

TENDER NO

GSL/REPL/011/LNG

SUBJECT

DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING, AND 5 YEARS OF COMPREHENSIVE OPERATION & MAINTENANCE OF LNG STORAGE & REGASIFICATION STATION ALONG WITH ALL AUXILIARY UNITS AT BIKANER AND CHURU GA

CORRIGENDUM NO 01

DATED 19-06-2023

This has reference to the subject tender. The corrigendum to the subject tender is hereby issued. All participating bidders are requested to note the changes in respect of the subject tender.

S No	Tender Clause No	Page No.	Tender Conditions	Addition
1	Clause - 2 (I) IFB , 7: Bid Validity	05&08	180 days from the bid due date.	Bid Validity is revised to 90 Days from the bid due date
2	Clause – 4.3.3: Operation and Comprehensive maintenance portion	07	All local approvals / NOC (including District Magistrate NOC) including PESO approval for complete system & for items as per relevant Codes, PESO & PNGRB requirement for LNG Storage & Regasification System.	Only PESO approval is in Bidder’s Scope. All other statutory approval including DM NOC etc shall be in owner's scope
3	Clause No. 77 of Special Conditions of Contract Payment Terms	98	Payment Terms till commissioning	Refer Annexure-1 on Page.3 below
3	Clause No. 77 of Special Conditions of Contract Payment Terms	98	Payment Terms for Operation & Maintenance	The O&M rates on annual basis for 5 years should be provided in SOR SR. NO. 2 and 3 respectively. The O&M payment shall be on monthly RA-Bill basis.
4	Clause 4.4.2: Type & Duration of Contract	07	Design, Engineering, Manufacturing, Inspection, Supply, Transportation, Installation, Testing & Commissioning of LNG Equipment: The duration of contract shall be Six (06) months from the date of issuance of LOI/PO/LOA/NOTIFICATION OF AWARD.	Refer Annexure-2 on Page.4 below

5	F-10 of Forms & Format	114	Replies to Pre-Bid Queries	Additional bidder queries and their replies are attached as per Annexure-4
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It is advised that the above may please be taken in consideration while submitting your offer. Please also note that this communication forms an integral part of the tender document and a duly acknowledged copy of the same is to be submitted along with technical bid.

All other terms and conditions of above referred tender remain un-altered.

Resonance Energy Pvt. Ltd.

ANNEXURE – 1

Payment Terms are as below:

- A.** 20% on Completion of Engineering (Basic Engineering, QAP, manufacturing drawings, Conceptual Construction drawings) and ABG, whichever is later.
- B.** 10% against completion of successful Hydro test of tanks.
- C.** 30% of the group-wise quoted price payment shall be released on receipt of the major equipment of each system (For Supply of Equipment, Vessel, Machinery System), such as:
- For SOR Item 1.1: Supply of Unloading Pump of 350 LPM (1 + 1) mounted on a single skid
 - For SOR Item 1.2: Supply of two numbers of LNG storage tanks (56 KL each capacity).
 - For SOR Item 1.3: Supply of one number BOGV (Boil of Gas Vaporizer) and one low-pressure regulating skid with flow meters.
 - SOR Item 1.4: Supply of two numbers (1+1) of medium pressure cryo pumps (70 LPM), two numbers (1+1) Medium pressure vaporizers (2500 SCMH each) and T- connection with medium to low pressure regulating skid along with a flow meter.
 - SOR Item 1.5: Supply of two numbers (1+1) of High-pressure cryo pumps (33 LPM) and two numbers (1+1) of high-pressure vaporizers (1200 SCMH each).
 - SOR Item 1.6: Supply of Odorising skid (Tank Capacity - 1000 litres).
 - SOR Item 1.7: Supply of Fire Hydrant system.
 - SOR Item 1.8: Supply of safety, PLC, SCADA, and electrical system.
- D.** 10% on completing erection works and 10% on testing and pre-commissioning.
- E.** 10% against commissioning, final acceptance, and handover of final/ as-built documents for Plant operation.
- F.** 10 % after completion of a successful operation of 06 months.
- G.** Any other item
- 90% on completion of individual items of work
 - 10% on completion of all activities and their acceptance. After that, submit the final documents, bill, and approval by the owner for the successful closure of the work order.
- H.** For Operation & Maintenance Payment
- 100% on monthly RA-Bill basis

Note: Advance Bank Guarantee (ABG) valid for 07 (Seven) months from the date of issue of Award/PO.

ANNEXURE – 2

Completion Period: (07) Seven Months from the date of LOI/Contract for the Design, Supply, Installation, Testing, and Commissioning of the LNG Storage & Regasification unit and five years for Operation & Maintenance Services, including the defect liability period.

ANNEXURE – 3

MINIMUM MAN-POWER REQUIREMENT DETAILS FOR OPERATION AND MAINTENANCE:

SR. NO.	DESIGNATION	UOM	QUANTITY	EXPERIENCE
1	SHIFT ENGINEER	NOS	1 Engineer +1 Semi-Skilled Helper (round the clock) should be available at site.	Engineer with B. Tech graduate with minimum 2 years of experience or Diploma holder with minimum 4 years of experience in LNG regasification, Plant O&M.
2	SUPERVISOR	NOS	1	B. Tech graduate with minimum 5 years of experience or Diploma holder with minimum 7 years of experience in LNG regasification, Plant O&M.

NOTE: Mobilization, De-mobilization, Travel, Fooding, Lodging & boarding shall be included in quoted prices.

GASONET SERVICE (RJ) LIMITED

ANNEXURE - 4

Tender No.: GSPL/REPL/011/LNG

Reply of Pre Bid Queries

NAME OF WORK :- Design, Supply, Installation, Testing, Commissioning, and 5 years of Comprehensive operation & Maintenance of LNG Storage & Regasification station along with all necessary auxiliary units at Bikaner & Churu GA

Date / Time of Pre- Bid Meeting: 08/06/2023 , 15:00 HRS IST

Sr. No.	Tender Clause No. / Annexures	Bidders Comments / Queries	REPL/Gasonet Reply
	Commercial Queries - Commercial Volume I of II		
1	BID SECURITY (EMD) INFORMATION FOR BIDS (IFB) (SECTION I) , Page No. 5	Please delete the requirement of Rs 12,00,000 as EMD for participation in this tender . Typically private sector companies do not demand EMD in participation in tender	Tender Condition Prevails
2	BID VALIDITY INFORMATION FOR BIDS (IFB) (SECTION I) , Page No. 5	Maintaining fixed price for 180 days is not possible. Bid validity to be limited to 60 days from submission of price bid	Bid Validity is revised to 90 Days from the bid due date. Please refer to the corrigendum.
3	As per Clause 4.3.3 on Page No. 7 All local approvals / NOC (including District Magistrate NOC) including PESO approval for complete system & for items as per relevant Codes, PESO & PNGRB requirement for LNG Storage & Regasification System.	We will only consider PESO approval in our scope. All other statutory approval including DM NOC etc shall be in owner's scope	Bidder's understanding Is correct. Please refer to the corrigendum.
4	As per Clause 4.4.2 on Page No. 7 Design, Engineering, Manufacturing, Inspection, Supply, Transportation, Installation, Testing & Commissioning of LNG Equipment: The duration of contract shall be Six (06) months from the date of issuance of LOI/PO/LOA/NOTIFICATION OF AWARD.	Duration of contract will start from the date of advance payment. We can complete all mechanical completion within 6 months from the date of advance payment. Pre commissioning & commissioning of the station will depend upon PESO approval and also receipt of all other statutory approval which is not in our control	Refer Annexure-2 on Page No.4 of Corrigendum above.
5	Clause No. 4 of General Condition of Contract on Page No. 40 CONTRACT PERFORMANCE BANK GUARANTEE	No CPBG is envisaged for submission	Tender Condition Prevails
6	Clause No. 7 of General Condition of Contract on Page No. 41 GUARANTEE/ WARRANTY/ DEFECT LIABILITY PERIOD	Defect liability period shall be 12 months from the date of handing over of the system to GASONET or 18 months from the date of readiness of equipment's at bidder works which ever is early	Tender Condition Prevails with clarification that the defective item to be made good and liability shall be 12 months from date of such service. If the item is not to put service , defect liability shall be 18 months from the date of supply.
7	Clause No. 8 of General Condition of Contract on Page No. 41 PRICE	Price will be firm only till end of contract period of 6 months . If project is delayed with no fault of bidder, price escalation will be applicable.	Tender Condition Prevails with the clarification that supply of item is under full control of the vendor.
8	Clause No. 10 of General Condition of Contract on Page No. 42 STATUTORY VAIATION	All statutory variation is to owners account	Tender Condition Prevails
9	Clause No. 14 of General Condition of Contract on Page No. 44 CONTRACTOR REMAINS LIABLE TO PAY COMPENSATION IF ACTION NOT TAKEN UNDER CLAUSE 13	This clause is not acceptable & need to deleted	Tender Condition Prevails
10	Clause No. 18 of General Condition of Contract on Page No. 45 CONTRACTOR'S OFFICE AND STORE AT SITE	No site office or stores is required during execution	It is not a condition precedent but useful to contractor to execute the work.
11	Clause No. 23 of General Condition of Contract on Page No. 46 TERMINATION FOR OWNER'S CONVENIENCE	Pl. remove this clause . Such clause is not applicable for short term contract of 6 months	Tender Condition Prevails
12	Clause No. 31 of Special Condition of Contract on Page No.77 PRICE REDUCTION SCHEDULE (PRS)	The contract value to be considered for application of PRS shall be exclusive of all taxes and duties	Bidder's understanding Is correct.
13	Clause No. 31.2 of Special Condition of Contract on Page No.77 & 78 Penalties during O&M period under PRICE REDUCTION SCHEDULE (PRS)	No penalty for stoppage of product during O&M period	Tender Condition Prevails
14	Clause No. 38 of Special Condition of Contract on Page No.80 COMPLETE DOCUMENTS	Design calculation or Fabrication drawings cannot be provided . All documents related to PESO will be submitted after TPI approval directly to PESO	The responsibility for PESO certification is with the contractor. All required drawings and designs for the same shall be in contractor's scope. However, applying for PESO clearance shall be from client side.
15	Clause No. 46 of Special Condition of Contract on Page No.82 HYDROSTATIC TESTING	No hydro test envisaged at site .	Bidder's understanding Is correct.
16	Clause No. 47 of Special Condition of Contract on Page No.82 MAKE OF MATERIALS	Pl. provide approved vendor list	Please refer List of Vendors and vendor approval procedure in Technical Volume II of II from Page No. 43-46

Reply of Pre Bid Queries

NAME OF WORK :- Design, Supply, Installation, Testing, Commissioning, and 5 years of Comprehensive operation & Maintenance of LNG Storage & Regasification station along with all necessary auxiliary units at Bikaner & Churu GA

Date / Time of Pre- Bid Meeting: 08/06/2023 , 15:00 HRS IST

Sr. No.	Tender Clause No. / Annexures	Bidders Comments / Queries	REPL/Gasonet Reply
17	Clause No. 77 of Special Condition of Contract on Page No.98 PAYMENT TERMS	For supplies: 30% Payment as advance 20% against completion of successful Hydro test of tanks with Letter of Credit (LC) 50% Payment against readiness of material with LC . LC to be issued one week from the date of issue of PO. Documents related to LC shall be mutually discussed For Erection & Transportation: 100 % against Erection of equipment's For Commissioning : 100 % against commissioning of station	Refer Annexure-1 on Page No.3 of Corrigendum above.
18	BID SECURITY (EMD) INFORMATION FOR BIDS (IFB) (SECTION I) , Page No. 5	We request owner to exempt the EMD for MSME bidder.	Tender Condition Prevails
19	BID VALIDITY INFORMATION FOR BIDS (IFB) (SECTION I) , Page No. 5	We request to consider the bid validity of 90 Days.	Bid Validity is revised to 90 Days from the bid due date. Please refer to the corrigendum.
20	As per Clause 4.4.2 on Page No. 7 Design, Engineering, Manufacturing, Inspection, Supply, Transportation, Installation, Testing & Commissioning of LNG Equipment: The duration of contract shall be Six (06) months from the date of issuance of LOI/PO/LOA/NOTIFICATION OF AWARD.	Asper our past experience, 6 months commissioning is not possible. Please consider 5 months for supply of items & 2 months erection, installation and Commissioning	Refer Annexure-2 on Page No.4 of Corrigendum above.
21	Clause No. 77 of Special Condition of Contract on Page No.98 PAYMENT TERMS	We request owner to consider the payment as suggested below. Payment terms is the essential part of the contract and same will ensure the liquidity of the project and its execution. a. 20% of basic value advance against advance Bank Guarantee valid till delivery period plus one month claim period b. 10% of basic against major drawings approvals and receipt of major raw material i.e. SS Plates for inner vessel of LNG storage tank. c. 15% basic value against completion of cold stretch and submission of its report. d. 45% + 100% GST against readiness of equipment and inspection of Equipments before dispatch on prorata wise. e. 5% basic value against installation of major equipment f. 5% basic value against commissioning and handover of site.	Refer Annexure-1 on Page No.3 of Corrigendum above.
22	Clause No. 4.2 of General Contract Condition on Page No.40 Contract Performance Bank Guarantee	Advance against ABG should be increased up to 20% OR Advance against ABG should increase limit of Advance up to 20% and allow tranches of 5% each , meaning we can give 5% of the contract as ABG and start the work	Tender Condition Prevails
23	Clause No. 4.2.2 of IFB on Page No.7 Type and Duration of Contract	Start of work should not be from LOI but on the approval of the following documents: 1. PESO Prior Approval 2. PCB CTE 3.RIICO CLU 4.DM NOC 5. Mobilisation of Civil Contractor	Tender Condition Prevails

Reply of Pre Bid Queries

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Date / Time of Pre- Bid Meeting: 08/06/2023 , 15:00 HRS IST

Sr. No.	Tender Clause No. / Annexures	Bidders Comments / Queries	REPL/Gasonet Reply
24	FORM - 11 , Point No. 6.3 on Page No. 116 FROMAT FOR CONTRACT	Contractor/Owner both should get LD free grace period of 2 Month , after grace period a daily delay penalty should be agreed to compensate either party upto 10% of contract Value for delay in completion of work or in obtaining statutory approvals including Factory Permit , CTO and PESO license.	Tender Condition Prevails with addition that the performance bonus of early completion shall be available @0.5% per week subjected to maximum of 2% of supply items.
25	Clause No. 2.G of IFB on Page No.6 Bid Security (EMD)	Can the EMD amount we waived (MSME)	Tender Condition Prevails
26	Clause No. 77 of Special Condition of Contract on Page No.98 PAYMENT TERMS	Payment Terms are 90% till commissioning and 10% after 6 Month guarantee run, so in a way 1st year O&M is in built in the supply price. There after O&M is paid on Monthly basis for 4 Years please clarify	The O&M rates on annual basis for 5 years should be provided in SOR SR. NO. 2 and 3 respectively. The O&M payment shall be on monthly RA-Bill basis. Please refer to the corrigendum.
28	Clause No.4.2.4 of IFB on Page No.6 Supply Portion	To obtain the PESO Approvals, requirement of clear title land in possession by the owner ready for the start of construction is required. Please inform the status of land where the project is to be constructed.	Land is situated in industrial area(RIICO) and the ownership is with the owner with clear title.
29	Clause No.4.3.3 of IFB on Page No.7 OPERATION AND COMPREHENSIVE MAINTENANCE PORTION	This is to be kept in owner's scope of work as representation by owner is recommended at all local/DM office for arranging local approvals/NOCs. Lots of the documentation will have no control by contractor hence please consider the request. However technical assistance shall be given by contractor during the application for documentation.	Bidder's understanding Is correct. Please refer to the corrigendum.
30	Clause No. 10.A.1 of IFB on Page No.8 Technical Criteria	One of the intended bidder has submitted that it is an authorized Service Provider cum Distributor for a reputed international company and has the longterm agreement and authorization letter with their credential data. Hence request you to please allow to take part. The requisite documents/authrization letters will provided as per your requirement for our case.	Please refer to BQC for such provision.
31	Clause No.24 of Special Condition of Contract on Page No.74 Site Handover and Permits	In the event of non-availability of permission/license in time to match the progress of work, the Contractor/ supplier shall be suitably compensated as Site Running & Mobilization/remobilization Cost can not avoided in such situations which can not be envisaged in the present time.	Tender Condition Prevails
32	Clause No.26.1 of Special Condition of Contract on Page No.75 Statory Approvals	Owner representation at PESO is must for necessary coordination required at PESO for In Principal & Final Approvals as Application will be filed on Owner's Name as per current practices at PESO.	Noted & Accepted
33	Clause No.31.2 of Special Condition of Contract on Page No.77&78 Schedule & Penalties during O&M Period	The additional Recovery of INR 100000/per day is huge for the O&M part with respect to the monthly O&M charges envisaged. Please evaluate and work-out so that the overall penalty shall not be more than 5% of the monthly bill.	Tender Condition Prevails with clarification that the monthly penalty will not exceed monthly billing amount and on annualized basis, it will not exceed 10% of the annual bill.
34	Clause No. 71 of Special Condition of Contract on Page No.93 Termination for Convenience	When there are no protection to contractor against the owner's defaults incase of non-availability of local permits/licenses in time, availability of work fronts on civil construction, roads, access preparations etc, owner's work permits etc, this clause will make the contract worse for the contractor and will not have any measure to protect the contractor losses.	Please refer to Clause No.71 (b) and (c) for protection to contractor. Tender Condition Prevails.

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Sr. No.	Tender Clause No. / Annexures	Bidders Comments / Queries	REPL/Gasonet Reply
35	Clause No. 77 of Special Condition of Contract on Page No.98 PAYMENT TERMS	We propose the following payment terms as the supply portion involves high cashflow to control; A. 10% submission of ABG & Engineering Input. B. 60% payment shall be released on receipt of the major equipment of each subsystem, C. 10% on completion of erection works and 10% on testing and pre-commissioning. D. 10% against commissioning, final acceptance and handover of final/ as-built documents for Plant operation.	Refer Annexure-1 on Page No.3 of Corrigendum above.
Technical Queries - Technical Volume II of II			
1	CLAUSE- 1.3.1 on Page No.3 suitable flow controller to be provided which will unload LNG from road tanker to storage tank with minimum 350 LPM flow and approx. 8-10 bar (g) differential pressure of LNG (or as required).	A Our understanding is that Unloading Pump with Variable Frequency Drive (VFD) to be provided for Speed/Flow Control. Please confirm.	Bidder understanding is correct
2	CLAUSE- 1.3.2 on Page No.4 The LNG storage tank shall have thermosiphon arrangement and shall have temperature sensors, pressure detection, level measurement etc. Two independent type level measuring instruments shall be provided and signal from the same shall be transmitted to the control room. Further, a separate and independent level indicator shall be used for ESD purpose.	Our understanding is that LNG storage tank to be supplied with following: 1. One dedicated line common for LG, PG, LT & PT for process monitoring 2. One dedicated line for LT & PT for ESD Please confirm	Separate Instruments are desired however, separate line are not compulsory.
3	CLAUSE- 1.3.2 on Page No.4 & 16 All internal piping/ fittings shall be seamless type and made from ANSI 304L (or equivalent) DATA SHEET FOR CRYOGENIC LIQUID STORAGE TANK Piping Material: SA312 TP304	Same information is contradictory in page 4 and 16. We are going ahead with information on page:16. Please confirm	ANSI 304L is accepted.
4	CLAUSE- 1.3.3 (ii) on Page No.6, Second Para Re-gasified natural gas shall be passed through pressure regulator skid which is equipped with twin stream pressure regulators and flow meters in each stream to get natural gas at 33 – 38 bar (g) pressure without any interruption	PRS skid for MP network is not necessary as it is going to connect to Industrial network. In its place we can have only Metering Skid. Please confirm.	Tendor Condition prevails.
5	CLAUSE- 1.3.8 on Page No.8 The interconnecting pipes shall be double-walled vacuum jacketed.	As per standard practice, interconnecting line between LNG unloading pump to LNG storage tank will only be Vacuum jacketed. All other interconnecting line in the LNG station are either left bare or PUF insulated. Please confirm your requirement.	For unloading System, piping to be double walled vacuum jacketed and for other piping, appropriate insulation as per vendor design will be acceptable.
6	Clause- 1.3.10 on Page No. 10 Nitrogen Purging System Required numbers of nitrogen cylinder with necessary piping/tubing connections at the various points as per P&ID shall be provided.	Nitrogen cylinder is a consumable item which will be not be covered as a part of bidder. Necessary piping/tubing connections at various points as per P&ID will only be provided by bidders. Please clarify.	Tendor Condition prevails. N2 first fill or multiple fills till commissioning is in the scope of bidder.
7	Detailed Scope of Work: Sl. No. 8 on Page No. 11 Design and supply of 01 Nos of BOGV (Boil of Gas Vaporizer) for boil of the gas coming after MPV & MPRS	As per our understanding there will not be any BOG after MPV & MPRS. BOG will be in MP Pumps which is taken back to LNG storage tank with Gas return line. Please clarify.	The BOG from the tank through the vapourizer will be variable volume depending upon weather conditions and alleg in the tank. This BOG volume will contribute to LP gas after a Tee connection with PRS from MP stream. The pressure of LP stream will be designed for 4-7 bar. As such, Bidder to provide BOGV as per their standard design. Owner needs a tapping from MP line, controllable for a 4/7 bar pressure in LP line in which this BOGV line shall be connected. LPRS design capacity shall be 2500 SCMH and BOG capacity will not make much change (being in the range of 100-150 SCMH only).

Reply of Pre Bid Queries

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Sr. No.	Tender Clause No. / Annexures	Bidders Comments / Queries	REPL/Gasonet Reply
8	Detailed Scope of Work: Sl. No. 8 on Page No. 11 Design and supply of 01 Nos of BOGV (Boil of Gas Vaporizer) for boil of the gas coming after MPV & MPRS	As per our understanding BOG accumulated inside LNG storage tank will be used for BOGV and such BOGV will usually be in the range of 100 to 150 Nm3/Hr maximum. Tender spec calls for BOGV of 2500 SCM/H which is very high and seems to be abnormal. Please clarify.	Bidder understanding is correct subject to client clarification as per SR. No.7 of technical of above.
9	Detailed Scope of Work: Sl. No. 25 on Page No. 12 Supply of Supporting systems such as Fire water system consisting of 1 set of water tank/pump/hose as per PESO guidelines;	PESO guidelines calls for water tank storage capacity of 10% of LNG storage volume (which will be approx. 11KL: (2*56*10%)) Please reconfirm if we can go ahead Fire water tank storage capacity of 11KL?	10% of Storage Tank Capacity with 3 pumps (1 Jockey + 1 Diesel + 1 Electric). Storage Tank shall be underground.
10	Detailed Scope of Work: Sl. No. 38 on Page No. 13 Detailed engineering and civil drawing, layouts to be provided by the bidder to GSL for carrying out the civil work as per the requirement. Bidder will have responsibility of the overseeing the construction of civil work supervision so to avoid mismatching with bidder requirement	We can provide foundation drawing only for equipment supplied by us as a part of this project. Other civil drawings like fore-court, control room etc.. Preparation of topo survey, soil testing is not in bidders scope, please confirm.	Bidder understanding is correct. Only Detail Engineering and Civil Drawings of SMPV area (Storage area) is in bidder's scope.
11	ODORIZING SYSTEM, CLAUSE-3.2 Storage Container on Page No.123 The capacity of each storage containers for Odorant shall be as specified in the MR specification..	Please confirm Storage capacity of Odorant System. Is it 1000L as mentioned on SOR file, please clarify.	1000 L Odorizer Capacity is required.
12	Clause No- 1.2 on Page No. 2, Second Para The Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Retail Outlets dispensing Petroleum, Auto LPG and CNG) Regulations, 2018" including draft Schedule 4 /PNGRB T4S standard dt 18.1.18 for LNG facilities	Pls note that the stations are for CNG dispensing as indicate in the name of it, so it can not applied for LNG station. PESO is the only approving authority	Bidder understanding is correct.
13	Clause No- 1.3.4 on Page No.6 BOIL OF GAS VAPORIZER AND THE SCHEME	Pls note that BOG generation is not continuous and it is few m3 of gas per hour depending on the process. Sometimes it may be almost zero also. SO you can not take this stream as gas supply stream. Hence there shall not be a full PRS downstream of BOG vaporiser. The full PRS shall be provided after branch from MP is taken	Bidder understanding is correct and also refer to clarification as per SR. No.7 of technical of above.
14	Clause No- 1.3.5 (ii) on Page No.7 , First Para CNG cylinder filling at 250 bar	In the point (i) of same clause, the pump discharge pressure is mentioned as 220 barg and so we assume that CNG filling at relevant pressure. Actually CNG is not filled upto 250 bar	Please refer to 1.3.5 schematic on page no. 6 mentioning the pressure range of 220-250 barg. Minimum pressure required is 220 barg.However, pumps should be capable of developing 250 bar pressure.
15	Clause No- 1.3.6 on Page No.7 , First Para PLC -additional 30% of existing system	This is not clear. Do you mean to have 30% additional input/outputs? Pls see that you have already asked 25% spare in PLC specification. All this will add to lot of cost. SO pls confirm that this 30% is not required or you need add 30% and again 25% spare above all (125% of 100%+30%)	25% spare is acceptable.
16	Clause No- 1.3.6 on Page No.7 , Second Para Chairs	Pls confirm this is not in our scope	Bidder understanding is correct.
17	Clause No- 1.3.6 on Page No.7 , Second Para Independent control system for associated subsystem	Pls note that for such station all subsystems are connected to main PLC. Except Odoriser has its own control sub system.	Bidder understanding is correct.
18	Clause No- 1.3.7 on Page No.8 , First Para "fire/temperature detection sensors"	Pls confirm that either Fire or temperature detection sensors are acceptable. PESO only ask for temperature sensors.	Bidder understanding is correct.
19	Clause No- 1.3.8 on Page No.8 The interconnecting pipes shall be double-walled vacuum jacketed. Piping, fittings, valves used shallbe fit for LNG service	It may pls be noted that such piping is only provided for Discharge of unloading pump to tank filling (straight pipe only) as per process requirements in all such plants.	Bidder understanding is correct subject to client clarification as per SR. No.5 of technical of above.
20	Clause No- 1.3.9 on Page No.8 Odoriser- standby system	There shall be standby dosing pump for each stream . Pls confirm.	Bidder understanding is correct.
21	Clause No- 1.3.10 on Page No.10 Nitrogen purging for pumps and network	The proposed pumps are submersible and so do not need purging. SO pls confirm if you still wish to include N2 cylinders	N2 Cylinders are part of the supply system but not exclusive for unloading pump purging. Also refer SR. No.6 of technical of above.

Reply of Pre Bid Queries

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Sr. No.	Tender Clause No. / Annexures	Bidders Comments / Queries	REPL/Gasonet Reply
22	Detailed Scope of Work: Sl. No. 2 on Page No. 10 Unloading hose- Purging	Normally in all station such purging is not required and done. Pls confirm as it will be additional cost.	N2 Cylinders are part of the supply system but not exclusive for unloading pump purging. Also refer SR. No.6 of technical of above.
23	Detailed Scope of Work: Sl. No. 3 on Page No. 10 MP Pumps -operation Hrs	Pls confirm operation Hours. If you need to operate continuously then one more pump is required because OEM recommend max operation of 8-12 Hours. On our existing station we use pumps in staggering duty mode for safe operation of pumps for long time.	Tender Condition Prevails
24	Detailed Scope of Work: Sl. No. 6 on Page No. 10 By pass to flowmeter	Pls confirm if you really want Bypass to flow meter. No client has taken such valve.	Tender Condition Prevails
25	Detailed Scope of Work: Sl. No. 8 on Page No. 11 BOG vaporiser	Pls note that ONLY GAS FROM STOARGE TANK goes to BOG vaporiser	Bidder understanding is correct.
26	Detailed Scope of Work: Sl. No. 9 on Page No. 11 PRS size	Pls confirm the exact size of PRS as it does not match to upstream MP pump. If 2500 LP flow required then adding 2500 MP flow, the total flow becomes 5000 and so the pump has to be 5000 size.	Bidder to provide BOGV as per their standard design. Owner needs a tapping from MP line for a 4 bar LP line in which this BOGV connection shall be connected. LPRS capacity shall be 500 SCM/H. The total flow from LP & MP shall be 2500 SCM/H cumulatively.
27	Detailed Scope of Work: Sl. No. 25 on Page No. 12 Fire water systems	Pls provide size of tank (under or above), number and types of pumps clearly. This is major cost item and source of dispute after ordering.	10% of Storage Tank Capacity with 3 pumps (1 Jockey + 1 Diesel + 1 Electric). Storage Tank shall be underground.
28	Detailed Scope of Work: Sl. No. 8 on Page No. 38 Detail civil engg and civil drawing	Pls remove this from our scope. It is recommended to get it done from separate civil contractor by owner. We shall provide all inputs to civil designer.	Bidder understanding is correct. Only Detail Engineering and Civil Drawings of SMPV area (Storage area) is in bidder's scope.
29	DATA SHEET FOR LNG UNLOADING PUMP on Page No. 15		
	Installation - The pump must be suitable for installation with thermosiphon type tank submerged in a vacuum insulated sump (in case of submerged pump only)	The pump can not be suitable for Thermosiphon tank as it is connected to trailer for unloading. Pls confirm	Bidder understanding is correct.
	Pump Material of Construction	Material shall be as given by OEM- SS or Aluminium or Bronze	Tender Condition Prevails
	Control panel	It is located inside control room and hence it shall be normal IP55	Tender Condition Prevails
30	DATA SHEET FOR CRYOGENIC LIQUID STORAGE TANK on Page No.16		
	Surface Treatment (Outer Vessel) - Thickness of Paint – 240 µm	As per individual thickness specified to all quotes, the total DFT shall be 190-240micron	Tender Condition Prevails
31	DATA SHEET FOR LNG HIGH PRESSURE PUMP - Control Panel on Page No.17	It is located inside control room and hence it shall be normal IP55	Tender Condition Prevails
32	DATA SHEET FOR LNG MEDIUM PRESSURE PUMP on Page No. 19		
	Pump Material of Construction	Material shall be as given by OEM- SS or Aluminium or Bronze	Tender Condition Prevails
	Control panel	It is located inside control room and hence it shall be normal IP55	Tender Condition Prevails
32	FIELD MOUNTED FLOW COMPUTER on Page No.34	Pls note that Field mounted flow computer is part of RPD or Turbine flow meter and hence the specs given by OEM shall be used. Its not feasible to follow these specs in TOTO.	Noted and Accepted.
33	GSM MODEM on Page No.37	Why this is required. All inputs from flow meter are connected to PLC which is nearby only. SO we have not considered such modem in scope. Pls confirm.	Noted and Accepted.
34	LIST OF VENDORS Sl. No. XIV for Control Panel on Page No.45	The panel shall be fabricated by our own vendor here as per project requirements. These vendors specified can not give only 1 or 2 panels at desired time.	Please refer to Note.2 on page No. 47 of Technical Volume II of II, for vendor qualification
35	VENDOR FOR MP & HP PUMP	Please confirm the vendor list of pump ass below. ACD/CRYOSTAR/CRYOGAS/Venzetti	Please refer to Note.2 on page No. 47 of Technical Volume II of II, for vendor qualification
36	LIST OF VENDORS Note-2 (a) on Page No.47 The vendor/ supplier should not be in the Holiday list of CLIENT	Pls provide Holiday list to check the suppliers	The contractor should undertake confirmation from vendors/suppliers.
37	TECHNICAL SPECIFICATION FOR SELF ACTUATED PRESSURE CONTROL VALVES AND SLAM SHUT VALVES, Page No.50	It seems some missing titles as on second page there is a heading "General" under which info related to PLC is given. No separate spec for pLC found. Pls confirm that this is spec for PLC and not for PCV	Bidder understanding is correct

Reply of Pre Bid Queries

NAME OF WORK :- Design, Supply, Installation, Testing, Commissioning, and 5 years of Comprehensive operation & Maintenance of LNG Storage & Regasification station along with all necessary auxiliary units at Bikaner & Churu GA

Date / Time of Pre- Bid Meeting: 08/06/2023 , 15:00 HRS IST

Sr. No.	Tender Clause No. / Annexures	Bidders Comments / Queries	REPL/Gasonet Reply
38	Calibration of instruments on Page No.60	Pls note that field calibration shall be done before commissioning only if the original calibration has expired.	Confirmed.
39	Clause No.1.3.2 of LNG storage tanks on Page No.4	using normally ANSI 304.	ANSI 304L is accepted.