



Vadodara Gas Limited
Replies to Bidder's Queries

Subject: Purchase of 01 No. 1700 SCMH Motor Driven Compressor Package with 05 Year AMC for Upgradation of VGL CNG Mother Stations

Tender No.: VGL/CO/C&P-CNG/BD202312P094 Dated 19/12/2023 & Tender ID: 615895.

Sl. No.	SEC NO.	PAGE NO.	CLAUSE NO.	SUBJECT	BIDDER'S QUERY	VGL'S REPLY
Commercial Queries						
1	Section – I Invitation for Bid [IFB]	8 of 240	2.0 F)	Delivery Period - 14 Weeks	14 weeks deliveries are not possible considering long lead items like PLC, Motors and compressors having minimum lead time as 16 weeks hence request you to change delivery period from 14 weeks to 20 weeks.	14 Weeks from the approval of the drawing by the EIC.
2		70 of 240	j of 15	In the event of delay in mobilizing the services/ manpower for the particular CNG compressor package a penalty at the rate of 0.5 % of the contract value per week or part thereof shall be recovered from the contractor subject to a maximum of 5% of the contract value.	Please note, maximum of 5 % of Lot quantity / Delivery order. Not on the total contract value. Kindly confirm the same.	Ok Noted.
Technical Queries						
3	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	101 of 240	2.3	Bidder shall be responsible for supply, erection, commissioning and field trial run. Noise level test and performance test of all packages at sites. The field trial run of the compressor will be for minimum of 4 hours (can be in multiple runs) and the package should be kept under observation for 72 hours for stable operation and no major breakdown in which satisfactory performance of the package together with all accessories auxiliaries and controls shall be established for satisfactory performance for specified operating conditions.	Since, Full load performance test is carried out at work for 4 hours on guarantee parameters on Natural gas, we request you to consider a 30mins field trial run and also performance test at site.	Tender Condition Shall Prevail.
4			2.4	It will be the endeavor of all the parties to get the Performance Acceptance Test (PAT) at site conducted within a period of 20 days from the start of commercial operation of a particular package.		Tender Condition Shall Prevail.
5			2.6	Periodic inspections of safety valves, transmitters, pressure vessel gauge and any other equipment as per statutory norms of state factory rules. SMPV and gas cylinder rules shall have to be carried out by the bidder at his own cost during the period of maintenance by the bidder. The inspections have to be carried out by competent persons as per advice of engineer-in-charge and certificates have to be submitted to owner.		The vessels are part of a process equipment and are to be designed as per ASME Sec VIII. The process vessels have not been covered under Gas Cylinder Rules 2016 / Static and Mobile Pressure Vessels Rules. Retesting is carried out for only storage vessels like cascades. Only a thickness check will be carried out every year. Please note, hydro testing will be in scope of the Client . Same is followed in all the CNG packages and with all the CGD companies. Same is accepted in last tender
6	SECTION – V SCOPE OF	103 of 240	2.18	Receipt at site, storage in warehouse as per manufacturer's recommendation and safety	The storage in the warehouse, safety and security from theft shall be in Client's scope.	Ok Noted.



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	WORK [SOW] & TECHNICAL SPECIFICATION [TS]			and security from theft and breakage/damage during transportation, handling at site.	Kindly confirm your acceptance to the same.	
7	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	104 of 240	v. of 2.23	2.23 OPERATION AND MAINTENANCE OF COMPRESSOR PACKAGES Contractor has to ensure the safety of man and machine all the times. Damages to equipment due to negligence will be recovered as per the decision of Engineer-in-Charge, which will be final.	Shall be done only for the Packages supplied by KPCL.	Ok Noted.
8	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	107 of 240	xxxv. of 2.23	The bidder shall carryout calibration of gas detectors and flame detectors every six months or earlier as per requirement or instruction of EIC of OWNER. Also yearly calibration of all instruments such as pressure gauges, transmitters, switches, etc shall be in the scope of the bidder. Mass flow meters shall calibrate every 12 months. In addition to the above all safety relief valves shall also be tested and calibrated every Six Months.	For mass flow meters, field calibration shall be carried out. FCRI calibration shall be in Client scope.	Calibration of Mass Flow Meter shall be carried out through OEM or VGL approved agency in every 12 months.
9	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]		xxxviii. Of 2.23	The bidder shall carry out retesting of pressure vessels including blow down vessel periodically i.e. every year or earlier as per Gas Cylinder rules 2016 / Static & Mobile Pressure Vessels Rules.	The vessels are part of a process equipment and are to be designed as per ASME Sec VIII. The process vessels have not been covered under Gas Cylinder Rules 2016 / Static and Mobile Pressure Vessels Rules. Retesting is carried out for only storage vessels like cascades. Only a thickness check will be carried out every year. Please note, hydro testing will be in scope of the Client ,same is followed in all the CNG packages and with all the CGD companies.	Ok Noted. Thickness test of Pressure Vessel is carried out every year.
10	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	110 of 240	ii of 4.	All 3 no. of mass flow meters should be of same make and should have local display and should be weather proof. The flow meters should be enabled with MODBUS/RS 485 communications.	Suction and discharge flow meters are Emerson make and so we need to provide thermal flow meters of Emerson make since tender says same make. Please note, Emerson has stopped manufacturing thermal mass flow meters and the same has been accepted to provide different make in last CNG executed orders.	Ok Noted and the same will be approve by the PESO.
11	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	120 of 240	9.23	The supply shall include all interconnecting piping/tubing/cables.	Please let us know the distances of respective piping / tubing / cables.	<ol style="list-style-type: none"> 1. Compressor package to control/electrical room - Approx. 55 Mtr. 2. UPS DB to package distance for UPS supply to PLC panel - Approx. 55 Mtr. 3. ESD Locations and its distance from Package - Approx. 40 Mtr. 4. Air compressor to electrical room - Approx. 25 Mtr. 5. CO2 Flooding system to compressor package - Approx. 8 Mtr.
12	SECTION – V SCOPE OF	110 of 240	viii. Of 4	Block and bleed valves to be provided for Pressure gauges and pressure Transmitters.	Block and bleed valves cannot be offered due to space constraints. We shall offer needle	Ok Noted.



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	WORK [SOW] & TECHNICAL SPECIFICATION [TS]				valves for Pressure Gauges and Pressure Transmitters.	
13	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	110 of 240	ix. Of 4	Separate junction boxes for different type of signals like intrinsically safe signals, alarm, shutdowns, thermocouples, RTDs etc. for interfacing to local panel.	Local control panel (With PLC) is mounted on the package itself hence junction boxes are not required. Instruments will be directly wired to the Local control panel.	Ok Noted.
14	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	111 of 240	xii. Of 4	One no. relief valve at each stage discharge, first (1st) stage suction and Blow down Vessel.	Relief valve at first stage suction is not required in addition to one on a blowdown vessel as suction line and blow down vessel are connected to each other.	Ok Noted.
15	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	111 of 240	xiii. Of 4	Y- Type strainers, valves, sight flow indicators, check valves, auto & manual drain traps etc. as required for various auxiliary systems i.e. frame lube oil, cylinder lubrication system, cooling water systems etc.	Please note that as per Manufacturer's standard practice the lubricator will be divider block type. Y type strainers, Sight flow indicators, check valve etc are applicable for Single Plunger per point lubricator, thus not applicable.	Ok Noted.
16	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	111 of 240	xxi. Of 4	One set of priced spare parts catalogue along with the priced bid (Commercial bid), as built drawings and Operation & Maintenance catalogue with each compressor package.	There is no provision to provide prices of spare parts in the SOR. and also O & M is in bidder scope.	Ok Noted.
17	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	111 of 240	xxvi. Of 4	Duplex suction filters to be provided at the inlet of package with Differential Pressure gauge after Y- type strainer.	Please note Duplex suction gas filter with oil drains and temporary suction inline strainer will be placed outside the package.	Ok Noted.
18	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	111 of 240	xxviii. Of 4	Three no. Emergency stop button (push type) along with one hooter in office/customer interface room with its required cable.	Emergency stop button and hooter will be in the purchaser's scope. Any cabling required to interface the same with package PLC will be in the purchaser's scope.	Three no. Emergency stop button (push type) along with one hooter with its required cable.
19	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL	112 of 240	xxx. Of 4	Secondary lubrication system with check valve protector, HP (High Pressure) Filter (for all lubricating points) & DNFT (Digital No Flow Timer) flow switches with standby pump. Secondary lubrication system with	Standby pump is not envisaged and therefore will not be provided. Oil pump mounted on a compressor is sufficient for cylinder lubrication.	Ok Noted.



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	SPECIFICATION [TS]			divider block shall be provided.		
20	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	112 of 240	5.20	Silencer has to be provided in the starting air vent line.	Not applicable.	Ok Noted.
21	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	114 of 240	2.2 of B.	B. COMPRESSOR PERFORMANCE DATA 2.2 Compressor Discharge temperature 52° C (After cooler) with ambient air temperature of 47.5° C and gas inlet temperature of 35° C (max.).	Please note discharge temperature shall be Ambient +10 deg C. This design is followed in all our packages and same is supplied in GED tender.	Ok Noted.
22	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	118 of 240	9.50	Compressor cylinder shall be provided preferably with removable liners.	Please note that the compressor cylinders are without liners as per manufacturer's standard design.	Ok Noted.
23	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	119 of 240	9.12	In case of lubricated cylinder & packing design, single plunger force feed mechanical lubricator shall provide lubrication to compressor cylinders. Lubricators with double ball check valve shall be provided at each lubricator point. Digital no flow timer shall be provided to stop the compressor in case of loss of cylinder lubrication.	Please note that as per Manufacturer's standard practice the lubricator will be divider block type. Double ball check valves are applicable for Single Plunger per point lubricator, thus not applicable.	Ok Noted.
24	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	119 of 240	9.21	Cross head inspection windows should be transparent for easy of inspection during running. Set values should be prominently marked on the gauges.	Crosshead covers are not transparent as per manufacturer's standard design.	Ok Noted.
25	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	119 of 240	a) of 9.22	Gas tight crankcase.	Crankcase is not gas tight and Crankcase is provided as per manufacturer's standard design.	Ok Noted.
26	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	120 of 240	h) of 9.22	Crankcase breather piped back to suction.	Crankcase is as per manufacturer's standard design. and not piped back to suction.	Ok Noted.



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27	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	131 of 240	11.14	For handling of all heavy parts for maintenance purpose suitable lifting arrangement shall be provided i.e. beam fitted with chain hoist arrangement. The chain hoist arrangement i.e. chain pulley block shall be removable type, which can be disassembled and shifted onto the other machines. 1no. each shall be provided for tendered quantity of compressors. Eye bolt arrangement shall be provided on heavier components like electric motor, cylinder crankcase, and wherever felt necessary for lifting during maintenance.	We will provide suitable arrangement such as plate for sliding the compressor motor out of the Canopy for maintenance purpose. No other equipment requires lifting arrangement considering their weight and therefore chain pulley arrangement is not required.	Ok Noted.
28	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	125 of 240	l) of 9.35	The power factor (PF) of the whole electrical system should not be below 0.95. Motor feeder shall be provided with energy meter.	Please note, to maintain power factor of 0.95 in our system, APFC panel is required. We would like to inform you that APFC panel is in Client scope because the APFC panel to be designed considering the complete station load and not only CNG compressor load.	Ok Noted.
29	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	126 of 240	10.4	Temperature process values should be taken from temperature transmitters and should be independent from temperature gauges installed on local gauge panel.	We shall provide temperature elements like RTD, K-type thermocouple instead of transmitters. All temperature elements shall be directly connected to PLC with appropriate protection.	Ok Noted.
30	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	126 of 240	10.5	Individual (2/3 core) cabling is required for each field instrument from field JB to avoid multiple JB's and multicore cables in field for easy trouble shooting & replacement.	Local control panel (With PLC) is mounted on the package itself hence junction boxes are not required. Hence Multicore cable is not required.	Ok Noted.
31	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	126 of 240	vi. Of 10.11	Compressor jacket water coolant temperature indicator on local gauge panel	Not applicable for air cooled compressor cylinders.	Ok Noted.
32	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	127 of 240	10.16	A separate hooter for customer interface room shall be provided with annunciation window alarm of individual protection device.	We are not providing annunciation window Same is accepted to many CGD companies.	Ok Noted.
33	SECTION – V SCOPE OF WORK [SOW] &	128 / 129 of 240	f) of 10.18	PLC shall be configured as a remote terminal unit of supervisory computer and data acquisition system complete with GPRS and Ethernet connectivity.	Please note this is an additional requirement and will impact the price of the machine. However, we can provide an extra port in our PLC for GPRS connectivity. GPRS hardware	Ok Noted.



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34	TECHNICAL SPECIFICATION [TS]		g) of 10.18	Successful bidder to include in scope live demonstration of remote monitoring of all PLC logged parameters in one machine at his works. OWNER may ask for the same. However, this may be required to be demonstrated at site.	(sender end), Software (Receiving end) and cable from our PLC to owners Control room.	Ok Noted.
35	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	130 of 240	11.1	Each compressor module shall be housed within a purpose built SS 304 acoustic enclosure or in case of mild steel the surface shall be treated with anti-rust coatings followed by UV resistant epoxy paint for durability and rust protection.	We will use GI sheets for enclosure as per standard design and shall be weather proof.	Ok Noted.
36	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	130 of 240	11.4	The maximum temperature within the enclosure shall be limited to ambient + 80 C. Adequate ventilation fans shall be provided to meet the above and also to account heat dissipation of the coolers/ all other components.	Air cooled heat exchanger fan is of forced draught type which throws air out of the enclosure. Hence a separate ventilation fan is not required. Temperature inside the enclosure shall be limited to ambient + 10 degC without the use of additional ventilation fans. Please confirm your acceptance.	Ok Noted.
37	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	131 of 240	11.18	The bidder shall be providing a degree of protection equivalent to IP44 as defined in AS 1939.	Compressor enclosure will be weatherproof.	Ok Noted.
38	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]			INSPECTION & TESTING	Inspection and testing shall be as per bidder's standard QAP and the same shall be discussed during detailed engineering.	Ok Noted.
39	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	137 of 240	14.4	If the equipment is down for more than 4 hours on any day, Penalty would be applicable as follows: · 4 to 12 hours: Rs. 20,000/- · Beyond 12 hours: Rs. 40,000/- per day. In case of daily availability is 20 hrs. but monthly average availability is below 98%. Then penalty @ of 10,000 per % or part thereof shall be applicable ii. If the equipment is down for more than 4 hours & up to 12 hours beyond the time indicated for the agreed schedule maintenance, the party would be penalized	Penalty for breakdown or shutdown shall be as below: up to eight hours: NIL up to 24 hours: INR 10,000/- per day Please note In any case/any situation, total penalty will be limited to 50% of monthly invoice value of concerned package including all penalty clauses i.e Clause 15.3 PENALTY TOWARDS EXCESS GAS LOSS , Clause 15.4 PENALTY TOWARDS EXCESS ENERGY CONSUMPTION , Clause 15.5. PENALTY TOWARDS PACKAGE EFFICIENCY LOSS and	20.0 PENALTY CLAUSE (SCC) A. PENALTY TOWARDS EXCESS GAS LOSS: At the start of O&M period or even at any point of time during the O&M period, cost towards excess gas loss beyond the quoted figure shall be deducted from O&M bills. Following calculations shall be used for deduction towards excess gas loss: $F = [G - \{(Q/ 1278 \text{ (for 1700 SCMH)}\} * D)] * H$ Where, F = Penalty in Rupees to be deducted from O&M bill G = Monthly Vent/Leakage loss observed during O&M period in KG



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				<p>Rs. 20,000/- and for more than 12 hours Rs. 40,000/- per day.</p> <p>iii. In any case, the maximum penalty imposed in a month for non-performance of the equipment turns out be 50% or more of the amount of O&M charges to be paid to the party per month per compressor (a complete cost break up of O&M charges need to be furnished by the bidder during bid), OWNER will take necessary actions as per terms and conditions of the contract for such non-performance.</p>	<p>Clause 15.6. Penalty for Non-Performance during Period of Operation & Maintenance.</p>	<p>Q = Vent / Leakage loss quoted in Percentage H = Cost of Natural Gas/Kg – Rs. 55/- per Kg D = Production during the month (Discharge Meter) considering: G above shall be taken as (Suction – Discharge) OR Reading from Vent Mass Flow Meter, whichever is higher.</p> <p>Note: - Accuracy of Mass Flow Meter considers as per OEM Guideline and bidder may submit the same.</p> <p>B. PENALTY TOWARDS EXCESS ENERGY CONSUMPTION: At the start of O&M period or even at any point of time during the O&M period, cost towards excess power consumption beyond quoted figure shall be deducted from O&M bills. Following calculations shall be used for deduction towards excess power consumption. $F = (G-Q) \times H$ Where, F = Monthly Penalty in Rs. G = Monthly Actual power consumption Q = Guaranteed consumption rate quoted by supplier for every 1278 Kg of CNG 1278 (for 1700 SCMH) X CNG produced during the month</p> <p>H = Cost of power Rs. 9/Kwh</p> <p>C. PENALTY TOWARDS PACKAGE EFFICIENCY LOSS</p> <p>This penalty shall be imposed on compressor blocks not capable of delivering rated capacity of 1700 shall SCMH Following calculations be used for penalty towards package efficiency loss: $F = 2 \times \{(1700 \times H \times RD \times AD) - M\}$ Where, F = Penalty Amount in Rupees H = Hours clocked in a month RD = Average RD for the month using GC Data AD = Air Density = 1.22541 M = Discharge mass flow during the month in Kgs Note: 1) Gauge Pressure at Station Inlet shall be used as benchmark for imposition of penalties and not suction pressure being displayed at the PLC. 2) Pressure regulator shall not be used to reduce the pressure at the compressor block inlet below 34 Kg/Cm2.</p>
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						<p>3) In case pipeline pressure at the station itself is less than 34 Kg/Cm², then the penalty shall be imposed if the package delivery falls below discharge values corresponding to the station pressure.</p> <p>D. Penalty for Non-Performance during Period of Operation & Maintenance</p> <p>Details of Penalty for non-performance of equipments</p> <p>a. On normal day (i.e. the day other than the schedule maintenance day):</p> <p>i. The party has to ensure that the equipments are available for operation for minimum 20 hours per day and on an average the equipment availability has to be 98% in a month.</p> <p>ii. If the equipment is down for more than 4 hours on any day or availability is less than 98% in a month. Penalty would be applicable as follows: upto 12 hours : Rs. 20,000/- Beyond 12 hours: Rs. 40,000/- per day. In case of daily availability is 20 hrs. but monthly average availability is below 98%. Then penalty @ of 10,000 per % or part thereof shall be applicable.</p> <p>b. On schedule maintenance day:</p> <p>i. The party would be required to carry out the recommended schedule/preventive maintenance of the equipments for which the party has to indicate the time required for each type of schedule maintenance.</p> <p>ii. If the equipment is down for more than 4 hours & upto 12 hours beyond the time indicated for the agreed schedule maintenance, the party would be penalized Rs. 20,000/- and for more than 12 hours Rs. 40,000/- per day.</p> <p>iii. In any case, the maximum penalty imposed in a month for non-performance of the equipment turns out be 50% or more of the amount of O&M charges to be paid to the party per month per compressor (a complete cost break up of O&M charges need to be furnished by the bidder during bid), OWNER will take necessary actions as per terms and conditions of the contract for such non-performance.</p> <p>E. In any case/ any situation, total penalty will be limited to 50% of monthly invoice value of concerned package.</p> <p>F. The calculations for levy of penalty as mentioned above shall be calculated on CNG Compressor wise basis for each locations of Vadodara Gas Ltd.</p>
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						<p>G. Penalty shall be excluding preventive maintenance work and other work like power cut, planned shutdown.</p> <p>H. The wages of all manpower deployed at site should be paid through bank only and the copy of bank statement should be submitted alongwith monthly bills. If the contractor fails to pay the wages through bank will attract penalty Rs. 1000 per person per month and same will be deducted from contractor running bill.</p> <p>I. After the operational of contract, Contractor has to provide the uniforms (as per clause no. 4 of scope of work) & safety shoes within 1 month, In case not wearing/ providing of Uniform & Safety Shoes by any employee during their shift/duty, the penalty shall be imposed Rs. 500/- Per person deducted from contractor running bill per observed any time during the random/regular inspection by EIC or his authorized representative.</p> <p>J. The contractor 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 as per TABLE – A of SOW, non-submission of character certificate will attract penalty Rs. 1000 per workmen& will deduct from running bill. In case authority are unable to issue character certificate, letter to be submitted to VGL. Old police verification will not be considered. Date of police verification shall be after date of award of contract only.</p> <p>K. Mass Flow Meters shall be calibrated through MFM OEM or VGL approved agency once in a year, if not done penalty shall be Rs. 25,000/- per mass flow meter.</p> <p>L. Non calibration of instruments as per SOW, penalty shall be Rs. 25,000/- for yearly instruments & Rs. 15,000/ for half yearly instruments.</p>
40	SECTION – V SCOPE OF WORK COMPRESSOR DATASHEET]	147 of 240	9.3.5	ASME / IBR CODE STAMP	<p>Third party inspection reports will be provided in lieu of ASME/IBR code stamps for coolers, volume bottles, separator, oil mist separator, gas recovery vessel.</p> <p>Kindly confirm your acceptance.</p>	Ok Noted.
41	SECTION – V SCOPE OF WORK COMPRESSOR	151 of 240	13.2	Ultrasonic testing for piston rod, connecting rod, crank shaft, big end bolts, main brg. studs. - YES	<p>Ultrasonic testing will be carried out for connecting rod only. We have used the same philosophy for compressors supplied to various CGD companies in India.</p>	Ok Noted.



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	DATASHEET]					
42	SECTION – V SCOPE OF WORK COMPRESSOR DATASHEET]	151 of 240	13.3	Magnaflux testing for crankshaft, piston rod, connecting rod - YES	Leak proof test of crank case is not carried out. We have used the same philosophy for compressors supplied to various CGD companies in India.	Ok Noted.
43	SECTION – V SCOPE OF WORK COMPRESSOR DATASHEET]	142 of 240	13.4	Dye penetrant testing for cylinder liners , piston - YES	Dye penetrant testing for cylinders liners, piston is not carried out. We have used the same philosophy for compressors supplied to various CGD companies in India.	Ok Noted.
44	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	135 of 240	14.1	<p><u>14. GUARANTEE, LOADING AND PENALTY CRITERIA</u> 14.1 LOADING AGAINST ENERGY CONSUMPTION</p> <p>For 1700 SCMh Compressor $F = (G-140) \times H \times I \times N$ Where, F = Loading amount in Rs. G = Bidder's Energy consumption rate quoted in KWH for producing 1700SCMH of CNG G = Bidder's energy consumption rate over and above 140 KWH H = Cost of Energy INR 9/Kwh I = Factor towards lifecycle in hours @ 73000 hours N = Number of machines</p> <p>Note: Bidder shall not be given any advantage/credit for quoting power consumption below 140 KWH for 1700 SCMh.</p>	<p>We request you to consider ; Operating Time in hours = 6570 Hrs & discounting factor to arrive at Net Present Value (NPV) based on 5 years i.e. 3.274 instead of 73000 hours.</p> <p>Please note power consumption of 140kWH is for 1200 SCMh when it comes to 1700 SCMh the limit shall be upto 148 kWH.</p> <p>Kindly confirm.</p>	Tender Condition Shall Prevail.
45					<p>Please note, One time transportation from factory to site or store will be considered. Our supply contract ends once the package is transported either at store or site. In case the package is supplied to Client's store, then excludes below scopes :</p> <ol style="list-style-type: none"> 1. Loading onto the trailer from stores. 2. Transportation i.e from stores to site. 3. Unloading on site or nearby due to non-readiness of foundation. 4. In case of non-readiness of compressor foundation re-loading package from nearby to foundation after readiness. 	Ok Noted.
46					Request you to please share the below distances in order to enable us to consider cable costs:	<ol style="list-style-type: none"> 1. Compressor package to control/electrical room - Approx. 55 Mtr. 2. UPS DB to package distance for UPS supply to



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					<ol style="list-style-type: none"> 1. Compressor package to control/electrical room 2. UPS DB to package distance for UPS supply to PLC panel 3. ESD Locations and its distance from Package 4. Air compressor to electrical room 5. CO2 Flooding system to compressor package 	<p>PLC panel - Approx. 55 Mtr</p> <p>3. ESD Locations and its distance from Package - Approx. 40 Mtr.</p> <p>4. Air compressor to electrical room - Approx. 25 Mtr.</p> <p>5. CO2 Flooding system to compressor package - Approx. 8 Mtr.</p>
47	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	142 of 240	10.7	There shall be provision of relay for DO cards between PLC & SOV & barriers/ isolators for DI cards between field & PLC. The barriers and isolators should be either single or double channel in place of multichannel for easier replacement.	KPCL has used FLP field instruments for digital inputs. Hence barriers/isolators are not required. In addition to it we have provided glass fuse for each digital input to PLC. KPCL team will demonstrate this on site.	Ok Noted.
48	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	128 of 240	10.18 B)	Out of three ports, from first port there shall be an arrangement to retrieve the data in external storage device such as memory card/ pen drive.	USB port is available on HMI and we can connect pen drive for data logging. KPCL team will demonstrate this on site.	Ok Noted.
49	SECTION – V SCOPE OF WORK [SOW] & TECHNICAL SPECIFICATION [TS]	128 of 240	10.18 F)	Redundancy in PLC is required. PLC shall incorporate all process parameters (specified elsewhere) and status of compressor, engine & priority panels and shall be modular in construction with 100% redundancy with respect to CPU, Power supply, Interface.	<p>KPCL shall provide redundancy for CPU and power supply. IO's are non-redundant hence redundancy for interface is not applicable.</p> <p>KPCL team will demonstrate this on site.</p>	Ok Noted.

Note: This Replies to Bidder's Queries as uploaded on n-Procure & VGL's Website. Please upload the same duly Sign and Seal with Techno-Commercial Bid as this is an Integral Part of the Tender.