



SCOPE OF WORK

**HIRING OF MCV/LCV AND HCV FOR TRANSPORTATION OF CNG
FROM MOTHER STATION TO DAUGHTER/ DAUGHTER BOOSTER
STATIONS**

Document No: GGL/TS/CNG/HIRING/MCV-HCV/SOW

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1. INTRODUCTION

Gujarat Gas Ltd (GGL), a Group Company of Gujarat State Petroleum Corporation Ltd., (State Government undertaking), is in business of distribution Natural Gas to Industrial / Commercial / Non-Commercial/Domestic Customers and CNG Stations in various cities authorized to GGL by PNGRB Viz: in the state of Gujarat, Maharashtra, Punjab, Haryana, Rajasthan, Madhya Pradesh and Union Territory of DNH etc.

The present document contains scope of work for hiring of commercial vehicles for transportation of CNG filled steel and multi-element gas container cascades from Mother Station to Daughter Booster Station / Daughter Station in various cities authorized to GGL by PNGRB Viz: In the state of Gujarat, Maharashtra, Punjab, Haryana, Rajasthan, Madhya Pradesh and Union Territory of DNH etc.

2. DEFINITIONS

Definitions of the terms used in this bid document, (unless the context otherwise requires), shall have the same meaning as respectively assigned hereunder.

The “**GGL**” or “**Company**” or “**Owner**” shall mean GUJARAT GAS LIMITED (GGL), incorporated under company’s Act 1956, having its Corporate Office at Ahmedabad hereinafter mentioned as “**OWNER**” which expression shall, unless repugnant to the context or meaning or meaning thereof, include all its successors, administrators, executors and assigns.

The “**Bid**” shall mean the Bid submitted by the CONTRACTOR for acceptance by the GGL.

The “**Contract**” shall mean the agreement and all other documents between the company and the contractor for providing the services mentioned herein.

The “**Service Provider**” or “**Contractor**” or “**Bidder**” shall mean the person or persons, firm or Company whose Bid has been accepted by GGL and includes the Service Provider's legal representatives, his successors and permitted assigns.

The “**Supervisor**” shall mean the person deployed by the contractor for control & supervision of the work of his work force, as per the Scope of work mentioned and to receive instructions from Engineer-In-Charge or his representative.

The “**GGL Engineer-In-Charge**” or “**GGL’s representative**” shall mean the person designated as such by the Gujarat Gas Limited and shall include his authorized nominee or agent, provided however that the GGL's Representative to be so designated by GGL may be one person for certain aspects of this agreement and another person for other aspects of work covered by this Bid / Contract.

The “**Vendors**” shall mean a manufacturer/company who engaged agreement between the GGL and the Manufacturer for supplying the Material at GGL Designated store or Site through the transporter with required documents.

“**Stores**” shall mean the GGL Stores located across GGL working areas.

“**Site**” shall mean the various CNG Stations where work is to be carried out for the purpose of contract.

The "**Specification**" shall mean all directions, the various technical specifications, provisions attached and referred to in the Bid documents which pertain to the method and manner of performing the work or works to the quantities and qualities of the work or works and the materials to be furnished under the contract or works or works as may be amplified or modified by the COMPANY during the performance of Contract in order to provide the unforeseen conditions or in the best interests of the work or works. It shall also include the latest edition of relevant standard specifications including all addenda / corrigenda published before entering into the contract.

"**Approved**" shall mean approved in writing including subsequent written confirmation of previous verbal approval and '**Approval**' means approved in writing including as aforesaid.

"**Third Party Inspection Agency**" (TPIA) shall mean outside inspection agency approved by the Company.

"**Guarantee**" means the period and other conditions governing the warranty / guarantee in respect of the work as detailed in section hereunder.

"**HSE**" means Health, Safety & Environment.

"**EMERGENCY**" means any incident / fire / explosion / gas leakage on the vehicle, Transmission or Distribution Steel Network including installations.

"**Trip**" the vehicle route started from Mother Station and reached to Daughter Booster Station / Daughter Station.

"**Round The Trip**" the vehicle route started from Mother Station to Daughter Booster Station / Daughter Station and come return back to Mother Station.

"**Trip KM**" total Distance / KMs travelled during one trip.

"**Round The Trip KM**" total Distance / KMs travelled during one round the trip.

"**Trip Time**" or "**Round the Trip Time**" the time duration for one trip or one round the trip.

3. CONTRACTOR'S SCOPE OF WORK

3.1. GENERAL

- 3.1.1. Bidder shall provide services for transportation of Compressed Natural Gas (CNG) filled mobile cascade between Mother Station and Daughter Station / Daughter Booster Station located in various cities authorized to GGL by PNGRB Viz: In the state of Gujarat, Maharashtra, Punjab, Haryana, Rajasthan, Madhya Pradesh and Union Territory of DNH etc.
- 3.1.2. Though the Owner intends to deploy tendered quantity, however in case of any exigency or business requirement, Owner may, without prejudice to any other remedy for breach of contract, without assigning any reason, by written notice to the bidder, terminate the contract in whole or in part.
- 3.1.3. Though the Owner intends to deploy tendered quantity, however in case of any exigency or business requirement, during the contract period, Owner reserves the right to increase or decrease no. of vehicles by giving notice of 30 days to the Bidder. No compensation on account of decrease of no. of vehicles shall be payable to the Bidder whatsoever may be the reasons thereof.

- 3.1.4. The Owner may terminate the contract in case the Bidder is found indulging in unscrupulous and inappropriate activity detrimental to the interest of the Owner.
- 3.1.5. The Transportations services shall be provided on round the clock basis means 24 X 7 on all the days. Bidder shall provide the services for filling of cascade at Mother Stations and Mobile Cascade connections with dispensing unit at Daughter Station and Daughter Booster Station.
- 3.1.6. Bidder shall provide the services for filling of cascade at Mother Stations and HCV/MCV/LCV connections with dispensing unit at Daughter Station and Daughter Booster Station.
- 3.1.7. The Scope/ Specification cover the minimum requirement for the various activities to be performed by the Bidder towards the filling, HCV/MCV/LCV connection with dispensing unit and transportations of CNG filled cascade at the aforesaid locations.
- 3.1.8. All the materials, equipment, appliances, services or other things of whatsoever nature required for execution of the work, whether of temporary or permanent nature shall be provided by Bidder.
- 3.1.9. Bidder shall apply and obtain all necessary permits related work to be performed and submit one copy of all statutory documents before mobilization of fleet.
- 3.1.10. Bidder shall operate their vehicles at their own risk entirely and Owner shall in no case be held responsible for any accident / damage to the vehicle while on Owner's work.
- 3.1.11. Bidder shall ensure safe keeping of Owner provided assets like CNG Cascade and other if any.
- 3.1.12. Bidder shall install Vehicle Tracking Device (VTS) and provide tracking access rights to GGL as per requirement. Refer Annexure for technical scope of VTS
- 3.1.13. Bidder shall hand over all assets, provided by Owner, to Owner within 10 working days from expiry/termination of contract at Owner specified locations as per the Owner requirements.
- 3.1.14. All the Statutory norms related to Vehicle as well as Services/RTO related formalities and RTO norms shall be followed by the Bidder at his own cost.
- 3.1.15. The CONTRACTOR shall ensure that all equipment, materials, PPE shall be fit for service/use through the contract duration.
- 3.1.16. The CONTRACTOR shall ensure that all Fire extinguishers shall be inspected by Third party on quarterly basis to ensure that the same are in working condition and integrity of its components such as cylinder/ hose/ handle/ pressure reading are found ok. Quarterly inspection report to be filled in GGL defined format and to be submitted to GGL.
- 3.1.17. The CONTRACTOR shall ensure that all Fire extinguishers are performance tested, refilled & hydro-tested as per IS defined frequency and are also re-filled immediately after use at their own cost.
- 3.1.18. The CONTRACTOR shall ensure that content in First aid box is replenished to maintain minimum given quantity on immediate basis
- 3.1.19. CLIENT will review the performance of the contract deliverables through means of CPAR (Contractor Performance Assessment Report) on monthly basis. CONTRACTOR or their Authorized representatives to attend these CPAR meetings with CLIENT representatives and shall sign-off on the CPAR format.
- 3.1.20. Bidder shall be responsible to submit dully filled formats as per the latest revision provided by GGL.

3.2. TECHNICAL SPECIFICATION OF VEHICLE:

- 3.2.1. Bidder shall provide Commercial Vehicle for transportation of CNG filled cascade between Mother Station and Daughter / Daughter Booster station in various cities authorized to GGL by PNGRB Viz: In the state of Gujarat, Maharashtra, Punjab, Haryana, Rajasthan, Madhya Pradesh and Union Territory of DNH etc. as per quantity mentioned in the SOR
- 3.2.2. The Vehicle (HCV/MCV/LCV) operated on CNG, CNG Kit fitted into Vehicle shall be BIS / PESO Authorized OEM (Original Equipment Manufacturer) supplied kit which shall be fitted in Vehicle during manufacturing process. Retrofitted CNG Vehicle shall not be accepted.
- 3.2.3. Minimum 8.7 metric ton for HCV and 6.5 metric ton for MCV/LCV means Vehicle shall have load carrying capacity of minimum 8.7 metric ton for HCV and 6.5 metric ton for MCV/LCV and Gross Vehicle Weight (GVW) shall be as per Original Equipment Manufacturer (OEM). The 8.7 or 6.5 Metric Ton includes weight of Cascade, weight of gas filled in cascade and weight of other fittings required for mounting of cascade on Vehicle.
- 3.2.4. The Vehicle shall be fully built up type including driver cabin and loading body. Only chassis type vehicle shall not be considered. The vehicle loading body shall have sufficient loading span to accommodate the cascade.
- 3.2.5. Two sides of load carrying body of vehicle shall be removable type (i.e. Drop side deck type) for easy accessibility of the cascades.
- 3.2.6. Bidder shall paste printed flex / vinyl banner on the vehicle as per the standard designs given by the Owner. The details of contents, color coding, size and other design parameter shall be given by Owner. Bidder shall prepare the flex / vinyl banners as per the directions given by the Owner at his own cost.
- 3.2.7. The Flex Banners shall be pasted as per the design/drawing issued by Owner or directions given by Engineer in Charge at his own cost.
- 3.2.8. The Other Stickers/Paintings shall be done as per the provision of Motors Vehicle Act - 1988 and Central Motor Vehicle Rules – 1989.
- 3.2.9. The Hazchem Panel shall be put on Vehicle by the Bidder at his own cost as per the directions of Owner. The details of contents and format shall be given by Owner.
- 3.2.10. Vehicle shall have the following features and maintained throughout the contract period:

Sr. No.	Features
1.	Self-retracting three point seat belt for driver
2.	Ergonomic Cab Layout
4.	High Level Brake Lights as per OEM supplied
5.	High Intensity Discharge Headlamps as per OEM supplied
6.	Reflective Strips and Reflective Markers on the Vehicle as per RTO norms
7.	Side Indicators on all the Corners of the Vehicle
8.	Reversing Alarm (Reverse Horn)
9.	Power Steering as per OEM supplies
10.	Dash-board with Odometer, Fuel Indicator, Temperature Meter & Road Speed Indicator as per OEM supplies
11.	Both the Side Rear view Mirror as per OEM supplies, Wipers & Signal Lights.
12.	Reverse camera system with parking sensors
13.	LED/ LCD screen in driver cabin
15.	Vehicle Tracking System
16.	ECS (Electronic Speed Controller)/ Speed Governor to prevent over speeding

- 3.2.11. Following essentials shall be maintained in the Vehicle throughout the Contract Period:

Sr. No.	Features
1.	Wheel Jack with Jack Rod
2.	Tool Kit
3.	Spare Wheel with good tread and in undamaged condition
4.	First Aid Box (As per the list of first aid contents provided in table below.
5.	Reflective Warning Triangles – as per OEM supplies.
6.	01 Fire Extinguisher – ABC TYPE 09 Kg./10 Kg. Stored Pressure as per IS 2190-2010 including inspection, maintenance, testing & re-filling at defined frequency as per GGL procedure enclosed as Annexure – XII
7.	TREM Card (As per the standard details & formats given by Owner)
8.	Cordoning Fluorescent Tape printed on both the sides – 01 Nos. (Length 200 M)
9.	Vehicle Log Book (As per the standard details & formats given by Owner)
10.	Driver Attendance Register (As per the standard details & formats given by Owner)
11.	Reflective Jackets -2 nos.
12.	Metal /Wooden Wheel Chocks – 2 nos. minimum
13.	Reflective Cones – 5 Nos.
14.	Torque wrench in vehicle
15.	Flame Proof LED Torch
16.	Reflective warning Sign Board “ Gas Leakage, Keep Away”
17.	Updated Emergency Contact details – GGL, Contractor, Local Police, Fire Station, Hospital & other Local authorities

3.2.12. The list of contents in the first aid box:

Sr. No.	Item Description	Quantity
1	Small size Sterilized Dressings 1 inch wide (Finger Dressing small)	6 Pcs.
2	Medium size Sterilized Dressings 2 inch wide (Hand &Foot Dressing)	3 Pcs.
3	Large size Sterilized Dressings	3 Pcs.
4	Large size Sterilized Burn Dressings	3 Pcs.
5	Role of Adhesive Plaster (1.25 cm x 5 m)	1 Role
6	Sterilized Eye Pads in Separate sealed Packets	6 Pcs.
7	Cotton Wool	2 Roll
8	Waterproof Band aid	5 Nos.
9	Antiseptic Solution 100 ml- like Dettol/ Savlon etc.	1 Bottle
10	Cream for Burns	1 Nos.
11	Small Pain Relieving Spray	1 Nos.
12	Antiseptic Cream	1 Nos.
13	Scissor	1 Nos.
14	Polythene Wash Bottle for Washing Eyes- 500ml capacity	1 Nos.
15	Plastic Gloves	1 Pair
16	First Aid instruction in Hindi/ Gujarati List of contents of First aid Format for usage of first aid box contents	1 Leaflet

3.2.13. Vehicle shall fulfill all the ARAI / CMVR / Other Statutory Compliances and RTO norms.

3.2.14. Owner reserve the right to reject the Vehicle, if not found suitable for operations. Bidder shall replace such Vehicles on priority and no additional cost shall be paid for replacement of such Vehicles.

- 3.2.15. Vehicle shall be deployed with reverse camera system with parking sensor and functioning LED/ LCD screen installed in driver cabin. Requirement of reverse camera system and parking sensor shall be as per Annexure-II

3.3. FITMENT OF CASCADE:

- 3.3.1. The Cascade shall be provided by Owner and Bidder shall carry out fitment of cascade.
Refer Annexure-III and IV for fitment of cascades on vehicles.
Refer Annexure-V, VI and VII for dimension of cascades.
- 3.3.2. Bidder shall take delivery of CNG storage cascade from Owner's designated stores as per the directions of EIC.
- 3.3.3. The safety and up-keepment of cascades is the responsibility of the Bidder during the contract period after custody.
- 3.3.4. Any Loss or Damage to the cascade items such as valve, knobs, hoses, fittings, valve handle, pressure gauge, cylinder ,tube or any other component damaged due to the negligence of Bidder shall be rectified / repaired at the risk & cost of Bidder during the fitment process.
- 3.3.5. A Fix Charge for loading and unloading of cascade as per SOR shall be paid to Bidder after submission of invoice along with work completion certificate to Owner engineer in charge.
- 3.3.6. All the cost for movement of vehicle for the fitment / dismantling of the cascade shall be borne by Bidder only.
- 3.3.7. Bidder shall arrange all materials / services or any other fabrication work required for fitment of cascade duly approved design of OEM. No additional cost / charges shall be paid for materials / services or any other fabrication work required fitment of cascade. Post fitment of cascade, Service provider shall provide an undertaking on their letter head to that cascade fitment has been done as per GGL requirements and inline with drawings provided in this scope of work.
- 3.3.8. The cascade shall be installed on the center of the loading body in such a way that the Centre of Gravity (CG) of the vehicle should not be disturbed.
- 3.3.9. Proper dampers and shock absorbers like wooden / rubber blocks or sleepers shall be used between cascade and vehicle loading body for prevention of jerks transmitting to cascade at the time of vehicle movement.
- 3.3.10. Appropriate fasteners like U – Bolts of high tensile strength, Nuts, Washers shall be used for fitment of cascade. The fasteners shall be tightened with appropriate torque. The nuts & bolts should not become loose during normal operations. Bidder shall ensure tightness and integrity of fixtures and mountings regularly during the normal operations.
- 3.3.11. If vehicle replacement required during the contract, Bidder shall carry out cascade replacement (i.e. Loading & Unloading of cascade) activity as per the directions of Owner / engineer in charge, with no additional cost to the owner.
- 3.3.12. If cascade replacement requires to be done based upon Owner's requirement, the charges shall be paid to Bidder.
- 3.3.13. If cascade Replacement requires to be done based upon Bidder's requirement, no charges shall be paid to Bidder by Owner.
- 3.3.14. Bidder shall be held responsible to handover all the cascades in working condition at the time of expiry or termination of the Contract. If any cascade is found damaged, the same shall be rectified or replaced at Bidder's cost before handing over to Owner.

- 3.3.15. The overall size (Height, Length, Width) of MCV/LCV/HCV etc. shall be as per latest Central Motor Vehicle Rules.
- 3.3.16. Replacement of Tie-In with Chain/ Belt, Stoppers, Anchor Bolts Etc. for installation of MEGC found damaged during MCV operation will be in the scope of the bidder.

3.4. **OTHER FABRICATION WORK AND FITMENTS:**

- 3.4.1. Proper fabrication work shall be carried out for mounting of fire extinguisher on front side fixed deck of loading body in case of MEGC cascade installation & side deck towards backend of loading body in case of steel cascade, for safe holding of fire extinguisher.
- 3.4.2. The fire extinguisher holder shall be fixed with the loading body and fabricated in such a way that fire extinguisher can be put on & remove easily from the holder. No additional cost shall be paid for said fabrication work.
- 3.4.3. One coat primer and two coat color shall be applied on the holder to overcome the rusting problem on completion of fabrication work. "YELLOW" color shall be applied on the fire extinguisher holder.
- 3.4.4. Each vehicle shall be provided with two earthing connections to overcome electrical sparks.
- 3.4.5. The standard spark arrestor shall be put on engine exhaust / muffler to stop sparks generated from the engine exhaust during the vehicle movement. The spark arrestor shall be purchased by Bidder at their own cost.
- 3.4.6. The spark arrestor shall be used without fail on engine exhaust / muffler during Vehicle filling and Vehicle dispensing operations executed nearby Vehicle filling point in Mother & Daughter Station or bidder shall submit document/certificate from PESO to OEM for inbuilt spark arrestor or non-requirement for the same in specific LCV/HCV model.
- 3.4.7. Fitment of cascade shall be carried by Bidder with prior approval from "Owner or engineer in charge".

3.5. **FLEET MOBILIZATION AND TRANSPORTATION/ OPERATIONS:**

- 3.5.1. Completion of Check-list (Annexure-VIII) mentioned in Tender document shall enable bidder to mobilize the vehicle.
- 3.5.2. At the time of mobilization of fleet all the drivers shall have valid vehicle driving License certified for hazardous goods driving and should have certificate for hazardous goods transportation training through reputed and approved institution.
- 3.5.3. Bidder shall endorse RC of driver from RTO for transportation of hazardous good post completion of training for hazardous goods transportation. Bidder shall ensure renewal of the RC endorsement from RTO for transportation of hazardous goods, each time after refresher training.
- 3.5.4. Deployed driver shall be maximum 60 years old. Bidder shall provide necessary replacement of driver, in case of achievement of 60 years age.
- 3.5.5. The copy of driving license and hazardous goods transportation certificate shall be submitted to engineer in charge before mobilization of fleet.
- 3.5.6. Bidder shall ensure that all the vehicles should be RTO registered and Insured before fleet mobilization. The copy of R.C. Book with valid RTO permit and insurance certificate of each vehicle shall be submitted to engineer in charge.

- 3.5.7. Bidder shall provide Co-driver with the driver during night journey of more than 100 kms single side
- 3.5.8. The offered vehicle shall be equipped with high pitch reverse buzzer.
- 3.5.9. Further, the offered vehicle shall be fitted with reverse camera with parking sensors in vehicles.
- 3.5.10. Bidder shall ensure the safe delivery of CNG at the nominated designations in the same condition in terms of quality and quantity as has been taken by the Bidder from Mother Stations. Any infringement of the above will be deemed as unlawful, Owner will hold the Bidder legally responsible for the same. Additionally, in such an event Owner also reserves the right, to forthwith terminate the contract and/or to impose penalties on the Bidder, as Owner may deem fit.
- 3.5.11. Bidder shall ensure that any leakages observed during filling, dispensing or while in transit must be brought to the notice of Engineer in Charge (EIC). The Bidder / Bidder's manpower shall work under the guidance of Engineer in Charge and follow the orders of EIC.
- 3.5.12. The vehicle shall be driven within the speed limit of 0 to 50 Kms per hour. If vehicle exceeds the speed limit beyond 50 Kms per hour, penalty shall be imposed on the Bidder as per penalty clause. The speed violation report of Vehicle Tracking System (VTS) shall be considered as a proof of speed violated by the driver.
- 3.5.13. The fleet operation shall be followed by Vehicle Trip Mechanism. There are two type of trips considered in fleet management (i.e. Upward Trip & Downward Trip).
- 3.5.14. Upward Trip means vehicle travelling starts from Mother Station and reach to Daughter / Daughter Booster Station.
- 3.5.15. Downward Trip means vehicle travelling starts from Daughter / Daughter Booster Station and reach back to Mother Station.
- 3.5.16. Upward & Downward Trip together hereafter called as Round Trip Kilometers (RTKM) shall be measured in terms of kilometer and finalized jointly (Owner & Bidder) before mobilization of fleet.
- 3.5.17. The vehicle route for traveling of vehicle during the upward & downward trip to the destination shall be finalized before mobilization of fleet.
- 3.5.18. The time required for travelling of upward & downward trip shall be measured and finalized jointly before mobilization of fleet.
- 3.5.19. Any deviation in existing vehicle trip, existing vehicle route or existing trip time more than 30 minutes during the contract period due to any reason shall be verified and approved jointly and shall be in force after engineer in charge's approval.
- 3.5.20. Bidder shall ensure the movement of vehicle shall be within the predefined upward & downward trip route and predefined time limits.
- 3.5.21. Bidder shall install the Vehicle Tracking Device (VTS) device in all the vehicles for monitoring vehicle trip, vehicle route, trip time, vehicle speed etc. Technical specifications of VTS are provided in Annexure- I
- 3.5.22. The route details shall be put into vehicle tracking system for creating geo fence before fleet mobilization. Bidder shall strictly follow the routes given by Owner. In case, if geo fencing of route is not followed by the vehicle during trip without prior approval of engineer in charge, penalty shall be imposed on the Bidder as per the penalty clause. The VTS report for the same shall be considered as a proof.

- 3.5.23. The monthly operational Kms shall be calculated based upon the total vehicle trips travelled by the vehicle in a month multiply by round trip Km. All the trips shall be recorded in vehicle log book and copy of log book shall be submitted to engineer in charge along with of monthly invoice. Owner reserves right to check and verify the vehicle log book at any point of time.
- 3.5.24. All the fleet related data like, opening odometer reading, closing odometer reading, gas pressure of all the banks of cascade, trip details, date & time etc. shall be noted down in logbook and copy of logbook shall be submitted to CNG O&M in Charge on monthly basis or as and when required.
- 3.5.25. The logbook has to be signed by Supervisor / Manager / Driver for each trip & countersigned by control room shift in charge of Owner on daily basis.
- 3.5.26. Vehicle shall be driven safely within the premises of CNG Stations. If any property of CNG Station damaged by the Vehicle, penalty shall be imposed on the Bidder and amount of penalty shall be decided based upon the severity of incident by the Owner.
- 3.5.27. Vehicle shall be parked safely while in idle condition at CNG Station or as per the directions of engineer in charge.
- 3.5.28. Bidder's workman (i.e. Drivers) shall adhere to instruction from GGL representatives regarding accident prone areas/hotspots identified in the designated MCV route and shall strictly follow the control measures as directed by GGL representatives.
- 3.5.29. Bidder shall ensure good housekeeping of the vehicle and cascade throughout the contract period.
- 3.5.30. Bidder shall arrange 05 nos. cones having reflective bottom with minimum 450 mm height shall be provided with each vehicle at all time. These cones shall be used at the time of road accident / vehicle breakdown during the trip to cordon the Vehicle in traffic or on the road.
- 3.5.31. Bidder's workman (i.e. Drivers) shall be responsible for cascade connection with CNG Loading/ Unloading point at Mother Station and Daughter Station during filling and dispensing of CNG. The drivers shall follow the guideline mentioned in Clause No. 3.5.26 while connecting the cascade with CNG Loading/ Unloading point.
- 3.5.32. The cascade filling and dispensing process to be followed by bidder/driver is as under:
 - (A) Driver shall park the Vehicle nearby the CNG Cascade filling / dispensing point as per the CNG Loading/ Unloading point layout at Mother / Daughter Station.
 - (B) Put / remove the vehicle ignition key in the filling hose before connecting the connect coupling / QRC available at CNG Loading/ Unloading point on Mother / Daughter Station.
 - (C) Connect / Disconnect the quick connect coupling (Quick Release Couplings-QRC) of the cascade after proper de-pressurization of the hose, as soon as MCV/ HCV cascade storage pressure reaches to 100 bar for Daughter Stations, 40 bar for Daughter Booster Station and 240 bar for Mother Station (or as per the instruction of EIC).
 - (D) Note down the readings, like Odometer Reading, Gas Pressure in all three banks / single bank, Date & Time etc. in vehicle logbook and daily filling & dispatched statement available in vehicle / CNG Stations.
 - (E) Transport the filled mobile cascades from Mother Station to Daughter / Daughter Booster Station as per the directions of respective CNG in Charge.
 - (F) If any gas leakage found during the trip, Driver shall inform the concerned CNG in Charge on immediate basis and record it in logbook.

- (G) In case of bursting of safety discs during the trip, Driver shall park the vehicle at safe location, close the valves of respective cylinder and install warning triangle, cordon the Vehicle with warning tape & reflective safety cones. Afterwards, driver shall inform to CNG O&M in Charge and their Manager regarding leakages.
- (H) Bidder shall ensure that gas dispensed per trip per vehicle shall be within the acceptable limits. The acceptable limit shall be decided by Owner as per the load filled in cascade during the operations.
- (I) In event of lower amount of gas per trip found, the penalty shall be imposed on the Bidder. The penalty amount shall be decided by the Owner based upon detailed analysis and calculations.

3.5.33. Bidder shall obtain the clearance for 24 hour entry permit for cascade mounted vehicle in the State of Gujarat, Punjab, Haryana, Rajasthan, Madhya Pradesh, Maharashtra & UT of Dadra Nagar Haveli wherever required.

3.5.34. Bidder shall acquire license / permissions related to vehicle for transportation of hazardous material / goods from the competent statutory authority.

3.5.35. Statutory permissions during riots / emergency for 'essential services' to be taken by the Bidder.

3.5.36. Take prior approval of Owner / Engineer in Charge before carrying out any hot work (Like welding, Heating, Fire etc.) on Vehicle.

3.6. DRIVERS AND OTHER WORKMEN REQUIREMENT

3.6.1. Bidder shall arrange adequate skilled manpower as per Owner's directions for smooth operations.

3.6.2. Completion of Check-list (Annexure-IX) mentioned in Tender document shall enable bidder to mobilize Driver and Other Workmen.

3.6.3. Bidder shall deploy minimum one Supervisor / Manager per shift on each Mother Station or for a group of Mother Stations handling maximum 15 vehicles for taking care of fleet management. The roles and responsibility of Supervisor / Manager is as under:

- (A) Shall be responsible to manage the fleet management of Vehicles operates at Mother Station.
- (B) Shall be responsible for coordination with Drivers for smooth fleet operations.
- (C) Shall coordinate with retail outlet dealers under the directions of CNG in Charge on daily basis to avoid dry outs of stations.
- (D) Shall be responsible to upkeep logbook and other reports at Mother Stations.
- (E) Shall be responsible for submission of copy of logbook, monthly invoice of Vehicle and other reports as per requirement of EIC / CNG in Charge.
- (F) Shall be a single point of contact between drivers and CNG in Charge for business communications.
- (G) Shall report to respective CNG In-Charge at Mother Station and work under the guidance of CNG In-Charge.
- (H) Shall be available in shifts at the mother CNG station during the entire working hours of MCV movement

3.6.4. Bidder shall arrange adequate number of drivers for each vehicle in a day.

3.6.5. The eligibility criteria for driver is as under:

- (A) The driver shall have valid RTO license having minimum authorization to drive Commercial Vehicle and shall be as literate as to read and write in Local language used in respective state.
- (B) The driver shall have valid certificate for hazardous goods transportation training from reputed and approved agency / institution and license should have authorization to hazardous goods transportation.
- (C) The driver must be medically and mentally fit and fine to drive and operate the Vehicle. The Bidder shall ensure the same and submit the proof of medical certificate as and when required by the Owner.

3.6.6. In case of replacement of Supervisor / Manager / Driver, the workmen shall be presented in front of CNG in Charge and HSE Officer of Owner for HSE hand holding process before deployment.

3.6.7. Client shall arrange the following training for the contractor's manpower:

Basic Safety

3.6.8. The CONTRACTOR shall arrange following training programs first time before deployment & periodically as per periodicity defined below through service providers qualified by GGL. Training on subjects not limited to as mentioned below shall be given to the drivers and other associated manpower:

- Training on First Aid Treatment (first time & every three years)
- Defensive Driving Training including emergency handling training (First time & every three years)

3.6.9. Above trainings shall be arranged by the Contractor at their cost from GGL approved Service Providers only. In case Client intends to arrange any of the training for the contractor's manpower then the contractor shall send the persons for the training and charges for the training shall be recovered from the running bill of the contractor.

3.6.10. All the drivers shall go for fresher training of 3-day hazardous goods transportation through reputed / approved agency / institution and refresher on yearly basis (before the expiry of training validity) and Bidder shall submit the copy of certificates to CNG in Charge / EIC.

3.6.11. All the Bidder's workmen shall go for HSE awareness program designed by Owner's HSE Department

3.6.12. Bidder shall ensure that all of its manpower attend any safety & technical awareness / incident lesson learning sessions arranged by GGL in-house.

3.6.13. Bidder shall submit copy of list of total no. of drivers along with all the documents of driver like RTO license, hazardous goods transportation certificate etc. to CNG in Charge before deployment of driver.

3.6.14. Bidder shall provide an attendance register at each Mother Station for noting down the daily attendance of their manpower (i.e. Supervisor, Manager & Driver). The copy of monthly attendance as per attendance register shall be submitted along with monthly invoice to CNG in Charge / EIC.

3.6.15. Bidder shall provide a mobile set to their Supervisor / Manager for coordinating with CNG in Charge / EIC.

3.6.16. Bidder shall provide the full kit of good condition Personnel Protection Equipment (PPEs) to Supervisor / Manager while working on CNG Station. In case of not wearing PPEs by Supervisor / Manager while working on CNG Station, penalty shall be imposed on the Bidder as per the penalty clause. The photograph of workmen not wearing PPEs shall be submitted to Bidder as proof for imposing penalty.

- 3.6.17. Bidder shall arrange minimum 02 no. Helmet (i.e. Hard Hat) on each vehicle which shall be used by drivers while working on Mother or Daughter Station or as and when required during the trip. The hard hat shall be kept with vehicle.
- 3.6.18. Bidder shall provide the following operation related personnel protection items to all the drivers while on duty:
 - (A) Safety Shoes
 - (B) Reflective Jackets
 - (C) Uniform / Apron
- 3.6.19. Bidder shall provide Identity Cads along with Authorized Signatory of Bidder to all its workmen.
- 3.6.20. All the workmen shall wear the Safety Shoes, Uniform, and Identity Card & Hard Hat while on duty. In case, if deviations found, the penalty shall be imposed on the Bidder as per penalty clause. The photographs of staff not wearing above mentioned item shall be submitted to Bidder for imposing the penalty.
- 3.6.21. Bidder shall ensure immediate replacement of PPE, in case of damaged/poor condition PPE at their own cost.
- 3.6.22. Bidder shall pay salary / wages to all their staff as per minimum wages applicable laws of Government and shall provide the P.F., E.S.I.C. and annual bonus to their staff as per the Government norms.
- 3.6.23. Bidder shall inform to the CNG in Charge / EIC in case of any workmen / driver / supervisor / manager leaves the job on immediate basis.
- 3.6.24. All the persons engaged by the Bidder shall be the Bidder's own employee and they will claim no privileges from Owner. The Bidder shall directly responsible for the administration of their employees.
- 3.6.25. All the workmen of Bidder shall maintain discipline and decorum in CNG Stations. In case of misbehavior / not following the orders / instructions of Owner, Bidder shall take disciplinary action against their workmen based upon the owner's complaint.

3.7. VEHICLE MAINTENANCE & FLEET MANAGEMENT

- 3.7.1. Completion of Check-list (Annexure-IV, V, VII) mentioned in Tender document shall enable bidder to mobilize the vehicle & manpower.
- 3.7.2. Regular completion of all Check-lists (Annexure-VIII, IX & X) mentioned in Tender document by bidder shall enable bidder to release monthly bills.
- 3.7.3. Bidder shall carry out the vehicle inspection once in a month for maintaining the health of the vehicle.
- 3.7.4. Bidder shall carry out all the maintenance work at OEM authorized service station or garage as per OEM recommendation.
- 3.7.5. Bidder shall maintain vehicle in sound mechanical condition at all times throughout the contract period and responsible to carry out all kind of maintenance activities related to vehicle. If technical defects notified by Owner, Bidder shall rectify it on immediate basis at his own cost.
- 3.7.6. Bidder shall arrange spare parts, services as well as consumables like all kind of lubricating oils, brake oils, grease and other consumables used during vehicle maintenance at his own cost.
- 3.7.7. Bidder shall replace vehicle tyre on completion of tyre life of 75000 Kms or frequent issues with the tube leading to deflations or heavy tyre wear, cuts or bulges.
- 3.7.8. The Re-treaded or remolded tyres shall not be permitted to use in the vehicle by the Bidder.

- 3.7.9. Bidder shall ensure the proper maintenance of paintings / stickers / flex banners pasted on the vehicle throughout the contract period at his own cost. Banners/ Stickers/ paintings to be repainted/ replaced in case of any damage/ fading of sign/ branding by the Contractor at their own cost.
- 3.7.10. The vehicle become off-road less than or equal to 03 hours due to vehicle breakdown shall be considered as minor breakdown and vehicle become off-road more than 03 hours due to vehicle breakdown shall be considered as major breakdown.
- 3.7.11. Bidder shall be allowed to avail a time period of 01 day or 24 hrs. per vehicle per month for maintenance of vehicle. The guideline for this clause is as under:
- (A) The time consume for restoration of vehicle due to breakdown shall be calculated in maintenance duration availed to the Bidder on monthly basis. The vehicle maintenance activities like preventive maintenance, minor breakdown maintenance, tyre change, routine minor repairs and electrical work should also be considered in maintenance duration to the bidder on monthly basis.
 - (B) Period includes maintenance time and travelling time from Owner's designated place to workshop and come back to the Owner's designated place.
 - (C) In case of vehicle off-road hours increased beyond the given limit, penalty shall be imposed on the Bidder as per penalty clause.
 - (D) All the mechanical breakdowns, tyre changes, preventive maintenance and other minor repairs shall be noted down in vehicle logbook.
 - (E) Summary report of vehicle maintenance of each vehicle shall be submitted to CNG in Charge / EIC as and when required.
 - (F) Bidder shall be allowed to take one vehicle in a day for maintenance work after consultation and prior permission of CNG in Charge / EIC.
 - (G) Hydrotesting of On-board vehicle cylinders mounted on vehicle (HCV or MCV or LCV).
 - (H) Maintenance work on reverse camera system along with parking sensor.
- 3.7.12. In case of major breakdown, Bidder shall be allowed to avail a period of 03 days or 72 hours for restoring the services of the same vehicle. The guideline for the clause is as under:
- (A) In case of vehicle off-road hours increase more than 03 days or 72 hours, Bidder shall provide another vehicle having same contractual features and specifications to restore the services at his own cost. This vehicle shall be called as service support vehicle.
 - (B) The additional cascade shall be provided by the Owner for service support vehicle but loading and unloading of the cascade along fitment on the vehicle shall be done by Bidder at his own cost.
 - (C) In case of not providing the service support vehicle, penalty may be imposed on Bidder as per the penalty clause.
- 3.7.13. Bidder shall set-up emergency control room which is 24X7 operational for attending to emergency call from driver related to incident/emergency/breakdown. Emergency contact number of Bidder shall be shared with all drivers for contacting in case of any such scenario. Bidder shall immediately respond to all emergency scenario and keep GGL EIC updated regarding emergency and actions taken and comply to GGL EIC instructions.
- 3.7.14. In case of any emergency, all the staff of Bidder shall strictly follow the Emergency Response and Disaster Management Plan (ERDMP) or other action plan / instructions given by the Owner.

- 3.7.15. In case of road accidents, Bidder shall be fully responsible for repairing of vehicle at his own cost and insurance related formalities shall be carried out by Bidder only.
- 3.7.16. Bidder shall be fully responsible and bound for any third party claims arise in case of road accidents within the contract period.
- 3.7.17. In case of road accident, Bidder shall provide service support vehicle having same contractual features in place of accidental damaged vehicle within 03 day or 72 hours and restore the operations. Service support vehicle shall be used till resuming of accidental vehicle. The loading and unloading of cascade shall be done by Bidder at his own cost.
- 3.7.18. In case of any injury to the driver or any other Bidder's employee, Bidder shall immediately inform to CNG in Charge / EIC and take necessary steps like shifting of injured person to hospital and medical treatment. All the expenditure shall be borne by the Bidder during the hospitalization and treatment of injured driver or Bidder's employee.
- 3.7.19. Necessary police FIR and other statutory formalities in case of road accident shall be done by Bidder only. Owner shall not be responsible for any police FIR or any other statutory formalities while road accident occurs. Bidder shall be responsible to submit the copy of police FIR or any other statutory documents to the Owner as and when asked by the Owner.
- 3.7.20. In case, if any Owner's property damaged during the road accident within the Owner premises or during the operations, the cost of damaged material / property shall be recovered from the Bidder. The Owner reserves the right to decide the amount of damaged material / property during the accidents.
- 3.7.21. Toll charges to be reimbursed at actual. However, arrangement like reports equivalent to FASTAG reports to be made available for monthly reporting and reimbursement instead of individual toll receipts. The bidder shall provide proof to the GGL EIC demonstrating the availability of funds exceeding one month's worth of the previous month's consumption in the account linked to the Fastag.
- 3.7.22. If a bidder deploys a vehicle registered in a different state than the state where it is deployed at the start of the contract, the national permit charges will be the responsibility of the bidder.
- 3.7.23. In case interstate movement of vehicle is required by GGL, GGL will reimburse Tax/ National Permit charges (except clause 3.7.22) and Weigh bridge charges to bidder. However, other statutory charges to be borne by the bidder. This clause is applicable for interstate movement of vehicle based on GGL requirement within a group too.
- 3.7.24. In case change in state for operation of vehicle from current state is required by GGL in middle of contract, GGL will reimburse Tax/ National Permit charges (except clause 3.7.22). However, other statutory charges shall be borne by the bidder.
- 3.7.25. GGL will reimburse of CNG fuel to the bidder if MCV movement is outside of Gujarat Gas operating GA as per GGL EIC instruction for hydrotesting of cascade.

3.8. HEALTH, SAFETY, AND ENVIRONMENT

- 3.8.1. Bidder shall follow all the HSE policies and HSE guidelines of owner throughout the contract period.
- 3.8.2. Bidder shall ensure that all the workmen / staff deployed by him are medically, physically and mentally fit as well as technically competent.
- 3.8.3. Bidder shall ensure that all the near misses, accidents occurred during execution of contract shall be immediately reported to owner / CNG in Charge / Engineer in Charge.

- 3.8.4. Bidder shall ensure that no passengers shall travel in vehicle during the trip. If any passengers found in vehicle during the trip, penalty shall be imposed on the Bidder as per penalty clause.
- 3.8.5. Bidder shall ensure that no person in the vehicle would smoke. No fire or other ingredients of ignition shall be permitted in the vicinity of the Vehicle. No goods of any kind shall be carried in Vehicle.
- 3.8.6. Bidder shall not carry out any work at any premises which are under construction. Permissions and instructions must be sought from CNG in Charge / EIC in case of exceptional circumstances.
- 3.8.7. Bidder shall ensure an injury free workplace and protect people from harm caused by work activity.
- 3.8.8. Bidder shall strictly adhere to the environment norms as per the existing rules.
- 3.8.9. Bidder shall carry out work following safe operating practices and transport.
- 3.8.10. During the execution of work, Bidder shall ensure that it shall not obstruct any of the routine activities performed by other agencies.
- 3.8.11. Bidder shall strictly abide by the work permit system and safe control of operation procedures wherever applicable and explained by CNG in Charge / EIC. Bidder shall follow all GGL MCV/ HCV operations related procedures & guidelines of owner
- 3.8.12. Bidder shall follow GGL lifesaver rules on Driving & Gas escape handling
- 3.8.13. Bidder shall ensure that him or his manpower should attend all meetings related to HSE & performance evaluation arranged by GGL as per intimation of GGL EIC
- 3.8.14. Drivers to strictly follow the route of MCV/HCV movement within CNG station premises as instructed by GGL EIC and follow all do's don'ts of movement inside CNG station.
- 3.8.15. Bidder shall ensure that all features & essentials as mentioned in 3.2.10 & 3.2.11 to be available adequately & in proper condition
- 3.8.16. Bidder's personnel shall not smoke or resort to misuses of drugs, medicines or alcohol while on duty.

3.9. PENALTY CLAUSE

- 3.9.1. The penalty shall be imposed on the Bidder by the Owner in case of failure of Bidder or Bidder's staff during the contract period. The details of penalty terms are given as under:
- 3.9.2. Penalty against non-availability of vehicle due to reasons attributable to the Bidders.

Sr. No.	After breakdown Time/ Non-availability of vehicle after completion of service time period	Penalty Charges
1	Upto 4 hours.	Rs.1000
2	Beyond 4 hours to 12 hour	Rs.2,000
3	Beyond 12 hours to 24 hours	Rs.3,000
4	Beyond 24 hours for each Day	No. of Days x 1.5 times per day fix charge of hiring

- 3.9.3. Penalty 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 Bidder to the injured person or family of deceased vide the statutory provisions.
 - Penalty mentioned above shall be over and above the compensation by bidder to GGL towards all direct & indirect losses.
- 3.9.4. A penalty of Rs. 10,000 per instance in case of pull out of the CNG filling hose from CNG filling post due to negligence of the driver, over and above the actual damage cost.
- 3.9.5. A penalty for Rs. 50,000/- per instance in case of commercial vehicle overturn (with/without collision or accident) over and above the compensation by bidder to GGL towards loss of direct & indirect losses.
- 3.9.6. Un-trained Driver/co-driver (all trainings as per trainings listed in this scope of Work) – Rs 1000 per driver/month
- 3.9.7. Health Checkup not done before deployment/on annual basis – Rs 2000 per person per month
- 3.9.8. Other than above mentioned fatal injury & accidents, other nature of accidents and loss of property shall be dealt with the provision mentioned in tender document elsewhere.
- 3.9.9. Rs.100/- per vehicle per occurrence against over speeding of vehicle (Vehicle speed shall not be more than 50 Km / hr.). 10% Variation/VTS error in speed allowed during imposing penalty.
- 3.9.10. Rs.100/- per instant per device per delayed day against non-working of Vehicle tracking system beyond resolution time mentioned in VTS technical scope
- 3.9.11. If fund is not available in Fastag account and vehicle is idle at Toll plaza due to non-availability of fund in Fastag than penalty of Rs. 500/- per instant will be deducted.
- 3.9.12. Rs.100/- per vehicle per occurrence, in case of delay beyond 30 minutes in predefined trip time or not following the predefined route.
- 3.9.13. Rs.100/- per vehicle per occurrence against breaking of geo fence of route during the trip.
- 3.9.14. Rs.100/- per vehicle per each stoppage of vehicle during the trip without prior permission of CNG in Charge / EIC beyond 10 minutes and is not justifiable. The vehicle stoppage report of the Vehicle Tracking System shall be considered as proof of document for imposing the penalty.
- 3.9.15. In case of non-availability of service support vehicle after completion of time period (i.e. 72 Hours) penalty @1.5 times of daily hiring rate as indicated in schedule of rate per day per Vehicle shall be imposed on the contractor.
- 3.9.16. Rs.100/- per day against no deployment or non-availability of Supervisor / Manager at Mother Station.
- 3.9.17. Rs.500/- per vehicle per day per person against no deployment or non-availability of no. of drivers per vehicle on any day.
- 3.9.18. Rs.100/- per occurrence in case vehicle found unmanned.

- 3.9.19. Rs.500/- per person per day against not wearing of uniform, ID-Card and safety shoes by the Bidder's staff.
- 3.9.20. Rs.2500/- per occurrence against passengers found in vehicle during the trip.
- 3.9.21. Rs.2,500/- per occurrence against Supervisor / Manager or Driver found intoxicated condition while on duty.
- 3.9.22. Rs.100/- per occurrence in case of vehicle not repaired / serviced in authorized or GGL approved service station or garage.
- 3.9.23. Performance rating if less than 60% against CPAR following actions/penalty will be made:
- Following actions to be initiated against non-achieving of SLA for Monthly CPAR Score.

 - First month of low CPAR score: warning letter to be issued
 - Penalty of Rs. 5,000 to be deducted for every month after one month from the date of warning letter issued if there is no improvement and still monthly CPAR score < 60%.
 - Penalty of Rs. 10,000 to be deducted for every month after fourth month from the date of warning letter issued, if there is no improvement and still monthly CPAR score <60%.

GGL may take actions as per the contract if there is no improvement after six months from the date of warning letter issued
- 3.9.24. Rs. 1,500/- per vehicle, if Bidder shall not fulfill the requirements under rules 130 to 137 of Central Motor Vehicles Rules, 1989 and any other statutory regulation. The details are as under:
- (A) Emergency Information Panel (Rule 134)
 - (B) TREM card is not maintained in the Vehicle.
 - (C) Display of Class Label (rule 137)
 - (D) Red Reflectors (Red Triangles).
- 3.9.25. A Reflective Tape or Reflective Stickers on vehicle running across the width of the body. Rs.5000/- per driver per month for non-endorsement for hazardous goods in driving license of driver
- 3.9.26. Rs. 500/- per occurrence against each HSE non-compliance mentioned in sub-points of 3.8 except the ones which are mentioned above specifically
- 3.9.27. Rs. 100/- per occurrence if maintenance work of reverse camera system with sensor is not performed within 7 days of GGL Engineer In-charge request

Note:-

- Total penalty levied under a particular Mother Station for each of the Contractor, under different heads given above should not be more than 20% of the basic value of invoice of the Contractor for Vehicles catering from respective mother station.
- The penalty cap of 20% is not applicable in case Contractor violates the penalty cap mentioned above for more than 3 Months consistently.

3.10. ENGINEER IN CHARGE

Engineer in Charge shall have following powers during execution of contract:

- 3.10.1. Engineer in Charge (EIC) may Issue the official instruction to Bidder from time to time during the period of the contract such further instructions as shall be necessary for the purpose of proper and adequate execution of the contract and Bidder shall carry out and bound by the same.

- 3.10.2. Engineer in Charge (EIC) may delegate the work related or daily monitoring related authority to the representative of company officials at respective locations and Bidder shall bound to work accordingly.
- 3.10.3. In case of any discrepancy during operation / execution of contract, the decision of Engineer in Charge shall be the final decision and Bidder shall be bounded to follow it.

4. SCOPE OF WORK – GUJARAT GAS LIMITED

- 4.1 Owner shall provide the cascade which shall be available at Owner's designated store / place. Bidder shall pick up the cascade from the Owner's designated store/place and mount on Vehicle at his own cost.
- 4.2 Owner shall provide necessary guidance, formats for register development, details of contents of HAZCHEM Panel and other statutory signs & symbols to be put on vehicle.
- 4.3 Owner shall provide the details of Engineer in Charge and CNG in Charge deployed at various CNG Stations across State of Gujarat, Punjab, Haryana, Rajasthan, Madhya Pradesh, Maharashtra and UT of DNH.

5. CONTRACTOR TO INDEMNIFY THE OWNER

- 5.1. The Contractor shall indemnify the Owner and every member, officer and employee of the Owner, also the Engineer-In-Charge and his staff against all actions, proceedings, claims, demands, costs and expenses whatsoever arising out of all actions, proceedings, claims, demands, costs and expenses which may be made against the Owner for or in respect of or arising out of any failure by the Contractor in the performance of his obligations under the Contract. The Owner shall not be liable for or in respect of consequence of any accident or injury to any workmen or other person in the employment of the Contractor or his sub-contractor and Contractor shall indemnify and keep indemnified the Owner against all such damages and compensations and against all claims, damages, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereof.
- 5.2. Should the Owner have to pay any money in respect of such claims or demands as aforesaid the amount so paid and the costs incurred by the Owner shall be charged to and paid by the Contractor and the Contractor shall not be at liberty to dispute or question the right of the Owner to make such payments notwithstanding the same may have been made without the consent or authority or in law or otherwise to the contrary.
- 5.3. In respect of all manpower, directly or indirectly employed in the work the Contractor shall at his own expense arrange for all the safety provisions and abide by all labour laws, statutory provisions, safety codes, and all fire and statutory regulation and keep owner indemnified in respect thereof.
- 5.4. If any action in court is brought against the Owner or an officer or agent of the Owner, for the failure, omission or neglect on the part of the Contractor to perform any acts, matters, covenants or things under the Contract, or damage or injury caused by the alleged omission or negligence on the part of the Contractor, his agents, representatives or his Sub-Contractor's, or in connection with any claim based on lawful demands of Sub-Contractor's workmen, suppliers or employees, the Contractor, shall in such cases indemnify and keep the Owner and/or their representatives harmless from all losses, damages, expenses or decrees arising out of such action.
- 5.5. Bidder shall indemnify company for any action under Motor Vehicle Act
- 5.6. The bidder agrees to indemnify GGL to directly or indirectly any loss or injury caused to GGL employees/agents/customers due to careless, negligent, inexperienced act or default of the bidder, his/her agents, representatives or employees.
- 5.7. The bidder undertakes that their representative shall ensure proper feeding of CNG in cascade. Any loss/mishap on account of poor tightening of cascade shall be sole responsibility of bidder. The bidder shall indemnify GGL for any losses due to it.

6. INDEMNITY

- 6.1. Contractor shall exclusively be liable for non-compliance of the provisions of any act, laws rules and regulations having bearing over engagement of workers directly or indirectly for execution of Contract and the Contractor hereby undertake to indemnify the Owner against all actions, suits, proceedings, claims, damages demands, losses, etc. which may arise under Minimum Wages Act 1948, payment of wages Act 1936, Workmen's Compensation Act 1923, Personnel Injury (Compensation Insurance) Act, ESI Act, Fatal accident Act, Industrial Dispute Act, Shops and Establishment Act, Employees Provident Fund Act, Family Pension and deposit Linked Insurance schemes or any other act or statutes not herein specifically mentioned but having direct or indirect application for the persons engaged under this contract.

ANNEXURE I: 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:

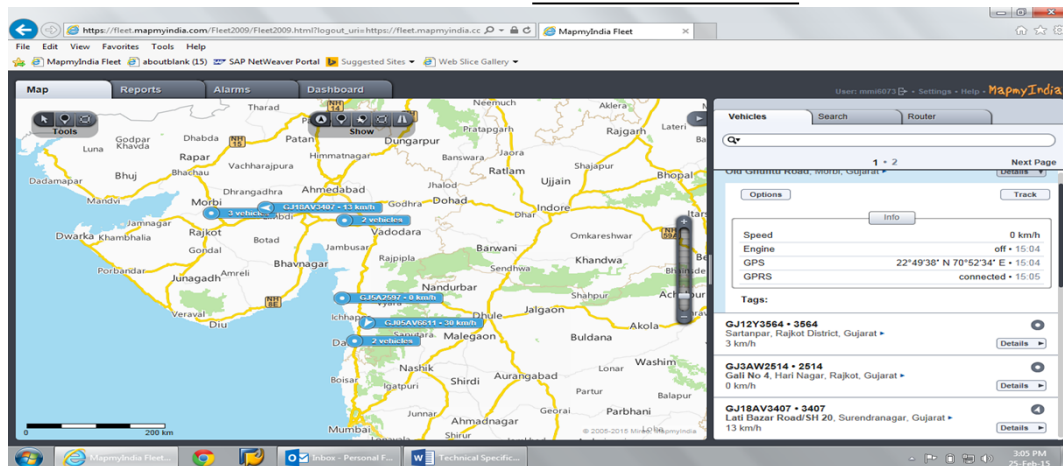
- 2.1 Able to create centralized admin user ID and area wise multiple user IDs.
- 2.2 Able to create group of vehicles – area wise, name wise etc.
- 2.3 Able to show real time speed of the vehicle and set alarm for crossing the vehicle speed of 50 km/hr.
- 2.4 Able to provide a window for manual entry 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.
- 2.12 System generated reports are needs to be configured or necessary arrangement can be made as per GGL requirement.
- 2.13 Identification of Drivers with RFID reader
- 2.14 Monitoring of speed and over speeding instances for further analysis
- 2.15 Monitoring of harsh acceleration instances
- 2.16 Monitoring of harsh braking instances
- 2.17 VTS shall has feature for pressure monitoring of cascade.

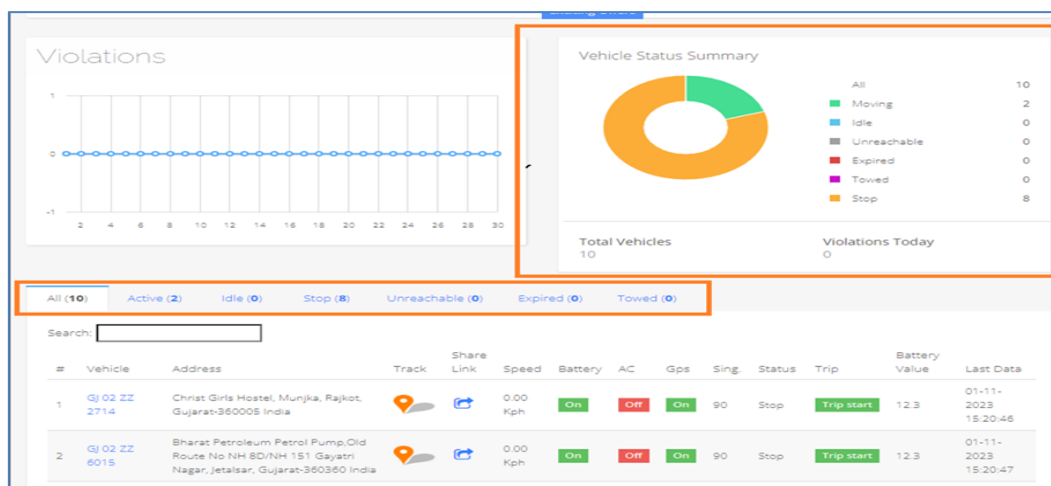
3. Operational and Support Scope:

- 3.1 The solution/product shall be centralized vehicle tracking system type in which all the vehicle shall view on central screen. The specimen images are given below,

Illustrative live screen



Illustrative Dashboard



- 3.2 The solution/product shall be accessed on multiple systems at the same time. The solution can be accessible on Laptop / Smart Phone / Tablets through standard internet browser or dedicated link given by Service provider.
- 3.3 The solution shall cover all the geographical area of GGL in which detailed map up to street level shall be covered for tracking the vehicle.

- 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 cloud 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. 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 IO'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

ANNEXURE II: REVERSE CAMERA SYSTEM WITH PARKING SENSORS

General Scope:

The scope cover the minimum required specification to be complied by the bidder toward the installation of Reverse camera system with parking sensors in MCV / HCV as per the requirement of GGL.

To have a well-lit, wide-angle view of what's behind the MCV/HCV – a view that a driver can't see with use of rear-view mirrors and also parking sensors to alert about the object in proximity.

The reversing camera system is to have “auto switch-on” whenever reverse gear is engaged for reversing of the vehicle.

Display Monitor		
Sr No	Features	Specification
1	Display screen size	7 inch LCD / LED screen,
2	Image Ratio	16:9
3	Resolution	720 x 480 pixel
4	Image Sensor	Digital CMOS or Analogue CCD
5	Viewing angle	>130 degree
6	Night Vision/ Low light vision	Mandatory, Infrared HD night vision with 12 IR LEDs which enable to show rear view during night hours also
7	Weather Protection	IP 67- Water proof & Dust proof
8	Mounting	Bracket type mounting with mechanical protection
9	Input	Voltage Range from 10-24V DC Power supply
10	Material	ABS Material
11	Operating Temperature	-20 to 70 degree
12	Other Features	<ul style="list-style-type: none"> • Amperage Modulator • Display of Parking lines feature • With motion sensors (Parking sensors) to alert about approaching objects • With AUTO-Lighting LED Lights • With menu buttons to adjust brightness, saturation, contrast etc
Camera + Parking sensors		
1	View Angel	130 degree
2	Weather Protection	IP 67- Water proof dust proof
3	Image Sensor	1/4" Colour
4	Detection Distance	0.3 – 2.5M
5	Power Supply	DC 10V – 24V
6	Buzzer Decibel	70db – 90db
7	Operating Temperature	-20 +70 degree
8	Material	ABS
9	Dimensions	6 CM * 2.2 CM * 3 CM
BUZZER & BUZZER CABLE:		
1	Operating Voltage	3V~24V

2	Rated Current	<30mA
3	Operating Temperature Range	-20°C to +60 °C
4	Storage Temperature Range	-30°C to +85 °C
5	Buzzer Dimensions	30mm diameter
6	Buzzer Cable Dimension	16 Meter
7	Weather Protection	IP 67- Water proof dust proof
RCA CABLE:		
1	Type	Nickel plated plugs to ensure precisely signals transmitting Operating.
2	Dimensions	15 M Length Cable
3	Temperature Range	-20°C to +60 °C
4	Material	PVC Plastic
5	Weather Protection	IP 67- Water proof & Dust proof
6	Other features	EMI/ RFI interference Protection
POWER LINE CAMERA CABLE		
1	Rated Current	<30mA
2	Operating Temperature Range	-20°C to +60 °C
3	Dimensions	1.5 M Length
Display Bracket		
1	Dimensions	12 Cms by 9 Cms
2	Material	Metal Bracket
3	Bracket Movement	90 Degrees
CABLE PROTECTIVE SLEEVE		
1	Material	Plastic
2	Dimensions	15 M Length
3	Tube Outside Dia	13mm/ 33/64"; Tube Inside Dia: 9.5mm/ 3/8"

Installations work:

- Test report/certificates of all material, spares and consumable to be submitted where ever applicable.
- Inspection, service and testing to be carried out as directed by GGL Engineer Incharge.
- Bidder shall plan a proper work schedule in advance in consultation with GGL Engineer Incharge.
- Bidder shall deploy competent and experience persons equipped with necessary tools and tackles for carrying out installation of Reverse camera system along with parking sensor.
- Bidder shall comply with all the HSE requirements including work permit and applicable PPE requirement.
- GGL reserves rights to terminate the contract in case of unsatisfactory and/or poor performance of contractor in terms of quality of products, services, and workmanship and delivery schedule.
- Bidder shall respond to any maintenance request raised by GGL Engineer Incharge of any maintenance request within 7 days. If maintenance work is not performed within 7 days of

GGL Engineer Incharge request, penalty will be imposed on the bidder and penalty will be charged as per penalty clause

- Installing the camera with bracket type of mounting in the rear of the LCV/ MCV / HCV and wiring it to connect with power source (12/24 volt DC) in the vehicle
- Installing the LCD or LED monitor in the driver cabin and wiring it to connect with POWER source (12/24 volt DC) in the vehicle.
- Installing the cable with all peripheral connecting LCD or LED Monitor in the driver cabin with camera installed in the rear of LCV/MCV / HCV and integrating function of all devices to achieve the purpose.

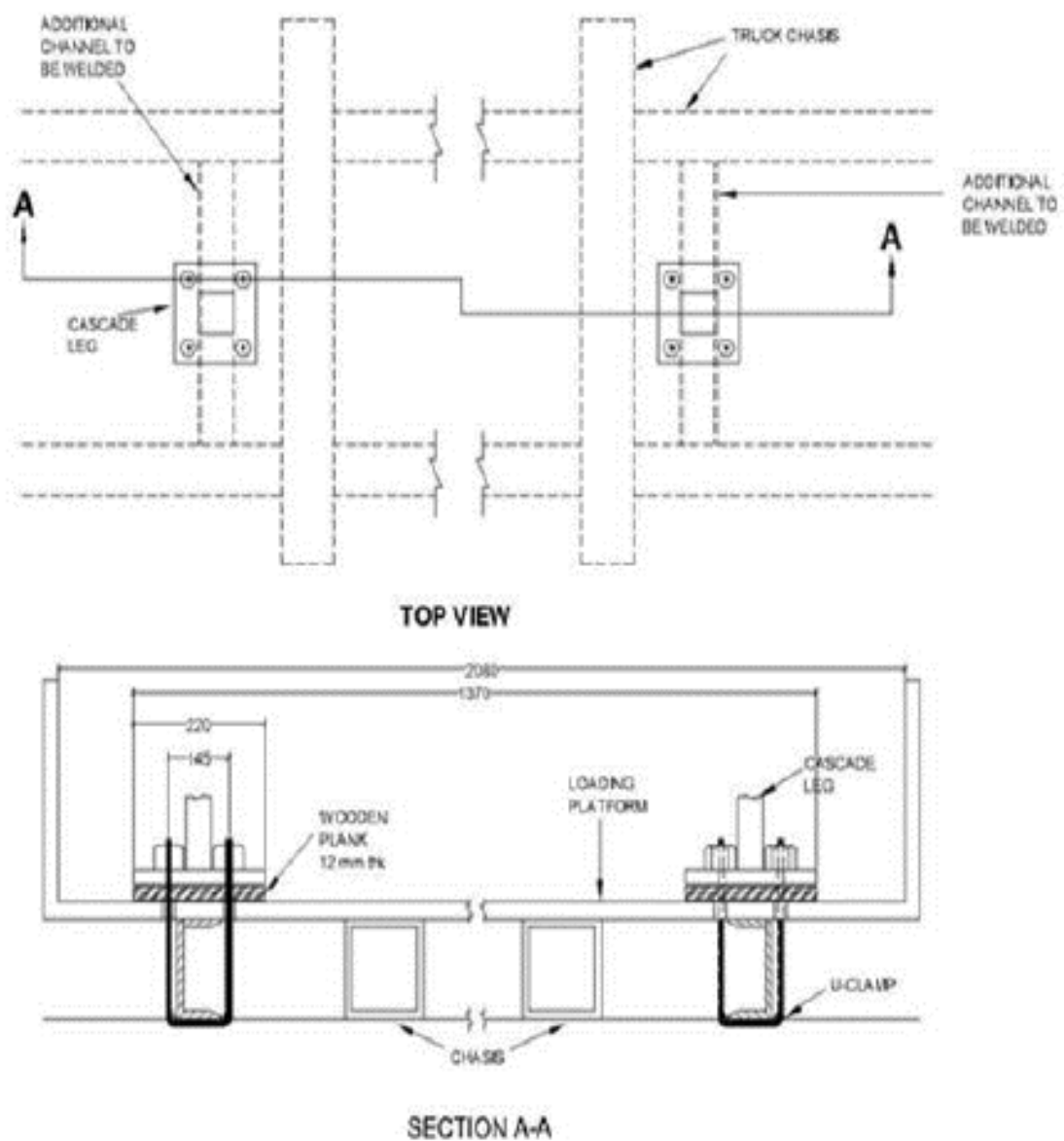
1.1. Contract Period Service

- Bidder shall provide free of cost services for entire tender period of the reversing camera system, Parking sensors, LED/ LCD maintenance and all accessories of reversing camera system with parking sensor and also shall carry out periodic inspection, testing and maintenance of the system as per recommendations made in Operating & Maintenance manual of the system.

1.2. Guarantee:

- Supplier shall provide guarantee for the reversing camera system and Parking sensors till entire tender period.
- In case of supplier's guarantee being applicable, the supplier shall either arrange to provide service to resolve the issue raised by GGL and shall repair the defective parts at their cost or replace with new in compensation, free of charge at the earliest and by the quickest possible means. The supplier shall further provide guarantee of entire tender period in respect of parts replaced during guarantee period.

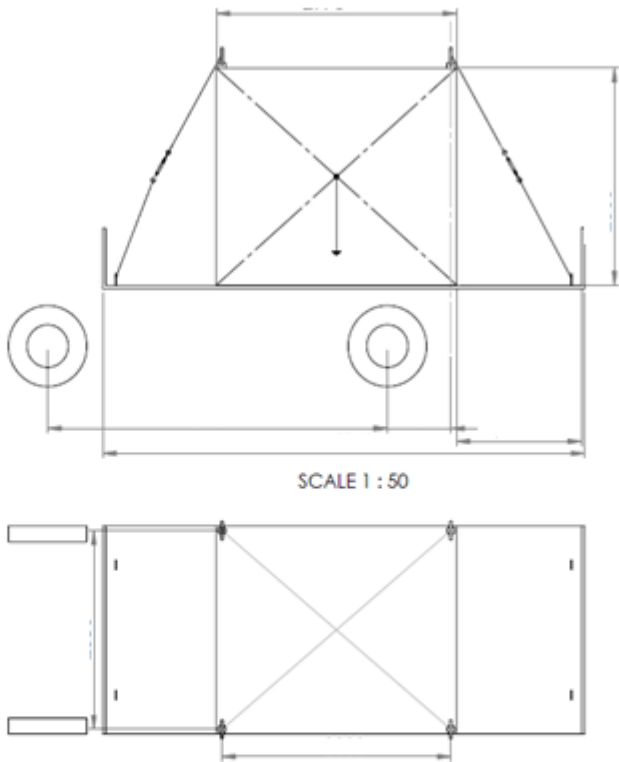
ANNEXURE III: TYPE-I CASCADE FITMENT DETAIL



Note: Contractor shall weld 2 C-Channels or Box Channels of 3.3*0.1*0.62 meters On cascade in addition to the above Fitment.

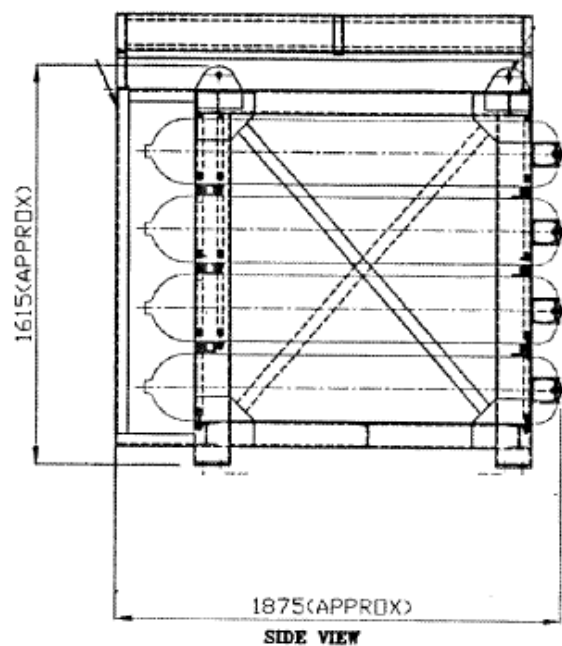
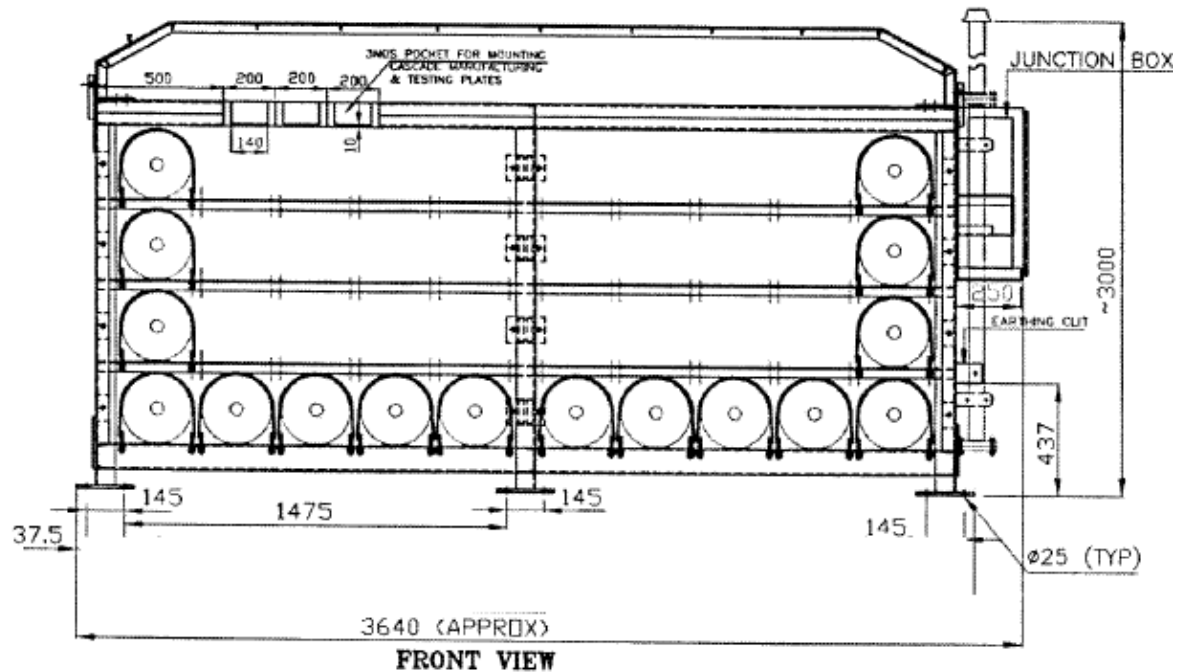
GGL MCV / LCV Cascade Fitment Reference Drawing

ANNEXURE IV: TYPE-III CASCADE (MEGC CASCADE) FITMENT DETAILS



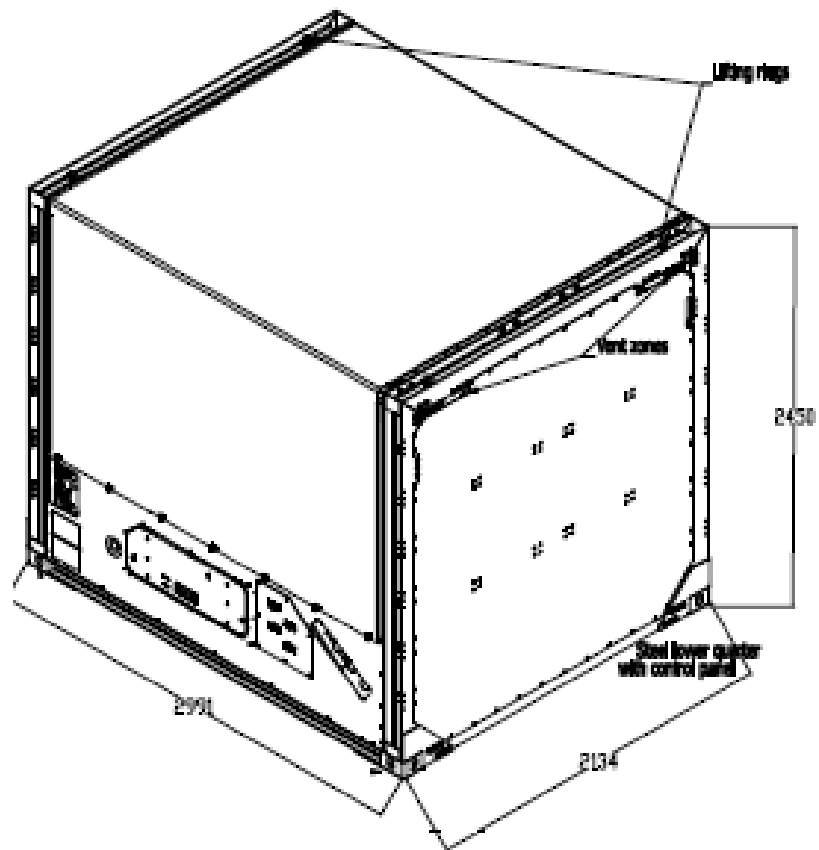
Part Name	Size	Quantity
Mounting Bolt	1" x 300mm	04
Sling	Wire Rope	04 pcs
Sling Stud	100mm x 140mm	04

Note: All material shall be as per GGL requirement

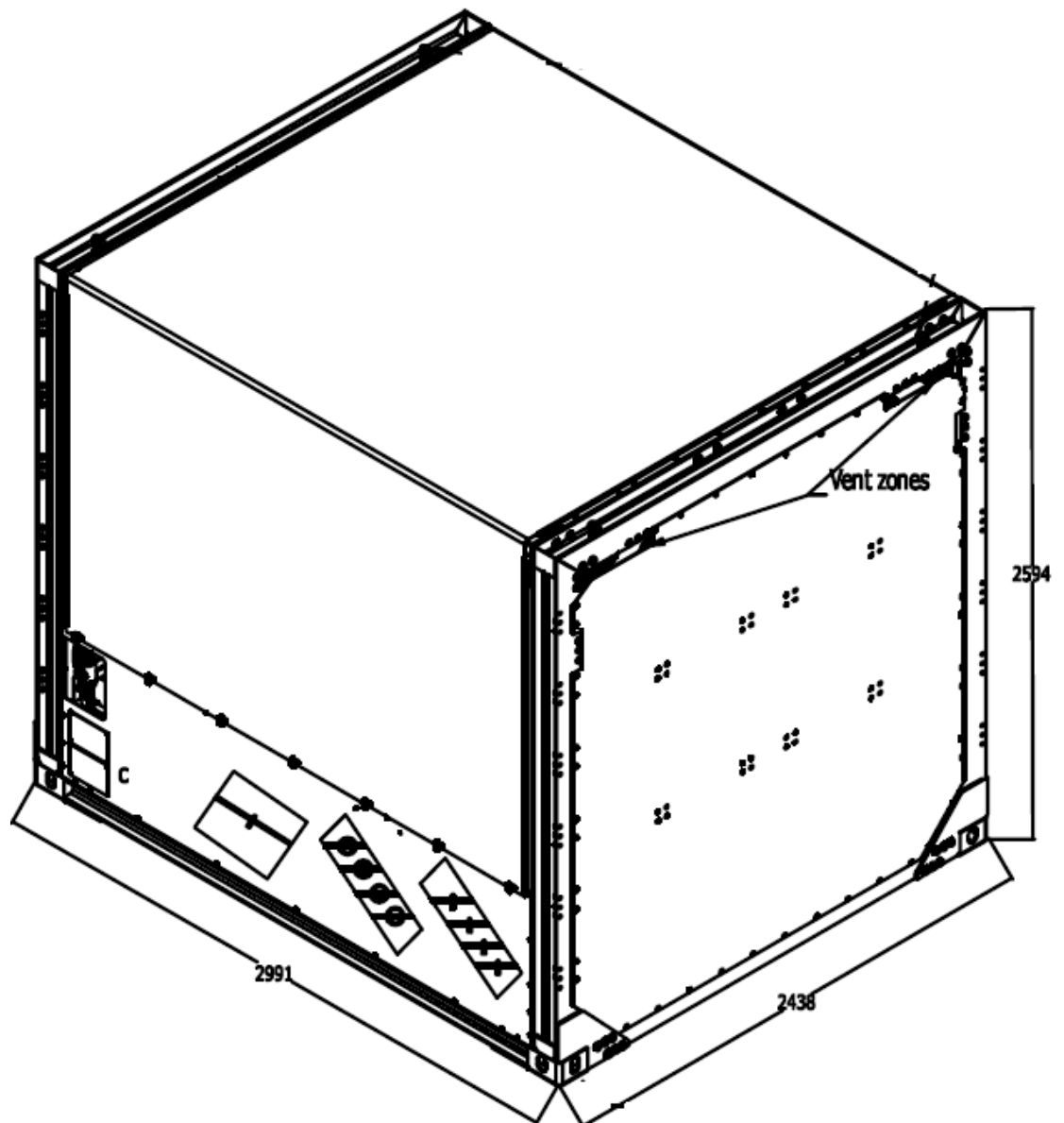
ANNEXURE V: DIMENSION OF 3000 WL STEEL CASCADE

Note: Dimension shown above is indicative and for information purpose only. However, actual dimension may vary and based upon available cascade dimension.

ANNEXURE VI: DIMENSION OF 6600 WL MEGC CASCADE




Note: Dimension shown above is indicative and for information purpose only. However, actual dimension may vary and based upon available cascade dimension.

ANNEXURE VII: DIMENSION OF 8800 WL MEGC CASCADE

Note: Dimension shown above is indicative and for information purpose only. However, actual dimension may vary and based upon available cascade dimension.

ANNEXURE VIII : CHECK LIST FOR VEHICLE MOBILIZATION

 GUJARAT GAS	Check List For CNG mobile Cascade vehicles (LCV/MCV/HCV/ Trailer) Mobilization		Doc. No.: CNG-F-45 Rev. No. 01 Effective Date : 02.12.2020
MCV Registration Number :			
Name of GA :			
Name of CNG Mother Station :			
Name of the contractor :			
Date & Time :			
Sr. No.	Description	Current Status	Remarks
1	Legal Compliances (availability and validity)		
1.1	Photo Copy of R. C. book		
1.2	Photo Copy of Insurance		
1.3	Photo Copy of Hazardous Goods carriage permit		
1.4	Photo Copy of Road worthiness Certificate		
1.5	Photo Copy of Fitness certificate		
1.6	Original Copy of P.U.C.		
1.7	TREM Card		
2	Vehicle Essentials		
2.1	Fitted BIS/PESO approved OEM CNG Kit		
2.2	The overall size (Height, Length, Width) of MCV/LCV/HCV etc. as per latest Central Motor Vehicle Rules and GGL Specification		
2.3	Payload capacity of Vehicle as per GGL spec		
2.4	Fully built up type including driver cabin and loading body		
2.5	Loading span to accommodate Cascade		
2.6	All the three sides of load carrying body of vehicle shall be removable type (i.e. Drop side deck type)		
2.7	Stickers/Paintings shall be done as per the provision of Motors Vehicle Act - 1988 and Central Motor Vehicle Rules – 1989.		
2.8	Condition of Earthing Connections		
2.9	Condition of Mirrors		
2.10	Condition of Seat belt		
2.11	Reverse horn working		


2.12	Condition of Wind shield glass		
2.13	Condition of tyres (Re-treaded or remolded tyres shall not be permitted to use in the vehicle)		
I	RF Rear Front		
li	LF Left Front		
lii	RR Right Rear		
Iv	LR Left Rear		

Any other remarks:


Checked by Name & Sign:

Note : Original document shall be presented to GGL for verification of photocopy of company records.

ANNEXURE IX : CHECK LIST FOR MANPOWER DEPLOYMENT

		Check List for Manpower CNG mobile Cascade vehicles (LCV/MCV/HCV/ Trailer)		Doc. No.: CNG-F-14B Rev. No.: 01 Effective Date: 02.12.2020
MCV Registration Number :				
Name of GA :				
Name of CNG Mother Station :				
Name of the contractor :				
Date & Time :				
Sr. No.	Description	Current Status	Remarks	
1	Availability of driver			
2	Availability of Manager/ Supervisor			
3	Availability of I-card with all manpower with details including blood-group & emergency contact number			
4	Copy of valid driving License			
5	Certificate for hazardous goods transportation training			
6	Driver literate as to read and write in Local language used in respective state			
7	proof of medical certificate as and when required by the Owner			
8	Defensive driving & first aid trainings of their workmen once every three years			
9	shall provide the P.F., E.S.I.C. and annual bonus to their staff as per the Government norms			
10	Observed Non-compliance - over-speeding, route deviation, use of mobile while driving (through VTS / CCTV / Physical check)			
11	Compliance of Corrective actions as communicated by GGL			

Any other remarks:**Checked by Name & Sign:****ANNEXURE X : CHECK LIST FOR REGULAR INSPECTION**

		Check List for Regular Inspection of CNG mobile Cascade vehicles (LCV/MCV/HCV)		Doc. No.: CNG-F-14A Rev. No. 02 Effective Date : 16.11.2021
MCV Registration Number :				

Name of GA :			
Name of CNG Mother Station :			
Name of the contractor :			
Date & Time :			
Sr. No.	Description	Current Status	Remarks
1	Availability of PPE for driver		
2	Availability of First Aid box		
3	Condition of Seat Belt		
4	Mobile set to workman or drivers		
5	Wheel Jack with Jack Rod		
6	Tool Kit		
7	Availability of VTS Device		
8	Operational Condition of VTS Device		
9	Fitment condition of fire extinguisher		
10	Spare wheel (availability)		
11	Painting of the vehicles		
12	Display of emergency numbers		
13	High Level Brake Lights as per OEM supplied		
14	High Intensity Discharge Headlamps as per OEM supplied		
15	Reflective Strips and Reflective Markers on the Vehicle as per RTO norms		
16	Side Indicators on all the Corners of the Vehicle		
17	Reversing Alarm (Reverse Horn)		
18	Power Steering as per OEM supplies		
19	Dash-board with Odometer, Fuel Indicator, Temperature Meter & Road Speed Indicator as per OEM supplies		
20	Both the Side Rear view Mirror as per OEM supplies		
21	Reverse camera system with parking sensors		
22	LED/LCD screen in driver cabin		
23	Printed flex / vinyl banner on the vehicle as per the standard owner designs		
24	Reflective Warning Triangles – as per OEM supplies.		
25	Warning sign board on “Gas Leakage, Keep Away”		
26	01 Fire Extinguisher – ABC TYPE 09 Kg./10 Kg. Stored Pressure as per IS 2190-2010		
27	Quarterly inspection of Fire-ex by Third party within validity		
28	Fire-ex Hydro-test due date within validity		
29	Cordoning Fluorescent Tape printed on both the sides – 01 Nos. (Length 200 M)		
30	Vehicle Log Book (As per the standard details & formats given by GGL)		


31	Driver Attendance Register (As per the standard details & formats given by GGL)		
32	Reflective Jackets -2 nos.		
33	Metal /Wooden Wheel Chocks – 2 nos. minimum		
34	Reflective Cones – 5 Nos.		
35	Proper dampers and shock absorbers like wooden / rubber blocks or sleepers for prevention of jerks transmitting to cascade at the time of vehicle movement.		
36	Spark arrestor shall be used without fail on engine exhaust / muffler		
37	Staff remains in the vicinity of vehicle		
38	Removal of ignition key During filling		
39	Put ignition key in hose during filling		
40	Safe parking of MCV		
41	Leakages if any		
42	operating condition of parking brake		
43	Road worthiness certificate after every 1,00,000 Kms post 2,50,000 Kms		
44	Fitment of Cascade as per Annexure II-A/ II-B / GGL-TS approved drawing (as applicable)		
Additional safety checks to be ensured for Night Driving (i.e. for MCV Movement from 10:00 pm to 01:00 am and 04:00 am to 06:00 am. MCV Movement from 01:00 am to 04:00 am shall not be allowed).			
1	Check that all exterior lights are clean and work properly - front and rear, brake lights, parking lights, turn signals and high beams		
2	Emergency flashlight is available and working properly		
3	Flameproof torch is available and is working properly		
4	Wind shield & window glass are clean of dirt, bugs, and damages and wipers are working properly with sufficient availability of cleaning water in wiper bottle		
5	Maximum speed limit is set to 40 kmph for the vehicle used for night driving		
6	Driver is not under medication/ exhausted / drowsy / sleepy / drunk and is attentive enough		
7	Breath alcohol test is carried out for the driver		
8	Driver is not working overtime		
9	Driver is trained for safe night driving		
10	Driver's vision is clear and has no colour /night blindness as per medical check-up report		
11	Night driving is avoided in adverse weather conditions like fog, heavy rain, hailstorm, etc.		
12	Availability of supervisor of respective MCV contractor during night shift to handle emergency if any		
13	Emergency contact list (Fire stations, Police stations, Hospital working 24 * 7 along the travel		

	route, GGL Emergency Contact person & Number, CNG Transport service provider Contact person & Number, GGL Duty Manager number) is available with driver		
14	Co-driver is available with the driver during night journey of more than 100 kms single side		


Any other observation:

Checked by GGL (Name & Sign):

ANNEXURE XI : PRE-COMMISSIONING CHECK LIST FOR CNG MOBILE CASCADE

 GUJARAT GAS		Pre-commissioning Check List for CNG Mobile Cascade		Doc. No.: CNG-F-46 Rev. No.: 01 Effective Date :02.12.2020
Cascade make & Sr. no. :				
Name of GA :				
Name of CNG Mother Station :				
MCV number:				
Date & Time :				
Sr. No.	Description	Current Status	Remarks	
1	Documentation related to cascade like Hydro-test report, etc.			
2	Cylinders Hydro-testing Date			
3	Condition of Cascade & Cylinders:			
3.1	Cylinder surface condition			
3.2	Cylinder painting condition			
3.3	Cylinder clamping condition			
3.4	Working number of cylinders			
3.5	Cascade frame condition			
4	Fitment of Cascade as per Annexure II-A/ II-B/GGL TS approved drawing (as applicable)			
5	Cascade is filled with Nitrogen or Natural Gas?			
6	In case of Nitrogen present in Cascade Check % of N2 & O2 with meter	N2% - O2% -		
7	In case of Gas present in Cascade. Check gas pressure in cascade.			
Any other observation:				
Checked by GGL (Name & Sign):				

ANNEXURE XII : CHECK LIST FOR MEASUREMENT AND CERTIFICATION OF LCV/MCV/HCV

	Measurement and Certification of CNG Mobile Cascade Vehicle (LCV/ MCV/ HCV) Trip	Doc. No. :CNG-F-13
		Rev. No. : 01
		Effective Date : 02.12.2020

Measurement and Certification of CNG Mobile Cascade Vehicle(LCV/ MCV/ HCV) Trip					
Name of Zone (GA)					
Name of Mother Station					
Name of Transporter					
Name of Mother CNG station In-charge					
Name of GA CNG Lead					
Name of Transporter's Representative					
Sr. No.	Mother Station	Daughter Station	Round Trip KMs	No. of Round Trips per Day	Remarks
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
Transporter's Representative			Mother CNG station In-charge		
GA CNG Lead			Head GA		

TRIP

ANNEXURE XIII- GUIDELINES FOR FIRE EXTINGUISHER - INSPECTION, TESTING & MAINTENANCE

1. Inspection of new Fire extinguisher

Each new Fire extinguisher received at site should be inspected for its completeness of supply and checked with the packing and dispatch documents of the manufacturer before installation.

Check that there is no damage to the extinguisher in transit. In case of extinguishers covered by *Gas Cylinders Rules*, check the stamp of approval embossed on the neck of the cylinder.

2. Monthly Inspection

Monthly inspection of Fire extinguishers should be carried out to ensure that these are in their proper condition and have not been accidentally discharged or lost pressure or suffered damage. Check list of monthly inspection is as per **Annexure-5**.

3. Quarterly Inspection and Maintenance

Maintenance, Inspection and Testing of all extinguishers in respect of mechanical parts, extinguishing media and expelling means should be carried out by competent personnel as per **Annexure-7**.

a) Fire Extinguisher, Dry Powder Type Gas Cartridge

All dry powder extinguishers should be inspected and maintained in accordance with the following.

- i. Dry powder extinguisher should be opened in a dry room and for a minimum possible time to avoid effect to atmospheric moisture on powder.
- ii. Dry powder extinguisher, where discharge control is fitted on the nozzle, should be operated before opening the extinguisher to ensure that there is no pressure in the extinguisher.
- iii. Open the extinguisher and remove gas cartridge and see that sealing disc is intact. Weigh and compare its mass with full mass of cartridge marked on it. In case, loss of mass is more than 10 percent, it should be replaced by new cartridge.
- iv. Check the operating mechanism, discharge control for fire movement and closing. Examine nozzle, hose, vent holes, piercing mechanism of cap cartridge holder, grease and wipe clean.
- v. Remove the inner shell (if any) and clean port holes.
- vi. Empty the dry powder in a dry container and examine for caking, lumps and foreign matter, in which case replace it with new dry powder charge.
- vii. Examine the extinguisher body internally for any damage or corrosion and replace corroded or damaged extinguisher.
- viii. Clean the extinguisher using dry air.
- ix. Return the original charge to the extinguisher and fit the cartridge and other fittings.
- x. In case of higher capacity dry powder fire extinguisher, remove the carbon dioxide cylinder and check the weight marked on the cylinder to ensure that the size conforms to that stipulated in the specification. On weighing, if the loss of mass is more than 10 percent it should be sent for recharging. Also examine the wheel carriage and discharge hose assembly with control nozzle for free flow and test it with dry air.
- xi. The safety valves and pressure gauges fitted on higher capacity extinguishers should be calibrated once in 3 years and recorded in the register.

b) Fire Extinguisher, Carbon Dioxide Type

1. Examine extinguisher body externally. Damaged or corroded extinguisher should be replaced.
2. Weigh the extinguisher, compare mass against the mass marked on it for fully, charged extinguisher. It should be sent for refilling if the loss is more than 10 percent of mass. Clean and polish externally.
3. Examine hose, horn and assembly and clean. In case of trolley mounted extinguisher, examine the wheel carriage for free movement.

c) Fire Extinguisher, Dry Powder Type Stored Pressure

1. Examine and verify that the pressure gauge or any other pressure indicating device fitted in is indicating the internal pressure correctly, if the extinguisher shows a loss of pressure of more than 10 percent, refer to the manufacturer's instructions for appropriate action.
2. Examine extinguisher body externally. Damaged or corroded extinguisher should be replaced.

d) Fire Extinguisher, Clean Agent Gas

1. Examine extinguisher body externally. Damaged or corroded extinguisher should be replaced.
2. Check the pressure gauge to see that extinguisher is pressured correctly. Extinguisher showing loss in pressure should be sent to manufacturer for pressurisation.
3. Weigh the extinguisher to check its contents of the extinguishing media and compare it with mass recorded on the cylinder. In case of loss of more than 10 percent, the extinguisher should be sent for recharging.

e) Fire Extinguisher, Foam Type- Mechanical

1. Open the extinguisher, check the liquid lever. Pour liquid in separate clean receptacle to see if there is any sediment at the bottom of the cylinder. Reject the charge if there is sufficient sludge formation.
2. Examine the extinguisher externally and internally for any corrosion or damage. Damaged and corroded extinguisher should be removed from service. Corroded gas cartridge should also be replaced.
3. Examine the gas cartridge of mass. If there is loss of more than 10 percent of original mass, replace it with fully charged one.
4. Examine the foam generating nozzle, strainer, vent holes, internal discharge tube ceiling washer, etc. Replace them, if not in good condition. Otherwise clean them thoroughly.
5. Check the operating mechanism for free movement and piercing mechanism for proper working.
6. Clean the hose assembly and check it for any dust/sediment at either shank ends.

f) Fire Extinguisher, Foam Type Mechanical Stored Pressure

Examine and verify that the pressure gauge or any other pressure indicating device fitted in is indicating the internal pressure correctly, if the extinguisher shows a loss of pressure of more than 10 percent, refer to the manufacturer's instructions for appropriate action. Open the extinguisher, check the liquid lever. Pour liquid in separate clean receptacle to see if there is any sediment at the bottom of the cylinder. Reject the charge, if there is sufficient sludge formation.

1. Examine the extinguisher body externally for corrosion or damage.
2. Examine the foam generating nozzle, strainer, vent holes, internal discharge tube ceiling washer, etc. Replace them, if not in good condition. Otherwise clean them thoroughly.
3. Weigh the extinguisher (with or without the operating mechanism according to the manufacturer's instructions) or use suitable alternate means to check that it contains the correct mass of liquid. Check the mass against the mass recorded when it was first put into service.
4. Examine the nozzle and hose and clean, if necessary.
5. Examine the hose for wear and replace, if noting good condition.
6. Where the extinguishers are designed to have the operation mechanism removed, check the operating mechanism and discharge control (where fitted) for free movement, clean, rectify or replace, if necessary.
7. Replace safety clip/wire seal or equivalent device as originally fitted.
8. Refill the fire extinguisher with compound.

4. TESTING OF FIRE EXTINGUISHERS

The testing of fire extinguishers consists of a hydraulic pressure test and a performance test. These tests shall be carried out as per the norms and frequency given below.

a) Hydraulic Pressure Test

Every extinguisher installed in premises shall be hydraulically pressure tested as per the schedule given below. There shall not be any leakage or visible distortion. Extinguisher which fails in this requirement shall be replaced. Painting of extinguishers to be done after hydro test.

The carbon dioxide type and clean agent type fire extinguishers shall be pressure tested every time when the cylinders are sent for recharging (after periodic discharge test or otherwise) to the pressure specified in the relevant Indian Standard specifications.

SN	Type of Extinguisher	Test interval (year)	Test pressure (Kg/Cm2)	Test Duration (Min)
1	Dry powder (stored pressure)	3	35	2.5
2	Carbon dioxide	5	250	2.5
3	Dry powder (gas cartridge)	3	35	2.5
4	Mechanical foam type	3	35	2.5
5	Clean agent	3	35	2.5

NOTES

- Extinguishers should be hydraulically tested with cap.
- In case of failure in hydraulic pressure testing, extinguisher shall be rejected immediately before the life time given below.

b) Operation performance test

All extinguishers installed in a premise irrespective of being use in a live fire condition shall be subjected to an operational test as per the frequency of testing given below. The operational test should be carried out in such a frequency, keeping in view the frequency given below for type of the extinguisher, in annually cyclic manner so that all the extinguishers installed in a premise are subjected to discharge test. If more than 10 percent of the extinguishers, subjected to discharge test fail during the testing, then all the extinguishers installed in the premises shall be subjected to the discharge test.

SN	Type of Extinguisher	Performance test interval (year)
1	Dry powder (stored pressure)-portable	3
2	Carbon dioxide	5
3	Dry powder (gas cartridge)-portable	3
4	Mechanical foam type (stored pressure)	3
5	Mechanical foam type (cartridge type)	5
5	Clean agent	5
6	Dry powder- trolley mounted	5

NOTE: In corrosive environments, it is desirable to have the discharge test carried out at half the Frequency mentioned.

5. REJECTED EXTINGUISHERS

The rejected fire extinguishers should be cut centrally across the body and made unusable before disposal so as to prohibit their subsequent use.

6. LIFE OF FIRE EXTINGUISHERS

SN	Type of Extinguisher	Lifetime (year)
1	Powder type	10
2	Carbon dioxide	15
3	Foam type	10
4	Clean agent	10

NOTES

- Life of extinguishers shall be considered from date of manufacture of extinguishers.
- In case of failure in hydraulic pressure testing, extinguisher shall be rejected immediately even though before the life time given above.

7. Guide for Inspection / Maintenance of Fire extinguisher

Maintenance, servicing, and recharging shall be performed by trained persons having available the appropriate servicing manual(s), the proper types of tools, recharge materials, lubricants, and manufacturer's recommended replacement parts or parts specifically listed for use in the fire extinguisher.

Labels indicating fire extinguisher use or classification or both shall be placed on the front of the fire extinguisher.

Well-planned and approved maintenance schedule is essential to ensure that extinguishers,

- Will operate properly between the time intervals stipulated in the maintenance programme for periodical inspection/ maintenance; and
- Will not constitute a potential hazard to persons in its vicinity or to those who operate or recharge the extinguishers.

8. General Safety Precautions for Maintenance

While opening any extinguisher for maintenance,


- Ensure that there is no residual pressure in any hose and/or nozzle assembly;
- Unscrew the cap or valve assembly slowly for two or three turns only, to allow any residual pressure to escape via the vent holes and do not unscrew it further until all pressure is released. Keep away the head and body to avoid injuries;
- Do not depend on pressure indicating devices like gauges (in the cases of stored pressure type extinguisher) to verify whether the container is under pressure or not, as they could malfunction;
- If pressure is not being released after unscrewing the cap or valve assembly two or three turns, then do not unscrew it further without taking appropriate safety measures; sudden release of pressure may eject parts, cap assembly, or the contents of the extinguisher.
- Under no circumstances should the valves of carbon dioxide or stored pressure type extinguisher of gas cartridges/ containers be attempted to be removed under filled conditions; and
- At all times when attempting to remove parts from extinguisher at the time of inspection/maintenance, persons, should ensure that they are clear of any parts which may be ejected.


9. Other Safety Guidelines

- Dry powder extinguisher should be opened only in the driest available conditions and for the minimum time, necessary for examination, to minimize the effect of atmospheric moisture on the powder. Moisture causes caking of the powder.
- It is even more important that mixing or cross contamination of different types (BC/ABC/D) of powder be avoided as it may cause chemical reaction resulting in a dangerous pressure buildup in the container. This reaction may become apparent only after a few weeks.


3. All sealing components should be cleaned and properly lubricated to prevent leakage after recharge.
4. Check pressure indicating devices to ascertain that it gives proper readings.
5. Never connect a stored pressure extinguisher to be charged directly to the high pressure source. Connecting directly to the high pressure source could cause damage or even rupture of the container and may result in the injury.
6. Only those gas cartridges which will suit the particular type and capacity of the extinguisher should be used. Do not use higher capacities than recommended.
7. Certain recharging materials deteriorate with age, exposure to excessive temperature and moisture. Storage of recharge materials for long periods should be avoided.
8. Normal workshop compressors deliver air with high moisture content. Moisture traps will only remove the moisture partly, and may lead to caking of powder, hydrolysis of halogenated agents, clogging of pressure gauges and internal corrosion. Blowers/dryers should be used to clean hose and hose fittings.
9. On all higher capacity dry powder and carbon dioxide extinguisher equipped with a shut-off nozzle, the hose (without the nozzle) should be removed and tested annually

[illegible]

		Fire Extinguisher Quarterly Inspection & Maintenance Checklist 10 Kg DCP Cartridge type Fire Extinguisher								Doc. No		HSE-F-55
										Rev. No.		0
										Effective Date		01.08.2018
Name of GA & Location												
Quarter & FY												
Sr No												
Fire Extinguisher No.												
Date of Service												
Location of Fire Extinguisher												
DCP Powder Condition (OK / No-Refill)												
CO2 cartridge (OK / Not OK-replaced)												
CO2 CARTRIDGE	Gross Weight (gram)											
	Empty Weight (gram)											
	Actual Weight (gram)											
Discharge Pipe (OK/ Not OK-replaced)												
Discharge Nozzle (OK/ Not OK-replaced)												
Cap cartridge holder & Plunger (OK/ Not OK-replaced)												
Cap Washer (OK/ Not OK-replaced)												
Inner shell/ Container (OK/ Not OK-replaced)												
Inner Syphen Tube (OK/ Not OK-replaced)												
Safety Clip (OK/ Not OK-replaced)												
Lable (OK/ Not OK-replaced)												
Painting (OK/ Not OK-painting done)												
Body rusting (Yes/No)												
Remarks												
Carried out by Third party Agency												
Verified by GGL												
Name						Name						
Designation						Designation						
Sign & Stamp						Sign						

 GUJARAT GAS	Fire Extinguisher Quarterly Inspection & Maintenance Checklist 9/10 Kg ABC (Stored pressure) type Fire Extinguisher								Doc. No	HSE-F-56
									Rev. No.	0
									Effective Date	01.08.2018
Name of GA & Location										
Quarter & FY										
Sr No										
Fire Extinguisher NO.										
Date of Service										
Location of Fire Extinguisher										
Sufficient Nitrogen (inert gas) available- (OK / Not OK-refilling)										
Main squeeze valve (OK / Not OK-replaced)										
Neck ring (OK / Not OK-replaced)										
Discharge Pipe (OK / Not OK-replaced)										
Lock pin with chain (OK / Not OK-replaced)										
ABC pipe belt (OK / Not OK-replaced)										
Pressure Gauge (OK/ Not OK-replaced)										
Lable (OK/ Not OK-replaced)										
Painting (OK/ Not OK-painting done)										
DCP Powder Condition (to check yearly)- (OK / Not OK-refilling)										
Remarks										
Carried out by Third party Agency					Verified by GGL					
Name					Name					
Designation					Designation					
Sign & Stamp					Sign					

ANNEXURE XIV- FIRST AID BOX CONTENT USAGE

 GUJARAT GAS		First Aid Box content Usage Format				Doc. No.	HSE-F-41
						Rev. No.	0
						Effective Date	15/05/2018
Office/Station/Vehicle details:							
SN	Date & Time	Name of Person treated	Type of Emergency /Injury	First aid Box Content Used	Quantity used	Name of First Aider	Signature of First Aider

ANNEXURE XV- QHSE REQUIREMENT**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)
- 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)


A. 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
- B.** 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.
- C.** 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.
- D.** All activities shall be carried out as per GGL's documented procedures and QHSE requirements, deviation from it shall be dealt with very strictly

6. FORMATS

a) MEMO FORMAT

 GUJARAT GAS	MEMO	
--	-------------	--

Memo No:	Date:	Time:
GA/Location		
Name of the activity		
Name of the contractor		
Memo Issued to		
Memo Issued by		

Observation		
SN	Non Compliance Observed	Close-out timeline
1		
2		
3		
4		

Remarks: |

	GGL	Contractor
Name		
Designation		
Signature		

b) PPE APPLICABILITY MATRIX

GUAJARAT GAS

PPE Applicability Matrix


Doc. No.	HSE-F-45
Rev. No.	0
Effective Date	01.06.2018

SN	Activity / Work	Activity / Task / Performer / Executor	Safety Hard hat	Safety Shoes	Safety Goggles/ Glasses	Reflective Jacket / Strip	Dust Mask	Ear Plug / Ear Muff	Cotton Hand Gloves	Leather Hand Gloves	Rubber Hand gloves	Chemical resistant gloves	Rubber electrical gloves (11kV / 33kV / 66kV)	Electrical Resistant Safety Shoes (HT)	Gum Boot	Fire retardant Clothing	Conc. dress cover-all with reflective stripes	Chemical resistant Suit	Suit boot	Crash Helmet	Full Body Harness Double anchor	PETL (Work at height equipment)	Snow guards	Welding Screen	Face shield	Self Contained Breathing Apparatus	Respirator for Organic Vapors
1	Project, Construction, Connection Site Supervision / Site Visit	SGS Employee / Out Sourced Engineer TPI / Construction Supervisor / Contractor Contractor Supervisor / Engineer / Mukadam	✓	✓	NB	✓	NB	NB	NB																		
2	Project, Construction, Connection site	Technician/Fitter/Rigger/Helper/Workers	✓	✓	NB	✓	NB	NB	✓	NB	NB		NB		NB												
3	Customer Premises Visit / Meeting	SGS Employee / Out Sourced Engineer SGS Non Technical Employees	✓	✓	NB	✓	NB	NB	NB																		
4	Excavation in Soft Soil	TPI / Construction Supervisor / Contractor Labour / Worker	✓	✓	NB	✓	NB	NB	✓				NB	NB	✓												
5	Excavation in Hard Soil / RCC / PCC	Labour / Worker	✓	✓	✓	✓	NB	NB	✓				NB	NB	✓												
6	Steel Pipeline Welding - Cold work	Welder Helper / Fitter	✓	✓	✓	✓			✓	NB			NB	NB	✓										✓	✓	
7	Steel Pipeline Welding - Hot work	Welder Helper / Fitter	✓	✓	✓	✓			✓				NB	NB	✓										✓	✓	
8	Radiography	Radiographer	✓	✓	✓	✓			✓				NB		NB												
9	Joint Coating	Technician / Helper	✓	✓	✓	✓	NB					✓		NB													
10	Holiday detection	Technician / Helper	✓	✓	✓	✓							NB		NB												
11	Drilling	Fabricator / Technician / Rigger / Helper	✓	✓	✓	✓		NB	✓	✓			NB		NB												
12	Grinding / Cutting / Shot Blasting	Fabricator / Technician / Rigger / Helper	✓	✓	✓	✓	NB	✓	✓				NB	NB	✓											✓	
13	PE Pipeline Welding - Cold Work	Welder	✓	✓	✓	✓			✓				NB	NB	✓												
14	PE Pipeline Welding - Hot Work	Welder / Helper	✓	✓	✓	✓			✓				NB	NB	✓												
15	Drumming	Drummer / Helper	✓	✓	✓	✓	NB	✓																			
16	Working at Height at Riser / Riser Maintenance / Building	Trained Plumber / Civil Worker	✓	✓	✓	✓	NB	✓														✓	✓				
17	Work on road/highways/street or vehicle movement area	Any Level / Category of person	✓	✓	NB	✓	NB	✓																			
18	AMC - Duct/Com	Any Level / Category of person	✓	✓	✓	✓	NB	✓																			
19	PE/CNG leak cold job on charged gas network /	Any Level / Category of person	✓	✓	✓	✓	NB	✓						NB	✓												
20	PE/CNG leak hot job on charged gas network /	Any Level / Category of person	✓	✓	✓	✓	NB	✓						NB	✓												
21	Adhesant transfer / Filling activity	Any Level / Category of person	✓	✓	✓	✓						✓			✓			✓									✓
22	CNG Handling (Filling / Transporting)	Technician / Helper	✓	✓	✓	✓																					
23	CNG Back-court Operations	Compressor Operator	✓	✓	✓	✓		✓	✓																		
24	Testing - Equipment / Pipeline / Valve / PH	Any Level / Category of person	✓	✓	✓	✓			✓					NB	✓												
25	Gas Commissioning - Network / Gas Installation	Any Level / Category of person	✓	✓	✓	✓		NB	✓						NB	✓											
26	Electrical - Project / Office Site - Cold Work / Installation	Electric Engineer / Electrician / Worker	✓	✓	✓	✓							✓	NB	✓												
27	Electrical - Project / Office Site - Live Work / Installation	Electric Engineer / Electrician / Worker	✓	✓	✓	✓							✓	NB	✓												
28	Driving - Mobile Cascade Van (MCV/LV/HCV)	Driver / Helper	✓	✓	✓	✓															✓						
29	Handling of Heavy Equipment (Hydra/JCB/Crain/HDD machine)	Driver / Helper	✓	✓	✓	✓	NB																				
30	Driving - Four / Three Wheeler	Driver & Co-traveller	✓	✓	✓	✓																					
31	Driving - Two Wheeler	Driver / Pillion Driver	✓	✓	✓	✓															✓						
32	Office Work	Canteen boy / House Keeping Staff	✓	✓	✓	✓	NB	✓	✓																		
33	Work in high noise area	Any Level / Category of person	✓	✓	✓	✓		✓																			
34	Work in confined space	Technician / Worker	✓	✓	✓	✓																NB					NB
35	Manual Boring	Worker	✓	✓	✓	✓	NB						✓														
36	Loading / Unloading	Technician / Worker	✓	✓	✓	✓		✓	✓	NB	NB																
37	Civil work	Mason / Worker	✓	✓	✓	✓	NB	✓			NB				NB												
	Safety Hard hat White Colour Safety Hard hat Orange Colour Safety Hard hat Green Colour NB: Need Based on site/risk assessment	GGI Employees / Out Sourced Engineer Contractor Supervisor / Engineer Contractor Filled workers / Labourers																									

c) WASTE MANAGEMENT MATRIX

Waste Management Matrix					
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
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		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 piggling		Condensate tank at site	Contractor	Disposed to SPCB authorised vendor	Manifest
Used Odorant Tank		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 authorised 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 empty paint cans	GGL EIC			Sold to SPCB approved re-cycler	Manifest
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
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				Sold to authorised recycler	
Bentonite Mud used for HDD	Contractor truck	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					
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					
Wooden Scrap					
Office Chairs, Fan, Water Cooler					
Electrical Waste - Motor, Pump, Panel, UPS	EIC through contractor	GGL Store / Warehouse	GGL Warehouse – rep.		
Other Non-Hazardous waste					
Plastic / other non-biodegradable scrap > 50 micron	Respective Function In-charge	Waste bins / garbage container	-	Local Authority Waste Management arrangement – e.g. Municipal Corporation waste truck	
Housekeeping waste	Contractor		Admin		
Building material (civil) waste	GGL EIC through contractor		Contractor		

d) CONTRACTOR PERFORMANCE ASSESSMENT REPORT

 GUJARAT GAS	Contractor Performance Assessment Report (CPAR) - CNG Transportation		Doc. No. : HSE-F-66		
			Rev. No. : 01		
			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	
A. Business Performance (Weightage 40%)					
1	Management and maintaining availability of adequate numbers of MCV for operation as per GGL requirement	20	20	Availability of each vehicle/driver <85% hrs 85-95% hrs >95% hrs	0 10 20
2	Management and maintaining availability of adequate number of trained MCV drivers for all shifts with valid license as per GGL requirement	20	20		
B. Contract Management (Weightage 15%)					
1	Timely deployment of additional resources or replacement of drivers/supervisors as required	3	3	Non-compliance/ Un-adherence Partial Compliance Full compliance/ Adherence Not applicable	0 2 3 NA
2	Timely & proper servicing of MCV and availability of Tools/Tackles, spare wheel, lifting jack, towing rope, torque wrench, flameproof torch etc.	3	3		
3	Timely response and resolution of Complaints	3	3		
4	Notify GGL promptly in case of any deviation/incident or any information as required by GGL	3	3		
5	Maintain complete records and Submission of reports, bills, returns in time	3	3		
C. Quality Controls (Weightage 15%)					
1	Condition of MCVs (including functioning of VTS, reverse camera, reverse horn, wiper, lights, brakes, tyre, etc.)	5	5	Non-compliance/ Un-adherence Partial Compliance/Adherence Full compliance/ Adherence Not applicable	0 3 5 NA
2	Quality of driving & professional conduct, behaviour of drivers	5	5		
3	Availability of competent supervisors	5	5		
D. HSE Compliance (Weightage 20%)					
1	Adherence to GGL Lifesaver rules on Driving	2	2	Non-compliance/ Un-adherence Partial Compliance Full compliance/ Adherence Not applicable	0 1 2 NA
2	Reporting of Hazard / near miss min 2 nos. by staff & Lifesaver monitoring (WPI) min 2 nos. by supervisor/manager	2	2		
3	Regular Health check up of drivers	2	2		
4	Completion of required safety trainings organised by GGL and/or provided by authorised training agency before deployment of driver / supervisor at GGL	2	2		
5	Availability of basic safety requirements like First aid kit with valid contents, TREM card, fire-extinguisher, caution board, warning triangle/reflective cone, PPEs etc.	2	2		
6	Compliance to safe CNG filling operation like MCV earthing, safety interlocks to avoid CNG filling hose pull out etc.	2	2		
7	Compliance to safe parking requirements of MCV like use of wedge lock, hand brake, gear mode, etc.	2	2		
8	Compliance to safe movement including reversing of the MCV within CNG station	2	2		
9	Briefing to drivers by supervisor/manager about incident lesson learnt & risk along the MCV route	2	2		
10	Monitoring of driving behaviour by supervisor through VTS & other means	2	2		
E. Other Key Performance (Weightage 10%)					
1	Compliance with Statutory & Legal requirements related to MCV and drivers	5	5	Non-compliance/ Un-adherence Full compliance/ Adherence Not applicable	0 5 NA
2	Closure of recommendation from previous 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 Points Gain (A+B+C+D+E)		100			
Maximum Points = All Applicable line items of (Ax20 + Bx3 + Cx5 + Dx4 + Ex5)		100			
CPAR Score = Total Points Gain / Maximum Points 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	Designation & Name	Signature & Date	Designation & Name	Signature & Date	
	CNG Eng. in charge				
	Technical Manager				
	HSE Representative				
Approved by	GA Head				

Note: Draft CPAR format for reference only

e) LIFE SAVER COMPLIANCE

<div data-bbox="316 309 422 392" data-label="Image"></div> <div data-bbox="691 309 821 392" data-label="Image"></div> <div data-bbox="481 407 630 425" data-label="Section-Header">GGL LIFE SAVER RULES</div> <p>At Gujarat Gas Limited (GGL), many activities are inherently of hazardous nature and can put life in danger if safe work practices are not followed. Based on the lessons from past incidents, these inherently hazardous activities are classified into certain safety critical areas known as 'GGL Life savers'. From rich experience and detailed risk assessment, GGL has made these simple but mandatory rules for each life saver area to establish safe practices and to save guard lives.</p> <p>Protection of health and safety of our employees, contractor staff, customers & public at large is our prime responsibility. Each employee is accountable for the safe working environment within his/her area of business activities. Let us achieve our goal of zero injuries by following lifesaving rules while performing safety critical activities across GGL.</p> <div data-bbox="434 705 699 900" data-label="Image"></div>	<div data-bbox="1321 313 1417 380" data-label="Image"></div> <div data-bbox="925 336 1018 358" data-label="Section-Header">1. Driving</div> <ul style="list-style-type: none"> Plan your journey in advance considering route, duration, road condition and weather condition Never drive or allow driving when driver is fatigued or under influence of substances like alcohol, painkillers, antihistamines, recreational drugs etc. Ensure vehicle is fit for purpose Ensure periodic inspection, servicing and maintenance of vehicles Ensure provision of leg guards on two wheelers Always wear seatbelt while driving / travelling in passenger or commercial vehicle Always wear crash helmet while riding two-wheeler Never exceed passenger limit in vehicle nor allow unauthorized person in driver's cabin of hazardous goods vehicle Avoid use of two-wheeler / three-wheeler for travel on highways and / or dark roads Practice defensive driving - Respond promptly to unsafe act of others on the road Obey traffic rules, traffic signs and signals Obey speed limits Avoid harsh braking and harsh acceleration Avoid overtaking on the roads without divider Drive in correct lane only Reduce speed based on road conditions and at accident prone areas like sharp turn, blind turn, steep curve, narrow bridge, heavy traffic area, road under construction, road diversions, etc. Maintain safe distance from the vehicle ahead Never use mobile phones or any other communication device while driving Keep parking lights ON when parking on highway and use reflective parking triangle to avoid accident Look for traffic while getting down from vehicle
<div data-bbox="710 1097 798 1176" data-label="Image"></div> <div data-bbox="300 1153 545 1176" data-label="Section-Header">2. Safe System of Work (SSoW)</div> <ul style="list-style-type: none"> Before commencement of any job, ensure: <ul style="list-style-type: none"> Job & site related hazards are identified and appropriate control measures are in place An appropriate emergency/ rescue plan is in place Obtain Permit to Work (PTW) authorization from issuing authority as applicable to the job Ensure that approved PTW mentions detailed scope of work, must have clearly identified hazards, associated risks and necessary control measures Ensure no personnel is working at worksite without prior intimation and authorisation Avoid Simultaneous Operations (SIMOPS) which have potential to lead to hazardous situations Carry out Tool Box Talk (TBT) Provide cautionary instructions about exposure to hazards to people in vicinity of worksite Prior to commencing a job on isolated facilities, get confirmed all electrical & mechanical isolations (e.g., Gas installation, Gas pipe section, equipment, etc.) by authorised person and follow Lockout & Tag out (LOTO) system Ensure the job is performed by trained & competent personnel Ensure safety critical job is being supervised by competent supervisor Wear appropriate Personal Protective Equipment (PPE) for the concerned job Ensure material, tools and equipment required for performing the job are fit for purpose If unsure about job to perform safely, stop the job immediately and discuss with supervisor/ manager Intervene and stop unsafe job at site For any change in conditions, stop work, reassess the risk and obtain reauthorisation as appropriate In case of exposure of worksite to road traffic, ensure safety measures like use of flashlight, reflective traffic cones, barricades with reflective stripes to divert the traffic well before the working location/ parked vehicle/equipment etc. Do not override or bypass any safety controls without proper authorisation and additional safety measures to mitigate the risk Before closing & leaving the site, ensure that site is safe, clear & tidy Follow Management of Change (MoC) process for changes to plant/ equipment 	<div data-bbox="1324 1097 1420 1176" data-label="Image"></div> <div data-bbox="925 1131 1197 1176" data-label="Section-Header">3. Excavation, Manual Boring and Horizontal Directional Drilling</div> <div data-bbox="925 1198 1045 1220" data-label="Section-Header">3.1 Excavation</div> <ul style="list-style-type: none"> Follow "Safe System of Work" Life Saver rules Identify, locate and protect all underground utilities e.g. power cable, gas pipeline, etc. as necessary Use insulated crow bar / pick-axe for manual excavation Identify & mitigate the hazards as necessary e.g. contaminated soil, equipment movement, traffic etc. Follow correct trench protection techniques as per soil conditions like step cut (benching) or sloping ("V" shape) or shoring Keep machinery and excavated spoil away from edge of trench / pit For any change in ground conditions, stop work and consult supervisor Keep children away from pit / trench / work sites Display warning signs, use appropriate barricades at work area and provide easy means for getting in and out of trench / pit Make provision of proper crossover on trench for pedestrian as required <div data-bbox="925 1489 1077 1512" data-label="Section-Header">3.2 Manual Boring</div> <ul style="list-style-type: none"> Follow "Safe System of Work" Life Saver rules Identify, locate and protect all underground utilities e.g. power cable, gas pipeline, etc. as necessary Identify & mitigate the hazards as necessary e.g. contaminated soil, equipment movement, traffic etc. Give preference to open cut excavation over manual boring Before each manual boring work, ensure: <ul style="list-style-type: none"> Approved bore plan is in place Entry and exit locations for manual bore are visibly marked Permit to Work (PTW) for the job is in place Ensure protection against potential electric shock by: <ul style="list-style-type: none"> Use of electrical shock resistant (Teflon or equivalent approved insulating material coated) manual boring tool Wearing of rated electric shock resistant hand gloves and shoes Provision of "Electrical Insulating Rubber Mat" on the ground Avoiding work in wet conditions if electrical power supply is not isolated



3.3 Horizontal Directional Drilling (HDD)

- Follow "Safe System of Work" Life Saver rules
- Identify, locate and protect all underground utilities e.g. power cable, gas pipeline, etc. as necessary
- Identify & mitigate the hazards as necessary e.g. contaminated soil, equipment movement, traffic etc.
- **Before starting HDD operation, ensure:**
 - Approved bore plan is in place
 - HDD entry and exit locations are visibly marked
 - Capacity of HDD drilling rig is adequate
 - Proper earthing / grounding of machine
 - Cable strike alarm is in working condition
 - Moving parts of machine are guarded
 - Out rigger of HDD machine is working and rigidly put on stable & firm ground
 - Availability of tracking equipment / device
 - Crane is in good condition
 - Preferably auto rod loading facility is available in the machine
- **During drilling operation, do ensure:**
 - Track movement of the drilling tool is as per approved bore plan
 - Auto greasing & auto loading of machine rod is functioning properly; in case of manual loading of the machine rod, ensure additional safety measures to mitigate the risk from moving parts
 - Entry of unauthorised personnel in the work area is prohibited
 - No maintenance activity is carried out while HDD machine in operation



4. Work at Height

- Follow "Safe System of Work" Life Saver rules
- Use only approved and certified working at height equipment e.g. rope access system, scaffold, ladder, etc.
- Give preference to safe working platform in place of rope access system or ladder wherever possible for carrying out work at height job
- Ensure use of rope protectors to avoid any damage to ropes from sharp edges
- Identify 'fall from height' hazard before starting of plumbing job (including plumbing at balconies) and ensure use of safety harness with proper anchoring
- **Always use a fall arrestor having:**
 - Double action self-locking snap hooks
 - Proper anchor preferably mounted overhead that limits free fall to two meters
- If using a rope access system, ensure use of fall arrest harness
- Select safe routes for installation of Galvanised Iron (GI) riser & lateral
- Never carry out any work at height when near an overhead power line
- Secure all tools and equipment while working at height
- Clearly display warning signs and have the area in control below the workplace wherein "working at height" is in progress
- Stop the work in adverse weather conditions i.e. rain, heavy wind, poor work lights etc.



5. Lifting Operation

- Follow "Safe System of Work" Life Saver rules
- Ensure that approved lift plan is in place having details of lift method, selected lifting equipment, load chart, sketch showing lifting equipment location & orientation, lifting points & centre of gravity and Load movement path, etc.
- Use only correct, approved and certified lifting equipment, tools & tackles and safety devices
- Work according to a lift plan that is discussed, understood and followed by everyone involved in the job
- Do not exceed safe working load limit
- Ensure lifting equipment are working on stable & firm ground
- Ensure safety measures to avoid contact with overhead power line during lifting operation
- Ensure that lift area is fully protected from road traffic vehicles & movement of other equipment
- Prohibit entry of unauthorised personnel and do not allow anyone under the lifted load or in the lift path
- Ensure operator of lifting equipment and signal man are always in contact
- In case of rough weather conditions, stop the lifting operation and wait till condition is normal



6. Confined Space Entry

- Follow "Safe System of Work" Life Saver rules
- Ensure that all isolations are in place
- Check oxygen level inside confined space and if not adequate, do not enter or be inside confined space
- Check with gas detector and ensure there is no flammable gas inside confined space
- Ensure there is no chemical fume inside confined space
- Ensure the person entering the confined space is carrying portable O₂ analyser with provision for low oxygen alarm
- Monitor the confined space atmosphere at defined intervals to ensure safety of person(s) inside the confined space
- Ensure provision of suitable access & egress
- If required, provide Self-contained Breathing Apparatus (SCBA) or forced ventilation
- Always use buddy system, ensure standby personnel is available and is always in contact with the person(s) in the confined space
- Do not allow unauthorised entry inside confined space
- **If rescue needed,**
 - Standby personnel (buddy) to stand outside confined space and call for help of rescue team
 - Allow only authorised rescue team member with all necessary Personnel Protective Equipment (PPE) to enter inside confined space



7. Electrical

- Follow "Safe System of Work" Life Saver rules
- Ensure isolation of all connected power sources, use of Lockout & Tag out (LOTO) before commencement of electrical job and removal of LOTO after reconnecting the power sources
- Ensure that all concerned persons are informed and updated regarding status of isolation
- Consider all conductors are live unless proved dead with a certified testing instrument
- Ensure earthing of all electrical equipment and use of three pin plug and socket
- Never insert open wires in the socket, always use plug & socket
- All electrical work is to be done by certified electrical person and licensed contractor only
- Use portable electrical equipment with double insulation protection
- Ensure protective devices like ELCB / RCCB are used and in working conditions
- Verify equipment and materials being used are of rated capacity
- Ensure use of appropriate PPE like certified insulated gloves etc.
- Prohibit entry of unauthorised person inside electrical installation area
- Do not use damaged electrical equipment



8. Compressed Natural Gas (CNG) Handling

- Follow "Safe System of Work" Life Saver rules
- Ensure that CNG cylinder is within test life
- Avoid CNG filling if CNG cylinder is suspected to be spurious / altered / damaged
- Ensure CNG cylinder and CNG cascade are firmly secured
- Ensure flame proof integrity of all electrical installations in hazardous areas
- Secure high-pressure hose to avoid swinging action in case of failure
- Control the potential ignition sources (e.g. smoking/ naked flame/ use of phone/ hot work etc.) within CNG handling area
- Control traffic of customer vehicles and movement of passengers/ third party within premises
- Carry out periodic risk assessment of the routes used for CNG transport
- Ensure movement of CNG Transport Vehicle on designated path only at CNG station through use of marking and barricades / cones
- Ensure safe reversing of CNG Transport Vehicle with use of reversing camera, parking sensors / guiding staff
- Ensure safe parking of CNG Transport Vehicle with use of wedge lock and parking brake
- Ensure proper grounding of CNG Transport Vehicle and cascade prior to CNG loading/unloading
- Ensure putting the vehicle ignition key in the filling hose before connecting the couplings to avoid hose pull out incident during CNG loading/unloading operation
- Ensure that no passengers are allowed in the CNG filling area or vehicle movement area
- Ensure that vehicle engine is in switched off condition and driver is outside the vehicle before starting CNG filling
- Use insulation pad / rubber mat to avoid contact of CNG filling hose with battery terminals of the vehicle being filled
- Be alert for any gas smell or abnormal sound before and during CNG filling
- Ensure driver does not start the vehicle before disengagement of CNG filling hose by the filler
- Ensure easy access to Emergency stop switches / shut down buttons



9. Liquefied Natural Gas (LNG) Handling

- Follow "Safe System of Work" Life Saver rules
- Follow safety procedure for LNG loading/unloading operations
- Use only non-sparking tools while handling LNG
- Control the potential ignition sources (e.g. smoking/ naked flame/ use of phone/ hot work etc.) within LNG handling area
- Ensure proper grounding of LNG transfer assembly & LNG tanker prior to LNG loading/unloading
- Avoid direct contact with LNG (cryogenic) liquid or vapour
- Wear appropriate PPE (cryogenic gloves, cryogenic suit/apron, face shield, helmet, Safety shoes)
- After LNG loading/unloading is completed, ensure disconnection of hose pipe from LNG tanker
- Do not pour water on LNG spillage or leakage point
- Ensure easy access to Emergency stop switches / shut down buttons



10. Gas Escape Handling

- Follow "Safe System of Work" Life Saver rules
- In case of gas escape inside premises, open doors & windows to ventilate the escaped gas
- Give priority to protecting life
- Always wear appropriate PPE including fire retardant clothing
- Isolate/ turn off gas supply as early as possible
- Check for presence of Gas with gas detector, identify gas affected area and if required, evacuate persons to a safe place
- Continuously monitor for presence of gas in atmosphere
- Control the potential ignition sources within Gas affected area/ zone e.g. Do not permit smoking/ naked flame/ use of phone/ operation of electrical switches, hot work etc.
- Cordon leak affected area and display warning signs
- Seek help of local authorities as required to keep traffic & people away
- Seek help of fire department and ambulance services as required
- Post leak repair, carry out leak check to ensure soundness of repaired leak as well as ensure there is no other gas leakage in the area



TECHNICAL SPECIAL TERMS AND CONDITION
FOR HIRING OF MCV/LCV AND HCV FOR TRANSPORTATION OF CNG
FROM MOTHER STATION TO DAUGHTER/ DAUGHTER BOOSTER
STATIONS

Document No: GGL/TS/CNG/HIRING/MCV-HCV/STC

04	5, 14	Change in requirement for Vehicle deployment & period for penalty calculation	01.05.2025
03	14, 15, 16, 17	Addition of clause for mileage related penalty	01.02.2025
02	5	Clarity provided to the bidder	24.10.2024
01	6	Addition of vehicle ownership clause	09.11.2023
00	-	Original Document	23.01.2023
REV. NO	CLAUSE NO.	REVISION DESCRIPTION	DATE OF ISSUE

SPECIAL TERMS AND CONDITION
(APPROVAL AS PER THE TENDER REQUIREMENT)

1. Delivery Period: Mobilization within 4 Weeks from date of Purchase Order/ Call Out Order.
2. Defects Liability Period: Three Months from the date of Job Completion and safe handover of all Owner supplied material to Owner designated Store/ Location.
3. Contract Duration:
 - a. Start Date: Date of Mobilization of vehicle.
 - b. End Date: 5 years from the date of vehicle mobilization.
4. Vehicle, Payload Capacity and Operating Fuel used for hired vehicle shall be as mentioned in Table-1 below:

Sr. No.	Type of Vehicle	Min. Pay load capacity of Vehicle	Operating Fuel for Vehicle
1	Heavy Commercial Vehicle (HCV)	8.7 Ton	CNG
2	Light or Medium Commercial Vehicle (LCV/MCV)	6.5 Ton	CNG

Table-1

5. The deployed Vehicle (at the time of deployment of vehicle at site) shall not older than 06 years and odometer reading max. 3,00,000 km from the first RTO registration date.
6. Bidder shall be owner of vehicles (LCV/MCV/HCV) that needs to be deployed at GGL site.
7. Bidder needs to perform road worthiness of the vehicle at the interval of 1,00,000 Kms post running for 2,50,000 km, until the validity of the contract or as per the statutory norms whichever is earlier. Odometer reading will be considered for calculating running Kms.
8. Minimum Vehicle Mileage as mentioned in Table-2 below shall be considered for all calculation and payments:

Sr. No	Vehicle Type	Operating Fuel	Mileage of the Vehicle
1	Heavy Commercial Vehicle (HCV)	CNG	05 Km/Kg
2	Light or Medium Commercial Vehicle (LCV/MCV)	CNG	06 Km/Kg

Table-2

The said vehicle mileage shall be considered in Schedule of Rates (SOR) and other operational calculation/ analysis.

PAYMENT METHODOLOGY FOR VEHICLE WITH FUEL (CNG) IN OWNER SCOPE:

1. The transportation services shall be on monthly hiring basis and invoice shall be raised on monthly basis.
2. Payment shall be made only upon compliance of below **CHECK-LIST** attached in Scope of work:
 - a. Check List for vehicle mobilization
 - b. Check List for driver and manpower deployment
 - c. Check List for regular inspection
3. Fixed Cost for CNG vehicles means an amount shall be paid to the Bidder as monthly fixed hire charges for the vehicle. These fixed charges will be called as Vehicle Hire charges. The vehicle hiring charges includes all the cost of all kind of maintenance of vehicle during the month, except fuel (CNG) for running of vehicle.
4. Fixed charges will be paid to the bidder on monthly basis for deployment of Vehicle
5. The fuel (CNG) for the CNG vehicles will be provided by GGL.
6. Bidder needs to re-fill fuel required for operating vehicle used for transporting CNG at GGL authorised station as confirmed by GGL location EIC only.
7. Documents (Statement/Records) of fuels required for transportation of CNG should be maintained by the bidder and the records should be submitted with the monthly invoice or whenever it is demanded by GGL EIC.
8. The Price shall be included with all the cost required to run the vehicle except fuel (CNG). No additional cost shall be paid to the Bidder for operating the vehicle.
9. One-time charges for loading and unloading and fitment/ removal of cascade shall be paid by the Owner at the time mobilization and demobilization of fleet.
10. In case, loading or unloading of cascade required to be done for the Owner's requirement during the contract period, Owner shall pay the charges as mentioned in Schedule of Rates (SOR). The loading or unloading of cascade activity shall be carried out by the Bidder.
11. In case, loading or unloading of cascade required to be done for the Bidder's requirement during the contract period, Owner shall not pay any charges.
12. Owner shall provide the fuel (CNG) for the hired vehicles from their CNG stations.
13. Bidder shall ensure that route & time certified by GGL as per Trip Measurement sheet shall match with VTS.
14. Penalty for mileage lower than mileage specified in table-2:
 - a. Quarterly total Operational Km of the vehicles deployed by bidder in a cluster (A) = Total Km travelled by the vehicles deployed by bidder in respective cluster.
 - b. Total fuel (CNG) filled in HCVs or MCVs or LCVs in kg for the quarter in respective cluster (B).
 - c. Fuel (CNG) consumption as per mileage in table 2 (C) = (A)/ mileage mentioned in table-2 above
 - d. Variation in Gas consumption (Gas loss) (D)= (B) – (C)
 - e. Penalty for mileage lower than mentioned in table-2 above = (D) X Base price of fuel. Base price of fuel (CNG) shall be considered of last day of respective quarter.

15. Retail price of CNG at Base Location will be consider for calculation of penalty.
16. State wise Base Location for Retail price of CNG of Gujarat Gas Limited will be considered for penalty of Low Mileage:

Sr. No.	State	Base Location
1	Gujarat and DNH	Gandhinagar
2	Maharashtra	Boisar
3	Rajasthan	Abu Road
4	Madhya Pradesh	Ratlam
5	Punjab	Amritsar
6	Haryana	Sirsa

17. For interstate vehicle movement, the base location shall be the state where CNG will be refuelled.