ASSAM GAS COMPANY LTD
P.O. Duliajan Dist : Dibrugarh
Assam 786 602

No. MTL/PUR/13/09/Pt.XV/(M)/05 **Date : 01.09.2009**

NOTICE INVITING TENDER
FOR SUPPLY OF 3" TURBINE HORIZONTAL FLANGE FITTING GAS FLOW METER WITH METER MOUNTED VOLUME CORRECTOR.

1.0 INTENT

1.1 AGCL invites sealed tenders from reputed manufacturers, (herein after known as bidder / supplier) for supply of **3" Tubine horizontal flange fitting gas flow meter with meter mounted volume corrector.**

1.2 Sealed TENDER with 120 days validity under the single stage two bid system must be submitted on or before **2:00 pm (IST) of 12th October' 2009** and Technical Bids likely to be opened at 2:30 PM. (IST) on the same day. The sealed Priced Bids shall be opened only for shortlisted tenderers on a later date after evaluation of Technical Bids. **Earnest Money (EMD) @ 2% (two percent) of the tender value** in the form of Demand Draft in any Nationalised Bank in favour of Assam Gas Company Ltd. payable at Duliajan, Assam, India, 786 602 must be enclosed with the Technical Bid which will be retained by the company for successful tenderers till formal completion and acceptance of the supply.

1.3 Sealed Tenders super scribing the Tender No and date may be addressed to: The Managing Director, Assam Gas Company Ltd., P.O. Duliajan, Dist : Dibrugarh, Assam 786 602 and sent to Senior Manager (Materials), Assam Gas Company Ltd., Duliajan so as to reach latest by **2:00 pm on 12th Oct.2009.** For any clarifications, the parties may contact assamgas@sancharnet.in or telephone at 0374-2800582. The company shall not be held responsible for postal delays / transit loss, etc.

2.0 Details of Bid Document

1	Bid Document Number & Date	MTL/PUR/13/09/Pt.XV/(M)
2	Bid Due Date (Technical & Priced)	1400 hours on 12.10.2009
3	Bid Submission at	Materials Deptt Assam Gas Company Ltd Duliajan Assam 786 602
4.	Opening of Technical Bids	1430 hours on 14.10.2009
5.	Earnest Money Deposit	2% of the total quoted amount
6	Bid Validity	120 days from date of opening
7	Delivery Period	3 (three) months

3.0 BID SUBMISSION

3.1 BIDS IN TWO (2) PARTS IN SEPARATE SEALED COVERS WITH THE NAME OF THE WORK AND TENDER NO WRITTEN IN BOLD AND CLEAR WRITING

PART-A : **TECHNICAL OFFER** to include

a) EMD amounting to 2% of the total quoted amount in a separate sealed envelope

b) Technical Submission containing all relevant documentation as per Qualification criteria (Minimum Bid Evaluation Crtieria)

c) Certification in regard to Technical Compliance & Past Performance, Technical Catalouges and User's Manual for offered product.

d) Commercial Terms

e) Warranty and Post Warranty Support Terms

f) Technical Bid Compliance Statement as per format

- Technical Specifications
- Tests as per EN Standard
- OIML Certificate for the product offered and manufacturing location.

g) Commercial Bid Compliance Statement

h) Un Priced Price Bids but with other information filled in

i) Different Product Documentation Test Certificates

PART-B : **PRICED OFFER**

Priced offer in prescribed format

The price bids shall be opened only for technically qualified bidders

3.2 The EMD amount in the form of a Demand Draft in favour of Assam Gas Conpany payable at Duliajan should be included in the Sealed Technical Offer part. These two covers shall be put into one outer cover and sealed. All the covers should duly bear the tender number and date of closing along with the name and address of the bidder.

4.0 TENDER PREPARATION

4.1 A statement that Tenderer agrees to be bound by all contract terms and conditions stated in this Tender and as may be revised by Addenda issued before the closing date.

4.2 Pricing Information shall NOT be included in this part of the Tender. Tenderers shall ensure that no pricing information of any type is shown in their technical Tender. The inclusion of pricing in any place other than the sealed Pricing Tender will result in rejection of the Tender.

4.3 All pages of the Tender must be numbered and signed by the authorized signatory.

4.4 The prices quoted shall be firm and include all charges. Taxes, etc shall be shown separately.

4.5 The prices and amounts entered in the schedule of prices shall represent the Tenderer's offer in accordance with the requirement.

4.6 At any time prior to the deadline for submission of tenders, Assam Gas Company Ltd. for any reason, whether at his own initiative or in response to a clarification required by a prospective tenderer, may modify the tender documents by issuance of amendments. Such amendments shall be part of the tender documents pursuant to relevant Clause and will be notified in AGCL website assamgas.org. The same will be binding on all tenderers. Managing Director Assam Gas Company Ltd. may, at his discretion, may extend the deadline for the submission of the tenders.

5.0 CONDITIONS OF CONTRACT

5.1 Contractual Obligation : All Tenderers who submit a Tender in response to this tender shall understand, acknowledge and agree that the AGCL is not obligated thereby to enter into an agreement or contract with any Tenderer and, further, has absolutely no financial obligation to any Tenderer.

5.2 Contract Acceptance : A Tender submitted in response to this notice shall be considered a binding offer. Acknowledgement of this condition shall be indicated by signature of an officer of the Tenderer legally authorized to execute contractual obligations and shall be conveyed by submitting a signed Form of Tender as per the enclosed format.

5.3 All prices and any other significant factors contained in the Tender shall be valid for acceptance for a period of 120 calendar days from the Tender closing date. Notwithstanding the above, the validity period of the offers may be extended by Assam Gas Company Ltd with the consent of the tenderers.

5.4 *The Contractor shall transfer all the items through an Installation Note prior to issue of Operational Acceptance certificate by the Company.*

5.5 Detailed terms and conditions shall be incorporated in the Purchase Order.

6.0 COMPLETION TIME

The entire work of supply should be completed within a period of three months from the date of issuance of Purchase Order.

7.0 WARRANTY & POST WARRANTY SUPPORT

7.1 The Contractor shall provide comprehensive on site warranty that the supplied item and associated items shall be free from defects in the design, engineering, materials, and workmanship that prevent the product and/or any of its components from fulfilling the Technical Requirements or the performance, reliability of the System and/or Subsystems. Commercial warranty provisions of products supplied under the Contract shall apply to the extent that they do not conflict with the provisions of this Contract. The Warranty Period shall be 18 months from the date of dispatch or 12 months from the date of installation, whichever is earlier.

7.2 The bidder will provide a guarantee that on site maintenance service including spares for the supplied product will be available to the company for at least 5 (five) years after expiry of warranty period.

8.0 BIDDER QUALIFYING CRITERIA

8.1 Bidder must be a manufacturer / or authorized dealer of the original manufacturer of Turbine Gas Flow meter having valid approval for custody transfer application. Similarly for the Electronic Volume Corrector, valid approval certification for custody transfer application as per EN 12405 standard shall be required. All relevant certificates like type test certificate, pattern approval certificate, custody transfer certificate in compliance to the requirement as set by relevant OIML Regulation R6/R31/R32, EN Standard 12261 and/or AGA 7 Standard, PED Directive (97/23/EC) and ATEX Classification, Hazardous area classification for Zone I in case of EVC, Calibration Certificate in a laboratory accredited by PTB/Nmi or equivalent internationally apex laboratory and Documentary evidence of the same must be enclosed.

8.2 Documentary evidence of supply and end user satisfactory performance certificate must be enclosed for offered make for similar configuration.

8.3 The bidder must have had an annual turnover of at least Rs 3.00 Crore (Rupees Three Crore only) in any of the last three preceding financial years. Proof of Annual turnover must be submitted duly certified by a qualified Chartered Accountant.

8.4 The bidder must have adequate testing equipments, etc and must be able to demonstrate their capability to provide warranty and after sales service

8.5 Name of the organizations / firms for which Turbine meters with Electronic Volume Corrector were supplied during the last three years with certificates showing Purchase Order number /date, Supplied documents, acceptance documents contracted value and satisfactory performance certificate.

8.6 The Bidder will also have to submit the following
Income Tax PAN No.
Service tax and VAT Registration No.
Earnest Money in the form of Demand Draft.

The Company reserves the right to accept or reject any or all the Tenders without assigning any reason thereof.

Tender paper submitted without the documents mentioned above & the Earnest Money, will be rejected outright.

Sd/-
(B.Borpatra Gohain)
MANAGING DIRECTOR

COMMERCIAL SECTION

1.0 PAYMENT TERMS

1.1 10% of the Value of the Purchase Order shall be retained by the company as Performance Security till the end of the Warranty Period. Any deficiency of service during the period may result in forfeiture of the Performance Security.

1.2 80% payment of Purchase Order value will be made on delivery at site after acceptance test.

1.3 10% payment will be made on successful installation, testing and commissioning.

1.4 No payment made by the Company herein shall be deemed to constitute acceptance of the supplied items.

1.5 All statutory levies such as Income Tax, Sales Tax, etc. will be deducted from the amounts due to the Bidder and the balance will be paid. Service Tax where applicable will be paid by the Company but the Contractor will add the same to his bills submitted to the Company.

2.0 SCOPE OF BID

2.1 Supply of 3" Turbine Horizontal Flange Fitting Gas Flow Meter with meter mounted volume corrector.
Flow : Axial, Body: Carbon Steel, Flange: As per ANSI 150 Class
Medium: Natural Gas, Temperature: (-5)° C to (+) 50° C.
Specific Gravity: 0.6 to 0.7
Measurement: As per AGA-7, Compressibility : As per AGA-8
Maximum Flow :250 M3/Hr with 3" 150 # flange : 115 (one hundred fifteen nos.)
Maximum Flow: 400 M3/Hr with 3" 150 # flange : 20 (twenty) nos.
Detail Technical specification is enclosed at Annexure: I

2.2 : The rate should be quoted FOR Duliajan (Company's Stores) basis by road transport with break-up of basic materials cost, sales tax, excise duty, education cess, transportation cost and other charges, if any.

2.3 Inspection & Testing of every meter/EVC will have to be carried out prior to delivery. Meter Calibration Certificate and EVC Test Certificate shall be provided individually for every supplied item. The company representative reserves the right to be present for the tests.

2.4 Proper packing, Transportation, loading at manufacturer premises, unloading at Company's Stores and transit insurance to site, that is, Company's Stores of Materials deptt of Assam Gas Company Ltd. at Duliajan, Dist : Dibrugarh, Assam 786 602 is included in the bidder's scope.

2.4 Delivery should be made within the specified time mentioned in the Purchase Order. And in case of delay in delivery, Liquidated damage @ 2% per month will be charged on the value of the undelivered items for each month of delay or part thereon.

2.5 **The bidder will be required to submit clause wise Bid Compliance Statements on Scope, Bid Evaluation Criteria, Technical Specifications, Standards and Commercial Terms.**

3.0 STANDARDS

3.1 The materials shall conform in all respects to the European Standard as per EN 12261 Standard, with latest amendments thereof, some of them are listed below:
(all the standards here)

4.0 SERVICE CONDITIONS

4.1 The Custody Transfer Natural Gas Turbine Meters along with EVC to be supplied against this Specification shall be suitable for satisfactory continuous operation under the following climatic conditions

i) Location : At Duliajan, Dist Dibrugarh Assam India
ii) Max ambient air temperature (deg.C) : 50
iii) Min. ambient air temperature (deg.C.) : 3
iv) Maximum relative humidity : 0 to 100%
v) Average thunder storm days/annum : 30 nos
vi) Average rainy days per annum : 150 days
vii) Number of months of tropical monsoon: 4 Months.

5.0 TECHNICAL SPECIFICATIONS

For Turbine Gas Flow Meter:

Sl No	Criteria	Specifications for Turbine Meter
1	Regulated Operating Pressure	0.5 bar (g) to 4 bar (g).
2	Maximum Operating Pressure	19.3 bar (g) as per ANSI 150/ISO PIN
3	Maximum Flow	250 cu.m/hr and 400 cu.m/hr
4	Rangeability	1:30 for Qmax: 250cu.m/hr, Qmin: 8 cu.m/hr with supported proof documents 1: 20 for Qmax:400 cu.m/hr, Qmin: 20 cu.m/hr with supported proof documents.
5	Repeatability	0.2% or better
6	Service	Natural Gas, Dry and Non Corrosive
7	Meter Body	Ductile Iron or Cast Steel
8	Specific Gravity	0.57
9 10	Line Size/ End Connection	DN 80 for 250 cu.m/hr and 400 cu.m/hr As per ANSI B 16.5
11	Meter Size	3X DN
12	Facing & Finish	Shall conform to ANSI 150 RF
13	Material- Body	Compliant to PED 97/23/EC
14	Flow	Axial/Horizontal
15	Accuracy	As per EN12261 Standard ± 1% between Qt and Qmax.
16	Anti Temper	LF cable between the meter and EVC to have anti temper detection.
17	Temeprature Range	(-) 5 to (+) 50 degree C, however depends on compressibility algorithm selected.

18	Ambient Temperature	0 to 50 degree C.
19	Straightening vanes	Meter shall be equipped with a flow Straightener which allows an installation with pipelength of only 2DN upstream and 0 (Zero) DN downstream.
20	Intrinsically Safe	YES, EX II 1/2 GEE xia IIC T5
21	Totaliser	Min 8 digit Mechanical Index and index shall be provided with silica gel cartridge for moisture absorption
22	IP Protection Class	IP 65 (or better) for Turbine meter
23	Pressure Tap	Shall be on meter body
24	Temperature Tap	Thermowell shall be on meter body
25	Pulse Output	Shall be provided with 2 LF Pulser (for pulse output and coherence check) for interconnection to Electronic Volume Corrector complying with EN 12405
26	Area Classification	As per IEC 79/relevent EN Standard for Turbine Meter
30	Accuracy	For Pressure:(±) 0.2 percent of measured value or better For Temperature:(±) 0.25 of measured value or better.
32	Calculation Accuracy	As per EN 12405, accuracy should be within (±)0.5% at reference condition.
38	Calibration detail of Turbine Meter	Each Meter will be Calibrated using air at atmospheric pressure in a laboratory accredited by PTB/NMi or equivalent Internationally reputed apex laboratory of the country of origin. Calibration shall be performed at 6 points as per relevent. EN Standard. Certificate and tested meter will be marked/stamped with seal of accrediation.
39	Approval and document for Turbine Meter.	(a) The offered Turbine Flow Meter shall be approved for custody transfer application. The bidder should enclose valid type approval certificates with their bid. (b) The Turbine Flow meter shall be certified for use in custody transfer application and shall comply to requirements as set out by relevent OIML Regulation R6/R31/R32, EN Standard EN12261 and/ or AGA 7 Standard, PED Directive(97/23/EC) and ATEX Classification. (C) All relevent type approval/ conformity certificates shall be enclosed with the bid. Type Test Report of Meter will be an integral part of the Approval. (d) The bidder should enclose Technical Catalogues/ Commercial Brochures in English Language for the offered turbine flow meter.
43	Performance guarantee	(a) The bidder shall enclose satisfactory performance certificate for the offered

	for Turbine Meter	model of Turbine meter in India for at least last 10 year period. (b) The bidder will provide a guarantee on site maintenance service for the supplied product will be available to the Company at least 5 (five) years after expiry of Warranty period.

viii) The equipment shall be for use in moderately hot and humid tropical climate, conducive to rust and fungus growth.

For Electronic Volume Corrector (EVC):

Sl No	Criteria	Specifications for Turbine Meter
01	IP Protection Class	IP 65 (or better) for EVC
02	Pulse Output	Shall be provided with 2 LF Pulser (for pulse output and coherence check) for interconnection to Electronic Volume Corrector complying with EN 12405
03	Area Classification	As per IEC 79: Zone I, Group IIC,T4 for EVC (Hazardous area)
04	Severity Class for EVC	As product will be used in general open climate and medium level vibration and shock , Severity Class - F
05	Measuring Temerature range for EVC.	Temeperaure range : (-) 10 to 60 degree C. However, depends on the compressibility algorithm selected
06	Measuring Pressure range for EVC.	0.9 to 10 bar (Absolute). Gauge pressure sensor will not be accepted.
07	Accuracy of EVC	For Pressure:(±) 0.2 percent of measured value or better For Temerature:(±) 0.25 of measured value or better.
08	Calculation Method	The offered EVC should compute compressibility ratio of the gas using any of the following formula (programable): SGERG88, AGANX19 (std), AGANX19 (Mod), AGA Gross Method 2, 16 coefficients (table Z), AGA 8 deatiled and fixed compressibilty value. However, the EVC should be programmed for AXA NX 19 when delivered.
09	Calculation Accuracy	As per EN 12405, accuracy should be within (±)0.5% at reference condition.
10	Power for EVC	The offered EVC should be powered by a lithium battery pack, which has been certified for intrinsic safety and should have an autonomous life of five years under typical condition.It should be possible to replace the battery pack in hazardous area without interrupting the normal operation of the device.
11	Communication Port of EVC	A serial Port RS 232 which allows either a local communication with a laptop 0r PC through an intrinsic safe isolation OR a remote communication through GSM modem using Modbus protocol.
12	Local Display	The EVC should preferably be equipped with a large graphical display, which allows display of all metrological data and alarm status, iconic indication, graphical representation for pressure, temperature, compressibility ratio, conversion factor, unconverted volume and converted volume. An optical port, which allows local communication with a laptop or PC via a

		Windows based software for uploading/downloading of data of software.
13	Output measurement and display	In addition to the parameters as specified in 35, the EVC should be able to display the following data: (a). Corrected flow rate in SCM/Hr (b) Corrected totalised volume in SCM (c)Pressure in bar (d)Temperature in deg C. (e)Uncorrected flow rate in M3/Hr (f) Uncorrected total volume in M3 (g)Yesterday's flow in SCM (h) Today's flow in SCM (i) Alarm output for unit malfunctioning, Low battery alarm. (j)Low battery alarm
14	Other features of EVC required	(a) Data security through password. (b)Parameters and programmed constants shall be stored in non- volatile memory. (c) Facility for entry and accessing live and stored data through external laptop/PC. (d) Must be able to store 120 days data (on hourly basis) for pressure, temperature, corrected and uncorrected flows with date and time stamping. (when the interval dadabase is set to 60 min/I hour). (e) The stored data shall be retrievable by using laptop. Software required shall be supplied without any additional charge. (f) The offered EVC must have facility to store at least record of 200 events or 90 days, whichever is earlier.
15	Markings on EVC	The offered EVC should bear CE marking and comply the following directive: (a) 94/9/EC for potentially explosive atmosphere directive (b) 89/336/EEC for electromagnetic directive
16	Base Condition for Calculation	Base Pressure: 1.01325 bar Base Temperature: 15 deg C.
17	Approval and document for EVC	(a) Nmi should approve the EVC offered for custody transfer of natural gas unde provision of EN 12405 standard. Complete set of test certificates and pattern approval certificates should be provided with the bid. (b) The Bidder should enclose detailed technical catalouge and user's guide of offered EVC.
18	Performance guarantee for EVC	The bidder shall enclose satisfactory performance certificate for the offered model of EVC in India for at least last 3 year period. The offered EVC shall be compatible for open protocol communication such as Modbus and the bidder shall provide customer performance certificate stating successful open protocol communication using the offered EVC in India.
19	Other Requirement of EVC.	EVC must be incorporated with two way valve at pressure tapping for online Pressure Calibration. One piece set of connecting cable i.e. Optical Probe (connecting laptop with EVC must be supplied free of cost with a minimum of 20 lot of EVC.

6.0 TESTING

Every meter and EVC shall be fully type tested by the bidder/ manufacturer as per the relevant standards. The type test must have been conducted on same design.

The test certificates for all type tests for the meter & EVC shall be carried out. Calibration of the meter shall be carried out for every meter. Test certificates for such tests will be submitted by bidder prior to dispatch.

The company shall have every right to appoint a third party inspection to carry out the inspection process. The company has the right to have the test carried out at his own cost by an independent agency wherever the dispute regarding the quality of supply.

6.1 CALIBRATION OF METER:

Every meter will be calibrated using air at atmospheric pressure in a laboratory accredited by PTB/Nmi or equivalent internationally reputed apex laboratory of the country of origin. Tests in the country will have to be performed in a NABL accredited laboratory. Calibration shall be performed at 6 points as per relevant EN Standard. Certificate and Tested meters will be marked / stamped wih the seal of accreditation.

6.2 TYPE TESTS

All kind of Test as per OIML standard like Error of indication, Stability, Linearity, Endurance, Overload, Robustness , Leakage, Lubrication etc shall be carried out.

Type Test report will be an integral part of the Approval.

6.3 TESTS AT SITE

The company reserves the right to conduct all tests on meters/EVC after arrival at site and the bidder / manufacturer shall guarantee test certificate figures under actual service conditions.

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PRICE SCHEDULE

NIT No: Date:

SUPPLY OF 3” TURBINE HORIZONTAL FLANGE FITTING GAS FLOW METER WITH METER MOUNTED VOLUME CORRECTOR

SL NO	PARTCULARS	RATE (RS)
1	Basic rate	
2	Excise Duty @ ……..on…….	
3	Education Cess @ ……..on……..	
4	Any other Charges (HE Cess etc)……	
5	Sales Tax @.....on……	
6	Insurance @.....on……	
7	Freight…….	
	TOTAL	

If required, Tendered may indicate further breakdown prices according to various taxes and duties of the items offered.

Signature of Bidder with seal

EXPERIENCE LIST

The Tenderer shall tabulate below a list of his experience as regards to the supply of Turbine Meter with Electronic Volume Corrector indicating as much details as possible, name of Client, year of execution and cost and other information. Tenderer shall follow this format and shall be included in the Bid Evaluation Criteria part.

NAME OF CLIENT	P.O. NO & DATE	TURBINE METR MODEL	QUANTITY ORDERED FOR	EVC MODEL	QUANTITY ORDERED FOR	TURBINE METER SUPPLIED WITH DATE OF SUPPLY	EVC SUPPLIED WITH DATE OF SUPPLY	REMARKS

SEAL OF THE COMPANY

Signature : .....

Name : .....

Designation : .....
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DECLARATION LIST

I/We, ... certify that all the above submitted data and information pertaining to this proposal are correct and are true representation of the offer covered by our formal Proposal No. ..... dated ..... against your Tender No ……..Date : ……

I/We, hereby certify that I/We am/are duly authorised representative/s of the Tenderer whose name/s appears above my/our Signature.

Tenderer's Name	:	.....
Authorised Representative's Signature/s	:	.....
Authorised Representative's Name/s	:	.....
Tenderer's Intent	:	The Tenderer hereby agrees fully to comply with the requirements and intent of this specification.
Authorised Representative's Signature/s	:	.....

SEAL OF THE COMPANY

Signature/s	:	.....
Name/s	:	.....
Designation/s	:	.....

BID COMPLIANCE STATEMENT for all Tender Clauses

Sl No	TENDER CLAUSE NO	TENDER SPECIFICATIONS	CLAUSEWISE / POINTWISE OFFERED SPECIFICATIONS	SUPPORTING DOCUMENTS IN ANNEXURE

SEAL OF THE COMPANY

Signature/s : .....

Name/s : .....

Designation/s : .....