



MECON LIMITED

REPLY TO PRE-BID QUERIES

**TENDER DOCUMENT FOR
SUPPLY, INSTALLATION, TESTING, COMMISSIONING, OPERATION AND
COMPREHENSIVE MAINTENANCE OF 1200 SCMH & 600 SCMH GAS
ENGINE DRIVEN CNG COMPRESSOR PACKAGES FOR M/S IGL
Tender No.: IGL/ET2/CP/CC17255**

Dated: 20.01.2023

Sr. No.	Volume / Section / Clause No.	Page No.	Clause Description	Bidder's Query	Reply to Bidder's Query
1.	14 SCC		TERMS OF PAYMENTS	<p>Request to modify payment terms as under - 14.1 Payment towards Supply (Compressor Package) Through direct payment within 30 days from date of receipt of invoice.</p> <p>i) 90% (Ninety Percent) Payment shall be released against receipt of materials at site on submission of dispatch documents, manufacturer's certificates, invoice, packing list, insurance policy, guarantee/warranty certificate, inspection release note, Goods Receipt Voucher (GRV) & dispatch clearance issued by the Owner.</p> <p>ii) 10% (Ten Percent) Payment shall be released within 60 days under either of following conditions pending on behalf of purchaser :</p> <p>(A) Successful completion of installation, Testing, OR, (B) Commissioning of each compressor package at the site, OR, (C) Successful Performance acceptance Test at site pending from purchasers side and acceptance by owner for each compressors, OR, (D) Package lying idle at site / stores</p>	Tender condition prevails.

2.	14 SCC		TERMS OF PAYMENTS	<p>14.2 Payment towards Transportation charges : 100% payment towards Transportation shall be payable after receipt of material at IGL site / store.</p> <p>14.3 Payment against Installation, Testing & Commissioning : 100% payment towards Testing & Commissioning shall be payable within 30 days after submission of invoice duly certified by the Engineer-In-Charge.</p> <p>14.4 Payment against Performance Acceptance Test : 100% payment towards Field Performance Test shall be released within 30 days after submission of invoice duly certified by the Engineer-In-Charge.</p> <p>14.5 Payment against Operation & Comprehensive Maintenance : On pro-rata monthly basis, against monthly invoices duly certified by Engineer-in-Charge within 30 days from the date of submission of bills to the OWNER.</p> <p>14.5 Payment against Major Overhaul : 100% payment against invoices duly certified by Engineer-in-Charge within 30 days from the date of submission of bills to the OWNER.</p>	Tender condition prevails.
3.	39		STORAGE AND PRESERVATION	<p>Once material is delivered, Contractor shall NOT be responsible for safe custody, storage and preservation of all the supplies and materials/equipments required for carrying out the work until handing over of the complete facility to the Purchaser at site / stores. Purchaser shall take delivery of material as per delivery schedule and in case site is not ready, the same shall be stored in Purchaser's designated store.</p> <p>Contractor shall only conduct ONE TIME activities like loading / unloading at store or at site. Re-transportation of material, equipments, tools & tackles etc. until handing over of the complete facility to the Purchaser shall NOT be in the scope of Contractor. Only one time Re-transportation from Stores to Site shall be included in case it is part of tender SOR.</p>	Tender condition prevails.
4.	29		PRICE REDUCTION SCHEDULE (PRS)	Kindly accept following terms for PRS -'Liquidated Damages (LD) : In the events of supplies being delayed beyond schedule date, penalty @ 0.5% per Week delay and subject to maximum of 5% of	Tender condition prevails.

				individual invoice value will be applicable	
5.	5		SCHEDULE FOR SUPPLY OF STORES / WORKS	Kindly accept Delivery Period for all respective individual LOTS - LOT -1: Within 24 Weeks on Ex - Works basis from date of receipt of approved drawings. Balance Lot's within 22 weeks Ex-works basis from date of letter of intimation. Request to kindly advise minimum time period for intimation between two consecutive lots.	Refer Tech. Corrigendum#1.
6.	18		<p>SPECIAL NOTES</p> <p>18.1 Warranty Period</p> <p>The warranty shall remain valid for twelve (12) months from the date of successful performance test of compressor package at site. However, if performance test doesn't get carried out, within Ninety days (90 days) or 400 hrs of commercial operation (whichever is earlier), for reasons directly attributable to client/purchaser, then warranty period shall start from the date of completion of 30 days or 400 hours of successful commercial operation subject to issue of certificate by IGL for the commencement of commercial operation.</p> <p>OR</p> <p>Eighteen (18) months from the date of delivery of last compressor of each lot at IGL store / site, whichever is earlier.</p>	For Supply / Services :: Warranty shall be applicable for 18 months from date of Supply Invoice or 12 months from date of commissioning, whichever is earlier.	Tender condition prevails.

7.	26		26.0 SUB-CONTRACTING : 26.1 The Supplier shall notify the Owner in writing of all subcontracts awarded under this Agreement if not already notified in the Supplier's bid and incorporated in the Agreement. Such notification and incorporation shall not relieve the Supplier from any liability or obligation under the Agreement. Such sub-contract shall be limited to certain bought-out items and sub-assemblies, which are not in line of Supplier's manufacturing or proposed manufacturing unit of authorized Supplier.	We understand that subletting of contract to be allowed for existing contractor proposed by us or new contractor with request letter to IGL.	Tender condition prevails.
8.	60		Insurance	Bidder shall be liable for only transit insurance restricted and limited only for the on road inland transit period and same shall expire once material is unloaded at site / stores. Any sort of Insurance apart from transit insurance shall not be in the scope of the bidder.	Please refer clause no. 23.0 of SCC, Vol. I.
9.	19.2		Installation, Testing and Commissioning and Performance Acceptance Test: @½ % (Half Per Cent) per week of delay or part there of the value of work that has been delayed.	Considering the site conditions it's not feasible point and no CGD company is following such conditions	Tender condition prevails.

10.	18.4 B		<p>Within twenty-one (21) days of receipt of the Contract for Operation and Comprehensive Maintenance Services, CPBG equivalent to 2.5% of total Contract value for Operation & Comprehensive maintenance inclusive of all taxes, duties is to be submitted initially</p> <p>Within twenty-one (21) days of receipt of the respective Purchase Order/ Release order, CPBG equivalent to 7.5% of Purchase Order/ Release order value (inclusive of all taxes, duties) is required to be submitted against individual Purchase Orders/ Release orders.</p>	<p>5% BG of AMC order value per individual compressor package basis should be considered on yearly basis & not for complete contract period.</p>	<p>Refer Commercial Corr. #8.</p>
11.	4.1		<p>Rates will be firm and fixed during the contract period.</p>	<p>As per revisions in minimum wages, rates should be revised periodically. We recommend that a minimum caping should be maintained by IGL for the minimum wages and any rise above the caping shall be compensated by IGL to the bidder.</p>	<p>Refer clause no. 14.0 of ITB, Vol. I.</p>
12.	4.5		<p>Separate contract will be awarded for providing the operation and comprehensive maintenance services (including major overhaul for engine and compressor) for another five years i.e 6th to 10th year: · For Comprehensive maintenance services: To derive rate for sixth and subsequent years (6th to 10th year), 10% annual escalation YoY basis) on awarded rate of 5th Year shall be considered</p>	<p>Kindly consider the CAMC for 5 years only for contract. For 6th & 7th year we propose 15% escalation, and 20% escalation for 8th, 9th & 10th on YoY basis.</p>	<p>Tender condition prevails.</p>

13.	4.5		For Operations: To derive rate for sixth and subsequent years (6th to 10th year), 10% annual escalation YoY basis on awarded rate (excluding wage components, which is payable on actual basis) of 5th Year shall be considered. It will be responsibility of bidder to ensure the payment of minimum wages of Centre to workmen engaged for operations	Kindly consider the Operation for 5 years only for contract. For 6th & 7th year we propose 15% escalation, and 20% escalation for 8th, 9th & 10th on YoY basis. We recommend that a minimum caping should be maintained by IGL for the minimum wages as above proposal. As per revisions in minimum wages, additional rates should be revised periodically.	Tender condition prevails.
14.	31.2 A		Package Gas Loss: $F = G \times H \times I \times N \times W$ Where, F = Loading amount in Rs. G = Vent/Leakage rate quoted in percentage H = Cost of Natural Gas per Kg @ Rs. 45/- per kg I = Avg. no. of running hours per year i.e. @ 3650 hours N = Number of machines W = 903 for 1200 SCMH & 451 for 600 SCMH	This clause is for price loading purposes. kindly clarify.	Yes
15.	31.3 B		Engine Fuel Consumption: $F = G \times H \times I \times N$ Where, F = Loading amount in Rs. G = Bidder's Gas consumption rate quoted in Kg/hr for every 1200/ 600 SCMH (903/ 451 Kg) of CNG produced H = Cost of Natural Gas per Kg @ Rs. 45/- per kg I = Avg. no. of running hours per year i.e. @ 3650 hours N = Number of machines	This clause is for price loading purposes., kindly clarify.	Yes

16.	13		<p>13.0 CONTRACT-CUM-EQUIPMENT PERFORMANCE BANK GUARANTEE</p> <p>13.1 Within 21 days from the receipt of notification of award of the Contract / Purchase Order, the Seller shall furnish Performance Guarantee to the Purchaser in the form of Demand Draft or Bank Guarantee from any Nationalized / Scheduled bank, in the format provided in the Tender Document</p>	<p>BG should be considered separately for AMC and Equipment. For supply portion, the CPBG shall be given per lot basis and not for the full contract. This is in view of the fact that all machines as per contract are not sometimes lifted by IGL and bidder ends up submitting a higher value BG.</p>	<p>Provision is already available in tender. Refer Commercial Corr. #8 for modified clause in respect of CPBG.</p>
17.	20.2		<p>20.2 This warranty shall remain valid for at least twelve (12) months from the date of successful commissioning of individual equipment or Eighteen (18) Months after the date of last shipment whichever is earlier or as specified under the Special Conditions of Contract. However, if warranty period exceeds due to any defect observed in the equipment at site and the time taken in rectification and commissioning, the warranty will stand extended for at least another 12 months from the date of completion of rectification free of cost.</p>	<p>For Supply / Services :: Warranty shall be applicable for 18 months from date of Supply Invoice or 12 months from date of commissioning, whichever is earlier.</p>	<p>Tender condition prevails.</p>
18.	20.4		<p>20.4 After the successful completion of Test run, Warranty phase will start and system taking over certificate shall be issued by the Owner.</p>	<p>For Supply / Services :: Warranty shall be applicable for 18 months from date of Supply Invoice or 12 months from date of commissioning, whichever is earlier.</p>	<p>Tender condition prevails.</p>

19.	26.1	26.0 SUB-CONTRACTING 26.1 The Supplier shall notify the Owner in writing of all subcontracts awarded under this Agreement if not already notified in the Supplier's bid and incorporated in the Agreement. Such notification and incorporation shall not relieve the Supplier from any liability or obligation under the Agreement. Such sub-contract shall be limited to certain bought-out items and sub-assemblies, which are not in line of Supplier's manufacturing or proposed manufacturing unit of authorized Supplier	We understand that subletting of contract to be allowed for existing contractor proposed by us or new contractor with request letter to IGL.	IGL
20.	33.1	33.1 The Owner, by written notice sent to the Contractor, may terminate the Agreement, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Owner's convenience, the extent to which performance of the Contractor under the Agreement is terminated, and the date upon which such termination becomes effective	Minimum 30 days notice is required to complete operator wages, salary ESI and PF settlement	Noted
21.	61.8	33.1 The Owner, by written notice sent to the Contractor, may terminate the Agreement, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Owner's convenience, the extent to which performance of the Contractor under the Agreement is terminated, and the date upon which such termination becomes effective	Minimum 30 days notice is required to complete operator wages, salary ESI and PF settlement	Noted

22.	62.2		62.2 During the currency of this Contract, Owner can increase and / or decrease the number of the services required & quantity of work /services shown in from the Schedule of Rates.	Kindly confirm the final assured quantity for best AMC & supply rates	Tender Conditions Prevail.
23.	17.1		17.1 Sub-Letting No part of supply portion of this contract nor any share or interest therein in any manner or extent, will be transferred, assigned, or sub-let, directly or indirectly to any person/firm or organization. However, Operation & Comprehensive Maintenance may be sublet after taking the due approval from IGL.	We will sublet the contract to our authorize dealer and ensure the team deputed shall be fully trained for the CAMC services	Tender Conditions Prevail.
24.	18.1		18.1 Warranty Period (a) The warranty shall remain valid for twelve (12) months from the date of successful performance test of compressor package at site. However, if performance test doesn't get carried out, within Ninety days (90 days) or 400 hrs of commercial operation (whichever is earlier), for reasons directly attributable to client/purchaser, then warranty period shall start from the date of completion of 30 days or 400 hours of successful commercial operation subject to issue of certificate by IGL for the commencement of commercial operation	Warranty shall be start from date of supply 18 month and 12 month form date of operation whichever earlier, however operation and maintenance billing shall be started from date of commercial operation. Warranty clause shall not have any correlation to the PAT.	Tender Conditions Prevail.

25.	18.2 Bullet 2		<p>· Old spares removed during any type of maintenance activity will be submitted to IGL by vendor. However, vendor will have to take care for disposal of consumables like waste oil, O Rings, Gaskets, Grease, Waste cloth etc. Waste oil collection and disposal in safe manner shall be done by the vendor only</p>	<p>Since the contract is comprehensive type, all or any used / scrap spares / material belongs to bidder and suitable disposal of same shall be undertaken by bidder and not handed over to IGL.</p>	<p>Tender Conditions Prevail.</p>
26.	18.4 A		<p>A. For Supply, installation & commissioning and Performance Acceptance Test: Within twenty-one (21) days of receipt of the respective Purchase Order/ Release order, CPBG equivalent to 10% of respective Purchase Order/ Release order value inclusive of all taxes, duties and charges towards supply, packing & forwarding, Transportation, Installation, Commissioning & PAT, is to be submitted</p>	<p>Kindly clarify the BGs %. BG should be considered separately for AMC and Equipment. For supply portion, the CPBG shall be given per lot basis and not for the full contract. This is in view of the fact that all machines as per contract are not sometimes lifted by IGL and bidder ends up submitting a higher value BG. BG of AMC order value per individual compressor package basis should be considered on yearly basis & not for complete contract period.</p>	<p>Provision is already available in tender. Refer Commercial Corr. #8 for modified clause in respect of CPBG.</p>
27.	18.4 B		<p>Within twenty-one (21) days of receipt of the respective Purchase Order/ Release order, CPBG equivalent to 7.5% of Purchase Order/ Release order value (inclusive of all taxes, duties) is required to be submitted against individual Purchase Orders/ Release orders.</p>	<p>Kindly clarify the BGs %. BG should be considered separately for AMC and Equipment. For supply portion, the CPBG shall be given per lot basis and not for the full contract. This is in view of the fact that all machines as per contract are not sometimes lifted by IGL and bidder ends up submitting a higher value BG. BG of AMC order value per individual compressor package basis should be considered on yearly basis & not for complete contract period.</p>	<p>Provision is already available in tender. Refer Commercial Corr. #8 for modified clause in respect of CPBG.</p>

28.	21.3		21.3 After expiry of Operations and Comprehensive Maintenance period IGL will have the right to extend the contract for the period of 6th to 10th Year.	Kindly consider the CAMC for 5 years only for contract. For 6th & 7th year we propose 15% escalation, and 20% escalation for 8th, 9th & 10th on YoY basis.	Tender Conditions Prevail.
29.	21.5		21.5 For Comprehensive maintenance services: To derive rate for sixth and subsequent years (6th to 10th year), 10% annual escalation YoY basis) on awarded rate of 5th Year shall be considered.	Kindly consider the Operation & Maintenance for 5 years only for contract. For 6th & 7th year we propose 15% escalation, and 20% escalation for 8th, 9th & 10th on YoY basis. We recommend that a minimum caping should be maintained by IGL for the minimum wages as above proposal. As per revisions in minimum wages, additional rates should be revised periodically.	Tender Conditions Prevail.
30.	7.3.1		7.3.1 Penalty towards Excess Package Gas Loss: 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: $F = 1.2 \times [(G - (Q \times D)) \times H]$ Where, F = Penalty in Rupees to be deducted from O&M bill G = Monthly Vent/Leakage loss observed during O&M period in Kg Q = Vent / Leakage loss quoted in percentage H = Cost of Natural Gas per Kg @ Rs. 45/- per kg D = Production of CNG during the month in Kg (discharge meter) Considering: G above shall be taken as (Suction Reading – Discharge Reading – Engine Fuel Consumption	The value of ' G ' shall be combination of below conditions :: (1) The value of ' G ' for vent loss shall be taken from the vent mass flowmeter. As per compressor design logic venting is only possible through rod packing seals and our block being of pressurized crankcase design, there is no vent loss during compression. Hence vent mass flow meter is not applicable for us but same shall be applicable for bidder's offering block with non-pressurized crankcase. (2) The value of ' G ' for leakage :: The individual mass flowmeter comes with batch accuracy of +/- 0.5% . Hence instrument accuracy as indicated by OEM i.e +/-0.5% per mass flowmeter to be considered.	Tender Conditions Prevail.

			Reading of Mass Flowmeters)		
31.	7.3.2		7.3.2 Penalty towards Excess Engine Fuel Consumption: During the O&M period, cost towards excess fuel consumption beyond quoted figure shall be deducted from O&M bills. Following calculations shall be used for deduction towards excess fuel consumption. $F = 1.2 \times [(G - Q) \times H]$ Where, F = Monthly Penalty in Rs. To be deducted from O&M bills G = Monthly Actual Gas consumption in Kg Q = Guaranteed consumption rate quoted by supplier x CNG produced during the month H = Cost of Natural Gas per Kg @ Rs. 45/- per kg	Machine is subjected to intermittent start / stops based on the load & gas consumption at station. The gas density varies throughout the month and instrument batch accuracy as indicated by MFM - OEM i.e. +/-0.5% per mass flowmeter to be considered. Hence establishing the variations in fuel consumption figures than the quoted consumptions need consistency of above three factors. Accordingly, we suggest on monthly basis bidders should demonstrate the actual fuel figures during operation & same should be compared with quoted figure to impose penalty.	Tender Conditions Prevail.
32.	7.3.3		7.3.3 Penalty towards Package Efficiency Loss Rs. 5/ Kg will be recovered for delivering each kg lesser than the rated capacity & following calculations shall be used: $F = 5 \times \{(1200 \times H \times RD \times AD) - M\}$ Where, F = Penalty Amount in Rupees H = Package actual running hours 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) Package Inlet Pressure at PLC shall be used as benchmark for imposition of penalties. 2) Pressure regulator shall not be used to reduce the pressure at the compressor block inlet below 16 Kg/Cm2. 3) In case	For penalty towards package efficiency loss, only the operational load hours of the m/c to be considered for calculating capacity. Formula for e.eg., Total hours - Unloading hours = Loaded hours. OR Maximum efficiency of the package to be considered as 98% due to frequent start stop of the m/c which is a common feature at CNG stations occurring due to load conditions. None of the Compressors are designed to start / stop immediately on load condition for safe operation. Also during unloading conditions, compressors cannot deliver capacity. Hence, maximum efficiency of the package to be considered as 98%. The suction pressure at Compressor package inlet PT shall be considered for calculating flow, power	Tender Conditions Prevail.

			pipeline pressure at the station itself is less than 16 Kg/Cm2, then the penalty shall be imposed if the package delivery falls below discharge values corresponding to the Compressor's pressure curve, supplied at the time of bid submission only.	&efficiency.	
33.	7.3.4		<p>7.3.4 Penalty for Non-Performance during Period of Operation & Maintenance Details of Penalty for non-performance of equipment a. On normal day (i.e. the day other than the schedule maintenance day): i. The party has to ensure that the equipment are available for operation for minimum 20 hours per day and on an average the equipment availability has to be 98% in a month. 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 (for NCT of Delhi, Gautam Budh Nagar, Ghaziabad, Hapur & Gurugram): § Upto 4 hours : Nil § 4 hours to 12 hours: Rs. 10,000/- per day § 12 hours to 24 hours: Rs. 15,000/- per day § More than 24 to 72 hours – 25,000/- per day iii. In case there is a continuous breakdown beyond 72 hours up to 15 days, 50% of monthly maintenance charges excluding operational part will be deducted. iv. In case there is a continuous breakdown beyond 15 days, which is not in the control of the contactor, no maintenance charges will be paid. Only operation charges may be payable on sole discretion of EIC.</p>	<p>Maximum penalty of 50% will be acceptable & applicable only on maintenance charges including breakdown beyond 15 days, Efficiency, Package fuel consumption & gas loss if any. IGL shall release operation charges without any deduction.</p>	Tender Conditions Prevail.

34.	7.3.4	<p>b. On schedule maintenance day (excluding periodic major overhaul of compressor/ engine): i. If the equipment is down for beyond the time indicated for the agreed schedule maintenance, the party would be penalized as per follows(for NCT of Delhi, Gautam Budh Nagar, Ghaziabad, Hapur& Gurugram): § Upto 4 hours: Nil § 4 hours to 12 hours: Rs. 10,000/- per day § 12 hours to 24 hours: Rs. 15,000/- per day § More than 24 to 72 hours: Rs. 25,000/- per day ii. In case there is a continuous breakdown beyond 72 hours up to 15 days of a calendar month, 50% of monthly maintenance charges excluding operational part will be deducted. iii. In case there is a continuous breakdown beyond 30 days of a calendar month, Entire Monthly Maintenance and operation charges shall be deducted.</p>	<p>Maximum penalty of 50% will be acceptable & applicable only on maintenance charges including breakdown beyond 15 days, Efficiency, Package fuel consumption & gas loss if any. IGL shall release operation charges without any deduction.</p>	Tender Conditions Prevail.
35.	1.2	<p>Codes & Standards The design, construction, manufacture, supply, testing and other general requirements of the compressor package equipment shall be strictly in accordance with the data sheets, applicable API codes, and shall comply fully with relevant National/ International standards, Indian Electricity Act, Indian Electricity Rules, regulations of Insurance Association of India and Factories Act while carrying out work as per this specification.</p> <p>Any modification suggested by the statutory bodies either during drawing approval or during inspection, if any, shall be carried out by the Bidder without any additional cost and delivery implications.</p>	<p>The compressor design is derived from API618/11P/equivalent industry standards. However, the design is enhanced to meet specific CNG application such as pressurized crankcase to avoid gas vent loss etc.</p>	Tender Conditions Prevail.

		<p>The following codes and standards (versions/ revisions valid on the date of order) are referenced to & made part of specification:</p> <p>API-11P, Second edition, API 618 ISO 13631-2002: Petroleum and natural gas industries packaged reciprocating gas compressors PNGRB regulations OISD 179-2016: Safety requirements on compression, storage, handling, refuelling natural gas (CNG) for use in automotive sector. ASME B 31.3 -2016 – Process piping NFPA-37-2015: Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines NFPA-52: 2016- Vehicular natural gas fuel systems code NFPA-496-2017: Standard for purged and pressurized enclosures for electrical equipment. NFPA-68 -2013: Standard on explosion protection by deflagration venting. NFPA-70 -2017: National electrical code NFPA 12-2015: Standard on Carbon dioxide extinguishing system ASME Sec IX: Qualification Standard for Welding and Brazing Procedures, Welders, Brazers, and Welding and Brazing Operators Gas Cylinder rules-2016 ANSI, ASTM, NEC, NEMA, Indian Electricity Rules, Indian Explosives Act.</p>		
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36.	1.3		<p>Precedence</p> <p>3) International standards/codes as applicable</p> <p>4) Indian Standards / codes applicable</p>	<p>The compressor design is derived from API618/11P/equivalent industry standards. However, the design is enhanced to meet specific CNG application such as pressurized crankcase to avoid gas vent loss etc.</p>	<p>Tender Conditions Prevail.</p>
37.	4.1.1		<p>3. Codes and standards as indicated in clause 1.2</p> <p>4. Compressor and its auxiliary's design shall be in conformity with API 11P, second edition, API 618</p>	<p>The compressor design is derived from API618/11P/equivalent industry standards. However, the design is enhanced to meet specific CNG application such as pressurized crankcase to avoid gas vent loss etc.</p>	<p>Tender Conditions Prevail.</p>
38.	4.1.5		<p>Note that the pressures given on the data sheet are at the compressor package battery limits, bidder shall consider all pressure losses at suction, interstage and discharge at the specified capacity (with no -vetolerance) for compressor and indicate the same on the data sheets.</p>	<p>We shall consider 16 Kg/cm2G pressure at compressor suction flange for compressor sizing.</p>	<p>Please refer clause 1.1 of Vol-II</p>

39.	4.2.1		The linear piston speed shall be limited to 4.5 m/sec.	Will be as per Manufacture's Proprietary Design Standards and limited to as per industry norms.	Tender Conditions Prevail.
40.	4.2.3		Compressor maximum vibrations at cylinders and at frame shall not exceed 10 mm /sec. And 5 mm/s respectively unfiltered peak velocity. The Bidder shall provide for all structural support within the package so that these levels can be achieved.	Will be as per Manufacture's Proprietary Design Standards and limited to as per industry norms.	Tender Conditions Prevail.
41.	4.3.1		The surface hardness of Rockwell C 50 minimum is required on piston rods in the areas that pass through the packing. Rolled threads shall be provided on the rods with thread relief area as polished.	Surface hardness of piston rod are as per manufacturer standard being proprietary design.	Tender Conditions Prevail.

42.	4.3.2		Crosshead shall be manufacturer standard material and designs. Adequate openings for removal of the crossheads shall be provided.	Will be as per Manufacture's Proprietary Design Standards and limited to as per industry norms.	Tender Conditions Prevail.
43.	4.4.1		All oil wiper intermediate gas cylinder pressure packing shall be a segmental ring with stainless steel garter springs. The pressure packing case shall be provided with a common vent and drain below the piston rod tube to the outside of the Package enclosure. In case pressurized crack case type design, the clauses of this tender which are not applicable due to inherent design will be acceptable. However, contractor has to furnish the published design data/document of the compressor.	The Compressor design is with Pressurized Crankcase and design data / documents for same is not feasible to be provided due to Manufacture's Proprietary Design Standards.	Tender Conditions Prevail.
44.	4.4.2		ERW/ seamless steel tubing conforming to ASTM A-192 or series 300 SS tubing conforming to ASTM A-269 with minimum thickness as specified in Cl. 7.11 of API-11P shall be used for vent piping.	Pressurized crankcase and hence not applicable	Tender Conditions Prevail.
45.	4.4.3		Packing vent piping inside of the distance piece shall be designed for the maximum allowable working pressure of the cylinder.	Pressurized crankcase design and hence not applicable	Tender Conditions Prevail.

46.	4.5.4		Heating shall be provided for reservoir if applicable for the bidder's design of compressor when the minimum ambient temperature is less than the Bidder's required minimum start up temperature.	Will be as per Manufacture's Proprietary Design Standards.	Tender Conditions Prevail.
47.	4.5.5		Heater besides meeting the area classification requirements specified in the Tender shall be star connected if designed for operation on 3-phase (4 wire), 440V, 50 Hz supply.	Will be as per Manufacture's Proprietary Design Standards.	Tender Conditions Prevail.
48.	4.6		<p>Distance Pieces</p> <p>4.6.1 Distance piece as per ISO 13631-2002 with cylinder side compartment vented to safe location is specified. Distance piece as per manufacturer's standard design which is used in the earlier supplied successfully running packages is also accepted.</p> <p>4.6.2 Distance pieces shall be provided with gasketed, solid covers and shall be suitable for a minimum differential compartment pressure of 1.75 kg/cm²g.</p> <p>4.6.3 Distance piece as per API-11P with cylinder side compartment vented to safe location is specified</p>	<p>Distance piece will be as per Manufacture's Proprietary Design Standards</p> <p>Venting is not applicable due to pressurized crankcase.</p>	Tender Conditions Prevail.
49.	4.7.1		Secondary lubrication system with puppet check valve protector, filter & DNFT flow switch as per manufacturers design standards. Secondary lubrication system with divider block shall be provided.	We are providing divider block type lubrication system. Compressor NRV valve arrangement will be as per manufacturer's design standards to suit effective operational control, safety and performance. Hence any change in the control philosophy shall affect the lubrication performance & safe operation of the m/c.	Tender Conditions Prevail.

50.	4.7.4		Digital no flow timer shall be provided to stop the compressor in case of loss of cylinder lubrication.	Manufacturer's standard, Common Digital No Flow Switch (time based) will be provided. - When there is no – pulse (from cylinder lubrication - divider block) for certain time interval, the switch toggles & the compressor is tripped on lubrication fault.	Tender Conditions Prevail.
51.	4.7.5		Lubricator reservoir capacity shall be adequate for 100 Hrs of normal flow, and shall be equipped with low level alarm.	As per manufacturer's design standards, Lubricator reservoir capacity is 36 litre for 150hrs of normal operation, level switch not considered.	Tender Conditions Prevail.
52.	4.8.2		Inter / After Gas Coolers Air-cooled inter-stage and final stage discharge coolers shall be provided which shall limit the gas temperature after the after cooler to 52O C. For calculating the surface area of the air cooler the ambient air temperature of 47OC and 90% RH shall be considered. Cooler design shall be on the basis of 20% excess capacity than required corresponding to suction pressure of 19 kg/cm2. Gas sections of coolers shall be designed as per API-11P requirements and shall be inspected by any approved 3rd party inspection agency. The Gas and water sections shall not be “U” code stamped but TPI inspected. For cooling of the Heat	The approach would be above ambient temperature 10°C . (max. ambient temp. 42°C + 10°C = 52°C). The Gas cooler design shall be such that suitable to the application as per manufacturers design. Gas coolers of the design shall be designed as per ASME-SEC-VIII, as per manufactures standard design approach same is proven for earlier supplied packages. - Cooler sizing calculation is proprietary, so not feasible to submit..	Please refer the clause 4.8.2, Page no. 127 of 242 of subject tender.

			Exchangers a cooling fans to be provided inside the enclosure(s). Cooling system shall be preferably installed on the same skid as the compressor due to space constraints. Bidder shall submit cooler sizing calculation for review/ records.		
53.	4.13.9		All lube oil piping downstream of filter shall be series 300 Stainless Steel. Pressurized lubricating oil lines downstream of the filter (with the exception of cast-in-frame lines or passages) shall be made of austenitic stainless steel. For either tubing or piping, bends shall be used to minimize the number of fittings wherever possible. Steel fittings shall be furnished with stainless steel tubing. Pressure piping downstream of oil filters shall be free of internal obstructions or pockets (such as those created by socket weld fittings) that could accumulate dirt at pipe joints. Non-consumable back-up rings and sleeve-type joints shall not be used. Other piping fittings shall be of the socketweld or butt-weld type. When butt welds are necessary, such precautions as internal grinding of joints and use of gas tungsten-arc welding for the first weld pass shall be taken to prevent weld splatter inside the lines. After fabrication, oil lines shall be thoroughly cleaned and preserved. In addition, carbon steel piping shall be pickled and passivated.	After oil filter inbuilt oil galleries are provided, & manufacturer's standard Brass NRV provided at forced lubrication point.	Refer clause no 4.5.3

54.	6.2.1	<p>Mechanical running test (MRT) The MRT for each compressor shall be carried out in presence of PURCHASER/CONSULTANT with job or shop driver including complete job driving system i.e., job driven V-belt, job pulleys etc., for 4 hours continuously at shop of compressor manufacturer. The compressor need not be pressure loaded for MRT test. During this test following shall be recorded at agreed intervals.</p> <ul style="list-style-type: none"> - Vibration levels measured on cylinders and frame - Bearing temperature - Oil cooler inlet and outlet temp - Sound level <p>Subsequent to satisfactory run the compressor shall be examined as per standard procedure & following shall be examined as minimum: Internal Inspection certificate for strip test after no-load run of compressor is to be submitted for review of client /consultant.</p> <p>Strip test is limited to open Crank Case cover, X-Hd guide &Dist.pc. Cover and opening of bore & other parts, piston, one valve per cylinder. Visual examination of position rod</p> <p>If any of part found damaged, all similar components shall be stripped for inspection. The MRT test shall be repeated after replacement of such parts. All the interlocking and performance of the instrumentation system will be verified during the MRT.</p>	<p>MRT will be carried out as per manufacturer's standard procedures. Reports shall be presented for review to Purchaser / Consultant / TPIA during final String Test of the Complete Package.</p>	Tender Conditions Prevail.
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55.	1.6		Gas meter (3 nos.): Mass flow meter (with integral local display to measure gas flow at package inlet, fuel consumption at gas engine inlet & package discharge) based on Coriolis principle and as per AGA- 11. The mass flow meter shall be W&M approved. While installing special care shall be taken to isolate the mass flow meter from piping vibration. Additionally, Thermal type mass flow meter to be provided to measure package gas loss/vent.	Compressor design being a pressurized crankcase, there will be no gas loss through vent, considering the same Vent Mass flow meter not considered, kindly accept. The compressor along with all flow meter's installed is used for compression of gas only and is not use for dispensing the gas to end customer. Hence W&M rule is not applicable for the complete compressor package.	Tender Condition Prevails
56.	1.6		Separate flameproof junction boxes for different type of signals like analog, digital signals, alarm, shutdowns, and thermocouples, RTDs etc. for interfacing to FLP local panel. Same is not applicable for direct run cable upto PLC panel.	LCP (With PLC) is mounted on package itself hence separate JB's are not required (With PLC) is mounted on package itself & also separate gauge box will be used for intrinsically safe signals.	For the direct run cable upto PLC/ Local gauge; JB is not required; rest tender condition prevail.
57.	1.6		Common structural steel skid for the compressor- gas engine and for all auxiliary systems	All auxiliaries like CO2, Air compressor, etc will be supplied loose & to mounted apart from package.	Noted
58.	1.6		Impulse and pneumatic piping/Tubing for all valves, fittings as specified & required for mounting the instruments. Block and bleed valves to be provided for Pressure gauges (including DPG) and pressure Transmitters.	Due to limited space in the gauge panel as all the gauges are centrally located to monitor machine performance from single location, we shall provide brass type needle valve for isolation of Pressure gauges and pressure transmitters. Kindly accept.	Necessary valves desired shall have features of double block & bleed valve. Hence TENDER CONDITION PREVAILS.
59.	1.6		Override facility in LCP or in HMI to fill LCV in priority panel of compressors shall be provided.	This can be provided at programme logic with password protection instead of manual switch. Provision of manual switch for priority panel can lead to hazard in case on unauthorized person operation at site.	Tender condition prevails; however regarding provision through programming in PLC also to be enabled as per requirement.

60.	1.6		Y- type strainers, valves, sight flow indicators, check valves with check valves protector, manual drain/ traps etc. as required for various auxiliary systems i.e. frame lube oil, cylinder lubrication system, cooling water systems, fuel supply/conditioning system etc. In case divider block lubrication system, paper filter for frame oil & check valve in that circuit are also acceptable.	Please note that as per Manufacturer's standard practice the lubricator will be divider block type. Y type strainers, Sight flow indicators for each lubricator point and a double ball check valve are applicable for Single Plunger per point lubricator, thus not offered.	Tender Condition Prevails
61.	1.6		Rigid type Copper jumpers for all the flange joints of piping outside the compressor package.	Flexible type Copper jumpers for all the flange joints of piping inside the compressor package shall be provided.	Both Rigid /Flexible type cooper jumpers are acceptable.
62.	1.6		Each stage outlet temperature before cooler & after cooler to be displayed on PLC.	Each stage outlet temperature before cooler and for after cooler temperature before and after will be displayed on PLC.	Tender Conditions Prevail.
63.	1.6		Gas flow directions to be marked "Gas In/ Gas out "with cylinder stage No. on all the inlet outlet tubes inside compressor package	Arrow mark will be provided for flow directions, as same is not feasible due to tube size.	Noted but cylinder stage No. to be provided
64.	1.6		Supply, Laying and Termination of following cables including all erection accessories like Lugs, Glands etc is included in the scope of bidder:	All field cables will be in the scope of IGL. Request to kindly exclude supply of cables from scope of bidder.	Tender Conditions Prevail.
65.	1.6		Following documents shall be submitted by the successful bidder Pressure vessel thickness calculations to be submitted.	Will be as per Manufacturer's Proprietary Design Standards and limited to as per industry norms. Design calculations are not feasible to be provided.	Tender Conditions Prevail.
66.	1.6		All exposed rotating parts shall be provided with adequate guards of non-sparking type.	Adequate protection as per manufacturer's standards shall be provided.	Tender Conditions Prevail.

67.	2.1.2		<p>Air compressor of capacity approx 7.5 kW preferably of IR/KPCL/Elgi/CP make of approx 16 kg/cm2(g) discharge pressure with PRV, and 1000 water litre capacity air receiver shall be supplied for each CNG compressor package for gas engine starting purpose. Air dryer suitable for automatic operation shall also be supplied along with all accessories. The air compressor motor& air dryer shall be flameproof and will be kept in CNG area. Piping, electrical and instrumentation cabling shall be in bidder's scope. Tapping in the 1000WL air receiver vessel shall be provided with NRV, PRV (If required) and isolation valve for CNG dispenser instrumentation line. Air receiver shall be provided with SRV (safety relief valve), pressure gauge and drains. Manual drains and automatic moisture traps/moisture separator cum regulator shall be provided in the system.</p>	<p>Suitable air compressor with discharge pressure 10 barg shall be provided along with all required accessories. Instrument & starting air provision as per OEM standard, desired pressure will set at receiver. For clarification purposes, we'd like to inform that Since moisture is completely removed by the dryer, the dry air is stored in the Receiver which do not require auto drain arrangement as its already provided in dryer for draining the moisture. We do not recommended bypassing of the dryer which will lead to consequential failure of air starter.</p>	Tender Conditions Prevail.
68.	2.1.4		<p>Cooling water is not available as utility and the package shall be provided with self-sufficient cooling water system for Compressor, as required, with makeup tank. However cooling water for make up tank is available</p>	Compressor with Air cooled heat exchanger will be provided	Noted

69.	2.1.8		Purchaser shall provide UPS (240 ±1 % V, 50 ±1 % Hz) for control supply requirements at a single point (feeder in UPS ACDB) inside the electrical room. Bidder shall indicate power/ feeder (KW/Amp) requirement in the offer. Surge protection devices of approved make shall be provided for all incoming supply to Bidder's end.	we have excluded UPS from our scope. Kindly confirm the same.	Tender Conditions Prevail.
70.	2.2.4		As and where specified on the data sheets all vents (i.e. Relief valve, distance piece and packing) shall be manifolded and terminated at skid edge outside the enclosure and vented to safe height of 3 m at package roof.	Distance piece will be as per Manufacture's Proprietary Design Standards. Venting is not applicable due to pressurized crankcase.	Tender Conditions Prevail.
71.	2.2.5		All drains from different process equipment, distance piece and packing shall be manifolded and terminated at single point for customer interface duly flanged with isolation valve	We shall provide oil recovery vessel (oil drain pot) of 20 liters to ensure uninterrupted operation of machine. ORV shall be mounted inside the package. All drains terminated at single point for customer interface duly tapped with isolation valve	Noted
72.	2.2.6		UPS and Non UPS power shall be made available from power distribution board (PDB) in the electrical room. Supply, Erection and termination of all cables and accessories from feeder in electrical room shall be in the bidder's scope. Approx distance of the CNG compressor package shall be 100 m from electrical room.	All field cables will be excluded from scope of bidder. Kindly accept.	Tender Conditions Prevail.

73.	2.2.7		The Bidder work shall commence from Outgoing terminals of PDB/ACDB/LDB (PDB/ACDB/LDB is in the scope of Owner).Downstream distribution arrangement from the PDB to the Compressor is in the scope of Bidder.	All field cables will be excluded from scope of bidder. Kindly accept.	Tender Conditions Prevail.
74.	2.2.8		Electronic earth pit shall be made available at a distance of about 5 meters from compressor package. Cable from this earth pit shall be in the bidder's scope. Owner's earthing main ring shall be made available at compressor foundation. Cable to control panel body earth inside the compressor package shall be in the bidder's scope.	All field cables will be excluded from scope of bidder. Kindly accept.	Tender Conditions Prevail.
75.	4.9.1		Carbon Steel separators / KOD volume bottles with auto and manual drain system shall be provided for the capacity as required.	All the separators are with auto drain system rather than manual drain system specially considered for safety reasons. Only ORV with manual drain is considered. Drain system will be timer based as per Manufacture's Proprietary Design Standards offering. Automatic drain valves are provided in each stages, however providing Manual drain valve in pressurized gas system is safety hazard & can cause operational issues. Manual drain valve will only be provided for draining oil in depressurized circuit for draining oil when compressor is in stop condition. We have supplied compressor packages to various CGD companies Gail India, Gail Gas, Green Gas, CUGL, MNGL, IGL etc. considering safety reasons with similar arrangements and have been successfully running without any O&M issues.	In case of proprietary design of the offered compressor, the same can be accepted subject to submission of PTR of the offered compressor

76.	4.9.3		<p>Scrubber service class - B shall be used for Inter-stage / discharge scrubbers. Service Class - C shall be used for suction scrubber. (Refer API -11P)</p> <p>All vessels including pulsation dampers shall be fully (100%) radio-graphed as per ASME VIII UW (a) or equivalent.</p>	<p>Suction KOD as per Manufacturer standard design will be provided.</p> <p>All vessels will be fully (100%) radio-graphed as per ASME VIII, however U stamping not considered.</p> <p>All the vessels will be approved by TPI.</p>	<p>In place of U stamping, bidder may get all the vessels after approved TPI inspection.</p>
77.	4.9.4		<p>Minimum design temperature for separators/KOD/volume bottle shall be 71 dec C and minimum design pressure shall be maximum operating pressure plus 15% for inter stages and plus 10% for final stage.</p>	<p>All pressure vessel design shall be as per manufacturer's standards suitable for the required application.</p>	<p>Noted</p> <p>All pressure vessel design shall be as per manufacturer's standards suitable for the required application.</p>
78.	4.9.6		<p>Gas recovery system</p> <p>The name plate of the BDV shall have the manufacturer's name and following parameters: Design Pressure, Design Temperature, Hydro Test Pressure, Corrosion Allowance, Radiography, Heat Treatment, Empty Weight & Capacity.</p> <p>One vent line from gas recovery vessel with double isolation valves shall be provided.</p>	<p>Name plate of vessel will be as per manufacturer standard.</p> <p>Gas recovery system & vessels are as per proprietary design of manufacturer.</p> <p>Vent line is not recommended by OEM due to safety hazard.</p>	<p>Tender Conditions Prevail.</p>

79.	4.9.7		All separators / KOD's/volume bottles shall be provided with 3 mm corrosion allowance.	Separators / KOD's will be design as per ASME standaed	Tender Conditions Prevail.
80.	4.9.8		Oil from all drains shall be collected into the oil recovery pot. Oil recovery pot of suitable capacity shall be provided with double isolation manual valve and level gauge.	We shall provide oil recovery vessel of 20 liters to ensure uninterrupted operation of machine.	Noted
81.	4.9.9		Coalescent super fine filters (preferably two stage) Third Party approved, for removal of liquid (e.g. water & oil) and solid particles down to 0.1 microns out of compressed natural gas shall be provided. Residual Oil Contents shall be less than 1 PPM. Automatic drains with On-off valve connected to Gas recovery vessel shall be provided. The filters shall be sized to flow min. 200% of the flow at suction pressure of 19 kg/cm2(g)and discharge pressure of 255 Kg/cm2 (g). However mechanical design shall be based on safety set pressure	Timer base automatic oil drain as per standard design will provided.	Please refer the clause 4.9.9, Page no. 31 of 242 of subject tender.

82.	4.10		Pulsation, Vibration Control and Analog Study	Not feasible to be provided due to manufacturer's proprietary design conditions.	Tender Conditions Prevail. Please refer the clause 4.10.1, Page no. 31 of 242 of subject tender.
83.	4.11		Gas Engine	We shall consider Cummins India make gas engine	Noted
84.	4.11.4		All the auxiliary equipment including the cooling fans shall be engine driven.	Gas cooler fan is hydraulically driven. There is no separate electric or mechanical drive required.	Noted but hydraulic drive shall be engine driven.
85.	4.11.5		The engine shall be provided with the shielded ignition system of breaker less type, low-tension solid state having vapor proof enclosure with a high-tension coil at each power cylinder. The spark plug shall be shielded and all low-tension wiring shall be enclosed in grounded steel conduits. But the spark plug connecting cables shall be enclosed in grounded, metal shielded flexible conduits.	Shall be as per gas engine OEM standards.	Tender Conditions Prevail.
86.	4.12.1		The maximum allowed temperature within the enclosure shall be 5°C above ambient temperature. Adequate arrangements shall be provided to meet the above.	Temperature inside canopy = Ambient + 8 Deg	Tender Conditions Prevail.

87.	4.12.3		Heat Exchanger / gas cooler fan shall have mechanical drive only and the same cannot be utilized as ventilation fan.	Gas cooler fan is hydraulically driven as per previous supplied packages. There is no separate electric or mechanical drive required.	Noted but hydraulic drive shall be engine driven.
88.	4.12.4		The compressor package shall consist of single enclosure for Compressor and gas engine. The equipment shall be mounted on one common skid. The Enclosure to restrict maximum noise level to 80 dB (A) at 1 meter from the enclosure.	Maximum noise level to 80 dB (A) +/- 3dBA at 1 meter from the enclosure in free field condition.	Tender Conditions Prevail.
89.	4.12.7		All the pressure, temperature, gas flow meter, oil level, lube oil pressure, coolant temperature, coolant level indicators shall be visible from outside of enclosures. Enclosures as per the design of the manufacturer through gauge panel. However if due to space constraint some of the Instruments not visible from outside of enclosure then proper accessibility has to be provided for reading the parameters from the Instruments. The Flow meters shall be installed in such a way that if required reading can be taken safely on running of compressor during performance testing.	All the indicators for pressure, temperature of gas shall be visible from outside of enclosures. For rest of the parameters same can be viewed from PLC/Locally.	Tender Conditions Prevail.

90.	4.12.11		Suitable gradients shall be provided on the enclosure roof for rain drainage and to avoid water pockets	Considering mounting for engine silencer on roof on canopy, same if not advised.	Tender Conditions Prevail.
91.	4.12.11		One vent line with double isolation valve shall be provided to emptying the package at 3rd stage separator.	Due to safety reason vent line not provided at 3rd stage separator, venting provision is provided at BDV with double isolation valve	Tender Conditions Prevail.
92.	4.13		Piping	Gas piping/ tubing at 3rd stage discharge will only be in SS-316, with SS fittings, Rest all piping /tubing will be Combination of Flanged & screwed connections with CS material (pipes, Fittings & Flanges) as per application requirement & standard design. This is as per manufacturing standard design.	Noted & will be reviewed during detailed engg. & may be accepted if found technically suitable.
93.	4.13		Piping	Piping between PRS Skid to Inlet of Compressor Package, air compressor & CO2 piping upto enclosure will be in IGL scope, as site to site location is not fixed, hence request to considered same.	Tender Conditions Prevail.

94.	4.13.5		The instrument air tubing material shall be SS316 as per ASTM A269.	Instrument air tubing shall be SS304.	Noted
95.	4.13.9		All lube oil piping down stream of filter shall be series 300 Stainless Steel.	After oil filter inbuilt oil galleries are provided, & manufacturer's standard Brass NRV provided at forced lubrication point.	All lube oil piping after oil filter shall be 300 series stainless steel conforming to ASTM A269. Brass Fittings are also acceptable which should be suitable for required pressure. (Refer clause 4.5.3.)
96.	4.13.10		External drain & vent piping shall be Carbon Steel and not less than 1" nominal size. However, all the internal drains shall be SS 316 tube as per ASTM A269. However all the internal drains shall be SS 300 series material.	Package oil drain will be of 1/2" as per manufacturer standard	In case of manufacturer's standard for piping size of package oil drain, the same can be accepted subject to submission of PTR of the offered compressor. Rest Tender Conditions Prevail.
97.	5.1.7		The design of control panel shall incorporate provision for expansion by installing adequate spare capacity. Each panel shall be designed to accommodate the following additional equipment, as a minimum; a) 20% of panel front/inside mounted instruments including lamps, push buttons, switches, relays etc. b) 20% additional power feeders each provided with switch fuse assembly. c) 20% spare cable entry points. d) 20% spare TBs with fuses shall provide	Spare I/O shall be as per approved Control Panel drawing approved by Mecon.	Tender Conditions Prevail.

98.	5.1.7		2. A minimum of 1.5 mm sq. multi stranded PVC insulated copper conductor shall be used in general. All wiring shall be laid in the PVC troughs. No troughs shall be more than 70% full.	Instrumentation wiring will be selected on current, load, and termination with best engineering practice hence overcapacity wiring will need more space for routing and termination in the panel. This will also increase the size of the FLP panel and boxes which will be difficult to be accommodated on a canopy.	For all type of internal wiring; wire minimum size 1 sq mm shall be considered and for high load or power requirement of instruments; higher size has to be considered. Rest tender condition prevail.
99.	5.1.7 5.9.12		a) Local temperature gauges shall be provided and shall be manufactured as per relevant SAMA Class. The temperature gauge shall be generally mercury or Gel filled in steel filled type, weatherproof & with capillary extension. Capillary tubing shall be min Carbon Steel with CS flexible armoring. The gauge shall have accuracy of + or - 1% FSD. The range shall be 1.5 times of operating temperature. Thermo-well shall be provided at temperature measuring areas to mount temperature transmitter/ gauges on vessel / KO drum etc.	M/S WIKA make temperature gauge will be provided. Liquid filled Temperature gauges are not required since there is no fluctuation unlike pressure gauges where there is fluctuation & liquid is required to dampen the same.	Temperature gauge suitable for CNG high temperature requirement at each stage, operating in range of 30 % to 70% of the full range is acceptable. Rest tender condition prevail.
100.	5.8		Electrical cables: 5.8.1 Following cables shall be supplied and laid by bidder for flame proof control panel: a) From PDB to compressor control panel b) From compressor to hooter and upto ESD push button in operator room. a) From PDB to air compressor. 5.8.2 Following cables shall also be supplied, laid and terminated by bidder: a) Power and signal communication cables from compressor to trailer panel, if trailer is indicated in SOR (distance 20 m approx). b) Cables inside the compressor package	All field cables will be excluded from scope of bidder. Kindly accept.	Tender Conditions Prevail.

			5.8.3 Termination of cables in compressor control panel including cable lugs and double compression cable glands etc. is in bidder's scope.		
101.	5.9.4		Electrical instrumentation shall be certified by a recognized authority such as BASEEFA, PTB, LCIE, CESI, INIEX, CSIR, CEA or any agency approved by Indian Government.	CCOE or its equivalent certificate (FM, CSA, ATEX, UL, CMRI) whichever applicable & available will be provided. All Test certificates will be as per QAP submitted with Technical offer.	All electrically operated Instruments shall have mandatorily PESCO certification; rest Tender Conditions Prevail.
102.	5.9.6		Separate junction boxes shall be provided for each type of signal i.e., analog, digital, solenoids, RTD thermocouple and power supply. Instrument junction boxes should not have any high voltage connection.	LCP (With PLC) is mounted on package itself hence separate JB's are not required. LCP (With PLC) is mounted on package itself & also separate gauge box will be used for intrinsically safe signals.	Direct run cable upto PLC/ local panel, Junctions box is not required; rest tender condition prevail.
103.	5.9.10		All pressure gauges and pressure transmitters shall be provided with block & bleed valves and have accuracy of + or - 1% of FSD for gauges and + or - 0.25% of FSD for transmitters respectively.	Due to limited space in the gauge panel as all the gauges are centrally located to monitor machine performance from single location, we shall provide brass type needle valve for isolation of Pressure gauges and pressure transmitters. Kindly accept.	Necessary valves desired shall have features of double block & bleed valve. Hence, TENDER CONDITION PREVAILS.
104.	5.9.15		The package shall be supplied with 4 nos. mass flow meter, one each for compressor suction, discharge, engine fuel consumption and for measuring vent loss. While the suction, discharge and fuel consumption meters shall be Coriolis principle based, as per AGA-11 standard, approved for custody transfer application.	Compressor design being of pressurized crankcase, there will be no gas loss through vent. Considering the same, Vent Mass flow meter is not considered. As per standard design we shall not consider the online test arrangement provisions of offered mass flow meters. Provision of isolation valve for the mass flowmeters is not feasible as per Manufacture's Proprietary Design Standards for the piping layout.	Tender Conditions Prevail.

			The mass flow meter for measuring vent loss shall be thermal type. Flowmeter shall have isolation valve before and after for checking and zero calibration.		
105.	5.9.17		Certification Bidder shall provide certificates (from BASEEFA FM, UL, PTB, LCIE etc.) from country of origin for all intrinsically safe/flameproof protected by other methods equipment/instrument/systems, which are manufactured outside India. If required, bidder shall provide necessary certification/approvals/authentication, for all such intrinsically safe/flameproof equipment/instrument/systems, by the Indian authority – Chief Controller of Explosive (CCOE)/PESO, Nagpur, India.	CCOE or its equivalent certificate (FM, CSA , ATEX, UL, CMRI) whichever applicable & available will be provided. All Test certificates will be as per QAP submitted with Technical offer.	Tender Conditions Prevail.
106.	5.9.16		Vendor has to calibrate all instruments including mass flow meter and perform pressure vessel testing within 1 month of compressor commissioning. Vendor has to provide calibration certificates to respective Control room In charge within 1 week from the calibration date.	Calibration of all instruments will be carried out as recommended by OEM.	Tender Conditions Prevail.
107.	8.2		PAINTING AND PROTECTION	Painting shall be as per manufacturer's standard procedures. Package enclosure shall be Powder Coated ensuring longer durability in all weather out door installation conditions.	Tender Conditions Prevail.

108.	8.5		Packing shall be sufficiently robust to withstand rough handling during ocean shipment & in- land journey. Sling points shall be clearly indicated on crates.	The canopy is weather proof so no separate packing considered. Package shall be covered in tarpaulin during road shipment.	Tender Conditions Prevail.
109.	5.6.2		Push button for fault accept, fault reset, ESD, compressor start, compressor stop, scroll up, scroll down, enter, increment, decrement, back, hooter test, 4 no. spares shall be provided. Selector Switch for main over ride, auto manual selection, CO2 cylinder main /CO2 cylinder standby, 415 VAC supply on/off ,230 VAC supply on/off, tube light on/off, enclosure door by pass and 2 no. spares shall be provided. Lamp for 415 VAC, 230 VAC on, 24 VDC PLC supply on, ready to start , running & Alarm/trip and 5 nos spares shall be provided.	Operational push buttons required for the application will be provided. In the era of new age technology, we are trying to provide required manual push buttons / selector switches for ease of operation. In addition to this we shall provide two no's spare push buttons. Spare selector switches are not required, hence not considered.	The facility requested in tech spec are per requirement of operation, safety and safe operation. Tender condition prevails.
110.	5.9.18		Compressor package shall be provided with the following indicators: i. Pressure indicator each stage suction and discharge. ii. Temperature indicator each stage suction and discharge iii. Oil pressure indicator on each pressure lubrication system iv. Oil levels indicator, field mounted v. Air pressure low indicator vi. Hour meter vii. Non- resettable electromechanical hour meter on local control panel. viii. Hydraulic oil cooler inlet & outlet temperature on local gauge panel (if required) ix. Low oil level protection devices	We shall provide following Indicators on compressor package: i. Pressure indication at each stage suction. ii. Temperature indication at each stage discharge. iii. Oil switch and no flow switch on lubrication system. iv. Oil level gauge on oil tank. vi. Hour meter shall be available at HMI. Separate hardware not considered ix. Crankcase oil temperature indication. ix. Low oil pressure protection is provided. Level indicator provided	Tender Conditions Prevail.

111.	5.9.18		<p>The compressor package shall be furnished with the following trip logic (but not limited to) that shall stop the compressor and suction of compressor shall be isolated: xiii. Flow through the vent line</p>	<p>xiii. Flow through the vent line trip logic not considered.</p>	<p>Tender Conditions Prevail.</p>
112.	5.9.18		<p>First port shall be for remote monitoring of the parameters. Besides PLC display, all the parameters which are measured should be monitored on a HMI/ MMI for remote monitoring as well as of remote operation with RTU/ SCADA communication over TCP/IP Modbus protocol. Vendor shall provide protocol details to OWNER and also provide necessary support for third party interface for remote data connectivity.</p>	<p>SCADA port is provided. SCADA is not considered in bidder's scope. Ethernet port is provided for customer SCADA communication. SCADA compatibility is provided for remote monitoring. We shall supply one additional TAsm2m - Gateway for GPRS/SCADA connectivity. Sim card required for activation & monthly SIM charges shall be arranged by IGL. One port is provided for remote monitoring and providing ethernet port for laptop access.</p>	<p>Necessary suitable ports as per tech spec shall be provided. The SCADA communication will be over TCP/IP Modbus protocol. The offered equipment must be suitable for tender requirement. Tender Conditions Prevail.</p>
113.	5.9.18		<p>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>	<p>100% redundancy shall be provided only for CPU. Kindly accept</p>	<p>100% redundancy with respect to CPU, Power supply must be considered; rest Tender Conditions Prevail.</p>

114.	5.13.1		Compressor Instrumentation	<p>We shall provide instruments as per P&ID submitted and Instrument schedule for approval. Following not considered :</p> <p>1. Frame Oil Sump/Reservoir Level : Switch not considered. 23. Coolant main pump disch. Pr.-NA as compressor is air cooled. 28. Coolant cooler Outlet Temp.-NA as compressor is air cooled. 29. Coolant reservoir Level-NA as compressor is air cooled. 40. Ist stage dish pressure low / high-Low alarm and trip not considered. 42. Final Disch Pressure after coalescent filter *- Low alarm and trip not considered. 43. Blow Down vessel level-Not considered. Time based oil drain is provided.</p>	Tender Conditions Prevail.
115.	5.13.2		Engine Instrumentation	<p>We shall provide instruments as per P&ID submitted and Instrument schedule for approval. Following not considered :</p> <p>6. OIL COOLER OIL OUTLET TEMP.-Transmitter and gauge not considered. 8. Differential pressure gauge for fuel and air mixture-Engine suction gas pressure gauge and transmitter only shall be provided. 14. ENGINE JACKET C.W SUPPLY TEMP.- ENGINE JACKET C.W OUTLET temperature gauge and transmitter shall be provided 16. COOLANT MAIN PUMP DISCH. PR. - Not applicable. 17. COOLANT SUPPLY HEADER PR.- Not applicable. 19. COOLANT COOLER OUTLET TEMP - Not applicable. 20. COOLANT RESERVOIR LEVEL.- Not applicable. 22. AIR RECIEVER PRESSURE- Engine air starting pressure gauge and transmitter shall be considered. 24. INLET AIR FILTER DIFFERENTIAL PRESSURE- Shall be same as engine air starting</p>	Tender Conditions Prevail.

116.	21.0		<p>QUALITY ASSURANCE PLAN QAP: Engine Control Panel and Soft Starter Functional test Heat Exchangers (at sub-vendor works) WPS / PQR – Welder Qualification</p>	<p>Inspection & Testing will be as per Approved QAP. Following points are not applicable for engine, we shall consider below points for pressure vessels used in compressor package as per past tender. Please approve.</p> <p>2. Dimension and Visual Inspection Report as per drawing-Not considered for engine, shall be provided for vessels used in compressor package</p> <p>3. Material test certificates for RAW Material (Pressure Parts)-Not considered for engine, shall be provided for vessels used in compressor package</p> <p>4. Radiography of pressure vessels at applicable-Not considered for engine, shall be provided for vessels used in compressor package</p> <p>5. Hydro test of pressure vessels-Not considered for engine, shall be provided for vessels used in compressor package</p> <p>6. Final painting and cleaning-Not considered for engine, shall be provided for vessels used in compressor package Functional test during FAT. Welding is not applicable.</p>	Noted
117.	22.0		<p>Preferred makes Engine Discharge Filter. BBV</p>	<p>Shall be as per final approved vendor list. Kindly approve below makes : Engine-Cummins GTA855-C DISCHARGE FILTER:ACIL Approved make BBV-Baumer Air Line PRV- AIRA EURO AUTOMATION PVT. LTD</p>	<p>Please refer to Note – 1 & Note – 2 of Preferred Makes List. Tender Conditions Prevail.</p>

118.	-		SPECIFICATION OF GAS DETECTOR Infrared Sensor with Transmitter, with Local Display and Indicator	Gas detector with Local Display and Indicator not considered, For safety reasons, GD readings are purposefully shown only on HMI screen, since in event of gas leakage, it is not recommended for any operator to enter the area where leaked gas is already present. Further, visual indication on HMI, alarm & trip are also provided to take necessary actions without exposing person to hazard.	For clarification: Kindly consider clause number 1.6 bullet no. 23, Page no. 115 of 242. Bidder may supply Gas Detector with Local Display/ Indicator
119.	-		Test Certificates	Certificates will be submitted as per manufacturer's standard QAP Approved by end client	Noted
120.	1.6		Additionally, Thermal type mass flow meter to be provided to measure package gas loss/vent.	Vent mass flowmeter are designed to measure minor leakage of gas in the event of packing losses. Hence cannot be installed on SRV vent line due to high pressure of the gas. The venting of the SRV occurs in the event to protect internal components. Hence it should be directly connected to atmosphere without any restrictions to immediately release the gas as per safety guidelines.	Tender condition prevails.
121.	Vol 1; SCC 18.4B		Bank Guarantee	The BG to be submitted of annualized value of PO and not total order value	Refer Commercial Corr. #8 for modified clause in respect of CPBG.
122.	Vol 1; SCC 19		PRS	Deduction should be done for full week of delay and not part thereof – This is as per earlier tenders of IGL for compressors	Tender condition prevails.
123.	Vol 1; SCC 19.2		PRS	PRS should be applicable against individual item and not for complete release order quantity	Tender condition prevails.

124.	Vol 1; SCC 19.2		PRS	PRS on delivery of compressor may be reduced, in case, installation and commissioning of compressor is delayed beyond the scheduled period as per tender clause	Tender condition prevails.									
125.	5.1	06 of 120	<p>DELIVERY SCHEDULE</p> <table border="1" data-bbox="707 263 1160 949"> <tr> <td data-bbox="707 263 857 544">Description</td> <td data-bbox="857 263 1008 544">Gas Engine Driven Reciprocating CNG Compressor Packages – 1200 SCMH</td> <td data-bbox="1008 263 1160 544">Gas Engine Driven Reciprocating CNG Compressor Packages – 600 SCMH</td> </tr> <tr> <td data-bbox="707 544 857 576">Quantity</td> <td data-bbox="857 544 1008 576">26 Nos</td> <td data-bbox="1008 544 1160 576">39 Nos</td> </tr> <tr> <td data-bbox="707 576 857 949">Delivery Period for 1st lot - Within 12 weeks on ex-works basis from date of LOA/first notification of award of IGL</td> <td data-bbox="857 576 1008 949">10 Nos</td> <td data-bbox="1008 576 1160 949">15 Nos</td> </tr> </table> <p data-bbox="707 949 1160 1161">Note: Delivery period for subsequent lots shall be 10 weeks with lot qty of 8 nos(1200 SCMH) & 12 nos (600 SCMH) from the date of intimation. Time period between subsequent lots intimation / release order shall be min 15 days.</p>	Description	Gas Engine Driven Reciprocating CNG Compressor Packages – 1200 SCMH	Gas Engine Driven Reciprocating CNG Compressor Packages – 600 SCMH	Quantity	26 Nos	39 Nos	Delivery Period for 1st lot - Within 12 weeks on ex-works basis from date of LOA/first notification of award of IGL	10 Nos	15 Nos	<p>Currently only two engine manufacturers have the required PTR for supply of Gas engines for CNG compressor application in India.</p> <p>One Engine manufacturer has indicated 18 weeks while the other one is indicating more than 22 weeks for the engine supply on ex-works basis.</p> <p>In view of above, purchaser is requested to allow delivery period of 24 weeks (for the first lot) on ex-works basis for both 1200 SCMH & 600 SCMH GED Compressor packages.</p> <p>Alongside above, a schedule be given for the balance supplies to facilitate planning and timely delivery.</p>	Refer Tech. Corrigendum#1.
Description	Gas Engine Driven Reciprocating CNG Compressor Packages – 1200 SCMH	Gas Engine Driven Reciprocating CNG Compressor Packages – 600 SCMH												
Quantity	26 Nos	39 Nos												
Delivery Period for 1st lot - Within 12 weeks on ex-works basis from date of LOA/first notification of award of IGL	10 Nos	15 Nos												

126.	13.2 (iv)	25 OF 120	<p>Rate towards Operation (Additional charges only, refer note given below) for all the locations</p> <p>Note: Minimum wage component is indicated in SOR for reference purpose only, however, minimum wages (prevailing at the time of execution) of Centre shall be payable to workmen engaged for operations on actual basis.</p> <p>Bidder shall be quoting additional charges (which shall include but not limited to – Uniform charges, conveyance, PPE, Mobile, ID card & Profit of margin of bidder) over & above min. wage component. The min. wage component shall also be considered in evaluation & comparison of bids, however, during matching, bidder shall be reducing his quoted price only (i.e. min. wage component shall be fixed).</p>	<p>We understand that purchaser shall pay wage rate prevalent at the time of service delivery and minimum wages as notified by State Government / Central Government, whichever is higher shall be reimbursed.</p> <p>We also understand that applicable PF, ESI, Gratuity and other applicable statutory compliances shall be paid alongside the minimum wage as above and bidder need not to factor such amount while quoting SOR for operations.</p> <p>We understand that additional charges to be quoted in the SOR shall only cover Uniform charges, conveyance, PPE, Mobile, ID card & Profit of margin of bidder.</p> <p>Please confirm if our understanding is correct.</p>	Tender condition prevails.
127.	18.3	74 of 120	<p>Contract Cum Equipment Performance Bank Guarantee</p> <p>A. For Supply, installation & commissioning and Performance Acceptance Test:</p> <p>Within twenty-one (21) days of receipt of the respective Purchase Order/ Release order, CPBG equivalent to 10% of respective Purchase Order/ Release order value inclusive of all taxes, duties and charges towards supply, packing & forwarding, Transportation, Installation, Commissioning & PAT, is to be submitted</p> <p>B. For Operation and Comprehensive</p>	<p>As accepted in previous tenders, we request purchaser to accept CPBG equivalent to 3% of respective Purchase Order/ Release order value(annualised value) exclusive of all taxes, duties.</p> <p>CPBG is a cost and rationalization of the same to 3% will enable us to bid more competitively.</p> <p>Please accord your acceptance.</p>	Refer Commercial Corr. #8.

			<p>Maintenance Services:</p> <p>Within twenty-one (21) days of receipt of the Contract for Operation and Comprehensive Maintenance Services, CPBG equivalent to 2.5% of total Contract value for Operation & Comprehensive maintenance inclusive of all taxes, duties is to be submitted initially.</p> <p>Within twenty-one (21) days of receipt of the respective Purchase Order/ Release order, CPBG equivalent to 7.5% of Purchase Order/ Release order value (inclusive of all taxes, duties) is required to be submitted against individual Purchase Orders/ Release orders.</p>		
128.	23.1	76 of 120	<p>INSURANCE</p> <p>In respect of compressors packages to be supplied to IGL, only transit insurance will be in bidder's scope</p>	<p>Once material is received at IGL site, the ownership of goods gets transferred and bidder cannot take insurance</p> <p>We request that all insurance only till delivery of the package at site / store be put in bidder's scope.</p>	Tender condition prevails.
129.	39	81 of 120	<p>STORAGE AND PRESERVATION</p> <p>Contractor shall be fully responsible for safe custody, storage and preservation of all the supplies and materials / equipment required for carrying out the work until handing over of the complete facility to the Purchaser at site at no extra cost.</p>	<p>We understand that Watch and ward of the supplied machines shall be in the scope of purchaser once the packages are delivered at site / store.</p> <p>Please confirm</p>	Tender condition prevails.

130.	14.1 14.3 14.4 14.5	70 of 120	<p>TERMS OF PAYMENTS: Payment towards Supply (Compressor Package) Through direct payment within 45 days from date of receipt of invoice</p> <p>Payment against Installation, Testing & Commissioning: 100% payment towards Testing & Commissioning shall be payable within 45 working days (Forty-Five working days) after submission of invoice</p> <p>Payment against Performance Acceptance Test 100% payment towards Field Performance Test shall be released within 45 days (Forty-five working days) after submission of invoice duly certified by the Engineer-In-Charge</p> <p>Payment against Operation & Comprehensive Maintenance: On pro-rata monthly basis, against monthly invoices duly certified by Engineer-in-Charge within 45 (FortyFive working days) working days from the date of submission of bills</p>	<p>45 working days translate to almost 2 months after factoring in the weekends and other holidays.</p> <p>As per GOI MSME payment reimbursement time frame also is 45 days</p> <p>Therefore, we request purchaser to allow the payment terms within 30 days from the date of receipt of invoice.</p>	Tender condition prevails.
131.	4.8.2 4.8.4	29 of 242, 127 of 242,	<p>GAS COOLER Air-cooled inter-stage and final stage discharge coolers shall be provided which shall limit the gas temperature after the after cooler to 55 Deg C.</p>	<p>Purchaser may deploy procured CNG Compressors to locations where maximum temperature during summer goes upto 48 Degree C.</p> <p>We request to allow maximum gas temperature after the after cooler as Ambient+10 Deg C for such locations.</p>	Tender condition prevails.
132.	4.12.1 4.12.12	32 of 242 130 of 242	<p>TEMPERATURE DIFF. BETWEEN AMBIENT AND INSIDE OF ENCLOSURE The maximum allowed temperature within the enclosure shall be 5°C above ambient temperature. Adequate arrangements shall be provided to meet the above.</p>	We request IGL to allow the temperature limit as 10 Deg C above ambient temperature.	Tender condition prevails.

133.	13.13.1 13.13.1	58 of 242 156 of 242	SCOPE OF SUPPLY DURING WARRANTY PERIOD All spares, consumables..... If any equipment got fire or broken due to accident the same shall be replaced or rectified by the bidder.	We request purchaser to take necessary Insurance cover of CNG Compressor Package and the third-party insurance towards damage to Man & Machine, Fire, Accident etc.	Tender condition prevails.
134.	13.13.2 13.13.2	58 of 242 156 of 242	SCOPE OF SUPPLY DURING POST WARRANTY PERIOD All spares, consumables.....If any equipment got fire or broken due to accident or in any way engine or compressors major overhaul is required during breakdown the same shall be replaced or rectified by the bidder, at his own cost	We request purchaser to take necessary Insurance cover of CNG Compressor Package and the third-party insurance towards damage to Man & Machine (including major overhaul), Fire, Accident etc.	Tender condition prevails.
135.	22	96 of 242 195 of 242	PREFERRED MAKES Air Exchanger GEI Hamon Ind Ltd/ GEA India / Patel Air temp / M/s Kirloskar Pneumatic Co. Ltd./CP	Gas Cooler shall be of proprietary TCPL design.	Please refer to Note – 1 & Note – 2 of Preferred Makes List. Tender Conditions Prevail.

136.	1.1.1 1.1	111 of 242 104 of 242	<p>Scope of work : 600 SCMH capacity "GAS ENGINE DRIVEN RECIPROCATING GAS COMPRESSOR PACKAGES" at a suction pressure of 16 kg/cm² (g),inlet line pressure range of 14 – 49 kg/cm²(g) (performance range 14 to 19 kg/cm²(g))with discharge pressure 250 kg/cm² (g) with 6 bank Priority panels required for dispensing</p> <p>Material Requisition and Technical Specification of 600 SCMH Gas Engine Driven Compressor: 600 SCMH at the specified conditions (as per technical specification and scope of work) with explosion proof electric & control panel having suction pressure of 16 kg/cm²(g), inlet line pressure range of 14 – 49 kg/cm²(g) (performance range 14 to 19 kg/cm²(g) with discharge pressure 250 kg/cm²(g) with 7 bank Priority panel</p>	<p>We understand that 600 SCMH compressor packages supply with 6 bank Priority panel.</p> <p>Please confirm</p>	Please refer SOR/ Material Requisition
137.	1.6	15 of 242 114 of 242	<p>SCOPE OF SUPPLY FOR EACH COMPRESSOR PACKAGE: Common structural steel skid for the compressor- gas engine and for all auxiliary systems.</p>	<p>Air compressor, dryer, air vessel and Co2 shall be mounted separately.</p> <p>Please confirm.</p>	Noted
138.	7.2(B)	139 of 242	<p>Calculation for Engine fuel Consumption & Package Gas loss :</p> <p>Compressor Capacity (As applicable for 1200 SCMH)</p> <p>Bidder shall guarantee 1200 SCM/hr capacity (as the case may be) of compressor with design case gas composition, at suction pressure of 16 kg/cm²g, suction temperature of 30°C, discharge pressure of 250 kg/cm²g with the negative tolerance for errors in</p>	<p>We understand that 600 SCMH capacity of compressor with given gas composition, at suction pressure of 16 kg/cm² (g) and at suction temperature of 30°C, discharge pressure of 250 kg/cm² (g)</p> <p>And G = Bidder's Gas consumption rate quoted in Kg/hr for every 600 SCMH (452 Kg) of CNG produced</p> <p>Please confirm</p>	<p>G = Bidder's Gas consumption rate quoted in Kg/hr for every 600 SCMH (452 Kg) of CNG produced. Also refer SOR</p>

			instruments and measurement Engine Fuel Consumption G = Bidder's Gas consumption rate quoted in Kg/hr for every 1200 SCMH (903 Kg) of CNG produced		
139.	ITB 5.1	Page 6 of 120	Supply Delivery Period: i) Delivery Period for 1200 /600 SCMH 1st lot - Within 12 weeks on ex-works basis from date of LOA / first notification of award from IGL i) Delivery period for subsequent lots shall be 10 weeks with lot qty of 8 nos(1200 Scmh) & 12 nos (600 Scmh) from the date of intimation. Time period between subsequent lots intimation / release order shall be min 15 days.	Due to present scenario of uncertainty where the supply chain is disrupted due to present crisis/war between Russia and Ukraine . The major suppliers viz. Gas Engine are delivering in 4 months time. This had led to longer lead times of such equipment. We request you to please revise the delivery schedule as per below 1) 1st Lot : within 24 weeks from the date of Delivery Order / Release Order 2) subsequent lots : within 20 weeks from the date of Delivery Order / Release Order. Above delivery periods are applicable for both 1200SCMH & 600SCMH capacity. Or Provide us firm delivery schedule spread across the year from the date of FOA. Please note, 1st delveiry should be 4months from the date of FOA and PRS should not be applicable upto 5 months from the date of FOA.	Refer Tech. Corrigendum#1.
140.	SCC 14	Page 70 and 71 of 120	TERMS OF PAYMENTS : In case Installation, Testing & Commissioning and Performance Acceptance Test could not be executed within 120 days from the date of receipt of compressors at site/ store due to reasons attributable to Purchaser, the 10% payment shall be released.	The 10% payment shall be released against submission of BG of equivalent amount valid till the Guarantee / Warranty period.	Tender condition prevails.
141.	SCC 19	Page 72 of 119	PRICE REDUCTION SCHEDULE	We request you to modify the clause as "..... a sum @ ½ % (Half Per Cent) of the value of the work portion that is delayed per week for delay subject to maximum of 5% (Five Per Cent) of the value of the individual release order.	Price reduction schedule to be made applicable against individual release order.Please refer clause no. 19.2 of SCC, Vol. I.

1200 SCMH					
142.	Notes Point 8	8	For Comprehensive maintenance services: To derive rate for sixth and subsequent years (6th to 10th year), 10% annual escalation on awarded rate of 5th Year (as per item no. 3.2.2.4) shall be considered.	We would like to inform you that due to uncertainties of the wages, steel price etc we will not be able to predict exact variation. Also, we cannot load more than 10% due to higher cap in the maintenance. Hence, the rates from 6th to 10th year will be decided and mutually agreed before the closure of 5th year. Kindly confirm your acceptance.	Tender condition prevails.
143.	Notes Point 8	8	For Operations: To derive rate for sixth and subsequent years (6th to 10th year), 10% annual escalation Year on Year basis on awarded rate (excluding wage components, variation of which is payable on actual basis) of 5th Year shall be considered. It will be responsibility of bidder to ensure the payment as per minimum wages of central government to workmen engaged for operations.	We would like to inform you that due to uncertainties of the wages, steel price etc we will not be able to predict exact variation. Also, we cannot load more than 10% due to higher cap in the maintenance. Hence, the rates from 6th to 10th year will be decided and mutually agreed before the closure of 5th year. Kindly confirm your acceptance.	Tender condition prevails.
144.	Point No. 7 of Clause no. 1.6	15	Separate flameproof junction boxes for different type of signals like analog, digital signals, alarm, shutdowns, and thermocouples, RTDs etc. for interfacing to FLP local panel. Same is not applicable for direct run cable up to PLC panel.	Please note that Local control panel (With PLC) is mounted on package itself hence junction boxes are not required. Instruments will be directly wired to Local control panel. This system is available in all our packages and accepted by all the CGD companies and 400+ CNG compressor are running successfully.	Direct run cable upto PLC/ local panel, Junctions box is not required; rest tender condition prevail.
145.	Point No. 11 of Clause no. 1.6	15 & 16	Inlet twin suction gas filter / Duplex suction filter of filtration level upto 5 micron with oil drain valve, differential pressure gauge and temporary suction line strainer at the package inlet and at other stage (if required). A conical/ Y-type strainer for filtration level upto 5 micron shall be installed in the inlet pipe after the isolation valve by the contractor at the battery limit.	Please note that Duplex suction gas filter & basket strainer is provided and placed outside the compressor enclosure	Noted

146.	Point No. 14 of Clause no. 1.6	16	Separator/ Knockout drums/volume bottles with drains operated by solenoid valves, as required. Bypass valves for automatic drain system with manual drain shall be as per manufacturer's recommendation. All drain lines shall be provided with level operated / time-based auto drain valves and NRVs. Test certificates for coalescent filters to be submitted.	The proposed CNG package has suction volume bottle at each stage and discharge volume bottle at final stage discharge only. The volume bottles at suction are connected to condensate drain system through auto-drain & Manual drain system. These volume bottles shall act as scrubbers/ condensate removal system. No separate KODs shall be supplied. Isolation valve is mounted in upstream of auto drain valve. This is our standard design offered in all our CNG packages. Please confirm your acceptance.	Noted
147.	Point No. 17 of Clause no. 1.6	16	Block and bleed valves to be provided for Pressure gauges and pressure Transmitters.	Please note that As per our standard Manufacturer Practice we provide Needle valves for Pressure gauges and pressure Transmitters.	Necessary valves desired shall have features of double block & bleed valve. Hence TENDER CONDITION PREVAILS.
148.	Safety	21	Relief Valves shall be provided at suction and discharge and in between inter stages of compressor with setting as per cl. 11.18.5 of ISO 13631: 2009 with R.V. venting as per cl. 11.18.6 of ISO 13631: 2009. All vented lines to be connected to common relief valve header.	Please note that as per Manufacturer's standard practice, Relief valve will be provided on BDV and each stage discharge. Please confirm your acceptance.	Tender Conditions Prevail.

149.	2.1.1	23	Bidder shall make his own provision for Instrument air with the flame proof electric motor driven air compressor, receiver and refrigerant type air dryer system	Please note, flameproof refrigerant type air dryer is not available. Only motor shall be flame proof. In case of requirement of flame proof air dryer, we can provide heatless type dryer. Kindly confirm the same.	The selected equipment must be suitable for operation in hazardous area and acceptable if meeting the tech spec requirement. Rest tender condition prevail.
150.	2.1.2	23	The air compressor motor& air dryer shall be flameproof and will be kept in CNG area	Please note, flameproof refrigerant type air dryer is not available. Only motor shall be flame proof. In case of requirement of flame proof air dryer, we can provide heatless type dryer. Kindly confirm the same.	Noted & will be reviewed during detailed engg. & may be accepted if found technically suitable.
151.	4.8.2	29	Gas sections of coolers shall be designed as per API-11P requirements and shall be inspected by any approved 3rd party inspection agency	As per manufacturer standard, Gas sections of coolers shall not be U code stamping. Please confirm your acceptance.	Gas Coolers shall be inspected by TPI.
152.	4.8.2	29	Bidder shall submit cooler sizing calculation for review/ records.	Please Note The cooler sizing calculations cannot be submitted, being a proprietary design	Tender Conditions Prevail.
153.	4.8.2	29	Cooler design shall be on the basis of 20% excess capacity than required corresponding to suction pressure of 19 kg/cm ²	We shall design the interstage and final stage discharge cooler for outlet temperature of 60degC. considering ambient temperature of 50degC. The cooler design shall be on the basis of 20% safety based on thermal duty at design suction pressure condition and the suitability of this area shall be checked for the most severe condition corresponding to suction pressure. This is our standard design practice and we follow this for all our CNG packages. Kindly confirm your acceptance.	Tender Conditions Prevail.
154.	Last Point of Clause no.4.9.6	30	One vent line from gas recovery vessel with double isolation valves shall be provided	Please note that we provide both automatic drain system & manual valve but for manual valve we provide single isolation valve instead of double isolation valve (ball valve type). Please confirm your acceptance	Tender Conditions Prevail.

155.	4.1	31	Pulsation, Vibration Control and Analog Study	Please note that Pulsation suppressor devices for CNG compressors are standardized in design. Order specific pulsation study is not carried out.	Tender Conditions Prevail.
156.	4.9.8	31	Oil recovery pot of suitable capacity shall be provided with double isolation manual valve and level gauge.	As per our standard design, we have provided single isolation valve at the drain line of oil recovery pot/vessel. Please confirm your Acceptance	Noted
157.	4.12.2	32	Bidders to provide ventilation / exhaust fans to vent out any entrapped gases in the enclosure before starting the main compressor. Necessary interlocking to be provided by the bidder for the same	Please note, as the cooler is of forced draft, the entrapped gases in the enclosure will be Vent out before starting the main compressor. Hence, ventilation fan is not envisaged.	Tender Conditions Prevail.
158.	4.12.3	33	Heat Exchanger / gas cooler fan shall have mechanical drive only and the same cannot be utilized as ventilation fan.	Please note, as the cooler is of forced draft, the entrapped gases in the enclosure will be Vent out before starting the main compressor. Hence, ventilation fan is not envisaged.	Tender Conditions Prevail.
159.	4.12.6	33	The enclosures shall have doors for normal access and removable wall panels for ease of maintenance of all the components	The enclosure shall have hinged doors instead of removable panels. Please confirm your acceptance.	Noted
160.	4.12.8	33	All local pressure and temperature gauges shall have minimum dial size of 63 mm.	Please note that, as per our standard, we have provided All local pressure and temperature gauges with 100 mm dial gauge size. This is our standard supply and accepted by all CGD companies and we have supplied 400+ packages.	Same or higher size local gauge as per tech spec is also acceptable.
161.	7.3	42	<u>E. Penalty for Non-Performance during Period of Operation & Maintenance</u>	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 7.3.1 Penalty towards Excess Package Gas Loss , Clause 7.3.2 Penalty towards Excess Engine Fuel Consumption: , Clause 7.3.3 Penalty towards Package Efficiency Loss and Clause 7.3.4 Penalty	Tender Conditions Prevail.

				for Non-Performance during Period of Operation & Maintenance Request you to include this clause to enable us to participate in the tender.	
162.	15	159	Net CV of gas considered in Kcal/Sm3 : 8300 The guaranteed value of fuel consumption of gas engine in KG/HR shall be between 30 to 33 Kg/hr corresponding to flow of 1200 SCMH for the given gas.	We would like to bring into your notice that Fuel consumption range provided in the tender i.e. 30 to 33 kg/hr is less with the given calorific value of 8300 kcal/m3. During the tractable-IGL tender no: IGL/ET2/CP/EC16062 (tender document of the same attached for your reference. In the guaranteed parameter, below clause is mentioned " Fuel (Gas) consumption of package in Kg/ Hr at 35°C, Density of natural gas 0.775 Kg/SCM for production of 930Kg/hr, NCV of 11400Kcal/Kg (basis for loading and penalty). here, the Calorific value is 11400kcal/kg * 0.775 = 8835 kcal /m3, so the fuel consumption range is 30 to 33 kg/hr. In view above, please note, the calorific value is changed from 8835 kcal/m3 to 8300 kcal/m3 but the fuel consumption range remains same. Hence, we would like you to look into this and change the range from 33 kg/hr to 36 kg/hr for given calorific value of 8300 kcal/m3.	Tender Conditions Prevail.
600 SCMH					
163.	1.1	104	7 bank Priority panel	Request you to please confirm which bank (7/6) priority panel need to be provided.	7 Bank
164.	1.1.1	111	6 bank Priority panels	Request you to please confirm which bank(7/6) priority panel need to be provided.	7 bank
165.	Notes Point 8	107	For Comprehensive maintenance services: To derive rate for sixth and subsequent years (6th to 10th year), 10% annual escalation Year on Year basis on awarded rate of 5th Year (as per item no. 3.2.2.4) shall be considered.	We would like to inform you that due to uncertainties of the wages, steel price etc we will not be able to predict exact variation. Also, we cannot load more than 15% due to higher cap in the maintenance. Hence, the rates from 6th to 10th year will be decided and mutually agreed before the closure of 5th year. Kindly confirm your acceptance.	Tender Conditions Prevail.

166.	Notes Point 8	107	For Operations: To derive rate for sixth and subsequent years (6th to 10th year), 10% annual escalation Year on Year basis on awarded rate (excluding wage components, variation of which is payable on actual basis) of 5th Year shall be considered. It will be responsibility of bidder to ensure the payment as per minimum wages of central government to workmen engaged for operations.	We would like to inform you that due to uncertainties of the wages, steel price etc we will not be able to predict exact variation. Also, we cannot load more than 15% due to higher cap in the maintenance. Hence, the rates from 6th to 10th year will be decided and mutually agreed before the closure of 5th year. Kindly confirm your acceptance.	Tender Conditions Prevail.
167.	Point No. 7 of Clause no. 1.6	114	Separate flameproof junction boxes for different type of signals like analog, digital signals, alarm, shutdowns, and thermocouples, RTDs etc. for interfacing to FLP local panel. Same is not applicable for direct run cable upto PLC panel	Please note that Local control panel (With PLC) is mounted on package itself hence junction boxes are not required. Instruments will be directly wired to Local control panel. This system is available in all our packages and accepted by al the CGD companies and 400+ CNG compressor are running successfully.	Direct run cable upto PLC/ local panel; no junction box is required; rest tender condition prevail.
168.	Point No. 11 of Clause no. 1.6	114	Inlet twin suction gas filter / Duplex suction filter of filtration level upto 5 micron with oil drain valve, differential pressure gauge and temporary suction line strainer at the package inlet and at other stage (if required). A conical/ Y-type strainer for filtration level upto 5 micron shall be installed in the inlet pipe after the isolation valve by the contractor at the battery limit.	Please note that Duplex suction gas filter & basket strainer is provided and placed outside the compressor enclosure	Noted
169.	Point No. 14 of Clause no. 1.6	115	Separator/ Knockout drums/volume bottles with drains operated by solenoid valves, as required. Bypass valves for automatic drain system with manual drain shall be as per manufacturer's recommendation and proprietary design. All drain lines shall be provided with level operated / time-based auto drain valves and NRVs.	The proposed CNG package has suction volume bottle at each stage and discharge volume bottle at final stage discharge only. The volume bottles at suction are connected to condensate drain system through auto-drain & Manual drain system. These volume bottles shall act as scrubbers/ condensate removal system. No separate KODs shall be supplied. Isolation valve is mounted in upstream of auto drain valve. This is our standard design offered in all our CNG packages. Please confirm your acceptance.	Noted

170.	Point No. 17 of Clause no. 1.6	115	Block and bleed valves to be provided for Pressure gauges and pressure Transmitters.	Please note that As per our standard Manufacturer Practice we provide Needle valves for Pressure gauges and pressure Transmitters.	Necessary valves desired shall have features of double block & bleed valve. Hence TENDER CONDITION PREVAILS.
171.	Point No. 23 of Clause no. 1.6	115	Y- type strainers, valves, sight flow indicators, check valves with check valves protector, manual drain/ traps etc. as required for various auxiliary systems i.e. frame lube oil, cylinder lubrication system, cooling water systems, fuel supply/conditioning system 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. This is our proprietary design and installed in almost 400 + CNG compressor all over India and are running successfully.	Noted
172.	Safety	120	Relief Valves shall be provided at suction and discharge and in between inter stages of compressor with setting as per cl. 11.18.5 of ISO 13631: 2009 with R.V. venting as per cl. 11.18.6 of ISO 13631: 2009. All vented lines to be connected to common relief valve header.	Please note that as per Manufacturer's standard practice, Relief valve will be provided on BDV and each stage discharge. Please confirm your acceptance.	Noted
173.	2.1.1	122	Bidder shall make his own provision for Instrument air with the flame proof electric motor driven air compressor, receiver and refrigerant type air dryer system	Please note, flameproof refrigerant type air dryer is not available. Only motor shall be flame proof. In case of requirement of flame proof air dryer, we can provide heatless type dryer. Kindly confirm the same.	The selected equipment must be suitable for operation in hazardous area and acceptable if meeting the tech spec requirement. Rest tender condition prevail.
174.	2.1.2	122	The air compressor motor& air dryer shall be flame proof and will be kept in CNG area.	Please note, flameproof refrigerant type air dryer is not available. Only motor shall be flame proof. In case of requirement of flame proof air dryer, we can provide heatless type dryer. Kindly confirm the same.	Noted & will be reviewed during detailed engg. & may be accepted if found technically suitable.
175.	2.2.4	123	As and where specified on the data sheets all vents (i.e. Relief valve, distance piece and packing) shall be manifolded and terminated at skid edge outside the enclosure and vented to safe height of 3 m at package roof.	Please Note that Vent shall be terminated at height of 2m from compressor package roof	Noted

176.	4.7.3	126	Lubricators shall have a sight flow indicator for each lubricator point and a stainless steel double ball check valve shall be provided at each lubrication point.	Please note that as per Manufacturer's standard practice the lubricator will be divider block type with pin indicators. Sight flow indicators for each lubricator point and a double ball check valve are applicable for Single Plunger per point lubricator, thus not offered. Please confirm your Acceptance	Noted
177.	4.8.2	127	Gas sections of coolers shall be designed as per API-11P requirements and shall be inspected by any approved 3rd party inspection agency	As per manufacturer standard, Gas sections of coolers shall not be U code stamping. Please confirm your acceptance.	Gas Coolers shall be inspected by TPI.
178.	4.8.2	127	Bidder shall submit cooler sizing calculation for review/ records.	Please Note The cooler sizing calculations cannot be submitted, being a proprietary design	Tender Conditions Prevail.
179.	4.9.6	128	A gas recovery vessel of suitable capacity shall be provided to collect the gas of 1st, 2nd & 3rd stage of compression. The operating pressure of gas recovery vessel shall be 25 kg/cm ² g maximum. In the event of sudden stoppage or otherwise during operation / idling, the blow down vessel shall not vent gas into the atmosphere.	As per our standard design, maximum operating pressure is 35 kg/cm ² g. If BDV pressure is to be maintained below 25 kg/cm ² g, BDV size will increase unnecessarily and thereby increasing compressor package size Please Confirm your Acceptance	Tender Conditions Prevail.
180.	4.9.6	128	One vent line from gas recovery vessel with double isolation valves shall be provided	Please note that we provide both automatic drain system & manual valve but for manual valve we provide single isolation valve instead of double isolation valve (ball valve type). Please confirm your Acceptance	Noted & will be reviewed during detailed engg. & May be accepted if found technically suitable.
181.	4.9.8	128	Oil recovery pot of suitable capacity shall be provided with double isolation manual valve and level gauge.	As per our standard design, We have provided single isolation valve at the drain line of oil recovery pot/vessel Please confirm your Acceptance	Noted
182.	4.10	129	Pulsation, Vibration Control and Analog Study	Please note that Pulsation suppressor devices for CNG compressors are standardized in design. Order specific pulsation study is not carried out.	Tender Conditions Prevail.
183.	4.12.2	130	Bidders to provide ventilation / exhaust fans to vent out any entrapped gases in the enclosure before starting the main compressor. Necessary interlocking to be provided by the bidder for the same.	Please note, as the cooler is of forced draft, the entrapped gases in the enclosure will be Vent out before starting the main compressor. Hence, ventilation fan is not envisaged.	Tender Conditions Prevail.

184.	4.12.3	130	Heat Exchanger / gas cooler fan shall have mechanical drive only and the same cannot be utilized as ventilation fan.	Please note, as the cooler is of forced draft, the entrapped gases in the enclosure will be Vent out before starting the main compressor. Hence, ventilation fan is not envisaged.	Tender Conditions Prevail.
185.	4.12.6	131	The enclosures shall have doors for normal access and removable wall panels for ease of maintenance of all the components	The enclosure shall have hinged doors instead of removable panels. Please confirm your acceptance.	Noted
186.	4.12.8	131	All local pressure and temperature gauges shall have minimum dial size of 63 mm.	Please note that ,as per our standard, we have provided All local pressure and temperature gauges with 100 mm dial gauge size	Noted
187.	point No. 7 of Clause No. 4.12.11	131	One vent line with double isolation valve shall be provided to emptying the package at 3rd stage separator.	Please note that as per our standard manufacturer practice, we have provided Single isolation valve instead of double isolation at each stage separator drain	Tender Conditions Prevail.
188.	5.4	216	If Laptop is to be supplied by bidder, (As mentioned in SOR / MR), configuration is as follows:	Request you to please confirm if laptop needs to be provided by bidder. If needed to be provided also please provide separate line item in SOR along with the quantities for Laptop GA wise	Laptop not to be considered
189.	5.9.14	222	Vendor shall include one set of all licensed relevant Software (Windows 10or latest suitable operating system-based system configuration software and application program) for accessing the PLC, HMI and mass flow meter through Laptop or PC	Request you to please confirm if the application software for PLC & HMI is required per compressor or along with complete set of compressors.	Bidder shall provide 1 set of licensed software along with relevant interfacing adaptors and cables in each city of GA where compressor package will be installed and commissioned
190.	5.4	216	Bidder shall provide Application program for PLC, HMI on LCP (licensed one set) along with all interfacing adaptors and cables. Bidder shall also provide one set of used source & object codes for PLC, HMI on LCP (in both forms, hard & soft).	Request you to please confirm if the application software for PLC & HMI is required per compressor or along with complete set of compressors.	Bidder shall provide 1 set of licensed software along with relevant interfacing adaptors and cables in each city of GA where compressor package will be installed and commissioned
191.	5.2.12	216	PLC shall be configured as a remote terminal unit of supervisory computer and data acquisition system. The interfacing port between the PLC and SCADA shall be with Modbus TCP/IP protocol. PLC shall be capable of carrying out on line routines for at least ten separate loops without affecting	We understand that SCADA is not in bidder's scope. Please confirm.	SCADA is not in bidder's scope; however, providing the PLC data to SCADA/ RTU through desired port and the providing Modbus TCP/IP register mapping details as required are in bidder's scope. Rest tender condition prevail.

			the scan, cycle & up dating time etc.		
192.	5.9.14	222	The detail requirement of SCADA will be communicated to successful vendor during detailed engineering / O&M, as per the requirement by client.	We understand that SCADA is not in bidder's scope. Please confirm.	Bidder's understanding is correct
193.	5.9.6	221	Separate junction boxes shall be provided for each type of signal i.e., analog, digital, solenoids, RTD thermocouple and power supply.	Please note that Local control panel (With PLC) is mounted on package itself hence junction boxes are not required. Instruments will be directly wired to Local control panel. This system is available in all our packages and accepted by all the CGD companies and 400+ CNG compressor are running successfully.	Direct run cable upto PLC/ local panel; junction box is not required; rest tender condition prevail.
194.	5.9.18 i)	225	Pressure indicator each stage suction and discharge	we have provided pressure indicator at each stage suction & last stage discharge only	Tender condition prevails.
195.	5.9.18 ii)	225	Temperature indicator each stage suction and discharge	we have provided Temperature indicator at each stage discharge only	Tender Conditions Prevail.
196.		General	PESO certification for 600 SCMh GED Compressor Package	We request you to accept 1200CMh PESO certificate during bidding stage.	Tender Conditions Prevail.
197.	Specs-Flame Detector	236	Two year warranty against sensor and electronics for the supplied product	The warranty period will be 12 months from the date of commissioning or 18 months from the date of supply of compressor at site, whichever is earlier.	Tender Conditions Prevail.
198.	15	159	Net CV of gas considered in Kcal/Sm ³ : 8300 The guaranteed value of fuel consumption of gas engine in KG/HR shall be between 17 to 20 Kg/hr corresponding to flow of 600 SCMh for the given gas.	We would like to bring into your notice that Fuel consumption range provided in the tender i.e. 17 to 20 kg/hr is less with the given calorific value of 8300 kcal/m ³ . During the tractable-IGL tender no: IGL/ET2/CP/EC16064 (tender document of the same attached for your reference. In the guaranteed parameter, below clause is mentioned " Fuel (Gas) consumption of package in Kg/ Hr at 35°C, Density of natural gas 0.775 Kg/SCM for production of 465 Kg/hr, NCV of 11400Kcal/Kg (basis for loading and penalty). here, the Calorific	Tender Conditions Prevail.

				value is 11400kcal/kg * 0.775 = 8835 kcal /m3, so the fuel consumption range is 17 to 20 kg/hr. In view above, please note, the calorific value is changed from 8835 kcal/m3 to 8300 kcal/m3 but the fuel consumption range remains same. Hence, we would like you to look into this and change the range from 19 kg/hr to 22 kg/hr for given calorific value of 8300 kcal/m3.	
199.	34 of 120	31.0	<p>Evaluation Criteria</p> <p>The Purchaser/ Consultant will evaluate and compare the bids which have been determined to be substantially responsive. Prices shall be evaluated on “Part wise basis” including GST quoted, to arrive at the lowest evaluated cost (L1) to Purchaser on NPV (Net present value) basis. The rate of interest for NPV calculations shall be @10%. Bidder must quote against all the items of quoted part(s), failing which bid shall be liable for rejection for such part(s).</p>	We request the purchaser to provide NPV calculation methodology with sample working covering the supply, services & penalty that shall be used to arrive at L-1 price.	SORs available on e-tender portal already have NPV calculations as per evaluation methodology given at clause no. 31 of ITB, Vol. I.
200.	Commercial Corrigendum #1		<p>Provision for EMD exemption of MSME bidders who have been reclassified as ‘medium’ enterprise</p> <p>The following clause stands included as second paragraph in clause no 18.10:</p> <p>“Provision for EMD exemption of MSME bidders who have been reclassified as ‘medium’ enterprise: -</p> <p>Enterprise which have been re-classified as ‘Medium’ enterprise from their earlier status as ‘Micro’ or ‘Small’ enterprise in Udyam registration certificate shall be exempted from submitting EMD.</p> <p>The bidders shall be given this exemption for a period of three years from the date</p>	<p>At the beginning of our operations we were accorded the status of “Small Enterprise” vide UAM no. DL11B0012956 dated 23.03.2019 (copy enclosed)</p> <p>Currently we have been reclassified as “Medium Enterprise” vide Udyam Registration Certificate no. UDYAM-DL-10-0010879 dated 01.05.2021 (copy enclosed)</p> <p>We understand that due to reclassification from “Small Enterprise” to “Medium Enterprise” within the given limit of three years from the date of such upward change in MSME status, we are exempt from submitting EMD towards IGL tender reference IGL/ET2/CP/CC17255 for Supply, Installation, Testing, Commissioning, Operation And Comprehensive Maintenance Of 1200 SCMH & 600 SCMH Gas Engine Driven CNG Compressor Packages Dated 23.11.2022</p>	<p>The clause added vide Commercial Corrigendum #1 is amply clear in this regard. Relevant part of same is re-produced hereinbelow:</p> <p><i>"Enterprise which have been re-classified as ‘Medium’ enterprise from their earlier status as ‘Micro’ or ‘Small’ enterprise in Udyam registration certificate shall be exempted from submitting EMD."</i></p> <p>As your earlier status as 'Small' was not in Udyam registration certificate, EMD exemption shall not be available.</p>

		<p>of such upward change in their MSME status.</p> <p>Bidders are required to submit Udyam registration certificate(s) meeting above stated conditions for exemption under this provision, failing which bid shall be rejected.”</p>	<p>Please confirm if our understanding is correct</p>	
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Note: This document shall form an integral part of the bidding document and shall be signed/stamped and submitted along with the bid.

(STAMP & SIGNATURE OF BIDDER)