

Annexure-1

Replies to Prebid queries for tender of 1200 SCMH capacity Engine driven (3 nos.) CNG Compressor Packages for CNG & CITY Gas DISTRIBUTION FOR VIJAYAWADA				
Tender No. : Bid Document No.: BGL/078/2009-10				
Sl. No.	Clause & Page No.	Description in tender documents	Clarifications / Request for change.	BGL Reply
Bidder : Kirloskar Pneumatic Co. Ltd.				
1	1.0: GENERAL Page 7 of 113	This enquiry envisages total responsibility for complete work from design, engineering, manufacture, supply/ shipment, port handing, clearance at port of entry in India, inland transportation within India upto the designated Project Sites, all taxes, duties, (except Custom Duty on thcv e imported component in case of Foreign Bidder only) levies, fees, encumbrances, octroi, etc. as applicable and payable by the bidders under the Contract In India, all insurance handling of goods at all stages, storage, associated works including materials, tools/ tackles etc., for such civil works obtaining statutory approvals if any from the local authorities prior to start of work at sites till the time of handing over, installation, testing, pre commissioning, performance test, Site Acceptance Test, Trial Run, system commissioning and handing over at site to the Owner and Operation and Maintenance Work as specified in technical parts for the items stated in Price Schedule and in Technical Part.	Please note that as per the exclusions in technical section the civil work is excluded from our scope, whereas the referred clause specifies civil works and the related statutory approval from local authorities. We wish to clarify that our scope includes supply erection and commissioning of package excluding the civil works, approval from statutory authorities like Municipal corporation, CCOE, etc	Civil foundation is excluded from your scope However grouting of the package is under your scope.
			Kindly confirm your acceptance	Clearance from Statutory authorities Is not in your scope
2	CI 1.3 Page 8 of 113	The quoted price shall be deemed to be inclusive of all applicable taxes & duties including Service Tax, works contract tax, sales tax, local taxes, import duty, excise duty, octroi and other levies etc. till the complete execution of the order as applicable in India under this contract and the bidder shall not be eligible for any compensation on this account.	Please note that as Octroi is not part of Evaluation basis, it shall not be a part of Price Schedule. We request that octroi shall be paid extra at actual. Please note that Octroi paid on the package is a separate levy and cannot be included in the freight price as per column of SOR.	Octrai, if required shall be paid extra at actual
3	CI 1.4 Page 8 of 113	At the designated site the Owner shall make available to the Bidder requisite open land for the purpose of storage, office and other related uses during the site work. Fencing of the demarcated area if necessary shall be done by the Bidder at their cost. All arrangements and temporary construction if any, within allocated area for adequate storage and safe custody of all goods received against the order and for all other allied activities of the Bidder shall be done entirely by the bidder at their own cost. The total contract price shall be considered to be inclusive of all costs towards the above requirement.	We request the Client that fencing of demarcated area, storage, temporary construction of office/storage construction shall be done by the Client.	Tender conditions prevails
4	CI 1.19 – Statutory Approval Page 11 of 113	CI 1.19.1 – 1.19.4	We do not envisage any statutory approval for erection and commissioning of the compressor package. Please confirm. We request the Client to take Statutory Approval from local agencies for any civil work for site in their scope of supply.	Clearance from Statutory authorities Is not in your scope

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5	3.0 TERMS OF PAYMENT Page 12 of 113	3.1.1 For Indian Bidders	We request you to agree the payment terms as	Tender conditions prevails
		a) 85% of supply value including string test as applicable will be paid progressively by Owner within 15 days against receipt of the following documents:-.....	<ul style="list-style-type: none"> • 90% of supply value including string test as applicable will be paid progressively by Owner within 15 days against dispatch of material with the following documents..... 	
		B) 5% payment: On completion of erection testing and commissioning	<ul style="list-style-type: none"> • 10% against successful E&C, and if the commissioning is delayed because of non-readiness of site then the final payment to be released within thirty days of equipment receipt at site. Please also refer the clarification mentioned in the covering letter. 	
6	6.0 TERMS OF PAYMENT Page 13 of 113	3.2 Erection, Testing, commissioning & field performance etc.	We request you to agree the payment terms as following	Tender Conditions prevails
		100 % Payment will be paid on erection, installation, testing of individual items and successful trial-run of the system, completion of all works and on final acceptance.	100% against successful E&C, and if the commissioning is delayed because of non-readiness of site then the final payment to be released within thirty days of equipment erection at site.	
TECHNICAL SPECIFICATIONS				
7	1.2 – Codes & standards Page 23 of 113	The following codes and standards ... API-11P, Second edition , API 6	Please note that API-618 is a guideline for Reciprocating Compressor in Petroleum, Chemical & Gas Industry services. API-618 is typically used for Recip compressor in refinery application. Thus, same is not applicable.	These codes are only for guidance. Tender Specification to be followed.
8	1.6 SCOPE OF SUPPLY FOR EACH COMPRESSOR PACKAGE Page 25 of 113	Main incoming cable from owners PDB to main control panel of the compressor, incoming cables from owners UPS ACDB to main control panel of the compressor for control supply, Cable from owner's electronic earth pit (EE) for electronic circuit in control panel, cable from owner's main earthing ring to control panel body earth and all inter connecting cables including complete erection accessories like double compression cable gland, cable tags, lugs etc as required.	Please let us know the cable length in meters to be considered for cabling purpose as per the tender clause referred.	Approx. 40 m. However actual cable lengths depend upon that particular site.

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9	1.6 SCOPE OF SUPPLY FOR EACH COMPRESSOR PACKAGE Page 25 of 113	Separator/ Knockout drums with solenoid valve operated auto & manual drains as required.	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 valves. These volume bottles shall act as scrubbers/ condensate removal system. No separate KODs shall be supplied. Please let us know your acceptance	Accepted
10	1.6 SCOPE OF SUPPLY FOR EACH COMPRESSOR PACKAGE Page 25 of 113	Y- type strainers, valves, sight flow indicators, check valves, fuel supply/conditioning system etc.	Y-type strainer, valves & sight flow indicator are not provided in the Frame Lube Oil Circuit. We have provided paper filter for frame oil & check valve in that circuit. This is the standard system we have provided in all our Please let us know your acceptance	Accepted
11	1.7.10 CO2 flooding system Page no 28 of 113	One blinking aviation lamp shall be provided at top of compressor canopy suitable for hazardous area for fire indication	In case of fire a hooter is provided in control panel, which is mounted on the top of canopy, thus blinking aviation lamp on top of canopy shall not be provided. Also, aviation lamp suitable for Hazardous area is not available	Accepted
12	2.1.9 Battery Limits Page 30 of 113	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	Please let us know the length in running meters for the cable to be considered for the purpose.	Approx. 40 m. However actual cable lengths depend upon that particular site.
13	4.4 Packing Cases and Pressure Packing Page 33 of 113	4.4.3 Packing vent piping inside of the distance piece shall be designed for the maximum allowable working pressure of the cylinder.	Packing vent piping inside of the distance piece shall be designed according to the operating pressure of the cylinder. Please let us know your acceptance	Tender conditions prevails
14	4.7 Cylinder and Packing Lubrication Page 33 of 113	4.7.1 Single plunger per point force feed mechanical lubricator shall provide lubrication to compressor cylinders 4.7.3 Lubricators shall have a sight flow indicator foreach lubricator point and a stainless steel double ball check valve shall be provided at each lubrication point.	Please note that as per our standard practice the lubricator will be divider block type, This is applicable for Single Plunger per point lubricator, thus not offered. Please let us know your acceptance	Accepted

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15	4.8.2 Inter / After Gas Coolers Page 34 of 113	<p>Air-cooled inter-stage and final stage discharge coolers shall be provided which shall limit the gas temperature after the after cooler to 45 degree C. For calculating the surface area of the air cooler the ambient air temperature of 42 oC and 80% RH shall be considered. Cooler design shall be on the basis of 20% extra design based on the thermal duty .</p> <p>Gas sections of coolers shall be stamped as per API-11P requirements. Engine oil cooler and jacket water coolers shall be so designed that the vendor's maximum permissible temperature is not exceeded at the maximum ambient temperature of 45 oC. Vibration switch shall be provided on the heat exchanger to trip the compressor on high vibration limit. Bidder shall indicate vibration level in the offer</p>	<p>For air-cooled heat exchanger design minimum temperature gradient shall be 6-7 Deg C. Thus, with 42 Deg ambient maintaining 45 Deg C is not possible. We request you to keep the temperature after after-cooler as 48 Deg C. We shall design the heat-exchanger with 20% margin over design case and shall check the suitability of same for whole range. The gas section shall not be "U" Code stamped, as Third Party Inspection takes a lot of time and increase the delivery period. The Gas Section of the air exchanger shall be inspected by an approved third party Inspection Agency. Please Confirm</p>	<p>U-Stamp is required; Temperature after after-cooler as 48 Deg C is accepted.</p>
16	4.9 Separators & Oil Removal System Page 34 of 113	<p>4.9.1 Carbon Steel separators / KOD at auto and manual drain system shall be provided for the capacity as required.</p>	<p>The proposed CNG package has suction volume bottle at each stage The volume bottles at suction are connected to condensate drain system through auto-drain valves. These volume bottles shall act as scrubbers/ condensate removal system. No separate KODs shall be supplied. Please let us know your acceptance</p>	Accepted
17	4.9 Separators & Oil Removal System Page 34 of 113	<p>4.9.6 Oil recovery pot shall be provided with double isolation manual valve, safety relief valve and level gauge.</p>	<p>We shall provide Oil Recovery Vessel with level gauge only. Oil recovery vessel is connected to Blow Down Vessel which has an SRV mounted on it. Thus no separate SRV is required for same. Due to space constraint we shall not mount a double Isolation valve for Oil Removal system. Please let us know your acceptance</p>	Accepted
18	4.9 Separators & Oil Removal System Page 35 of 113	<p>4.9.7 Coalescent super fine filters (preferably two stage) with CE mark 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. Manual drains with double isolation valves with oil collecting pot shall be provided. The filter should be sized to flow min 200% of the maximum flow at 70 kg/cm²g. However mechanical design shall be based on safety set pressure.</p>	<p>Please clarify the clause further with respect to 70 kg/cm² g in discharge.</p>	<p>CE Marking is required; 70 kg/cm² to be read as 19 kg/cm²; 200% to be read as 120%</p>

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19	5.10 Gas Engine Page 36 of 113	5.10.8 Bidder shall supply fuel gas conditioning system to condition.... instrumentation etc as required shall be incorporated by the bidder.	We shall not provide separate conditioning skid for Fuel Gas Conditioning. The whole conditioning system shall be provided but same shall be mounted on the compressor skid itself. Please Confirm	Accepted
20	5.11 Enclosure of CNG Compressor Package Page 37 of 113	5.11.2 The compressor package shall consist of single enclosure for Compressor and gasengine. The equipment shall be mounted on one common skid. The Enclosure to restrict maximum noise level to 70 dB (A) at 1 meter from the enclosure.	As per the standard practice for Gas Engine driven CNG Package, we request you to keep the Sound level as 75db at 1 mtr distance from package. Please let us know your acceptance..	Accepted
21	5.11 Enclosure of CNG Compressor Package Page 37 of 113	5.11.5 All the pressure, temperature, gas flow meter,....shall be visible from outside of enclosures.	All process parameters (temperature & Pressure), oil pressure shall be visible from outside of canopy. The temperature gauges of cooling water skid for engine shall be locally mounted. Also for gas flowmeter reading shall be provided locally only.	Accepted subjected to proper Approach is available for Maintenance
22	6.0 ELECTRICS 6.1 Starter / Control Panel / Control philosophy Page 41 of 113	6.3 Human machine interface (HMI) HMI shall be provided with touch screen and operating system software, software's for interlocking, monitoring and control. All operational buttons shall be on touch screen except the Emergency stop button. Touch screen display system shall be weather proof to IP65. The PLC shall be interfaced with SCADA in future. Protocol used shall be MODBUS. All the parameters on the PLC shall be available on the HMI. 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 source & object codes for PLC, HMI on LCP (in both forms, hard & soft).	The CNG package will be provided with Flame proof panel with the MMI mounted on the door on panel. As per the flame proof panel design the MMI is provided on the back side of toughened glass. Hence the screen is not directly accessible to the operator. The MMI can be operated with the help of push button provided in the panel. The same philosophy is adopted for all CNG packages.	Accepted
23	6.5 Electric Motor 6.5.1 Electric motors Page 42 of 113		Please clarify the requirement as the electric motor except for Air compressor (in safe area) is not required for our package.	Accepted

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24	CI 7 Instrumentation Page 47 of 113	7.13. Two nos. Of RS 485/RS232 Serial Communication Ports shall be provided for Hooking Up the PLC to SCADA & Laptop PC at PLC end in Future. Necessary adopter if required shall be under scope of vendor. Also, Vendor shall include one set of all licensed relevant Software (Windows XP/Windows 2000 based system configuration software and application program) for accessing the PLC, HMI and mass flow meter through owner supplied Laptop PC . All the parameters available on the PLC through SCADA system are required. The detail requirement of SCADA will be communicated to successful vendor during detailed engineering. For selection of equipment , comp ability of SCADA system vendor shall consider the Modbus RTU protocol, FCC-68 RJ 45 connection type RS 232 communication standard, Baud rate upto 19.2 K with configurable software.	We understand that only one set of software to be supplied common for total quantity of packages as per the tender.	Accepted
25	16.0 OPERATION & MAINTENANCE SERVICES Page 60 of 113	The date of successful commissioning and performance test at site will be considered as date of start of the annual maintenance contract. However, bidder shall be paid 50% O&M charge for operating and maintenance of the compressor from the date of commercial operation to the date of PG test. The bidder must follow the OPERATION & MAINTENANCE REQUIREMENT as stated below but not limited to and ensure to provide trouble free services to the satisfaction of the owner.	<p>Kindly clarify further as per following:</p> <p>After the completion of PG test, we shall get the remaining 50% of the O&M charges of the total period from time of starting of commercial operation.</p> <p>Please note that the start of O&M during defect liability period shall be 30 days from the receipt of package at site and so on for 2nd and 3rd year. The charges for O&M services shall be applicable as per the above mentioned time period.</p>	Tender conditions prevails
Approved vendor list				
26	6.6.11 Preferred makes of equipments shall be as follows; Page 44 of 113	<p>a) Safety Valves.</p> <p>b) SS Tubes & Fitting</p>	<p>a) Please approve Mercer USA for Safety Valves.</p> <p>b) Please approve Tubasex / SSP make for SS Tubes & Fitting</p> <p>Note : The above makes have been successfully used for lot of CNG Compressor Applications earlier</p>	Accepted
27	17 Guaranteed parameters	10. Noise leve 70dBA @ 1meter from enclosure (required 70 Dba Max)	As per the standard practice for Gas Engine driven CNG Package, we request you to keep the Sound level as 75db at 1 mtr distance from Package. Please let us know your acceptance..	Accepted

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28	Vol II; 4.8 Inter / After Gas Coolers Page 35 of 115Air-cooled inter-stage and final stage discharge coolers shall be provided which shall limit the gas temperature after the after cooler to 45 degree C. For calculating the surface area of the air cooler the ambient air temperature of 42 oC and 80% RH shall be considered.	Ambient temp. of 42 deg C, final gas temp. of 45 deg C is not achievable being air cooled coolers. Minimum delta T is required 8 deg C. Hence final gas temp. will be 50 deg C. Please clarify and confirm	Tempearture after after-cooler upto 48 Deg C is accepted.
29	vol 1 of 1 pg 7 of 113 2.0 scope of workof 2 nos. 1200 Sm3/hr capacity "GAS ENGINE DRIVEN RECIPROCATING GAS COMPRESSOR PACKAGE.....	2pkgs or 3 pkgsof 3 nos. 1200 Sm3/hr capacity "GAS ENGINE DRIVEN RECIPROCATING GAS COMPRESSOR PACKAGE.....
30	vol 1 of 1 CHECK LIST FOR SUBMISSION OF DOCUMENTS Page 9 of 113Electric motor min. 75 kW ISO shaft power.....	ClarificationsElectric motor min. 100 kW ISO shaft power.....