



INDRAPRASTHA GAS LIMITED
 IGL Bhawan, 4, Community Center,
 Sector-9, R.K. Puram, New Delhi - 110022

TENDER NO. IGL/ET2/CP/CP18143
Procurement of AMR Compatible G 1.6 Domestic Meters

REPLIES TO BIDDERS' QUERIES - 1

Sr. No.	Tender Page No.	Tender Section & Clause No.	Clause Description	Bidder's Query	IGL's Reply
1	Page 7 of 88	Part I of II Commercial Volume INVITATION FOR BID (IFB) Clause No. 3.2	Delivery of first lot of meters shall be within (06) six weeks and four (04) weeks for subsequent lots, from the date of LOA /PO. Minimum & Maximum lot size is mentioned in Scope of Supply.	We are requested to allow us to deliver the first lot of meters in 12 to 16 weeks. and subsequently 4 to 6 weeks.	Tender Conditon Prevail.
2	Page 9 of 88	Part I of II Commercial Volume INVITATION FOR BID (IFB) Clause No. 7.2	Annual Turnover: The minimum annual turnover achieved by the bidder as per their audited financial results during any one of the three preceding financial year shall meet the turnover requirement of Rs. 8,63,13,000/-	As the company has been newly incorporated, so we request you to grant an exemption from this particular clause.	Tender Conditon Prevail.
3	38 & 56	SECTION III-GCC & SECTION IV-SCC Clause No. 22.3 (C)	In GCC, Payment shall be released within 45 days after receipt of relevant documents complete in all respects and In SCC, 100% of the invoice value along with taxes and duties shall be paid within 30 days on receipt of Goods at designated IGL stores	Bidder understand that SCC Payment terms superceeds the GCC Payment terms. Please confirm.	Bidder Understanding is Correct.
4	54 of 88	Sec IV (Vol I) Clause No. 7.1	Within twenty-one (21) days of receipt of the Contract/PO, the successful bidder shall furnish to the Purchaser the Contract Performance Bank Guarantee (CPBG @ 2.5% of total annualized contract value initially and 7.5% of individual release/purchase order value (inclusive of all taxes).	As per current practices of CGDs, we request you to accept CPBG 3%-5% instead of 10%.	Tender Conditon Prevail.
5	7 of 88	Sec I (Vol I) Clause No. 3.2	Delivery of first lot of meters shall be within (06) six weeks and four (04) weeks for subsequent lots, from the date of LOA /PO. Minimum & Maximum lot size is mentioned in Scope of Supply.	To commence a new project, it takes at least 4-6 weeks for raw material and other bought out items procurement. Hence we request you to accept delivery schedule first lot of meters shall be within (08) eight weeks and six (06) weeks for subsequent lots, from the date of LOA /PO.	Tender Conditon Prevail.
6	8	SUPPLY OF DOMESTIC DIAPHRAGM METER (G1.6) WITH AMR COMPATIBLE Clause No.9	Installation, Operation and Maintenance manuals, Catalogues with part list for meters along with software CD/PenDrive and calibration reports.	Bidder understands that the requirement is Purely for Mechanical Diaphragm Gas Meter And Hence Software CD is not applicable. Kindly confirm.	BIDDER UNDERSTANDING IS CORRECT
7	8	SUPPLY OF DOMESTIC DIAPHRAGM METER (G1.6) WITH AMR COMPATIBLE Clause No.9	DOCUMENTS & DATA REQUIREMENTS 7.0 Sizing calculation	Sizing calculation is not applicable for Domestic diaphragm gas meter -G1.6. Kindly confirm	TENDER CONDITION PREVAIL
8	8	SUPPLY OF DOMESTIC DIAPHRAGM METER (G1.6) WITH AMR COMPATIBLE Clause No.9	DOCUMENTS & DATA REQUIREMENTS 9.0 ATEX approval certificates for meter	ATEX is not applicable for mechanical gas meter. Kindly confirm.	BIDDER UNDERSTANDING IS CORRECT
9	13	SECTION III PARTICULAR TECHNICAL SPECIFICATION (PTS) OF DOMESTIC DIAPHRAGM METER (G1.6) WITH AMR COMPATIBLE Clause No.3.3	Electromagnetic Compatibility (EMC) Compliance All gas meters and accessories shall be immune to Radio Frequency Interference (RFI) and Electro Magnetic Interference (EMI). The design and installation of all electrical / electronic equipment shall meet the RFI/EMI requirements according to IEC 61000, emission (IEC61000-6-4) and immunity (IEC-61000-6-2) requirements for an industrial environment.	This is mechanical meter so EMC clause not applicable. Kindly confirm	BIDDER UNDERSTANDING IS CORRECT



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10	14	SECTION III PARTICULAR TECHNICAL SPECIFICATION (PTS) OF DOMESTIC DIAPHRAGM METER (G1.6) WITH AMR COMPATIBLE Clause No.3.4	Hazardous Area Certification Gas meters shall be certified for use in designated areas when installed in hazardous area classified zones as per IEC 60079.	This is mechanical meter so Hazardous Area Certification is not applicable. kindly confirm.	BIDDER UNDERSTANDING IS CORRECT
11	16	SECTION III PARTICULAR TECHNICAL SPECIFICATION (PTS) OF DOMESTIC DIAPHRAGM METER (G1.6) WITH AMR COMPATIBLE Clause No.8	8.0 MARKING, PACKING AND SHIPMENT The calibration certificates of each item shall be enclosed within the package box. Each package box shall be tagged with the Purchase Order number (unique identification is required).	Bidder will provide Consolidated Calibration Certificate/Report In Soft Copy During TPI/Dispatch. Kindly Accept .	TENDER CONDITION PREVAIL
12	23	SECTION V QUALITY ASSURANCE PLAN (QAP) OF DOMESTIC DIAPHRAGM METER (G1.6) WITH AMR COMPATIBLE Clause No.	Degree of protection	As mentioned in quality assurance plan, degree of protection extent of check is 100%, we understand that degree of protection as per IEC 60529 (IP65) is a type test. We will provide type test report during TPI also we have checked external leak test -100 % during production Kindly accept the same.	TENDER CONDITION PREVAIL
13	23	SECTION V QUALITY ASSURANCE PLAN (QAP) OF DOMESTIC DIAPHRAGM METER (G1.6) WITH AMR COMPATIBLE Clause No.	Total Mean Pressure Loss (pressure absorption, P.A.) Acceptance Criteria- P.A. < 2 mbar	As per EN 1359 :2017 & tender datasheet pressure loss acceptable max.bar Kindly accept for the same.	TENDER CONDITION PREVAIL
14	23	SECTION V QUALITY ASSURANCE PLAN (QAP) OF DOMESTIC DIAPHRAGM METER (G1.6) WITH AMR COMPATIBLE Clause No.	Temper Alarm Test	Temper alarm generation is the feature of AMR and not for the mechanical meter, as the requirement is for mechanical diaphragm gas meter thus this clause is not applicable. Kindly confirm.	BIDDER UNDERSTANDING IS CORRECT
15	7 of 88	Sec I (Vol I) Clause No.3.2	Delivery of first lot of meters shall be within (06) six weeks and four (04) weeks for subsequent lots, from the date of LOA /PO. Minimum & Maximum lot size is mentioned in Scope of Supply.	To commence a new project, it takes at least 4-6 weeks for raw material and other bought out items procurement. Hence we request you to accept delivery schedule first lot of meters shall be within (08) eight weeks and six (06) weeks for subsequent lots, from the date of LOA /PO.	TENDER CONDITION PREVAIL
16	54 of 88	Sec IV (Vol I) Clause No.7.1	Within twenty-one (21) days of receipt of the Contract/PO, the successful bidder shall furnish to the Purchaser the Contract Performance Bank Guarantee (CPBG @ 2.5% of total annualized contract value initially and 7.5% of individual release/purchase order value (inclusive of all taxes).	As per current practices of CGDs, we request you to accept CPBG 3%-5% instead of 10%.	TENDER CONDITION PREVAIL



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17	13 of 24	III (PTS) Clause No.3.1 General	· Suitability for operation in the designated classification of hazardous areas;	As the G1.6 diaphragm gas meter is purely mechanical meter hence ATEX or zone classification is not required, Kindly confirm	BIDDER UNDERSTANDING IS CORRECT
18	13 of 24	III (PTS) Clause No.3.1 General	· High Redundancy with high reliability (high MTBF and low MTTR) and no single point of failure;	As G1.6 diaphragm gas meter is maintenance free and hence the maintenance is not applicable, Kindly Confirm	TENDER CONDITION PREVAIL
19	13 of 24	III (PTS) Clause No.3.3 Electromagnetic Compatibility (EMC) Compliance	All gas meters and accessories shall be immune to Radio Frequency Interference (RFI) and Electro Magnetic Interference (EMI). The design and installation of all electrical / electronic equipment shall meet the RFI/EMI requirements according to IEC 61000, emission (IEC61000-6-4) and immunity (IEC-61000-6-2) requirements for an industrial environment.	As the G1.6 diaphragm gas meter is purely mechanical meter hence EMI/RFI is not required, Pl. Confirm	BIDDER UNDERSTANDING IS CORRECT AND IT SHOULD BE IMMUNE TO MAGNETIC INTERFERENCE
20	14 of 24	III (PTS) Clause No.3.4 Hazardous Area Certification	Gas meters shall be certified for use in designated areas when installed in hazardous area classified zones as per IEC 60079.	As the G1.6 diaphragm gas meter is purely mechanical meter & does not have any electrical/electronics parts; hence Hazardous area classification is not required, pl. confirm	BIDDER UNDERSTANDING IS CORRECT
21	14 of 24	III (PTS) Clause No.4.1 Domestic Diaphragm Meters	Domestic Diaphragm meter shall be suitable for measurement of low gas flows in domestic and light commercial metering applications. Domestic Gas Meters shall be of Diaphragm type mechanism (G1.6) for Natural gas application.	We understand that the tender is for G1.6 domestic diaphragm gas meter and hence gas meters will be used for domestic application (21-25 mbar with Maximum flow of 2.5 cubic meter/Hr) and not for commercial or industrial application which has pressure and flow more than as specified in datasheet, kindly Confirm	TENDER CONDITION PREVAIL
22	15 of 24	III (PTS) Clause No.7.0 Name plate	Each of the boxes of individual gas meter shall be closed / sealed appropriately with a tape, and packing and strength of the box shall be such that same does not get opened or damaged during handling and storing of the same. A set of 4-5 Nos. (Or as deemed suitable by the manufacturer) of individual gas meters shall be packed in a larger box / carton and contents of (larger) box / carton, viz. Description of the gas meter and total quantity of gas meters (in the box), shall be clearly and specifically mentioned (in English language only) on each of the (larger) box as under: a) Name of manufacturer b) Description of material c) Purchase Order No. d) Total quantity (inside the box) e) Date of inspection	We will provide pigeon packing which will have 4 meters packed in one single box with separator having enough strength to carry load of the meters along with packing meter details. A master box sticker will be pasted on master/outer box with below details. Please accept a) Name of manufacturer b) Description of material c) Purchase Order No. d) Total quantity (inside the box) e) Date of inspection	TENDER CONDITION PREVAIL
23	16 of 24	III (PTS) Clause No.8.0 MARKING, PACKING AND SHIPMENT	The calibration certificates of each item shall be enclosed within the package box. Each package box shall be tagged with the Purchase Order number (unique identification is required).	We will provide consolidated calibration certificate/report in soft copy during dispatch & hard/scanned copy during customer inspection , Kindly accept	TENDER CONDITION PREVAIL AND ALSO NOTE THAT HARD COPY OF THE CALIBRATION CERTIFICATE/REPORT SHALL BE SUBMITTED DURING INSPECTION AND DISPATCH OF THE METER.
24	16 of 24	III (PTS) Clause No.8.0 MARKING, PACKING AND SHIPMENT	The Manufacturer/Vendor has to ensure that the Inspection Agency (TPIA) apply their mark (stamp / sticker/ embossing applicable as per inspection cum dispatch released certificate) on each box ensuring above mentioned information before dispatch.	As per our understanding TPIA will apply their mark on TPIA samples meters. Kindly confirm	TENDER CONDITION PREVAIL
25	17 of 24	III (PTS) Clause No.9.0 INSPECTION AND TESTING	SUPPLIER shall furnish all the material test certificates, proof of approval/ license from specified authority as per specified standard, if relevant, internal test/ inspection reports, Accuracy test report for individual meter, as per Technical Specification and specified code for 100% material, at the time of final inspection of each supply lot of material. Type test reports shall be submitted for review by 'OWNER / OWNER's representatives. Also, all above mentioned certificates to be furnished in soft copy to the Owner.	We will provide the Internal leakage test report and consolidated accuray report along with critical component like steel used for mfg of casings with specified (batch) code during final inspection of each supply lot of material. Please confirm	TENDER CONDITION PREVAIL
26	23 of 24	V (QAP) Clause No.1. Body & Internal parts- Material of Body	Testing procedure for manufacturer is P (perform)	We will Provide raw material test certificate as provided by the vendor and the same has to be reviewed (R) by manufacturer, pl. accept	ACCEPTED AND SHALL BE AS PER TENDER QAP



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27	23 of 24	V (QAP) Clause No.2. Assembly - Degree of protection	Extend of check - 100%	The degree of protection is a type test, so performing it on 100% of the units is not feasible and same (Type test report) will be reviewed during the TPI inspection. Kindly accept.	TENDER CONDITION PREVAIL
28	23 of 24	V (QAP) Clause No.2. Assembly - External leak tight test	Ref. Doc. & Cl.no. - EN 1359 Clause no 6.2.2 & 6.2.3	External leak tight test comply as per BS EN 1359-2017. Clause No.6.3.3. Kindly confirm	BIDDER UNDERSTANDING IS CORRECT
29		Clause No.	Cyclic Volume - Minimum (Vender to specify)	<p>Bidder requesting IGL to consider the cyclic volume of the G1.6 Diaphragm Gas Meter as "1.2 Liter or higher" since a 1.2 Litre design has much better "Metrological Stability" with repeatability results (accuracy error) well within the specified range specified in EN 1359. This aspect is progressively critical as the gas meter installation gets older during its lifetime.</p> <p>Cyclic volume of a Gas Meter is the volume of gas corresponding to one full revolution of the moving part(s) inside the meter (working cycle).</p> <p>It is evident from the design and size of Gas Meters with different cyclic volumes that the "wear and tear of moving parts (critical to accuracy of measurement)" in gas meters (with cyclic volume lower than 1.2 litre) is much higher in comparison to gas meters with cyclic volume of 1.2 Litre since the number of revolutions is much higher in lower cyclic volume design for an equal volume of gas passed. With duration of time, as the Gas Meters measures cumulatively increasing gas volumes and the number of cumulative revolutions also increases resulting in a much higher wear and tear of the moving parts. This results in higher error values (more than the limits prescribed in the EN1359 standard) and lower metrological stability, lower accuracy, lower reliability and increased problems in repeatability of accurate readings thereby resulting in higher gas losses and loss of revenue to the IGL. With CGDs requirement of 10-20 years meter life, gas meters with lower cyclic volume will give higher errors values in meter reading after few years of their installation resulting in increased gas losses and loss of revenue to IGL.</p> <p>In addition to issues with metrological stability, due to higher number revolutions in lower cyclic volume design gas meters for the same gas volume passed, the moving parts of the internal gas measuring mechanism make higher noise which increases with increase in wear and tear of these parts. Same can be validated with CGDs in India that have experienced many noise related customer complaints with lower cyclic volume gas meters.</p> <p>We request to consider cyclic volume value as 1.2 Litre or higher. Pl. accept</p>	SHALL BE AS PER TERMS & CONDITIONS OF TENDER AND GOVERNING STANDARD
30		Clause No.	Consideration of NABL Accreditation	To further reinforce trust in the quality of the products procured, we recommend the inclusion of NABL accreditation as a requirement. This accreditation signifies that the manufacturer operates testing laboratories in compliance with NABL standards, providing an additional layer of assurance on product quality	TENDER CONDITION PREVAIL
31		Clause No.	Inclusion of "BIS Certification" Requirement	we propose the inclusion of "BIS certification" as a mandatory criterion in future tender terms for domestic diaphragm gas meters. This certification will enable the participation of manufacturers with proven quality standards, facilitating the procurement of robust products.	TENDER CONDITION PREVAIL
32	20 of 24	Part II of II TECHNICAL VOLUME Clause No.Data sheet	3 Points Covering Qmin, 0.1 Qmax & Qmax as per EN 1359: 2006/ EN 1359:2017 / or latest edition in force/ OIML R137 (Latest).	<p>Bidder refer to global CGD Industry practice & Globally, Calibration and Accuracy Testing not recommended to be done at 0.1 Qmax as it the point where the accuracy of error curve changes from +/- 1.5% to +/- 3%.</p> <p>Hence the better testing point is the next test point which is 0.2 Qmax, at which Globally all labs do the calibration and accuracy testing.</p> <p>Hence, bidder requesting & recommending to consider the below points for calibration and accuracy test: -Qmin 0.2 Qmax Qmax Kindly confirm the acceptance as per above.</p>	TENDER CONDITION PREVAIL



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33	23 of 24	Part II of II TECHNICAL VOLUME Clause No.QAP	Degree of protection- Extent of check 100%	As mentioned in Quality Assurance Plan, Degree of protection extent of check is 100%, Bidder understand that Degree of protection as per IEC 60529 (IP54/IP65) is a type test Where as 100% meters are tested for Leak tightness test as per EN 1359:2017 requirements. Kindly confirm	TENDER CONDITION PREVAIL
34	17 of 24	Part II of II TECHNICAL VOLUME Clause No.RFID	TECHNICAL REQUIREMENT OF RFID TAG	Bidder requesting IGL to please provide the details like what data is required in RFID tag, Size of tag, Version of software. Kindly confirm.	SHALL BE AS PER TERMS & CONDITIONS OF TENDER AND THE SIZE SHOULD BE SCANNABLE WITHOUT ANY ERROR
35	14 of 24	Part II of II TECHNICAL VOLUME TECHNICAL REQUIREMENTS Clause No.4.1	Domestic Diaphragm Meters-Vendor to provide the type approval certification for meter as per EN 1359 and certification from Weights & Measures Department, India with Model & Make details included. Calibration certificate (original + soft copy) shall be provided to Client. One copy of the certificate shall be provided within the packing box of each meter. Inspection of the gas meters at the works of the manufacturer by owner/ owner's representative and the vendor shall carry out tests to demonstrate that the gas meters are capable of generating pulses and are compatible with an AMR system. Fordemonstration, necessary arrangement shall be made by the supplier during inspection.	We would request provide the calibration certificates in “.pdf“ format, kindly consider	TENDER CONDITION PREVAIL
36	15 of 24	Part II of II TECHNICAL VOLUME TECHNICAL REQUIREMENTS Clause No.7	NAME PLATE m) Direction of flow either on Front of topcase of meter b/w Inlet or outlet	As per our understanding the direction of flow will be in top of the meter	BIDDER UNDERSTANDING IS CORRECT
37	Point No. 3.3	Clause No.Page no. 13,	EMC Compliance.	We understand that for Domestic Diaphragm Gas Meter – Mechanical – EMC Compliance would not be applicable.	BIDDER UNDERSTANDING IS CORRECT AND IT SHOULD BE IMMUNE TO MAGNETIC INTERFERENCE
38	Point No. 3.4	Clause No.Page No. 14	Hazardous Area Certification.	We understand that for Domestic Diaphragm Gas Meter – Mechanical – Hazardous Area Certification would not be applicable.	BIDDER UNDERSTANDING IS CORRECT
39	Point no. 4.1	Clause No.Page no. 14	One copy of the certificate shall be provided within the packing box of each meter.	We understand that calibration certificate has to be provided along with shipment of meters	TENDER CONDITION PREVAIL
40	Point No. 7.0, e	Clause No.Page No. 15	Date of Inspection	As meters has to be prepared & packed in prior to inspection, so we suggest to mention date of Manufacturing instead of Date of Inspection.	TENDER CONDITION PREVAIL
41	Page 20 of 24	Part II of II TECHNICAL VOLUME TECHNICAL SPECIFICATION	Point 11- Cyclic Volume * Vendor to Specify	We recommend cyclic volume of Minimum 1 dm3 to be considered for the domestic diaphragm meter.	SHALL BE AS PER TERMS & CONDITIONS OF TENDER AND GOVERNING STANDARD