

Konkan LNG Private Limited

Promoters : GAIL (India) Ltd. & NTPC Ltd.

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KLPL/HQ/C&P/Composite Works Tender for Compressors/2018

Date. 21.02.2019

**To,
PROSPECTIVE BIDDERS**

Sub: Clarifications to Pre-Bid Queries

Ref: Tender No. KLPL/HQ/C&P/Composite works-Compressor/2018 for "Composite works for Installation & Commissioning of BOG Compressor at KLPL-Dhabol."

Dear Sir(s),

Please find enclosed herewith "Clarifications to Pre-Bid Queries (Dated 21.02.2019)" w.r.t. above-referred Tender.

This "Clarifications to Pre-Bid Queries (Dated 21.02.2019)" shall form an integral part of above-referred Tender, which shall be duly signed and submitted by the bidders along with their bids/offers. It shall be deemed that the bidders have submitted their bids/ offers in consideration of this "Clarifications to Pre-Bid Queries (Dated 21.02.2019)".

All other terms and conditions of above-referred Tender shall remain unchanged.

Encl: Clarifications to Pre-Bid Queries (Dated 21.02.2019)

Thanking you,

Yours truly,

For & on behalf of
Konkan LNG Pvt Ltd.



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CLARIFICATIONS TO PRE-BID QUERIES

Tender No. : KLPL/HQ/C&P/Composite works-Compressor/2018

Subject : Composite works for Installation & Commissioning of BOG Compressor at KLPL- Dhabol

Sl. Section [of Tender Document]	Page No.	Clause No. [along with its Heading]	Subject	Bidder's Query	KLPL's Response
1.	V	111 of 145	Designated hook up point for supply of Nitrogen.	We understand that compressors do not require nitrogen purge. Hence a hook up point for supply of nitrogen will not be required.	Hook up point for supply of Nitrogen will be required for purging of compressor for maintenance purpose, it will be required as only Utility point.
2.	V	116 of 145	A fixed deluge system shall be provided in new BOG Booster Compressor area having 20.4 LMP/M SQ discharge rate in line with existing BOG (LP) Compressor.	We understand fire hydrant with monitor system is required.	Your understanding is incorrect. There is main deluge water header/hookup point of size 14 inch and at a distance of approximately 200 Meter away from the proposed compressor site. Contractor to design the pipe header size and complete deluge fire water system for the compressor for the discharge rate of 20.4 LPM/M ² .
3.	V	118 of 145	Successful commissioning of the compressor system in totality after demonstration of trouble free continuous 72 hrs performance test run.	Compressor will be considered to be successfully commissioned when cumulative duration of 72 hours is completed by compressor. It will not be possible to run the compressor continuously for 72 hours for the reasons not attributable to bidder.	AGREED
4.	VI	138 of 145	MILESTONE FOR PAYMENT BREAK UP	Kindly allocate 10% payment against drawing approval and 10% payment against	KLPL is providing 10% mobilization advance.

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				procurement of material.	Hence tender condition prevails.
5.	1 of 56	drawings_20 190122_164 553	Details of Free issue piping Material	Please clarify whether the material will be handed over to bidder free of cost.	YES.
6. Section-V SCOPE OF WORK	108	2.2	Battery limit conditions	Bidder understands that LSTK has to do only 2 no. Compressor erection, intermediate piping erection (which will be loose supply item). All electrical and instrument supply & installation will be in LSTK scope. Also, firefighting system for compressor shed but specification not given.	Bidder understanding is correct. However, for Firefighting system also refer reply at S.N.2.
7. Section-V SCOPE OF WORK	111	3.10.1.2	Layout details	a) As per drawings_20190122_164553 document hook-up details required for existing facility connection. b) In case of site development contour map with existing facility plot plan will be required.	a) Drawing of the plot plan where new compressors are to be installed are attached herewith as Annexure -1. Hookup point for suction discharge and flair line shall be maximum up to a distance of approximately 40 Meter. b) Contour map is to be prepared by contractor.
8. Section-V SCOPE OF WORK	111	3.2,3.9	Civil Scope of work	a) Scope of work indicates Site development. Please elaborate site development Does it include site grading, road, storm water drains etc. Please clarify. b) Geotech investigation report required which should include dynamic properties of soil for foundation design.	a) It is only site grading. b) Foundation drawing is provided with the tender.
9. Section-V SCOPE OF WORK	111	3.2	Civil Scope of work	a) The shed size mentioned is 36 x 16 x 6 m (5M at side) we presume that it is independent shed and not extension of existing shed. Please confirm. b) HOT / EOT crane requirement not available;	a) Yes, it is an independent shed b) HOT/EOT Crane as such is not required. However, mobilization and Installation is in contractor's scope including

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WORK				hence please confirm the requirement and if required please share capacity and other details like gantry to be installed in the shed. c) Please specify Civil and architectural design specification for the work to be carried out.	provisioning of hydra/crane etc. (pl ref 3.10.1.7 Section V). Further, no gantry shall be required to be installed in the shed. c) Foundation plan provided cl 3.9 Section V. Further, shed design to be as per requirement to cover machine maximum area mentioned.
10. Section- V SCOPE OF WORK	116	3.13	Instrumentation	Scope is not Clear Bidder understands as follows:- a) All Instruments (including gas detector) with fittings within package (Battery limit as free issued. And LSTK scope is limited to installation & erection kindly confirm b) All these instruments are integrated with Compressor PLC based Local control panel (Items are Free issued) c) Only laying of cables from instruments to PLC LCP (Cables are free issue)	(a) As per P&I drawing available from "M/s. Kirloskar Pneumatic Co. Ltd." All Instruments associated with Gas Compressor Package will be supplied from M/s Kirloskar (KPCL) and free issue to Composite work contractor. (b) In our view, most of the instruments are fitted with package and few will be supply free for site installation. (c) Installation of instruments, cabling to LCP, Cabling from LCP to Local control room for signal flow from compressor package to KLPL DCS, termination in Marshalling rack, fixing of TB, fixing of isolators and incorporated signal in DCS may be complete scope. Cables are free issue.

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11. Section- V	112	3.11.7	Installation works	<p>d) Erection & installation of Junction boxes, Cable glands & Cable Tray (Items are Free issued)</p> <p>e) Bidder understands that there is no any centralized control system in control room & no any signals or serial link from Field LCP to Control room.</p> <p>Kindly confirm & provide following documents:-</p> <ol style="list-style-type: none"> 1. Control System architecture 2. JB & Cable Schedule 3. Instruments Installation Hook up drawing 4. Cable tray route layout <p>Scope for contractor is not clear for Restoration works</p>	<p>(d) Whatever material required for erection of the package is in supplier scope.</p> <p>(e) At KLPL site, Main control room along with Local Inst. Room are available and all field signal are terminated in rack panels in LIR and Hook to DCS in MCR. This is signal flow philosophy for instrumentation at site. As per tender information, bidder shall visit site for better understanding of installation-erection of compressor. All required documents will be made available during site visit/detail engineering.</p>
12.	138		Milestone for Payment Break Up	<p>You have give the payment milestone break up. We request you to provide the detailed payment schedule.</p>	<p>Contractor to handover the site after installation of compressor in neat and clean condition after removable of all debris etc.</p> <p>Detailed payment schedule shall be made as per appendix 2 note to be mutually arrived at by EIC and the contractor.</p>
13.	116	3.13	<u>Instrumentation</u>	<p>As per our discussion on 8th Feb 2019 we understand BOG compressor vendor shall provide Control panel which shall be installed in local Rack room. Contract scope shall be hardwired and MODBUS communication with Main control system. We need more information on complete scope of BOG</p>	<p>BOG compressor vendor i.e KPCL shall provide "PLC based LOCAL Control Panel" and that is to be installed, wired from compressor package end to Control room DCS end also.</p>

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14.	Section- V 116	3.13	<u>Instrumentation</u>	compressor vendor so as to understand Control philosophy and Battery limits The need to confirmation on BOG compressor skid scope. The interconnecting piping does not have any instrumentation items.	Compressor supplied with installed instrumentation on skid.
15.	Section- V 116	3.13	<u>Instrumentation</u>	Above Package comes with its own Local control Panel and all cabling between the Control Panel in Rack room and Local panel as well as Skid JB's scope to be confirmed. All Instruments on skid are in vendor scope and they are dully wired up to Control panel on the Skid ... which is in vendor scope too.	As per terms in Tender, material required for the job is to be provided by Compressor package supplier.
16.	Section- V 116	3.13	<u>Instrumentation</u>	Regarding the interface between Control panel we need to know whether we have to do hardwiring between the existing control system and this panel on Skid and no. of signals to be interfaced so as to decide on cable requirement. Also, whether any cables required for soft communication. We need to know our scope in this regard. BOG compressor vendor to provide MODBUS List.	Signals details from LCP to DCS shall be confirmed by compressor vendor.
17.	Section- V 116	3.13	<u>Instrumentation</u>	Detailed Compressor P&ID with clear scope demarcation to be provided for Estimating no. of Graphic screens	As per provided P&ID, min. 04 graphic pages are required on DCS. One each for compressor and again one for oil skid details and other for remaining signals.

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18.					
Section- V	110	3.2	Contractor's Scope of Work	<p>Scope of contractor for Control system and Safety System shall be as follows,</p> <ol style="list-style-type: none"> Adequacy check with Invensys (Schneider) for the added scope New hardware for Additional signals. Based on BOG compressor scope level of Engineering in Control system as well as Safety System. Necessary shutdown is required for Hooking up the new facility. 	<ol style="list-style-type: none"> Any development job for DCS from M/s. Invensys is to be in vendor scope) Total hardware i.e. cables, Cable glands, barriers, isolators, I/O cards at DCS end, tags, converters are in compressor supplier scope Level of Engineering in Control system as well as Safety System should be developed by construction contractor based on above input. No shutdown is required for Hooking up the new facility.
19.					
Section- V	111	3.10.1.1		Detailed site survey is required for feasibility check as well as for scope definition.	Vendor can visit the site.
20.					
Section- V	111	3.9	<u>Mechanical, Civil & General</u>	<p>We came to know that the present existing compressor system shall be used till monsoon ends and shall be dismantled only in august 2019, so the site will be handed over to winning contractor only in august 2019 for working and he will have to complete the same in 3 months' time thereafter.</p> <p>The concrete foundation on which the compressor are kept at present, will have to be partially or completely dismantled, for new</p>	<p>New permanent compressor construction work to be done on the plot adjacent to hired booster compressor (M/s Deep) where already foundation strengthening work has been done. Drawing of plot plan attached.</p> <p>Only after installation and</p>

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				compressor. The concrete foundation at present is around 36 Meter LG, 16 meters Width in size, but the existing overhead shed is only for 2 compressors at present. will these overhead shed, have to be reinstalled and rebuilt by contractor, if yes who will supply the material. These sheds will have to be partially of fully removed during dismantling and re installing new compressor. The 3 compressor & 3 cooler system (M/s Deep) at present shall be replaced by 2compressor & 2 cooler system supplied by Kirloskar. please confirm	successfully commissioning of the new compressor, the existing hired compressor shall be removed by M/s Deep. Hookup point for suction discharge and flair line shall be maximum up to a distance of approximately 40 Meter
21. Section-V	111	3.9	Additional point	There is one accumulator (vertical cylindrical vessel) will removed from the location.	The same is not to be removed.
22. Section-V	116	3.13.3	Control Room	Between the compressor foundation and road close by, a porta cabin type control room cabin is required for electrical panel, UPS, battery area. Please confirm what size of it is required with amenities (other than telephone, fan, light) and is it to be supplied by the contractor.	Size is to designed by the contractor and it to be supplied by the contractor.
23. Section-V	111	3.10.1.2	Layout Drawing	Can we get the layout drawing of the whole area?	Layout drawing / Plot Plan attached at Annex-1.
24. Section-V	111	3.10.1.2	Mechanical	Can we get the piping isometric/layout drawing of the whole area?	Piping isometric drawing is to be developed by contractor if required.
25. Section-V	108	2.2	Battery Limit Condition	Section V, Scope of work, clause 2.2 BATTERY LIMIT CONDITIONS "states that Supply and installation of all necessary material(s) within the battery limit area	It is quite possible, that M/S KLPL could not provide all the material as per requirement. Only available

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				<p>including all works related to piping, electrical, instrumentation, civil, structural etc. shall be in Contractor's scope". You have provided details of free issue piping material list and have also provided instrument index. You will provide the material as per the list attached, but is these items list complete and no other extra material will be required to complete the work in totality. For these points you have said relied – "extra material shall be in the scope of bidder". Can we know the approximate % of extra material?</p>	<p>and acceptable material may be given to contractor for construction, installation and commissioning of BOG Booster Compressor work. Balance material will be arranged by contractor. Contractor should know requirement of area. Also, it is responsibility of contractor to ensure availability of all required material at site during contract period. It is also clarified that all of the items and quantities of free issue piping material list may not be utilized for this work. Contractor will be given the required material for this work from the available list.</p>
26	Section-V	110	Contractor's Scope of Work	Section V, Scope of work, clause 3.2 the shed size written and the shed size specified is different in the attached drawing.	Refer reply at S.N. 5 of corrigendum. .
27	Section-V	112	Painting & Installation	Painting specification for the piping not clearly specified, as the climate there is very corrosive.	Contractor to apply painting material as per corrosive climate and standard industry painting specification shall apply.

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28. Section-V	116	3.14		New deluge system has to be provided as per clause Section V, Scope of work, clause 3.14	Refer reply at S.N. 2.
29. Section-V	113	3.12	Electrical	Kindly clarify the scope of HT Cable, its free issue by client or it is contractors' scope.	It is free issue by client.
30. Section-V	113	3.12	Electrical	Can we get the Electrical tracers layout drawing of the whole area?	The same will be provided during detail engineering.
31. Section-V	113	3.12	Electrical	Please clarify BOG Compressor come with its own control Panel and all cabling between the panel to skid.	YES
32.			Control Room	As per the site visit and discussion had with site team, they required separate control room, kindly clarify it is EPC Contractor scope, if yes kindly share the dimension and location of control room	The same is to be designed by contractor during detail engineering.
33.			Control Room	As per tender document bidder shall be consider lighting of compressor unit, filed cabin, store room etc., so please share lighting / civil layout and lux level of all area.	The lux level of all area shall be as per the industry practice and to be designed by the contractor.

Encl: Plot Plan / Layout drawing- Annexure-1

For & on-behalf of
Konkan LNG Pvt Ltd

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