



INDRAPRASTHA GAS LIMITED
IGL Bhawan, 4, Community Center,
Sector 9, R.K.Puram, New Delhi-110022
Email: sachin.mujo@igl.co.in/ sweeti.kumari@igl.co.in
Phone: +91 11 4607 4682

TENDER DOCUMENT NO.IGL/ET2/CP/CC18109
SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND INTEGRATION OF RTU PANELS ALONG WITH CAMC

REPLY TO BIDDERS QUERIES

Sr No.	Section	Page No.	Tender Clause	Bidder Query	IGL Remarks
1	II	ITB 14.0 Page No. 17 of 138	The bidder may visit and examine the site of works and its surroundings and obtain for himself on his own responsibility	We request IGL to share the details of sites and person who can be contacted for the site survey to be conducted.	Refer Annexure I.
2	II	ITB 16.0 Page No. 18 of 138	Original Bid Security in the form of BG shall be submitted sealed in an envelope clearly superscribing "Bid Security – Original" along with the name and address of bidder, tender subject, tender document number	We understand that only original bid security BG has to be submitted within 7 working days from the date of bid opening and no other document hard copy needs to be submitted. Kindly confirm.	*Bidder Understanding is correct
3	II	ITB 43.1 Page No. 26 of 138	Purchaser reserves the right to increase or decrease the quantities specified in the Schedule of Rates during contract period, without any change in unit price or other terms and conditions. The tendered quantities shall be considered for evaluation purpose.	Request IGL to confirm the max % increase or decrease in quantities applicable against this tender.	* Tender Condition prevail
4	II	ITB 43.3 Page No. 26 of 138	Purchaser (IGL) shall have full right to divide the total scope of work among two or more bidders as per the requirement. It will be ensured that share of business is awarded in line with the ranking of bidders in terms of their evaluated value.	1 We request IGL to confirm the basis for the split of the order between two or more bidders. 2 Also request IGL to confirm that in case of split of order, whether order were be placed on parties on L1 rates or quoted rates by each party	* Tender Condition prevail
5	III	GCC 6.1 Page No. 32 of 138	For purpose of this Clause, 'origin' means the place where the Goods were mined, grown, or produced	We request IGL to confirm whether good having origin at Prior reference countries as per DPIIT guidelines can be quoted against this tender as same is applicable for PSUs like IOCL, HPCL, BPCL, ONGC etc. Kindly confirm.	* Tender Condition prevail
6	IV	SCC 8.0 Page No. 56 of 138	Within thirty (30) Days of receipt of the Letter of Acceptance / Notification of Award, the successful bidder shall furnish to the Purchaser the Contract-Cum-Equipment Performance Bank Guarantee (CPBG) equivalent to 2.5% of total order/contract value initially and 7.5% of individual release/purchase order value thereafter	Request IGL to confirm the rate contract period against the tender.	* Tender Condition prevail
7	IV	SCC 9.0 Page No. 56 of 138	9.0 DURATION OF CONTRACT Comprehensive Maintenance service shall be start after defect liability period of each lot of RTU unit till the completion of contract period.	We understand that all the RTUs has to be supplied under single lot. Kindly confirm.	* Refer Section IV, Special condition of contract, Point 9.2 (Page 56 of 138) "The requirement of RTU unit may vary depending upon site requirements. PO shall be awarded as per site requirement. PO shall be awarded on "Four months basis" Or If the value of the provided PO is exhausted, whichever of the stated condition is met earlier" RTUs to be supplied in different lots as per site requirement *Tender Condition prevail

8	IV	SCC 10.0 Page No. 57 of 138	Payment against Comprehensive Maintenance	We understand that these payments will be released site-wise. Kindly confirm.	Refer Section IV, Special condition of contract, Point 9.5 (Page 56 of 138) "Please note that comprehensive maintenance services will start after commissioning of all RTU panels in single lot." Payment against comprehensive maintenance And payment against erection/installation & services will be released LOT wise. * Tender Condition prevail
			10% (Ten percent) payment of invoice value: Shall be released on completion of Installation, testing, commissioning and SAT.		
			a) 70% (Seventy Percent) Payment of invoice value shall be released on completion of Installation & testing.		
			(b) 20% (Twenty Percent) Payment of invoice value shall be released on completion of Commissioning.		
9	V	SOW 1.2.2 Page no. 65 of 138	1.2.2 Integration with SCADA system available at ICC Delhi and / or Server 'C'.	We understand that all the work to be done at the SCADA end for integration is in scope of M/s IGL.	Configuration of RTU will be under vendors scope, along with all nessecary support for integration of the same with IGL SCADA system However, all mapping work in SCADA system shall be in IGL scope *Tender Condition prevail
10	V	SOW 2.10 Page no. 66 of 138	Owner reserves the right to increase the scope of work upto 50% of tender quantities (Supply along with other related services) on same rate, terms & conditions, at any time during the entire period of contract including AMC period.	We understand that "Purchaser reserves the right, within 6 months of order to place repeat order upto 50% of the total order value without any change in unit price or other terms and conditions" as per GCC clause 59. Kindly confirm.	Bidder's understanding is correct *Tender Condition prevail
11	V	SOW 2.11 Page no. 66 of 138	Vendor shall integrate and configure any upcoming and /or additional or left out or upgraded equipment that will be installed at existing CNG station with RTU system without any cost to client within contract period including AMC period. Such addition/upgradation in the present system shall be limited to 50% tags of the existing tags per stations.	We understand that we only need to consider 1 visit at each site during the AMC period for upgradation in the present RTU upto 50% tags of the existing tags per stations. Kindly confirm.	Bidder to understand that irrespective of number of site visit, whenever there is requirement, Vendor shall integrate and configure any upcoming and /or additional or left out or upgraded equipment that will be installed at existing CNG station with RTU system *Tender Condition prevail
12	V	SOW 2.15 Page no. 66 of 138	Cable shall be laid in cable tray.	We request IGL to confirm if cable trenches will be available from junction Box/ UPS to the wall mounted RTU panel to be supplied within control room building.	* Cable tray from JB to RTU not available and need to be provided by bidder. * Tender condition prevails
13	V	SOW 4.5 Page no. 71 of 138	Power supply, Reliable and rugged redundant 24V dc power supply unit shall be provided by selected vendor.	We understand that 2 nos. 230V AC to 24V DC power supply converter along with o-ring diode needs to be supplied along each RTU. Kindly confirm.	*Bidder's understanding is correct * Tender condition prevails
14	V	SOW 9.2 Page no. 79 of 138	Approval certificate from Chief Controller of Explosives (CCE) or Petroleum and Explosive Safety organization (PESO) is mandatory for all electronic / electrical instruments / equipment's to be installed in hazardous area in India, irrespective of country of origin.	We understand that RTU will be installed in the control room area of the CNG station which is safe area as per tender specifications. Kindly confirm.	*Bidder Understanding is correct
			Bidders to ensure that unit price quoted for AMC services per month for each year, shall not be less than 1% (One Percent) of the quoted unit price for supply. In case bid offer is not meeting	AMC per year is not more than 5% of the supply prices. Since IGL is considering 12% annual AMC charges, IGL is paying	

15	V	SOW 10.2 Page no. 79 of 138	tender requirement, deficit amount (tender requirement – quoted amount) shall be retained from the payment towards supply and shall be released after deduction of penalty etc. and successful completion of maintenance for each year.	vendor much more for AMC than the other Oil& Gas PSU for the similar work. Request IGL to kindly relook whether IGL wants to pay much more than the market rates to the vendors for the AMC per year.	* Tender condition prevails
16	V	SOW 10.4 Page no. 80 of 138	The selected vendor shall share the list of all mandatory spare of RTU panel and shall keep minimum 10% of the total quantity of RTU panel installed & commissioned at site. The same can be inspected by IGL personals at any time of contract.	We understand that 10% of the mandatory spares for each type of the RTU modules needs to be supplied to IGL as part of the contract. Kindly confirm.	*Bidder Understanding is not correct. Bidder to maintain 10% of spares . *Tender Condition prevail
17	V	SOW 13.1 (16) Page no. 86 of 138	Security as per IEC-62443	We request IGL to accept the cyber security certificate equivalent to IEC-62443 like IEC-62351 etc also for the RTU.	* Tender condition prevails
18	V	SOW 13.2 (11) Page no. 87 of 138	Analog and digital barriers are required for hazardous area equipment. All AI,DI & DO as mentioned in annexure II shall comes in hazardous area.	We request IGL to confirm the number of Analog Input and Digital Input/output points coming for the hazardous area equipment so that we can accordingly calculate the quantity of barrier in RTU cabinet.	*Barrier need to be provided for all Analog & Digital input/output points coming from the hazardous area . *Tender Condition prevail
19	V	SOW 13.3 Page no. 88 of 138	SIGNAL MULTIPLIER & BARRIER Suitability: Smart transmitter with HART protocol.	We request IGL to confirm the requirement of HART Protocol in the barrier.	Kindly refer to Corrigendum-II .
20	V	SOW 13.5 Page no. 89 of 138	MODEM/GATE WAY HARDWARE SPECIFICATIONS	We understand RTU OEM can quote his own inbuilt modem meeting the technical specifications. Kindly confirm.	* Please refer clause no 11.0 & 11.1. * Tender Condition prevail
21	V	SOW 8.12 Page no. 105 of 138	The control device shall be configured such that failure of any part of an RTU subsystem (module) except the CPU, power supply module shall not directly affect the integrity of the unit, as a whole.	We understand that single CPU and power supply unit in RTU needs to be provided at each location. Kindly confirm.	*Power supply unit need to be redundant *Tender Condition prevail
22	V	SOW 11.4 Page no. 113 of 138	Test for continuous functional operation of the system with the required system reliability and availability. This test aims at keeping the complete integrated system operation for a period of 21 days for all the 24 hours a day.	We understand that test run will be conducted for 5%-10% of the total RTUs to be supplied. Kindly confirm.	*Tender Condition prevail
23	V	SOW 12.1 Page no. 114 of 138	TRAINING 17.1 Site Training:	We understand that 2 days of on-site training needs to be provided to IGL person for the supplied RTUs. Kindly confirm.	*Tender Condition prevail

24			Make In India	We request you to kindly include the department under DPIIT's Public Procurement (Preference to Make in India) Order, 2017 in the bid as followed by all CPSUs (DPIIT Order attached). Details of such notified goods, services or works is available on https://dipp.gov.in/public-procurements . MoPNG circular is also attached along with queries submitted.	*Tender Condition prevail
25	I	IFB 5.0 Page no. 7 of 138	Bid submission due date and time-27.08.2024 till 15:00 Hrs IST	We request IGL to kindly give bidders time of 2-3 weeks for the bid submission after issuance of the pre-bid clarifications by IGL.	Please refer to Corrigendum - I .
26	I	IFB 1.1 Page no. 7 of 138	INTRODUCTION	Bidder understands that the required 90 nos. of RTUs are distributed in NCT of Delhi & NCR along with geographical areas in UP, Haryana and Rajasthan state locations. Please provide the location-wise segregation of 90 RTUs.	The tentative list for location-wise segregation of 90 RTUs is as follow 1. Delhi: 21 2. Haryana: 20 3. UP: 49 Please note that this list is provisional and may be subject to change based on site requirements. *Tender condition prevails
27	V	SOW 2.11 Page no. 66 of 138	Vendor shall integrate and configure any upcoming and /or additional or left out or upgraded equipment that will be installed at existing CNG station with RTU system without any cost to client within contract period including AMC period. Such addition/upgradation in the present system shall be limited to 50% tags of the existing tags per stations.	Please provide the list of the systems which need to be integrated with the newly supplied RTUs. Also, please suggest whether the left out instruments are available at all the 90 new RTU locations. In addition, provide the system-wise IO counts of all the left out systems to accommodate it in the RTUs to be supplied under this scope of supply.	The bidder should understand that 'Left out' equipment refers to equipment that could not be integrated during the initial phase of RTU commissioning due to various reasons, such as equipment incompatibility. The bidder should also be aware that these left-out items may be located at any of the 90 sites. System-wise IO counts of left-out equipment will be made available only during the commissioning phase. *Tender condition prevails
28	V	SOW 2.16 Page no. 66 of 138	Required masonry works for installation of RTU systems etc. shall be in contractor's scope of supply.	Request you to remove the masonry works from contractor's scope.	*Tender condition prevails
29	V	SOW 2.28 Page no. 67 of 138	Unloading of material/equipment received at site shall be in the scope of selected vendor. Selected vendor shall depute requisite manpower to unload project material received on site. In addition to this selected vendor shall be responsible to transport the project material from IGL store to site or site to site, if needed.	It is understood that the material will be delivered to IGL store which will be available at all the locations i.e. NCT of Delhi & NCR along with geographical areas in UP, Haryana and Rajasthan state locations. Bidder's responsibility is limited to shift the material from these IGL stores to the RTU locations. Please confirm.	Please refer to Section V, Scope of Work, Clause 2.28. The bidder should note that it is their responsibility to deliver materials to the IGL stores located at all sites within the NCT of Delhi, NCR, and geographical areas in Uttar Pradesh, Haryana, and Rajasthan. Additionally, the bidder is responsible for transporting materials from the IGL stores to the various sites where the RTUs will be installed. *Tender condition prevails
30	V	SOW 2.39 Page no. 68 of 138	Vendor Scope of work Supply, Erection, Installation, Testing & Interfacing with existing I/O's at CNG station (Refer Annexure-II)	It is understood that the IO Summary provided on page no. 92 is "Annexure II" of the RFQ document. Please confirm.	*Bidder understanding is correct.
31	V	SOW 2.39 Page no. 68 of 138	Free Issue Item/IGL Scope 3. Profibus (MPI/PP) and Profinet (Ethernet) protocol is available in CNG Compressors. 4. MODBUS RS485 available for CNG Compressors, Dispenser, Flow meters, Flow computers and VFD's, Soft starters etc.	It is mentioned in point 3 that Profibus/Profinet is available in CNG Compressors. However, it contradicts with point 4 which says Modbus RS485 is available at CNG compressors. Please confirm whether Modbus RS485 is available at all the CNG compressors to design the solution accordingly	The bidder to understand that IGL uses different types of compressors; some are equipped with Profibus/Profinet, while others have RS-485 interfaces. The bidder must consider both functionalities in their proposal. *Tender condition prevails

32	V	SOW 4.14 Page no. 72 of 138	Electrical work associated at all the stations shall be consisting of (but not limited to): a) All earth cable work associated with the installation of the supplied equipment.	As per the Scope matrix, it is understood that the required earthing pits and required earth cables will be supplied and laid by the customer till RTU panel. Please confirm.	*Bidder understanding is correct *Tender condition prevails
33	V	SOW 7.1 Page no. 74 of 138	DURATION OF CONTRACT	The required duration of material supply is 3 months. Please accept the duration of 6 months up to delivery. Site activities will follow.	*Tender condition prevails
34	IV	SCC 10.2 (C) Page no. 57 of 138	TERMS OF PAYMENT	Request for the addition of below clause '10.2 (C) & 11.3 (C): Balance 10% (ten percent) payment of invoice value can also be released after 30 days of successful installation, testing, commissioning & SAT against the submission of irrevocable BG valid till the warranty/defect liability period of equivalent amount. Same payment term already approved by IGL in previous tenders. Tender Reference: TENDER DOCUMENT NO. IGL/ET2/CP/EC15921 CORRIGENDUM NO. VIII	*Tender condition prevails
35				Kindly Suggest configuration of RTU which is required for the following 1. AI (Analog Input) 2. DI (Digital Input) 3. DO (Digital output) 4. Serial Cards, (Serial ports) 5. CPU	Please refer Section V, Scope of work, Page 92 of 138, Annexure 2 *Tender condition prevails
36	V	SOW 3.0 Page no. 70 of 138	(Refer Annexure - A) is not available in tender documents	Please provide DNP3 compatibility document (refer Annexure - A)	*Refer Annexure-A
37	V	SOW 11.0 Page no. 81 of 138	RTU	We have embedded RTU, which meets all the technical requirements as per embedded standard. We also have CCOE certificate of RTU.	* Refer Clause No: 11.1, and provide all related documentation regarding the product that will be provided. *Tender condition prevails
38	V	SOW 11.0 Page no. 81 of 138	RTU Make ☐	Bidder is requesting IGL to kindly include TGT Make RTU in approved vendor list.	*Refer Section V Scope of work Clause 11.1 Page no 82 of 138, and submit all the relevant documents mentioned in the clause. *Tender condition prevails
39	V	SOW 11.0 Page no. 81 of 138	Modem☐	Bidder is requesting IGL to kindly include TGT Make Modem in approved vendor list.	*Refer Section V Scope of work Clause 11.1 Page no 82 of 138, and submit all the relevant documents mentioned in the clause. *Tender condition prevails
40	V	SOW 11.0 Page no. 81 of 138	Isolator/Barriers☐	Bidder is requesting IGL to kindly include TGT Makelisolator/Barriers in approved vendor list.	*Refer Section V Scope of work Clause 11.1 Page no 82 of 138, and submit all the relevant documents mentioned in the clause. *Tender condition prevails
41	V	SOW 13.1 Page no. 84 of 138	Modular based rack mounted RTU	Modular based rack mounted RTU, In Embedded RTU case, it will be of board type	*Bidder to provide detailed specification and information regarding the RTU panel that they are offering. *Tender condition prevails
42	V	SOW 6.2 Page no. 102 of 138	6.2 RTU software ☐ Programming software as per IEC 61131	IEC 61131 is PLC standard, we are following Embedded Standards for manufacturing of RTU.	*Bidder to provide detailed specification and information regarding the RTU software that they are offering. *Tender condition prevails

43	V	SOW 6.1 Page no. 102 of 138		Kindly Confirm that Profibus converter required in all RTU?	*Refer Section V Scope of work Annexure-2 Page no 93 of 138, 2 nos. of profibus ports are required in all RTU panel. Bidder to provide these ports directly or by using converter. *Tender condition prevails
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Note:

1. Please note that only the clarifications of the queries received from the bidder's are replied in this corrigendum, under reply to bidder's Query. In case, if any discrepancies is observed between the tender document and the clarification stated above, the tender condition shall prevails for those cases.
2. All other terms & conditions of tender document remain unaltered.
3. Bidders are requested to visit IGL website / IGL's tendering website <https://petroleum.ewizard.in> regularly for further announcement
4. Please submit the signed and stamped copy of this corrigendum along with your offer.

Annexure - A

SCADA AND RTU INTEGRATION TESTING OVER DNP3.0 PROTOCOL

1. Vender Detail

Venue of Testing: _____

Date: _____ Test Period: _____

RTU Vender Detail

Company Name : _____

Contact Person : _____

Phone : _____ Mobile : _____

Email : _____ Website : _____

Note: This document covers the minimum interfaces test procedure for DNP3.0 based testing over TCP/IP protocols for IGL Centralized SCADA system only.

Vendor shall carry all the testing equipment like multi-meter, hand held calibrator /4-20mA simulator, MODBUS Simulator, etc.

2. SCADA and RTU Detail

2.1 SCADA System

1. SCADA Details : Copadata Zenon 8.0 SCADA
2. Protocol : DNP 3.0
3. IP Detail : _____

2.2 RTU System

1. Make : _____
2. Model : _____
3. RTU Software name and version : _____

Annexure - A

4. Communication Details:

- a) Protocol : DNP3.0
- b) Connection Type : Ethernet
- c) IP address settings
 - d.1) IP Address for LAN A : _____
 - d.2) IP Address for LAN B : _____
 - d.3) Destination Address : _____

3. DNP3.0 Test cases

Following configuration setting should be there in RTU to be compatible with SCADA over DNP3.0 protocol.

1. Communication with Dual DNP3.0 Station

Action: This test is to check simultaneous independent data communication between two different servers and RTU over DNP3.0 protocol. Establish the necessary network connection between SCADA servers and existing RTU and check the data transfer from RTU to each SCADA server simultaneously.

Result: Compliance/ Non Compliance

Remark: _____

2. RTU time synchronization check

Action: Required setting for RTU time stamping to be match with SCADA. For that need configuration setting for time synchronization. Check this by changing RTU time and successful update of RTU time as per SCADA Server time.

Result: Compliance/ Non Compliance

Remark: _____

3. Analog input data for Integer , Float and Long

Annexure - A

Action: Add analog input items in RTU and vary data using Calibrator / simulator and check integer/real/long type values with quality flag at SCADA with DNP3.0 objects and variations (30 and 32)

Result: Compliance/ Non Compliance

Remark: _____

4. Analog output data for Integer and Float

Action: Add analog output items, modify that from SCADA system and check values on simulator/RTU tool kit with DNP3.0 object and variations (40 and 41)

Result: Compliance/ Non Compliance

Remark: _____

5. Digital Input data

Action: Add digital input items in RTU and check Boolean type values with quality flag at SCADA with DNP3.0 objects and variations (01, 02 & 03).

Result: Compliance/ Non Compliance

Remark: _____

6. Digital output data

Action: Add Digital Output Items, modify that from SCADA system and check values on simulator/RTU tool kit with DNP3.0 object and variations (10, 11, and variation 01)

Result: Compliance/ Non Compliance

Remark: _____

7. Modbus Data transfer through serial interface (RS 485)

Action: Add items at RTU and check the data (Holding register, input register, coil register and Input status register) from third party system/Modbus simulator. This data should transfer to SCADA server over DNP3.0 protocol with quality flag. Also check Modbus port for master-slave configuration on swappable basis.

Annexure - A

Result: Compliance/ Non Compliance

Remark: _____

8. Network redundancy check

Action: Check data transfer over DNP3.0 using redundant communication port by disconnecting one port at a time and successful data transfer over other port.

Result: Compliance/ Non Compliance

Remark: _____

9. Communication Statistic

Action: RTU should support object 80 for internal indication as per DNP3.0 protocol for making healthiness of RTU with master SCADA system.

Result: Compliance/ Non Compliance

Remark: _____

10. Report by exception for AI and DI based on class1, class2 and class3 request

Action: RTU should be capable to exchange data with SCADA server for event changes in RTU. It means RTU should support backfill functionality of all events.

Result: Compliance/ Non Compliance

Remark: _____

11. Cloud connection compatibility and data exchange

Action: RTU should be capable to exchange data with cloud. MQTT protocol should be there to connect to cloud server.

Result: Compliance/ Non Compliance

Remark: _____

12. On demand Scan from SCADA for AI and DI based on Class 0, Class 1, Class 2 and Class 3 request.

Annexure - A

Action: RTU should be able to exchange the complete data with SCADA for On Demand poll (Class 0, Class 1, Class 2 and Class 3).

Result: Compliance/ Non Compliance

Remark: _____

TENDER NO: IGL/ET2/CP/CC18109 Annexure-I**Contact details for compatibility testing**

1	Name	Chirag Gupta & Mohit Jaiswal
2	Phone No	8130381414 & 9971380101