



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

**TRANSPORTATION OF CNG THROUGH MOBILE CASCADES BY LCV/HCV IN  
KOLHAPUR GA**

**TECHNICAL VOLUME**

**TENDER NO. HOGPL/2025-26/C&P/005**  
**DATE: 10.06.2025**

## **TABLE OF CONTENTS**

1.0	INTRODUCTION .....
2.0	GENERAL INFORMATION.....
3.0	SCOPE OF SERVICES.....
4.0	VEHICLES .....
5.0	Cascades Drawings for reference.....



## **1.0 INTRODUCTION**

HPOIL Gas Private limited (HOGPL) consortium of HPCL & OIL has received the authorization from PNGRB vide letter PNGRB vide letter PNGRB/CGD/BID/8/2018/GA/Ambala-Kurukshetra District dated 22/02/2018 and PNGRB/CGD/BID/8/2017/BEC/GA-Ambala-Kurukshetra & Kolhapur dated 06/03/2018, to Lay, Build and Operate City Gas Distribution networks in Ambala-Kurukshetra and Ambala-Kurukshetra & Kolhapur District. HOGPL (hereinafter referred as Owner), is supplying Piped Natural Gas (PNG) to domestic, commercial and Industrial consumers and Compressed Natural Gas (CNG) to automobiles in Ambala, Kurukshetra and Ambala-Kurukshetra & Kolhapur District.

## **2.0 GENERAL INFORMATION**

1.This tender deals in Transportation of CNG Through Mobile Cascades (Provided by HPOIL Gas Pvt Ltd) by LCVs/HCVs in Kolhapur GA.

The numbers of LCV/HCV (cascade in HOGPL scope) to be covered under this contract are as follows:

<b>Sr. No.</b>	<b>Location</b>	<b>No. of LCV/HCV</b>
1	Kolhapur GA	15

2.The numbers of HCV along with 8800-9500 WLC Type-3/4 Cascade to be covered under this contract are as follows:

<b>Sr. No.</b>	<b>District</b>	<b>No. of HCV along with 8800-9500 WLC Type-3/4</b>
1	Kolhapur	3

3. On call basis supply of Heavy Commercial Vehicle (HCV) (Cascade in HOGPL scope) as an when required by HOGPL for minimum 1 month.

The number of LCV/HCV-Months may vary depending upon HOGPL's requirement & the number of LCV/HCV required shall be communicated by Engineer-in-charge time to time.

## **3.0 SCOPE OF SERVICES**

The scope of CNG transport services shall in general consist of but not limited to the following:

Transportation of CNG at Kolhapur GA Through CNG Fueled Light Commercial Vehicles (LCV) Through Mobile Cascades (Provided by HPOIL Gas Pvt Ltd) by LCV for a period of Two (02) years.



Transportation of CNG at Kolhapur GA Through CNG Run Heavy Commercial Vehicles (HCV) Fitted with 8800-9500 WLC Type-III Mobile Cascade for an initial the period of Contract shall (02) Year.

Transportation of CNG at Kolhapur GA Through CNG Run Heavy Commercial Vehicle (HCV) Without Cascade (Cascade will be provided by HOGPL) as an when required on call basis for minimum 1 month.

### **3.1 DETAILED SCOPE OF WORK UNDER THE PRESENT TENDER:**

Detailed scope of work is divided under different sub-heads. List of sub-heads along with different activities (with brief specification) is furnished. The contractor is advised to read these activities carefully before quoting.

- 3.1.1 The LCV must be a CNG-run vehicle or retrofitted, and of a model year 2018 or later. As on the deployment date, Vehicle should be in sound working condition and dedicated exclusively for CNG transportation. Contractors are required to provide all necessary supporting documents at the time of deployment. The LCV must also be equipped with two earthing connections and a spark/flame arrestor approved by the CCOE.
- 3.1.2 The HCV must be a CNG-run vehicle or retrofitted, and of a model year 2018 or above. As of the deployment date, it should be in sound working condition and dedicated exclusively for CNG transportation. Contractors are required to provide all necessary supporting documents at the time of deployment. The LCV must also be equipped with two earthing connections and a spark/flame arrestor approved by the CCOE.
- 3.1.3 LCV offered by the contractor should be fit for payload capacity of minimum 6 MT.
- 3.1.4 HCVs offered by the contractor should be fit for payload capacity of minimum 10 MT.
- 3.1.5 Display of HOGPL signage boards and proper maintenance of the boards such as cleaning for proper visibility, required repairs & replacement of damaged boards as per the requirement shall be under the scope of contractor. Design will be provided by HOGPL.
- 3.1.6 The LCVs/HCVs along with Cascades should report at Mother Stations/Loading Facility as informed by HOGPL. The HOGPL safety personnel shall physically inspect the vehicle along with the cascade. The vehicle shall be ready for commencement of commercial operation only after HOGPL is satisfied with the stability of the vehicle.
- 3.1.7 Driver of the LCV/HCV shall assist to remove the quick release coupling connection at the daughter booster Stations and CNG Mother Stations, Operate the Cascades Manifold Valves, Check and record the cascade pressure at CNG Mother Stations and Daughter booster Stations. For doing these jobs in a safe manner, the driver has to be trained in any CNG station of HOGPL before actual deployment to drive the cascade mounted LCV/HCV. No driver will be allowed to run the LCV/HCV without safety training. Additional safety requirements like reflective tapes shall be



in the scope of the contractor. The driver shall record reading of the mass flow meter at mother station and daughter booster station in a logbook for each trip.

- 3.1.8 The contractor shall operate their vehicles at their own risk entirely and HOGPL shall in no case be held responsible for any damage to the vehicles or the mounted cascade while on HOGPL's work. The contractor shall maintain the vehicles in sound mechanical condition at all the times of contract. The contractor will rectify any defect notified by HOGPL immediately.
- 3.1.9 The contractor shall provide all statutory/legal facilities to its workmen / employee as per relevant Act/ Law/and rule including applicable rules and laws of the state. The Contract shall provide valid documentary evidence as a token of confirmation for ESI, PF, minimum wages and other statutory requirements.
- 3.1.10 The contractor shall ensure the safe & correct delivery of CNG at the nominated destinations in the same condition in terms of quality and quantity as has been taken by the contractor at Mother Stations. Any deviation from the nominated destination or any infringement of the above will be deemed as unlawful and HOGPL will hold the contractor legally responsible for the same. Additionally, HOGPL also reserves the right in such an event, to forthwith terminate the contract and / or to impose penalties on the contractor, as HOGPL may deem fit.
- 3.1.11 The contractor shall mobilize the transport services within 15-20 days from written requisition by HOGPL.
- 3.1.12 The contractor shall ensure that LCV/HCVs driver along with supervisors are equipped with mobile communication at all point of time. In case the contractor fails to provide this facility, a penalty up to Rs 500 /- per day per vehicle may be applied.
- 3.1.13 All vehicles shall be fitted with proper seat belt. The drivers shall remain available in LCV/HCV throughout 24 hours in all days.
- 3.1.14 LCVs/HCVs shall be on hire for 24 hours starting from 06.00 a.m. to 06.00 a.m. for 365 days. No Government holiday will be allowed. Hiring charges of LCVs shall include services of drivers for 24 hours in a day for all days in all the vehicles. No driver shall be allowed to work for more than 8 hours in a day. Duty hours of employees should be well in line with the Central Motor Vehicles Act 1988 & Motor Transport Workers Act 1961. Bidder should take care of all legal statutory compliances as per the tender norms and conditions. The driver duty hours shall fulfil requirement of statutory regulations. However, HOGPL will levy penalty of up to Rs.1000 per day for cases where driver works beyond 8 hours in a day.
- 3.1.15 The mobilized fleet shall be fitted with spark / flame arrestor of a design approved by Chief Controller of Explosives and provided with wheel jack, tool kit, and spare wheel.
- 3.1.16 The mobilized fleet shall be painted as per colour code and description provided by HOGPL in addition to the statutory display requirements to carry CNG. The contractor shall be responsible for providing suitable signboards / display boards during LCV/HCV movement on road or in parked condition. Each LCV/HCV to paint rear & side panels for display of company name and logo in combination to fulfil the requirements of display under rules 130 to 137 of Central Motor Vehicles Rules



1989.

3.1.17 Painting of the colour codes and all other statutory display has to be done by the contractor at his own cost before deploying the vehicles for carrying CNG Cascades.

3.1.18 Technical specifications / dimension are as follows:

i) **LCV/HCV offered by contractor shall meet the cascade dimension furnished below: -**

TYPE -1 CASCADE CAPACITY – 4500 WL shall be mounted on HCV.

Cascade body length:	5.3 M (Max)
Cascade body width:	1.92 M (max)
Cascade Height:	1.8 M (Max)
Cascade weight without gas:	8.6 tons
Cascade weight with gas:	9.5 tons.
Vehicle:	BSVI as applicable

TYPE-4 CASCADE CAPACITY – 9360 WL shall be mounted on LCV/HCV.

Cascade Dimension:	5650mm*2050mm*2575mm
Cascade weight without gas:	5.5 tons
Cascade weight with gas:	6.7 tons

TYPE-4 CASCADE CAPACITY – 4370 WL shall be mounted on LCV/HCV.

Cascade Dimension:	4090mm*1558mm*1950mm
Cascade weight without gas:	3.7 tons
Cascade weight with gas:	4.3 tons

TYPE-4 CASCADE CAPACITY – 4992 WL shall be mounted on LCV/HCV.

Cascade Dimension:	3870mm*2000mm*2120mm
Cascade weight without gas:	3 tons
Cascade weight with gas:	3.8tons

The turning radius of LCV/HCV should be lowest of industry practices. Vendor should take prior approval of type of HCV to ensure its suitability in operation.

ii) **CNG Storage Cascade:**

(a) Each LCV/HCVs shall have GPS instrument with all antennas completely shielded within the dashboard. The GPS should be fitted with minimum 32-bit microprocessor and should have a backup battery of minimum 24 hours. The web portal & mobile application shall have the capability to view location of the vehicle with an accuracy of 100 meters. The bidder shall provide web portal access with minimum updating of 2 minutes for real time location of vehicle. The web portal shall also have



provision for replay of journey, report on stoppage time and location with idle time sorting. The entire instrumentation including GPS, battery, cable etc. for accessing LCV/HCV location is in bidder's scope. The bidder shall arrange for round the clock maintenance of the GPS system to avoid any disturbance.

- (b) Cascade shall be a group of identical cylinders of capacity required to meet the specified total water capacity of minimum 8800 WL (with variation up to + 5%). The Cascade shall be provided with structural frame having facility of lifting and placement.
- (c) Cylinder shall be Type 3/ Type 4 and as per design /drawings approval by Petroleum and Explosive Safety Organization (PESO), Govt of India.
- (d) Codes & Standards to be followed:
- ISO 11439-Gas Cylinders –High Pressure Cylinders
  - IS 3224: 2002 Valve fittings for compressed gas cylinders excluding liquefied Petroleum gas (LPG) cylinders.
  - ANSI/NGV2-2000 Basic requirements on compressors, storages, handling & refuelling of natural gas for use in automotive sector.
  - OISD-179 Safety requirements on compressor, storages, handling and refuelling of natural Gas for use in automotive sector.
  - Gas Cylinder Rules-2016
  - Frame Structural Steel Specification-IS:2062:1992 Grade-A
  - ADR complied ISO container (Multi Element Gas Container)
  - Indian Explosives Act
  - Safety Devices of Gas Cylinder-IS:5903-1970, Regulations of insurance association.
  - NFPA 52 Standards for CNG Vehicular system.
- (e) All the applicable statutory codes, national laws and local regulations for safety and Environment protection shall be followed by the vendor for design, engineering, fabrication etc. the vendor shall obtain from concerned authorities all necessary approvals.
- Working pressure of cascade cylinder shall be minimum 250 bar at 15- degree C.
  - Number of cylinders in the cascade shall be arranged in a single bank.
  - Vendor shall optimize the number of cylinders in order to maximizing the recovery from the cascade storage.
  - Tubing- The sizing of connecting tubing between each outlet and its associated cylinders shall be provided by the vendor. Sizing and thickness of tube shall be according to requirement of code ANSI B 31.3. The loops in tube work shall be provided for absorbing contraction,



expansion and vibration piping/tubing shall be suitably clamped to the frame structure. Material used for tubing shall be SS-316 high quality annealed seamless confirming to ASTM A269. Tubing shall be **Sandvik** make.

- Fittings/valves: - Double compression ferrule fittings of (Swagelok / Parker make) shall be used in the connection tubes.
- All cylinders in a Cascade shall confirm to a single design code.
- Cylinders in the cascade may be vertically or horizontally placed as per OISD 179 clause 8. In case of horizontal configuration, minimum 20 mm cylinder to cylinder gap shall be provided (confirming to requirement of OISD-179). The material used to separate the cylinders should be sufficiently strong enough.
- Cylinder Valves: - Each cylinder shall be provided with a shutoff valve.

The cylinder shut-off valve shall be with combination Bursting Disc/pressure release device and fusible plug/ Thermally activated pressure release device confirming to requirements of IS 3224 or equivalent standard approved by Petroleum and Explosive safety Organization (PESO) Govt of India.

- All cylinders to be hydrostatically tested, once in every three years and approved by third party certification body (approved in Gas cylinder Rules 2016). Test certificate shall be duly endorsed by approval body and issued before delivery.
- The burst disc/ pressure activated pressure release device shall rupture on excess pressure. Fusible plug/ Thermally activated pressure shall release pressure in case of excess temperature either individually or combined. The burst disc discharge shall be manifold to a common header for safe venting. Vendor shall provide the burst pressure and temperature.
- The individual valve shall have provision to close/ isolate the connected individual cylinder in cascade module so that venting of all cylinders shall be avoided in case of burst disc/ fusible failure. The burst disc/ fusible plug discharge (vent) shall be manifold to a common header with SS 316 fittings at a single location for safe venting in vertical direction facing sky.
- Neck thread of cylinders shall confirm to the IS-3224 or equivalent standard approved by Petroleum and Explosive Safety Organization (PESO) Govt of India.
- Cascade Frame-Supplier shall submit structural drawing of the frame giving details of the steel, welding procedure, corrosion protection for approval of HOGPL representative before commencing fabrication work.
- Bidder to submit 4g calculation for cascade frame.
- Painting of cylinders: - All cylinder pigmenting should be as per directions of CCOE, PESO Govt. of India.
- Painting: -
- Surface preparation of cascade frame by shot blasting as per grade SA 2 ½, Swedish standard SIS 055 900. Three coats of paint shall be applied with minimum thickness of 300 microns. (Permissible thickness in each coat shall be within 80 to 120 micron).





Primer	Epoxy Zinc Phosphate Primer	100 $\mu$
First coat	High Build Epoxy	100 $\mu$
Finish coat	High Build Epoxy	100 $\mu$

- Life of cascade shouldn't expire during the tenure of contract.

- (f) GPS system should be available for monitoring at all the time and nonworking of GPS for any LCV/HCVs will be construed as deviation in operation of LCV/HCVs. The bidder shall ensure 100 % GPS system availability of each LCV/HCVs.
- (g) The GPS system shall have a display provision for a monthly MIS sheet consisting of following information of individual LCV/HCVs:
- Nos. of over speed incidents, max. Speed, no data period (total period for which GPS was not available, start location etc.
- The monthly GPS MIS sheet shall be submitted along with monthly invoices.
- (h) 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 the sole responsibility of the bidder. The contractor shall indemnify for any losses due to it.
- (i) The transporter who is carrying any hazardous and explosive material needs to submit the Form no 1 to Member Secretary of State Pollution Control Board for intimation and certification. Vendor shall comply necessary actions as per Hazardous Wastes (Material and Handling) Rules, 1989 and its subsequent amendment.
- (j) As per the statutory requirements while hiring the transporting vehicle following compliances needs to be fulfilled and complied:
1. Third Party Training of Defensive Driving to all Drivers (under Motor Vehicle Act)
  2. TREM Card availability
  3. HAZCHEM training and signage
  4. PPEs Mandatory for drivers
  5. Form -1 under Hazardous Wastes (Material and Handling) Rules, 1989 and its subsequent amendment (Under State Pollution Control Board).
- 3.1.19 Supply, mounting & Maintenance of Fire extinguisher (DCP/CO<sub>2</sub>) on each LCV/HCVs shall be under the scope of contractor.
- Contractor shall mount fire extinguishers on the LCV/HCVs as per the directions of Engineer-in-charge. The cost of supply and fabrication of steel material for mounting the extinguishers shall be borne by the contractor. The contractor will be responsible for safe custody of the fire extinguishers and maintaining the same in good condition. The contractor shall ensure availability of fire extinguisher with proper validity in LCV/HCVs all the time.
- 3.1.20 LCV/HCV should be equipped Stopper and should be placed during or decanting, failing in which contractor shall be liable for penalty as Rs.1,000/- per instance. LCV should be equipped with required special tools and tackles for maintenance.
- 3.1.21 Payment shall begin from the date and time when contractor has started commercial operation.



- 3.1.22 All cylinders must be permanently stamped with the word CNG together with the following information:
- i) Manufacturer's, owner's and inspector's marking and rotation number; (These markings shall be registered with the PESO)
  - ii) Specifying that the cylinder has been manufactured for "CNG only".
  - iii) A symbol to indicate the nature of heat treatment (such as normalizing, quenching, or tempering) given to the cylinder during manufacture.
  - iv) The date of the last hydrostatic or hydrostatic stretch test, as the case may be, with the code mark of recognized testing station where the test was carried out. The code mark shall be registered with the PESO.
  - v) Working pressure and test pressure;
  - vi) Tare weight
  - vii) Water capacity.

Following Calibrations, Test Certificates and Third-Party Certification to be submitted to HOGPL before deployment – Every Cylinder should be carried with Hydrostatic or Hydrostatic stretch test and a certificate should be provided.

Leak test should be carried for each cylinders or cascades with all tubing's, valves and a certificate should be furnished to the Owner.

- 3.1.23 The CONTRACTOR shall obtain the Traffic Police clearance for 24-hour entry permit for plying CNG cascades mounted LCV/HCV on road.
- 3.1.24 For the hydrotesting of the mobile cascade (provided by HOGPL/ contractor) , which is conducted once every three years, the contractor shall not raise any billing claims for the period during which the cascade is sent for hydrotesting.
- 3.1.25 Payment of all taxes, duties, service charges etc. on the LCV/HCV as per statutory requirements shall be borne by the contractor. However, the Goods & Service Tax if applicable, octroi / LBT on gas, Rahadari / Transit Pass charge & toll tax shall be reimbursed on actual basis on submission of original receipts of expenditure made against the same while on HOGPL duty.
- 3.1.26 Contractor shall indemnify company for any action under Motor Vehicle Act.
- 3.1.27 Transport services shall be provided round the clock on designated routes and as per the schedule given by Engineer-in-charge on all days. Transport services shall include the following activities by the drivers who will be trained by the client through experts for these activities.
- a) Disconnect the quick connect coupling of the cascade after proper depressurization of the hose, as soon as storage pressure fallsto a level 30 kg/cm<sup>2</sup>g and transport the cascade to Mother/ filling stations for re-filling.
  - b) Connect the cascade with the filling hose by connecting quick connect coupling available at mother stations for refilling.
  - c) Transport the filled mobile cascades from Mother Stations to daughter booster stations / DCS station and connect to station tubing through quick connect coupling.



The contractor shall ensure that the recovery of gas per trip per LCV/HCV is within the acceptable limits as specified in point. In the event of less recovery on account of reasons attributable to the contractor such as LCV/HCV being returned from retail outlets at higher return pressure as specified in point, then the contractor shall not be paid for that particular trip. Transportation loss allowable is up to 0.50%, beyond this, the resulting net loss shall be recovered from the bidder's RA bill. The deduction will be calculated based on the prevailing RSP rate of CNG at Kolhapur.

- 3.1.28 The driver shall maintain log books for LCV/HCV movements entering time of start / arrival from / to mother station / DCS station / daughter Booster stations & vice versa. LCV/HCV initial & final pressures at mother station / daughter Booster stations and any other details considered necessary for operation by HOGPL for each vehicle. Opening and closing reading of the milometer have to be noted in the log book. Driver shall also record any leakage, burst disk failure during the trip. The logbook has to be signed by station manager / technician for each trip & countersigned by Mother Station control room shift in-charge on daily basis. All stationary including printing material such as log book shall be in the scope of the contractor. However, the format of the logbook shall be as per HOGPL.
- 3.1.29 The contractor shall prepare Daily filling & dispatch statement and submit the same at the respective Mother Station control rooms of HOGPL/ as informed by HOGPL by 8 AM daily.
- 3.1.30 The contractor shall at his own expense, provide uniform (2 shirts and 2 trousers) indicating HOGPL/CNG logos (to be designed by client) and shall wear uniform and shoes at the time of duty. Drivers have to maintain the discipline & decorum in the CNG stations. Drivers without proper uniform will not be allowed for duties and penalty will be imposed.
- 3.1.31 Contractor should provide the ID cards to his employees as per the specifications given by HOGPL and is a disciplinary rule to be followed without fail.
- 3.1.32 In each shift (of 8 hrs. each) the contractor shall depute at least one experienced supervisor round the clock at each Mother stations for smooth operation of transport services to the satisfaction of client. The contractor, for effective supervision and better co-ordination, shall provide supervisors with the conveyance and mobile phone. The minimum qualification for the supervisor shall be Graduation. The supervisor has to report to respective Mother Station In-charge. The supervisor shall coordinate with retail outlet dealer / manager of Mother Station on daily basis to avoid dry outs. The supervisor shall ensure smooth and uninterrupted movement of LCV/HCV to ensure continuity of gas supply to Retail Outlets. If supervisor unavailability in the shift is more than 1 hour it will be considered as absenteeism for the entire shift and penalty levied as per the penalty clause. Supervisor should have enough money for day-to-day smooth operations. Supervisor should know the Govt. Rules and Regulations of CNG truck movement, and they should co-ordinate with Govt. Officials regarding smooth operations.
- 3.1.33 Contractor shall provide communication handsets to the supervisors for communicating with the drivers & movement control. The safety and security of the handsets will be the responsibility of the contractor. In case of loss and damage, the contractor shall be liable for replacing/ repairing the sets immediately at his own cost.



- 3.1.34 Contractor shall carry out all schedule maintenance of LCV/HCV and provide the copy of schedule maintenance record to Engineer-in-charge.
- 3.1.35 One Time Mounting and De-Mounting of Cascades during the contract period shall be in the Contractor's scope without any charges i.e., from commencement till expiry or termination of the contract. This shall mean that the contractor will take delivery of CNG storage cascades as per Owner's instruction either from the owner's store or CNG stations, as the case may be and mount them tightly on vehicles with nuts and bolts which should not become loose during operations. After taking over custody of cascades, upkeeping and safety of cascades is the sole responsibility of the contractor. Any loss or damage to the items (in case of carelessness of driver) such as valves / knobs / fittings / valve handles / pressure gauges, Cylinders / tubes or any other component of cascades shall be replaced/rectified / repaired at the risk & cost of contractor.

On expiry or early termination of the contract the contractor shall unload and return cascades to the Owner in safe & operational condition. Any damage, if found, shall be on contractor's account and replaced/rectified / repaired at his risk and cost. However, in the event of the contractor's failure to replace/rectify/repair the damaged cascades, the amount incurred for the same shall be recovered from contractor's dues / security deposit.

In case loading and unloading is done by the contractor at the instance of the owner, other than One Time Mounting and De-Mounting of Cascades, mentioned hereinabove, contractor will be paid as per the rate quoted in SOR.

All material required for securely mounting the cascades & crane services required for loading & unloading of cascades have to be arranged by the contractor at his own cost.

### **3.1.36 Penalty-**

- a) Penalty for non-availability of Driver service due to any reason for more than one hour and till four hours is up to Rs 1000. Non-deployment or non-availability of driver during the operational hour(s) for more than 4 hrs. shall be deemed as one full day (24 hrs) and one full day charges will be deducted on Pro-rata basis.
- b) In case of non-maintenance of vehicle log book on every three month, Rs1000.00 per month of delay shall be levied from the running bills.
- c) If the Bidder fails to arrange / repair the Vehicle Tracking System, then a penalty of Rs. 5,000/- per vehicle per month will be levied & same will be deducted from Bidders running bills.
- d) Contractor shall deploy competent Supervisors for the purpose of coordination with HPOIL GAS PVT LTD on round the clock basis for monitoring the vehicles movement. The contractor's representative/supervisor shall report daily to the Shift-in-Charge in the control rooms for day-to-day working, filling & dispatch of LCVs/HCVs. Non-deployment or non-availability of supervisors during the operational hour(s) for more than 4 hrs. shall be deemed as one full day (24 hrs) and will attract



a penalty of Rs.1000/- per day.

- e) For non- availability of service due to any reason for more than one hour and till four hours Rs.1000 shall be deducted. In case non-availability of service exceeds four hrs period additional penalty @ Rs.1000 per hr. for additional hours till 8 hours of non-availability of service will be imposed
- f) The driver duty hours shall fulfil requirement of statutory regulations. However, HOGPL will levy penalty of upto Rs.1000 per day for cases where driver works beyond 8 hours in a day.
- g) The contractor shall ensure that LCV/HCV driver along with supervisors are equipped with mobile communication at all point of time. In case the contractor fails to provide this facility, a penalty up to Rs 500 /- per day per vehicle may be applied.
- h) The bidder shall ensure 100% GPS system availability on LCV/HCV. The 100% availability means that the GPS should remain available for 24 hours on all days of the month. However, availability of less than 85% for an HCV will not be tolerated and penalty of up to Rs.2000 per percentage reduction below 85% will be imposed to the bidder. The total GPS related penalty of an HCV would not exceed 10% of monthly HCV rental.

E.g. in case in a month if availability of GPS system of a particular availability system comes out to be 83% then a penalty of  $(85-83) \times 2000$  or Rs.4000/= will be imposed for that HCV.

In case of Breakdown of HCV/LCV for more than 12 hours, either bidder has to arrange alternate LCV/HCV in replacement or a penalty of Rs.15,000.00 shall be imposed for every 12 hours maximum up to the monthly transportation charge of that HCV

- i) All HCV/LCVs shall be with driver. In case of surprise visit if any passenger found in HCV/LCV that one instant shall be penalize by Rs.1000.00 per instant HCV/LCV.
- j) Transporter to ensure that their drivers wear proper uniform, shoes & PPE as necessary by relevant clause. Cases of non-adherence of guideline will lead to penalty to transporter @ up to Rs.100 per driver per day.
- k) The lunch of the drivers should be during the loading period or decanting period. No driver should be given separate lunch time breaks during driving. A penalty of 1000 for each instance will be levied.
- l) Drivers should strictly follow all the safety instruction of HPOIL's Engineer-in charge / Safety Officer. Any misbehavior with HPOIL employee or found under influence of alcohol will attract a penalty of Rs.10,000/- per instance and termination from duty.
- m) The contractor shall provide at his own expense, full personal Protective Equipment (PPE) to each individual employee including soft helmet, ear protection, safety goggles and safety shoes. It is mandatory for all personnel to wear issued PPE while performing their duties. Non-compliance of PPEs or any kind of safety violation will result in deduction to the level of 5% of the particular Month RA bills will be done.



- n) In the event of delay in mobilizing the services, a penalty at the rate of 0.5 % of the contract value per week or part thereof shall be recovered from the Bidder subject to a maximum of 5 % of the contract value.
- o) In the event of delay in mobilization of resources to commence CNG Supply, HOGPL shall have option to get the work done from any other agency at the risk and cost of the Bidder. The expenditure so incurred plus administrative charges @ 20% shall be recovered from Associate's bill without any prior intimation
- p) The Bidder shall deploy at HOGPL office atleast 01 competent Supervisors for the purpose of coordination with HOGPL in 24hrs time for monitoring the Vehicles movement.
- q) In the event of any damage or loss or caused by the deployed LCV & HCV or manpower to the equipment, property, cascade, cylinder etc belonging to HOGPL or Retail Outlets, the total cost shall be recovered from the Bidder. The damages as determined by HOGPL shall be final & binding on Bidder.
- r) After the operational of contract, Bidder has to provide the uniforms & safety shoes within 1 month, incase not wearing/ providing of Uniform & Safety Shoes by any employee during their shift/duty, the penalty shall be per person deducted from Bidder running bill per observed any time during the random/regular inspection by EIC or his authorized representative.
- s) Maximum penalty imposed in a particular month for non-availability of requisite personnel/ services would in any case not exceed 60% of monthly bill/ value of work done at a particular station in that particular month.
- t) Pull out of a hose at LCV & HCV Point at filling Station /or any asset damage at CNG station by LCV & HCV due to negligence of Vehicle driver, the actual cost material will be recovered from the Bidder running bill with additional 20% overheads.
- u) In the event of audits, any non-compliance identified must be rectified by the contractor within the stipulated time frame. Failure to comply within the specified period shall attract a penalty of ₹1,000 per instance.
- v) The Bidder has to submit recent police verification for all the persons within a period of 90 days from the date of deployment under this contract for character verification, non- submission of character certificate will attract penalty Rs. 1000 per workmen per month & will deduct from running bill.
- w) Old police verification will not be considered. Date of police verification shall be after date of award of contract only. In addition to the above, associate has to provide the police verification document as and when required as per the EIC directions.

### 3.1.37

a) Penalty for Non-Availability of LCV & HCV:

It shall be sole responsibility of bidder to arrange maintenance of all Mobile cascades or LCV & HCV at its base location only. Maintenance time should never be more than 8 hours and cumulatively it should not cross more than 24hrs per month . Any delay crossing 24 hours shall be penalized with Rs. 15,000.00 immediately and additional





penalty on hourly pro-rata basis maximum up to the monthly ship or pay charge of that LCV & HCV. In case of non-utilization of monthly maintenance time , hours shall not be carried forward to next month.

In case of Breakdown of any Mobile cascades or LCV & HCV for more than 24 hours, either bidder must arrange alternate LCV & HCV in replacement or a penalty of Rs. 15,000.00 shall be imposed and additional penalty on hourly pro-rata basis maximum up to the monthly ship or pay charge of that LCV & HCV and bidder will have to raise bill on pro rata basis.

It shall be the sole responsibility of bidder to follow all kind of statutory approvals and renewals time to time required for operation of mobile cascades and LCV & HCV at Kolhapur. HOGPL shall provide Maximum three days (Including working and non- working day) for renewal of statutory compliance. Bidder must submit legal documents like expiry date of such approval, rule of the same and renewed statutory certificate to EIC of HOGPL. For any such kind of statutory approval, bidder must take prior approval from EIC of HOGPL with proper detail. For any delay beyond three days, penalty of Rs.500.00 per hour shall be applicable.

Non-Submission of RA bill by 10th of subsequent month will attract a penalty of Rs. 1000/- per day beyond 10 days of stipulated time for the applicable date of bill submission Same will be deducted from the running bills.

Any other non-compliances not covered in tender conditions may attract penalty of 2000/- per instance.

### **3.1.38 Scheduled / Pre-informed absence**

In case of scheduled/ informed absence of LCV/HCV due to maintenance, major breakdown, LCV/HCV being taken away by traffic police, LCV/HCV sent for fitness certification, accident; transporter will deploy standby LCV/HCV immediately and will inform HOGPL accordingly. Removal of standby LCV/HCV and resumption of original LCV will take place due information to HOGPL.

In case, transporter is not able to arrange standby LCV/HCV, penalty over and above cumulative allowed time @ up to Rs 2000/- per day per LCV/HCV shall be levied. In addition to this, transporter will not raise invoice for the absence period and HOGPL will not release payment for the absence period.

- 3.1.39 The contractor shall be required to obtain Traffic Police clearance for 24-hour entry permit for plying CNG cascades mounted on LCV/HCV in Kolhapur City Inter district route for all the vehicles. Any assistance / document required in this regard shall be provided by HOGPL.
- 3.1.40 Vehicles should have permits of All India.
- 3.1.41 The contractor shall be required to take Comprehensive Insurance Policy coverage for each vehicle & mounted cascade from a reputed Insurance Company and shall



keepin force during the tenure of the contract. If any property at CNG station has been damaged by the act of the contractor, the same will be also recovered from the contractor as per actual cost estimation of HOGPL.

3.1.42 The contractor, under the transport services, shall be required to be covered by ZONAL PERMIT at his own cost.

3.1.43 The contractor shall ensure that no person inside the vehicle would smoke while driving and no fire or other ingredients of ignition shall be permitted in the vicinity of the vehicle. No other goods should be carried in the vehicle.

The vehicle engaged for transportation of CNG shall not carry any persons or goods other than the crew of the vehicle.

3.1.44 Approximate minimum running of each LCV/HCV is about 4500 KM per month for Kolhapur.

In case if the contractor fails to complete 2500 Km per month with Type 3/4/1 Cascade due to contractor's fault, pro-rata payment shall be made.

The calculation of escalation/de-escalation on account of cost of CNG over base rate will be done as per SCC clause in Commercial Volume of Tender Documents.

The CNG escalation / de-escalation charges, if any would be paid/ deducted along with monthly bill.

#### **3.1.45 Local Contact Office**

It is mandatory on the part of the contractor to set up a local contact office at GA locations and submit the photographs, names, addresses, contact tel. nos., designations and signatures of their authorized representative duly certified in advance to HOGPL.

3.1.46 The contractor shall liaison with the local authorities i.e., LBT Department for completing necessary formalities regarding Transit Pass etc. during each and every trip if required.

#### **4.0 VEHICLES**

Bidder to note that 100% of the vehicles to be deployed shall be CNG runs vehicles.

Vehicles shall be duly registered with RTO for transport of CNG/other petroleum product. Each LCV/HCV shall have a valid permit, sufficient tools and spares for running repairs to be carried on-route. Contractor shall make adequate arrangements for fuel / lubricant with his crew / staff so that operations are not affected. Deduction shall be made if vehicle is held up due to any of these reasons.

- Bidder shall strictly adherence to Chief Controller of Explosives Guidelines.
- The contractor shall obtain a certificate from the Chief Controller of Explosives or any appropriate Government authority to the effect that the said LCV/HCV are fit for transportation of CNG.
- Each LCV/HCV must have spare wheel with tyre available on LCV/HCV





during movement.

- Contractor shall ensure installation and proper functioning of ABS (Anti-Lock Braking System), VTS (Vehicle Tracking System), Speed Governor, Front/Rear cameras, Anti-collision devices etc. Moreover, in-transIT, surveillance of HCV/LCV to be maintained and deviations (if any) to be investigated for possible causes.
- A quarterly Intensive safety check shall be done to ensure compliance to all statutory Rules/Regulations for all aspects of Road transportation of Petroleum Products to ensure that all safety fittings are installed/maintained/tested as per applicable Rules/Regulations.
- Side panels for display of company name and logo in combination requirement of display under rules 130 to 137 of central motor vehicles rules 1989 (HOGPL monogram to be in standard colours of company). All LCV's/LCV to be painted with same colour. The colour and pattern will be indicated by EIC. The expenses for fabrication of panels and painting for above to be borne by the contractor.
- All LCV/HCVs should carry "EMERGENCY CARD" and should be kept in an accessible location. EMERGENCY CARD in English, Hindi and Marathi language will be provided by HOGPL.
- A) Vehicle shall have following features and maintained throughout the contract period: -

Sl. No.	Features
1	Seat Belt
2	Ergonomic cab Layout
3	High level Brake Light as per OEM supplied
4	High Intensity Discharge Headlamps
5	Reflective Strips and Reflective Markers on the Vehicle as per RTO norms
6	Side indicators on all corners of the vehicle
7	Reversing Alarm (Reverse Horn)
8	Power Steering
9	Dash-board with Odometer, Fuel indicator, Temperature Meter & Road Speed Indicator
10	Both the side rear view mirror
11	The exhaust system shall have spark arrestor approved by peso

B) Following essentials shall be maintained in the Vehicle throughout the Contract Period

Sl. 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
5	Reflective Warning Triangles – as per Vehicle OEM
6	01 Fire Extinguisher – ABC type 09KG/10Kg stored pressure as per IS 2190-2010



7	TREM Card (As per the standard details & formats given by Owner)
8	Cordoning Fluorescent Tape printed on both the sides – 01Nos (Length 200m)
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 jacket – 2 nos.
12	Metal/Wooden Wheel Chocks – 2 nos. minimum
13	Reflective Cones – 5 nos.
14	Gloves

The contractor shall provide at his own expense, full personal Protective Equipment (PPE) to each individual employee including soft hat, ear protection, safety goggles and safety shoes. It is mandatory for all personnel to wear issued PPE while performing their duties. Non-compliance of PPEs or any kind of safety violation will result in deduction to the level of 5% of the particular Month RA bills will be done. The TREM CARD shall always be available with the vehicle.

- All stationary including printing material such as LCV/HCV log books, LCV/HCV recovery log books etc shall be in the scope of the contractor. However, the format of the logbook shall be as per HOGPL.
- Appropriate restriction on hours of work for any person engaged in operating a Road Transport Vehicle should be applied. This shall be in accordance with Motor Transport Workers Act, 1961, inter-alia covering the following but not restricted to: -
  - I) No adult motor transport worker shall be required or allowed to work for more than eight hours in a day and forty-eight hours in a week.
  - II) For all motor transport workers, a rest interval of at least half an hour must be provided after every five hours of work. Under no circumstances the period of work shall exceed five hours a stretch.
  - III) Minimum of nine consecutive hours between the termination of duty on one day and the commencement of duty on the following day must be allowed to all transport workers.

**Technical requirement of the driver :-**

- Each driver driving LCV/HCV should possess heavy driving license with endorsement on it by RTO for driving Hazmat vehicles. Driver educational qualification should be minimum 10<sup>th</sup> Pass.
- The contractor's representative /supervisor shall report daily to the shift-in-charge in the control rooms for day-to-day working, filling & dispatch of LCV/HCVs. Qualification of supervisor should be minimum graduation.
- The Contractor shall ensure that all drivers (both primary and alternate) possess a valid Transportation of Hazardous Goods certificate issued by an authorized entity, as mandated by applicable regulations.



- For transport worker involved in road transport of gaseous products, the duty hours shall be in line with Part H, Clause no. 10.2.2(2) Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Petroleum Installations, Regulations 2020).
- The driver must be medically fit and shall have a certificate issued from registered doctor. The certificate shall be revalidated at least on annual basis or as per doctor's advice.
- Successfully passed a 3-day statutory training course at state government approved training.
- Drivers should strictly follow all the safety instruction of HOGPL's Engineer- in-charge / Safety Officer.
- Driver should co-operate / follow the instruction for day-to-day smooth operation.
- Driver should inform their movements / obtain permission from the Shift Engineer/ OMC supervisor.
- Driver shall report duty as per the instruction of Shift Engineer / Engineer-in-charge. Penalty will be applicable for late report of duty.
- No driver will be allowed to run the LCV/HCV without safety training. Additional safety requirements like reflective tapes shall be in the scope of contractor. Driver shall record reading of the mass flow meter at mother station and daughter booster station in a logbook for each trip.

#### **Scope of Work for Display of Signage Boards on LCV/HCVs**

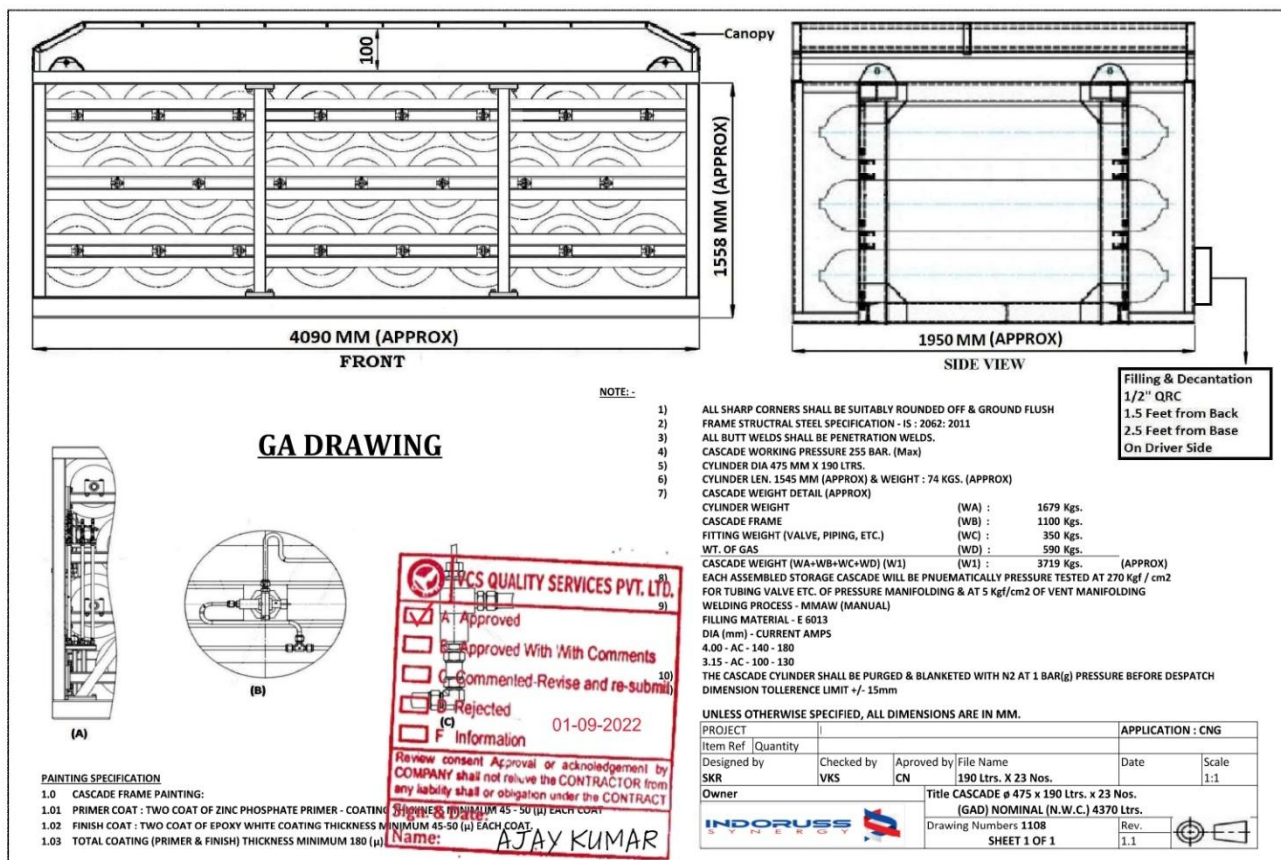
- Purchasing of ACP Sheets of dimensions 15 Feet X 1.6 Feet – For 2 sides, 4.2 Feet X 1.6 Feet – For Rear side.
- Vinyl printing of art work as per the design provided by HOGPL.
- Pasting of the vinyl printed art work on ACP sheets.
- Fixing of the ACP sheets on LCV/HCVs and maintaining the same properly.
- The Hazchem panel shall be put on vehicle by the bidder at his own cost as per direction of HOGPL.
- Branding of vehicles and caused shall be done by contractor as per instruction EIC of HOGPL.

#### **Exit Clause**

This contract can be terminated / suspended by giving six months advance written notice.

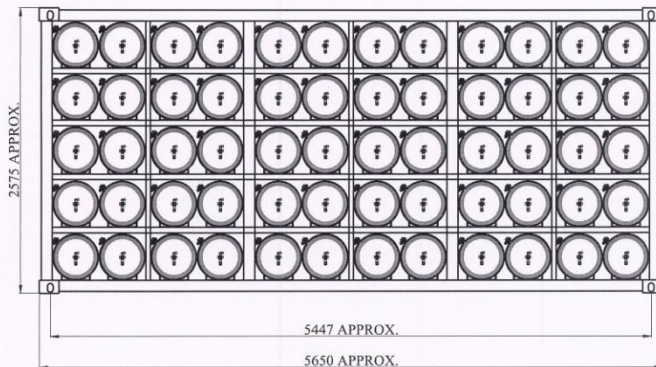
**Termination**

- Undue & unreasonable delay in work completion.
- Failure in compliance of any laws/ rules /regulations applicable to his business.
- LCV not following designated route and stopping at locations not designated for the purpose.
- Unsafe practice.

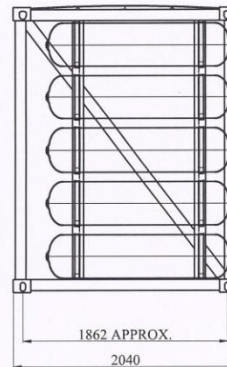
**5.0 Cascades Drawings for reference****4370 WL Type 4 CNG CASCADE**



TENDER NO. HOGPL/2025-26/C&P/005



FRONT VIEW



SIDE VIEW

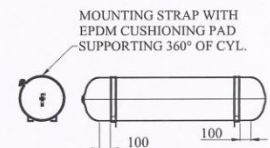
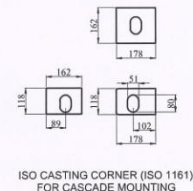
Approved without prejudice to all terms & conditions of the tender.  
Rajesh Singh  
Attache

For Mec Elec Industrial Services (P) Ltd.,

Dnyanesh M. Divekar  
B.E. (Mech.), M.S. (Safety Engg.), M.I.E.  
Competent Person - PV(R)149/CPS53894-3

NOTES :

1. ALL SHARP EDGE CORNERS SHALL BE SUITABLY FINISHED.
2. STRUCTURAL STEEL GRADE SHALL BE IS 2062
3. FRAME STRUCTURE SHALL BE CORROSION FREE
4. WELDING SHALL BE DONE BY WELDERS WITH EXPERTISE
5. SANDBLASTING SHALL BE DONE TO SA 2.5
6. PAINTING SHALL BE DONE IN TWO COATS OF EPOXY PRIMER AND ALIPHATIC ACRYLATE PAINT RAL 7032.
7. CASCADE SHALL HAVE LIFTING AND MOUNTING FACILITY WITH ISO CORNER CASTINGS AS PER ISO 1161
8. CYLINDER DESIGN IN ACCORDANCE WITH ISO 11119-3
9. CASCADE CAPACITY : 9360L (WATER CAPACITY) (AT AMBIENT TEMPERATURE)
10. EACH PNEUMATIC FITTING SHALL BE TESTED FOR LEAKAGE AT MINIMUM 270 BAR
11. CYLINDER DIMENSIONS : Ø395 x 1670 mm
12. NO. OF CYLINDERS : 60
13. WEIGHT OF CYLINDER : 44 ± 2 KG
14. CASCADE OUTER DIMENSION : 5650 x 2040 x 2575 MM APPROX.
15. CASCADE EMPTY WEIGHT (INCLUDING CYLINDERS, MOUNTING STRAPS, TUBING AND FITTINGS) : 5.5 METRIC TONNE
16. CASCADE CYLINDERS SHALL BE PURGED AND SUPPLIED WITH N2 FILLED AT 3 BAR
17. CASCADE WORKING PRESSURE : 250 BAR MAX, AT 15 °C
18. CYLINDER DESIGN, CONSTRUCTION, MANUFACTURING AND TESTING IN ACCORDANCE WITH ISO 11119-3 (2013)



ALL DIMS. ARE IN M.M., EXCEPT STATED.

THIS DRAWING / DOCUMENT IS THE PROPERTY OF TIME. IT SHOULD NOT BE COPIED OR REPRODUCED IN ANY FORM WITHOUT WRITTEN PERMISSION OF TIME, MUMBAI.

TITLE : GA DRAWING 9360 L (60 x 156L)  
CNG CASCADE - HPOGL

TIME TECHNOPLAST LTD.  
55, CORPORATE AVENUE, SAKI VIKAR ROAD, ANDHERI (E)  
MUMBAI - 400 072, Maharashtra, (INDIA)

PATH : C:\Composite Work\Cascade\cascades\HPOGL\9360 L\9360 L.dwg

Scale: 1:1

MEGC 60 1B 9KL 09

PROJECT	HPOGL		
EQUIPMENT	CNG CASCADE		
QTY. REQD.	01		
	NAME	SIGN.	DATE
DRN. BY	Rajesh Singh		28.12.2021
CHD. BY	R. B.		28.12.2021
APP. BY	N. J.		28.12.2021





TENDER NO. HOGPL/2025-26/C&P/005

