs. 1000 per instance in addition to the penalty for not attending maintaining activities mentioned in Penalty table of Scope of Work will be levied on bidder.


Annexure-4: List of Required Tools/ Tackles

Sr. No.	Tools Description	UOM	Qty		Remarks
1	Clip on meter cum Multimeter	EA	1		
2	Electrical Supply Tester (Upto 500V)	EA	1		
3	Insulation Tap (R, Y, B, Black)	Set	1		
4	Screw & Short Driver Set	Set	1		
5	Long Screw Driver	EA	1		
6	Wire Cutter	EA	1		
7	Extension Board with Power cable & ELCB/ RCCB provision	EA	1		
8	Plier (Long & Nose)	EA	1		
9	Blower Unit	EA	1		
10	Hammer	EA	1		
11	Ballet	EA	1		
12	Measuring Tape	EA	1		
13	Taflon Tap	EA	1		
14	Flate file	EA	1		
15	Round file	EA	1		
16	Hacksaw Blade (12" & 6")	EA	1		
17	Combination Spanner -33 no	EA	1		
18	Combination Spanner -30 no	EA	1		
19	Combination Spener -10 no	EA	1		
20	Combination Spener - 7x16 no	EA	1		
21	Combination Spener - 7 no	EA	1		
22	Combination Spener - 8 no	EA	1		
23	Combination Spener - 6 no	EA	1		
24	Ring Spener - 8x9 no	EA	1		
25	Ring Spener - 10x11 no	EA	1		
26	Ring Spener - 12x13 no	EA	1		
27	Ring Spener - 14x15 no	EA	1		
28	Ring Spener - 16x17 no	EA	1		
29	Ring Spener - 18x19 no	EA	2		
30	Ring Spener - 20x21 no	EA	1		
31	Ring Spener - 20x22 no	EA	1		
32	Ring Spener -23x24 no	EA	1		
33	Ring Spener -25x26 no	EA	1		
34	Ring Spener -27x28 no	EA	1		
35	Ring Spener -28x25 no	EA	1		
36	Ring Spanner Extension Unit	EA	1		
37	Fix Spener - 8x9 no	EA	1		

38	Fix Spener - 10x11 no	EA	1		
39	Fix Spener - 12x13 no	EA	1		
40	Fix Spener - 14x15 no	EA	1		
41	Fix Spener - 16x17 no	EA	1		
42	Fix Spener - 18x19 no	EA	2		
43	Fix Spener - 20x21 no	EA	1		
44	Fix Spener - 20x22 no	EA	1		
45	Fix Spener -23x24 no	EA	1		
46	Fix Spener -25x26 no	EA	1		
47	Fix Spener -27x28 no	EA	1		
48	Fix Spener -28x25 no	EA	1		
49	Allenkey Set (Inch)	Set	1		
50	Allenkey Set (MM)	Set	1		
51	Adjustable - 12 no	EA	1		
52	Adjustable and Pipe Wrench Set	EA	1		
53	Chijal	EA	1		
54	Cordaning Tape	Roll	1		


ANNEXURE 5: WASTE MANAGEMENT MATRIX

 GUJARAT GAS	Waste Management Matrix			Doc. No.	HSE-F-51
				Rev. No.	0
				Effective Date	02-07-2018
Waste Item	Responsibility of collection	Storage Location	Responsibility of Storage & Disposal	Method of Disposal	Record to be maintained
Hazardous Waste					
O&M Waste					
Used oil from Compressor / DG set	GGL EIC through contractor	CNG Station / CGS	Contractor	Disposed to SPCB authorised vendor	From-3, Form 4, Manifest
Oil with Water Compressor / DG set		CNG Station / CGS	Contractor	Disposed to SPCB authorised vendor	From-3, Form 4, Manifest
Cotton Waste- Contaminated with Used oil		CNG Station / CGS	Contractor	Disposed at land fill sites	
Used Gas filter cartridge		GGL Store / Warehouse	GGL Warehouse – rep.	Disposed at land fill sites	Manifest
Ethyl Mercaptan scrubber drums having residual neutralized contaminated EM		CNG Station / CGS	Vendor	Disposed to SPCB authorised vendor	Manifest
Used Suraksha hose		GGL Store / Warehouse	GGL Warehouse – rep.	Disposed at land fill sites	Manifest
Condensate during pigging		Condensate tank at site	Contractor	Disposed to SPCB authorised vendor	Manifest
Used Odorant Tank with residual neutralized contaminated EM		GGL Store / Warehouse	GGL Warehouse – rep.	Disposed to SPCB authorised vendor	Manifest
Project Waste					
Used Welding Electrodes	GGL Site In-charge through contractor	Respective Contractor store	Respective Project Contractor	Disposed to SPCB authorized vendor	Manifest
Equipment-Used Oil				Disposed to SPCB authorized vendor	
Coating / Chemical cans				Disposed to SPCB authorized vendor	
Coating applicator Pad				Disposed to SPCB authorized vendor	
Used Hydro-test Water		Contractor water tanker		During de watering, care shall be taken to properly dispose the discharging water in order to avoid pollution, damages to fields under cultivation and / or existing structures and interference with the traffic. As chemical have been added to water, dewatering shall be done in such a way that the composition of the efficient water does not exceed the limit set in IS 2490 (Part-I) tolerance limits for industrial effluents discharged into in land surface water. Hence, dewatering circuit shall include chlorination before letting the water out of the pipe section to the environment.	
Other Hazardous Waste					
Plastic / other non-biodegradable scrap < 50 micron	GGL Site In-charge through contractor	GGL Store / Warehouse	GGL Warehouse – rep.	Sold to SPCB approved re-cycler	Monthly Patrak
Used batteries	GGL EIC			Sold to dealers having authorisation to collect used batteries	Form-VIII
E-waste	GGL IT In-charge			Sold to vendors having authorisation for collecting e-waste	Register
Used empty paint cans	GGL EIC	Respective Contractor Store	Respective Contractor	Sold to SPCB approved re-cycler	Manifest

 GUJARAT GAS	Waste Management Matrix			Doc. No.	HSE-F-51
				Rev. No.	0
				Effective Date	02-07-2018
Waste Item	Responsibility of collection	Storage Location	Responsibility of Storage & Disposal	Method of Disposal	Record to be maintained
Non- Hazardous Waste					
Project and O&M Waste					
Cotton waste	GGL Site In-charge through contractor	Respective Contractor store	Contractor	Dust bins / garbage container	Challan
Discarded Grinding Disc		Respective Contractor store		Sold to authorised scrap dealer	
Used Stringer brush				Sold to authorised scrap dealer	
Bevel Protector				Sold to authorised scrap dealer	
Foam Pig		Contractor truck		Sold to authorised recycler	
Bentonite Mud used for HDD	Landfill Site				
Metal Scrap (CS, MS) Pipe, Fittings, Valves	GGL Site In-charge through contractor	GGL Store / Warehouse	GGL Warehouse – rep.	Sold to authorised recycler/scrap dealer	
Other Metallic / Non-metallic scrap e.g. meters, regulators etc.					
Aluminium, Brass, Copper Scrap					
Scrap PE pipe pieces, Fittings, valves					
Non-usable Project surplus – Steel & PE					
Admin Waste					
Canteen Wastes	Admin In-charge through respective Contractor	At designated location in premises	Admin Contractor	Local Authority Waste Management arrangement – e.g. Municipal Corporation waste truck	
Used Plastic Water Bottle					
Waste paper/banner/posters					
Broken glasses					
Electrical bulbs/tube lights etc.	Admin In-charge through respective Contractor	GGL Store / Warehouse	GGL Warehouse – rep.	Sold to authorised recycler/scrap dealer	
Rubber Scrap / damaged PPEs					
Wooden Scrap					
Office Chairs, Fan, Water Cooler	EIC through contractor	GGL Store / Warehouse	GGL Warehouse – rep.		
Electrical Waste - Motor, Pump, Panel, UPS					
Other Non-Hazardous waste					
Plastic / other non-biodegradable scrap > 50 micron	Respective Function In-charge	Waste bins / garbage container	Respective Function In-charge	Local Authority Waste Management arrangement – e.g. Municipal Corporation waste truck	
Housekeeping waste	Contractor		Admin		
Expired First aid items	Respective Function In-charge		Respective Function In-charge		
Building material (civil) waste	GGL EIC through contractor		Contractor		

ANNEXURE 6: CPAR

Typical Format for CPAR

		Contractor Performance Assessment Report (CPAR)		Doc. No. : HSE-F-28 Rev. No. : 04 Eff Date : 01.11.2021	
GA / Function:		Month of Evaluation:			
Location:		Department:			
Type of Work/Services:		Work order number:			
Name of the Contractor / Firm:		Contractor Name:			
Contractor Work In-charge:		GGL Work In-charge:			
		Actual Marks	Maximum Marks	CATEGORY	Total Score
A. Business Performance (Weightage 70%)					
1	Business targets achieved within SLA or scheduled / agreed timelines	140	140	(Work Done/Work allotted)*140	
B. Contract Management (Weightage 5%)					
1	Timely deployment & mobilization of qualified, competent and trained manpower & equipment	2	2	Non-compliance/ Un-adherence Full compliance/ Adherence Not applicable	0 2 NA
2	Supply of materials and equipment as per contractual requirements within timelines	2	2		
3	Effective liaison with permission issuing authority / with private entity / other utilities	2	2		
4	Timely resolution of Complaints & settlement of all site issues	2	2		
5	Maintain complete records at the site & Submission of reports, Invoices / RA bills in time and promptly closing of queries	2	2		
C. Quality Controls (Weightage 5%)					
1	Quality of Workmanship / Job execution / Services	2	2	<90% compliance 90 - 99% compliance 100% compliance/ Adherence Not applicable	0 1 2 NA
2	Quality of Supervision, Inspection etc.	2	2		
3	Quality of Tools & Tackles, Equipment, Instruments used for GGL work	2	2		
4	Quality of materials used for GGL work (Supplied by Contractor)	2	2		
5	Proper storage and handling of materials & equipment at store, camp and at site	2	2		
D. HSE Compliance (Weightage 10%)					
1	Adherence to use of PPE's at site	4	4	Non-compliance/ Un-adherence Partial Compliance Full compliance/ Adherence Not applicable	0 2 4 NA
2	Immediate Incident reporting & management	4	4		
3	Proper Waste management (collection, storage and disposal)	4	4		
4	Minimum 2 Work place Inspection per month by Project Manager / Contractor owner & Reporting of minimum 2 numbers of job related Hazard / Near-miss per month	4	4		
5	No overdue actions from reported Hazard / Near-miss / WPI (Work Place Inspection) / Safety tour / Internal or External Audit Observations	4	4		
E. Life Saver (Weightage 5%)					
1	Compliance to GGL Life Savers	10	10	<80% compliance >=80% to <90% compliance >=90% compliance	0 5 10
F. Other Key Performance (Weightage 5%)					
1	Compliance with Statutory & Legal requirements	5	5	Non-compliance/ Un-adherence Full compliance/ Adherence Not applicable	0 5 NA
2	Closure of recommendation from previous month CPAR to the satisfaction of GGL	5	5	<80% closeout 80% - 90% closeout >90% closeout Not applicable	0 3 5 NA
NOTE : N/A (not applicable) should be used if the ratings are not going to be applied to a particular area for evaluation					
Total Actual Marks (A+B+C+D+E+F)		200			
Total Maximum Marks = All Applicable line items of (B*2 + C*2 + D*4 + F*5) + 10 + 140		200			
CPAR Score = Total Actual Marks / Total Maximum Marks x 100		100%			
Performance Category (as per Table-1 of HSE-P-08)		Exceptional <input type="checkbox"/>	Satisfactory <input type="checkbox"/>	Below Satisfactory <input type="checkbox"/>	Poor <input type="checkbox"/>
Recommendations for Improvements (to be reviewed next month):					
1					
2					
3					
Evaluator (GGL)			Contractor Representative		
Reviewed by GA / Function Team	Designation & Name	Signature & Date	Signature & Date		
	Work in charge				
	Technical / Function Manager				
	HSE Representative				
Approved by	GA Head / Function Head				

*Above Format for CPAR is indicative. CPAR format may change during contract period, Prevailing format shall be considered for CPAR calculation purpose

ANNEXURE-7 QHSE REQUIREMENTS

1. SCOPE AND APPLICATION

Contractor/Service providers are the key stake holder and an integral part of Gujarat Gas Ltd (GGL's) business. Contractors'/Service provider' Quality, Health, Safety and Environment (QHSE) performance reflects on the company's business performance and reputation. GGL has established QHSE Management Systems, Procedures & Guidelines to ensure compliance with GGL's QHSE requirements. These requirements apply to all jobs whilst conducting work for GGL including; Project, Construction, Operation & Maintenance, Field Operations and Services within any given contract or agreement.

The overall objective of QHSE management in contract/agreement is to improve the company and Contractor's/Service providers' QHSE performance in all aspects of activities. Active and on-going participation by both the GGL and Contractor/Service provider is essential to achieve this objective.

2. RESPONSIBILITIES

It is responsibility of GGL management and staffs to ensure that all Contractors/Service providers work under their direction & control are provided with relevant Integrated Management System (IMS) Policies, Procedures & Guidelines that describe the GGL requirements for undertaking work within the company. It is also the responsibility of Contractors/Service providers to ensure that their staff are informed of and comply with GGL's requirement whilst working for the company.

GGL HSE department provides advice and assistance on QHSE requirements across the complete spectrum of all work activities. Contract Owner (Department Head) and Contract Holder (Work in-charge) are responsible to ensure safe execution of work/service include the following:

- Ensuring that the QHSE Policy, Procedures & Guidelines are known and understood by all contractors'/service providers' staff and work force
- Monitoring, Inspecting & Auditing execution of work, activities to ensure adherence to the QHSE compliance requirements

The Contractors'/Service provider' will take the responsibility for implementation of GGL's QHSE Policy, Procedures, Guidelines and other requirements with the advice and support of the GGL's Contract Owner / Contract Holder and HSE representative.

Contractor/Service provider to ensure that all aspects relating to QHSE are adequately addressed and implemented in accordance with the GGL QHSE requirements and QHSE Management Plan, which shall include the management processes and activities to be implemented during the course of work with GGL.

Contractor/Service provider shall be responsible for ensuring that adequate HSE resources are put in place to enable satisfactory implementation of QHSE Management Plan.

This responsibility also applies to ensure the Health and Safety of the people are directly and indirectly engaged / involved whilst working or present at GGL's work area / sites.

3. MOBILIZATION

- Post selection and awarding of contract, GGL shall arrange a kick-off meeting with Contractor/Service provider where GGL team members Contract Owner (CO), Contract Holder (CH) & HSE representative) will discuss on QHSE Management aspects / plan and requirements in order to make sure that Contractor/Service provider and their team are fully understand the expectation of GGL. During the

meeting, QHSE Management Plan shall be discussed and agreed between GGL and Contractor/Service provider

- Contractor/Service Provider shall ensure that all tools, tackles, equipment, machineries & instruments are adequately deployed and are 'Fit for Purpose'. Pre mobilisation checks/inspection shall be carried out by GGL team for the same before the start of work.
- GGL emphasizes on the importance of the Health and Fitness of all staff/work force deployed at GGL work sites. Contractor/Service provider shall adhere to medical check-up as per the GGL Health check-up matrix (as applicable) in GGL prescribed format attached as Annexure-
- A proper HSE orientation and training will be organised by GGL for the Contractor/Service provider workforce before the start of work; under no circumstances should the Contractor/Service provider commence the work unless they have undergone the HSE training (as applicable)
- Contractor/Service provider shall ensure that all their staff/work force are provided required Personal Protective Equipment (PPEs) as per GGL PPE matrix (as applicable)
- Contractor/Service Provider shall ensure all required emergency arrangements like Medical treatment, FIRST AID box and Fire fighting equipment (as applicable)

4. EXECUTION

Contractor/Service provider is responsible to ensure the compliance with GGL QHSE requirements. GGL overall QHSE performance is directly influenced by the contractors' performance.

- Contractor/Service provider is responsible for QHSE compliance monitoring at site/work activities to ensure that work/activity is performed in a safe manner. Moreover, they are responsible for reporting of all incidents, Hazard and Near Miss that might happen during work/activity
- Contractor/Service provider shall follow and comply with GGL "Work Permit" system
- During work execution and activities, GGL team will regularly monitor and evaluate the performance of the Contractor/Service provider to identify the shortfalls and weaknesses and assist to improve the overall performance including QHSE performance through CPAR process (as applicable)

We believe that everyone at GGL, Employees, Contractors, Service providers and Associates have the right to go home safely to their families.

5. QHSE GUIDELINE (AS APPLICABLE) FOR ALL TYPE OF CONTRACTS

1 Contractor/Service provider...

- a) shall ensure that all staff/work force comply with the requirements of the GGL HSE Management System, QHSE policy, standard, procedures, guideline, plan & Life Savers at work site
- b) shall ensure issuance of Identity Card to their team members
- c) shall apply and obtain Permit to work (PtW/WA) before start of the work
- d) shall arrange work related Personal Protective Equipment (PPEs) for their staff/work force and ensure proper use during the execution of job
- e) shall carry out the work within the duty hours/office hours. No Work shall be carried out without permission of GGL's representative beyond the official duty hours unless otherwise agreed upon prior to start of work and recorded appropriately
- f) shall ensure that all tools, tackles, appliances, machines, vehicles, instruments or other equipment are Fit for Purpose and maintained safe working condition at all times and are used only by authorized and competent persons

- g) shall ensure that all the QHSE requirements are properly discussed for any sub-contracted activities with GGL. No such activity shall be performed without clearance from GGL management
 - h) shall ensure that all Hazards, Near miss, accident, incident, injuries are reported promptly to GGL. Action arises due to reported Hazards, Near miss, incident investigation; audit/inspection shall be closed out as per agreed timelines with site in-charge
 - i) shall deploy staff & work force trained, qualified and competent for the work and well aware of risks and mitigation action/s for the activities undertaken
 - j) shall make necessary arrangements for safe custody of equipment, materials in stores/warehouse and at site
 - k) shall ensure safe transportation, storage and handling of materials to prevent any damage which may impair safe performance of the equipment / material etc
 - l) shall initiate immediate actions to hospitalize injured person(s)
 - m) shall ensure an injury free, incident free workplace and protect people from harm caused by work activities
 - n) shall ensure use of seatbelts while driving four-wheeler and use of crash helmet for Two wheeler riders during job execution
 - o) shall ensure Lock out and Tag out (LOTO) after de-energizing and double check before starting any jobs. In case of conducting job for the purpose of fault finding & monitoring of voltage & current it is to be considered live working and all PPE'S to be worn to avoid exposure of flash arc current
 - p) shall take note that the use of open wires in sockets, use of wires with tape joints shall not be accepted at work site.
 - q) shall ensure proper collection, storage and disposal of solid / liquid waste as per GGL procedure and guideline
 - r) staff/work force shall not smoke or resort to misuse of drugs, medicines or alcohol while on duty
- 2 In case of any incident like fire, gas leakage etc. due to gross negligence of the Contractor's staff/work force, GGL reserves the right to impose penalty up to actual damage cost and or termination of work order depending upon the gravity of the situation.
 - 3 Any breach of the QHSE requirements shall be deemed by the company to be a material breach of the terms & condition of the contract. GGL shall be entitled to take appropriate actions including instructing the contractor to (a) remedy the breach; (b) suspend the work or (c) terminate the contract.

All activities shall be carried out as per GGL's documented procedures and QHSE requirements, deviation from it shall be dealt with very strictly

ANNEXURE-8: TECHNICAL SCOPE FOR VEHICLE TRACKING SYSTEM

- 1. Technical Scope:**
 - 1.1 Bidder shall supply and install Vehicle Tracking System and provide access rights to GGL as per requirement for tracking of vehicles.
 - 1.2 Bidder needs to setup complete application and database on hosted environment.
 - 1.3 Bidder needs to consider total expected concurrent users as 20 users.
 - 1.4 Bidder require https connectivity for VTS system.
 - 1.5 It is required to install hardware device along with SIM card or complete product that can provide real time monitoring of vehicle movement.
 - 1.6 The hardware device shall be GSM (Global System for Mobile Communication) based device which transport the packet data through GPRS (General Packet Radio Services) by using 2G,3G ,4G network.
 - 1.7 The device shall use GPS (Global Positioning System) for navigation and locating the vehicle position.
 - 1.8 The antenna used for GPS/GSM should be mounted/fitted inside the hardware device body. It shall not be mounted/fitted separately elsewhere in vehicle dashboard or other part of vehicle.
 - 1.9 The data transmission trigger shall be for travel of 100 Meters or 5 Minutes of time interval or 30 Degree angle in any direction whatever way comes early.
 - 1.10 The device shall be capable to show complete route of the trip along with real time data of route on computer screen.
 - 1.11 The device/product shall be dust proof and water proof as per the standard norms of Ingress Protection or International Protection-67 (IP67).
 - 1.12 The IP67 means 6 stands for fully protected from dust and 7 stands for protected against the effect of immersion in water to depth between 05 cm and 1 meter.
 - 1.13 The power supply for the device shall be between +10 to +30 Voltage of Direct Current supplied by vehicle battery. The device/product shall be capable to run within the power supply or power fluctuation range of +10 to +30 VDC. The device/product battery shall be rechargeable type.
 - 1.14 In case of power not supplied to the device/product by vehicle battery, the device/product shall be capable to run on its own battery for the period of 02 to 05 hours. The device/product shall have battery back-up of 02 to 05 hours.
 - 1.15 The device shall be capable to operate in normal weather condition across GGL locations. No additional artificial atmospheric facility shall be provided to the device.
 - 1.16 VTS Data API Requirement: Bidder has to Push Data additionally to GGL's central VTS system on real time basis using API, to utilize these data by Gujarat Gas in various business applications like Central VTS, GIS, CNG Operation Automation, SCADA, Travel Desk, etc.

We need following properties in JSON format to push data in our API. Data Push frequency shall be on defined frequency and additionally on triggering of defined events.

- I. IMEI
- II. GPSStatus
- III. SignalStrength
- IV. Latitude
- V. Longitude
- VI. Altitude

- VII. Speed
- VIII. Direction
- IX. NoOfSatelite
- X. Odometer
- XI. Cell
- XII. DateTimeOfLog
- XIII. Location
- XIV. IgnitionOn
- XV. BatteryVoltage
- XVI. ExternalBatteryStatus

Similarly, VTS Service Provider will provide pull API also to fetch data from their system on real time basis for specific vehicle, group vehicles (location wise, etc.). Bidder has to co-ordinate with GGL's Software Vendor to establish API and monitoring.

API communication will be secured like https protocol, with static/dynamic tokens, etc. System shall provide facility to monitor API.

1.17 Notification Alert: VTS system shall provide alert on SMS and Email for specific events defined in the system. Below are illustrative examples of alert, actual alerts can be more to be defined in the system.

- Vehicle arriving, leaving or crossing geo fencing Area, vehicle taken more time in geo fencing area than defined threshold.
- Alert on condition defined for Safety Parameters violations / Emergency situation

1.18 VTS software dashboard: Facility of dashboard to give status summary of all/selected vehicles of Gujarat Gas ex. Count of Total Vehicles, Moving, Ideal, Stopped, Unreachable, Expired VTS period, Alert condition.

1.19 Bidder shall provide custom API, Dashboard screen, Alerts, Monitoring screen as per GGL requirement. VTS system shall have facility to add specific master data to define location (Geographical area), group of locations, type of vehicles (CNG-LCV, CNG HCV, CNG-MCV etc.) which can helpful for MIS and reporting.

2. Features, Facilities & Reports:

VTS shall have the following features and facilities:

- 2.1 Able to create centralized admin user ID and area wise multiple user IDs.
- 2.2 Able to create group of vehicles – area wise, name wise etc.
- 2.3 Able to show real time speed of the vehicle and set alarm for crossing the vehicle speed of 50 km/hr.
- 2.4 Able to provide a window for manual entry of planned trip – vehicle wise along with starting location and end location.
- 2.5 Able to show complete route of trip travelled by the vehicle.
- 2.6 Able to give the total KMs travelled by the vehicle during the trip and total trips travelled during the period.
- 2.7 Able to create fencing for traveling of vehicle within the defined trip route and set alarm in case of fencing broken.
- 2.8 Able to show stoppage details of vehicle during the trip.
- 2.9 Able to show trip start and trip end details.
- 2.10 Able to give signal in case of accident or power failure of device and set alarm for the same.
- 2.11 Able to generate the reports – individual vehicle wise, vehicle group wise, area wise, time wise and trip wise.

- 3.4 The resolution time shall be derived based upon the geographical distance between Service provider's office/workshop/service center and operational location of GGL.
- 3.5 All the operational locations are divided in two parts (1) The distance between Service provider's office/workshop/service center and respective location is within 0 to 100 KMs. (2) The distance between Service provider's office/workshop/service center to respective operational location is more than 100 KMs.
- 3.6 The response time would be 2 hours for all calls. The resolution time shall be 24 hrs. for the distance of 0 to 100 KM and 48 hrs. for the distance more than 100 KMs between Service provider's office and operational location.
- 3.7 In case, if any device needs to be taken out from the vehicle and sent to OEM for further repairing work then spare device shall be used in place of non-performing device for upkeep the system. No additional cost shall be paid for spare device used against non-performing device.
- 3.8 Bidder shall be free to remove the spare/back-up device used in vehicle against major repairing work after installation and successful working of repaired device.
- 3.9 Support would include end user training including user manual for VTS.
- 3.10 Bidders shall ensure 99.9% up time per month for VTS application/database services. In case any downtime is required, the Bidder will have to follow inform the Company stake holders and take prior approval.
- 3.11 Bidder needs to ensure backup of VTS system and data as per GGL requirement so the same is used for restoration during any major incidents.
- 3.12 Bidder would be responsible for the overall smooth functioning of VTS application.
- 3.13 GGL has central VTS application software maintained by GGL's vendor and hosted on the server. GGL may ask bidder to include their vehicles in GGL's central VTS application system however till that time bidder's provided application system shall be used and also push data to GGL through API (Technical API Specification and GPS Data in JSON Format is provided below clause). Bidder has to share technical details of VTS devices (both hardware device and application) to integrate with GGL's central application. Bidder has to provide necessary support to GGL's VTS application software service provider for the integration of device.

4. Technical Specification of VTS device:

Hardware Specification	
GPS tracking device	<p>AIS140 certified GPS Tracking device.</p> <p>The hardware device shall be GSM (Global System for Mobile Communication) based device which transport the packet data through GPRS (General Packet Radio Services) by using 2G, 3G ,4G/5G network</p> <p>The device/product shall be dust proof and water proof as per the standard norms of Ingress Protection or International Protection-67 (IP67) OR IP56.</p>
GSM Specification	
GSM	Quad-band 850/900/1800/1900MH2 Module
GPRS	Multi-slot Class 12, Speed 86Kbps
Protocols	TCP/IP
SIM	E-SIM / Neon SIM Card Optional
SMS	Text SMS OTA Command Support
FOTA	FOTA FTP support
GPS Specification	
GPS	GPS L1 Band (1575.42MHz)

	GLONASS L1 Band (1601.71MHz) SBAS WAAS, EGNOS MSAS, IRNSS
GPS Channels	33 (Tracking) / 99 (Acquisition)
Horizontal Position Accuracy	<2.5 m CEP
Velocity Accuracy	<0.1m/s
Acceleration Accuracy	0.1 m/s ²
Cold Start	<35s
Warm Start	<30s
Hot Start	<1s
Sensitivity Acquisition	-148dBm
Tracking	-165dBm
Reacquisition	-160dBm
Micro Controller and 10's Specification	
Micro-controller	Processor With 50MHzPLL Clock, 32KB SRAM, 64KB Code Memory
Flash Memory	64 M-Bit for Data logging up to 50000 data packs
Accelerometer / Gyro Meter	Yes, 16G Sensitivity
Digital Inputs	One dedicated to Ignition Input Four other Active High Digital inputs One Rising edge detector with active low input for Emergency button
Analog Inputs	One Frequency Input for RPM reading /Optional with digital input 4 Four 12bit ADC channels read up to 28000 mV
Digital Output	Two Digital output active low up to 500mA
UART RS232 Port	One UART RS232 Port with configurable baud rate Use to read digital RS232 fuel Sensor data. It can be customize as per requirement as well
CAN BUS PORT	One CAN BUS (J1939 protocol) port
Tamper Switch	Yes, to detect device cover open/close
Hardware Reset Switch	Yes
Device Power Specification	
Input Power Voltage	8Volt to 36 Volt
Current Drawn by device	Max 350mA @ 12Volt during Charging Nominal - 80mA @ 12Volt when internal battery is full
Li-ion Battery	1100mAH backup up to 6 hours
LED's	Can have colour LED like RED - Blinking When working on external voltage Yellow GPS Signals Reception Blue - Blinking when device is active
SOS Button	There should be option of SOS button
Sim Card	Dual Sim card with Esim
Port (J1939)/OBD	Port J1939 is for commercial vehicle OBD port is for passenger vehicle

5. Technical API Specification and GPS Data in JSON Format:

GGL Technical API specification is as below :

<https://gglvtsapi.gipl.in/api/PostVtsData/InsertMultipleDeviceData>

Bidder can call with multiple device data with the following JSON.

```
[
  {
    "IMEI":"123456789012345",
    "GPSStatus":"Active",
    "SignalStrength":80,
    "Latitude":40.7128,
    "Longitude":-74.0060,
    "Altitude":10.5,
    "Speed":60.5,
    "Direction":90,
    "NoOfSatellite":10,
    "Odometer":12345.67,
    "Cell":"Cell Tower A",
    "DateTimeOfLog":"2023-10-25T14:30:00",
    "Location":"New York, NY",
    "IgnitionOn":true,
    "BatteryVoltage1":12.5,
    "ExternalBatteryStatus":false,
    "MappingCode":"JAXXXXXXXXXXSH",
    "AccessToken":"AccessTokenXXXXX"
  },
  {
    "IMEI":"123456789012345",
    "GPSStatus":"Active",
    "SignalStrength":80,
    "Latitude":40.7128,
    "Longitude":-74.0060,
    "Altitude":10.5,
    "Speed":60.5,
    "Direction":90,
    "NoOfSatellite":10,
    "Odometer":12345.67,
    "Cell":"Cell Tower A",
    "DateTimeOfLog":"2023-10-25T14:30:00",
    "Location":"New York, NY",
    "IgnitionOn":true,
    "BatteryVoltage1":12.5,
    "ExternalBatteryStatus":false,
    "MappingCode":"JAXXXXXXXXXXSH",
    "AccessToken":"AccessTokenXXXXX"
  }
]
```

Note:

Access Token and Mapping Code: To securely access and interpret the GPS data, GGL will provide unique Access Token and Mapping Code generated for each bidder and GPS provider.