



INDRAPRASTHA GAS LIMITED

(A Joint Venture of GAIL (India) Ltd., BPCL & Govt. of NCT of Delhi)
Corporate Identity Number (CIN)-L23201DL1998PLC097614

Notice Inviting Expression of Interest

For Partnering with IGL for setting-up a Gas Meter Manufacturing Plant in India

INDRAPRASTHA GAS LIMITED, a leading City Gas Distribution company invites proposal from Indian companies engaged in the field of Gas Meters/Smart Electrical Energy Meter manufacturing OR Manufacturing of components of gas metering/regulating/flow measurement OR Gas Metering Technology provider, having authorization from a natural gas meter manufacturer for setting up a gas meters manufacturing unit in India for natural gas application, for partnering with IGL for setting up a Gas Meter manufacturing plant in India. Interested parties may go through the details available on website iglonline.net and submit their proposal through email at iglcs@igl.co.in or by post to VP (Business Development, Corporate Strategy & Gas Sourcing), IGL Bhawan, Sector-9, R.K. Puram, New Delhi-110022 latest by **22.02.2021**.

HAR EK KAAM DESH KE NAAM

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1. Indraprastha Gas Limited (IGL), termed as Client in this document is a joint venture company of GAIL (India) Limited, Bharat Petroleum Corporation Limited (BPCL) and Govt. of NCT of Delhi (GNCTD). IGL is engaged in City Gas Distribution of natural gas under two business segments – Piped Natural Gas (PNG) to domestic, commercial and industrial consumers and Compressed Natural Gas (CNG) to variety of vehicles as automotive fuel. IGL. One of India's leading natural gas distribution company, IGL has a large network of CNG Stations, Commercial & Industrial Gas customers, as well as domestic PNG connections. Besides consolidating its position in existing areas of operation, IGL has been entering into new geographical areas for development of City Gas Distribution network. For details, please visit client's website: www.iglonline.net
2. Government of India is giving thrust to usage of natural gas and wants to make India as a gas based economy. In this background, landscape of CGD industry is fast changing with coverage of a large number of geographical areas in various parts of the country. The changing CGD scenario would give a boost to IGL business also.
3. The Client, under its vision and mission of diversification of its business activities, intends to establish a PNG Meter assembly & manufacturing plant in Western / Northern parts(preferably in National Capital Region) with a capacity of 1 Million meters per annum, and a provision to expand the production line and related warehousing, testing and calibration facility expandable to 2 Million meters per annum. Client seeks expression of interest from Indian entities to establish a

manufacturing unit of meters in India under Joint Venture and under long term licensing agreement as specified in document.

The prospective parties (termed as Potential Partner in the document) are requested to submit the EOI along with the Questionnaire and Appendices attached.

Proposals are invited from Potential Partners (PP) as per following eligibility criteria / requirement:

1. Eligibility Criteria:

Objective: Client intends to invite Expression of Interest (EOI) from Indian Companies (as per Companies Act, 2013 and subsequent amendments, as may be applicable), having either manufacturing capabilities or having gas metering technology for partnering for setting up a state of the art gas meter manufacturing unit in India. The intended meter manufacturing unit shall be capable of producing Diaphragm type residential meters, smart meters (AMR / Pre-paid) and having capacities and capabilities of catering to domestic market and exporting to global markets. The partner company is required to possess the technology for manufacturing of gas meters of its own or through authorization from an established meter manufacturer and transfer it to the proposed new manufacturing unit along with requisite international certifications and approvals under relevant standards and applicable codes.

The Potential Partner (PP) should meet all Evaluation Criteria requirements as mentioned below:

- a. Potential Partner shall be an Indian company registered under Indian Companies Act.
- b. If the Indian company (as Potential Partner) is a gas meter manufacturer, it should have certificate as manufacturer of Diaphragm based gas flow meters from Department of Consumer Affairs, Legal Metrology Cell, meeting relevant standards. The product should have EN and other relevant approvals and certifications applicable for Diaphragm G1.6 Gas meter.
- c. In case the PP is not a gas meter manufacturing company but submitting proposal as a manufacturer of Smart Electrical Energy Meter OR manufacturer of components of gas metering / regulating / flow measurement OR provider of Gas Metering Technology, it must have the valid authorization from a natural gas meter manufacturer having EN and other requisite international certifications for setting up a gas meters manufacturing unit in India for natural gas application. It will submit written

- consent from its principal for transferring the technology and other requisites, as defined elsewhere in the document, to the proposed unit.
- d. The potential partner can be either a sole company or JV company. The potential partner shall provide satisfactory evidence that he and/or, where applicable, his collaborator/associate/partner(s) of Joint Venture:
 - (i) Is capable of executing the type of assignment specified and has adequate technical knowledge and relevant experience for the activities covered in the document / likely to be covered for satisfactory execution of the assignment.
 - (ii) In case of a consortium, the number of constituent members will be limited to two and the lead partner shall have minimum 51% stake in the consortium. The consortium shall ensure that a company between the consortium partners would be formed within a month maintaining same composition that of consortium, if it is shortlisted.
 - (iii) No change in Ownership/Control shall be permitted during the proposed period of execution of project and for a minimum period until successful expiry of handholding period.
 - (iv) Has adequate financial stability and capability to meet the financial obligations to meet the project requirement.
 - e. The minimum net worth of the Potential Partner as per audited balance sheet shall be an important criteria for evaluation of proposal and shortlisting. The operating profit should be positive in any two financial years during last three financial years.
 - f. In case the potential partner is not a meter manufacturer and is submitting proposal based on authorization from the meter manufacturer for technology transfer, the net worth of such meter manufacturer should be positive as on 31.12.2020.

2. Scope of work:

- i. The scope will cover diaphragm gas meters, pre-paid meters as well as Smart Meters & AMI business. The selected partner shall jointly define the technology roadmap of evolution of the product for the Indian/Global market.
- ii. The selected potential partner shall have to sign a definitive agreement with client for entering into a joint venture for setting up a gas meter manufacturing unit in India as a partner. The partner shall vest the rights to manufacture gas meters in the joint venture.

- iii. The partner shall take responsibility on behalf of client to obtain all necessary Type Approvals and requisite regulatory approvals for the said product. PP shall be willing to upgrade the offered product during the contract period as per mutually agreed terms and condition.
- iv. PP must provide full-fledged back end support, for any Certification, if required, for the components to be procured as SKD/CKD kit or as per BOM.
- v. PP must agree to provide all technical support for development of manufacturing and testing infrastructure.
- vi. PP must demonstrate capacity of supplying components to facilitate manufacturing and that it can supply the type, size, and quantity of the components as required for the production of volumes.
- vii. PP must setup a facility within the agreed premises, to ensure the quality of the production of diaphragm-based gas meters /smart meters and also train and assist client to upload the software on smart meters to make them fully functional as per the relevant standards.
- viii. PP must assist client in setting up the production lines and give necessary Technical Support including Specification, process diagrams including hand holding for the smooth and efficient functioning of the plant.
- ix. PP must ensure to develop localized components (not less than 90% of total number of components of a diaphragm gas meter) within a stipulated time frame, say within 12 months of successful commissioning of production lines.
- x. PP shall provide Training to client's personnel for Manufacturing, Testing, Integration, Trouble Shooting, Installation & Commissioning and Maintenance.
- xi. PP shall be ready to extend long-term support to meet out the client's specific requirement. PP shall be willing to act as a Technology partner of client for addressing Smart Metering and AMI business opportunities.
- xii. PP shall furnish full details on the solution offered to address the upcoming/ future tenders, along with the compliance to the tender requirements and their readiness to support as the JV company / partner for participating in tenders post entering in to definitive and binding agreement.

3. Evaluation of Proposals for Selection of Potential Partner:

Evaluation of proposals for selecting a Potential Partner for the above mentioned requirement will be done on the basis of information furnished by the PP and the documentary evidence furnished in support of meeting the Qualification Requirements as specified in Eligibility/ Qualification Criteria. Non-availability of information and related documentary evidence for the satisfaction of Qualification Requirements may cause the response to be treated as non-responsive.

4. Agreement:

Client shall enter into a partnership/technology tie up with the selected potential partner who meets the eligibility conditions as evaluated and approved by the client.

Exclusivity clause:

To be discussed during evaluation of proposals.

5. Technical Specification of Meter:

As per **Appendix-A**.

It is not the intent to specify completely herein all the details of technical design and construction of material. However, the material shall conform in all respects to engineering standards, design and workmanship and shall be capable of performing in continuous commercial operation in manner acceptable to consumers.

COMPLETION SCHEDULE

The potential partner shall be expected to achieve project completion for 1 Million G1.6 Domestic Diaphragm Gas Meter manufacturing plant setup within 6 to 9 months from the date of JV Agreement. The time schedule of key activities of project is indicated below:

S. No.	Activity	Schedule (months)
1	Selection of the JV Partner	
2	*Land Acquisition, Approvals, Agreement(s)	Zero Date
3	Detailed Project Report	+ 1 month
4	Design and Engineering	+ 2 months
5	Order for plant & machinery	+ 3 months
6	Civil & Building Works	+ 4 months
7	Installation of Assembly Line	+ 5 months
8	Installation of testing & calibration unit	+ 6 months

9	Plant Commissioning	+ 7 months
10	Production Commencement	+ 8 months
11	Dispatch of 1 st lot of Meters for EN approval	+ 9 months

*Acquisition of land / property on outright purchase / long-term lease basis may be done by IGL for the proposed unit, for leasing it out to the proposed JV. The preferred location is Delhi / NCR, however the same may be finalized after taking inputs from shortlisted potential partner.

6. Important Notes:

- i. It shall be understood that these documents are not final documents and the Client reserves the right to change any or all conditions/information set in this EOI by way of revision, deletion, updating or annulment through issuance of appropriate addendum as the Client deems fit without assigning any reason thereof.
- ii. At any time prior to the deadline for submission of EOI, the Client may, for any reason whether at its own initiative or in response to a clarification requested by a potential partner, amend the scope of work. All potential partners are advised to check IGL website regularly, as all subsequent clarifications and amendments related to this EOI will be hosted on the website only.

7. Date of submission of EOI: EOI response should reach client office on or before 22/02/2021, 17:00 hrs (IST). Late proposals are liable to be rejected.

Interested parties may go through the details provided under and submit their proposal including duly filled Questionnaire (Annexure- 1) and other information as per formats (**Appendix – A, B and C**), through email at iglcs@igl.co.in or by post to:

Mr Sanjeev Kumar Bhatia
 VP (Business Development, Corporate Strategy & Gas Sourcing)
 IGL Bhawan, Plot No. 4, Community Centre
 Sector-9, R.K. Puram
 New Delhi-110022

T (+91) 11 46074607, 4606 4759
 Email: iglcs@igl.co.in

APPENDIX – A : INFORMATION FOR APPLICANTS

1.0 BRIEF TECHNICAL SPECIFICATION OF PNG METER

1.	PNG Meter	:	G1.6 Gas Meter (Initially, which however could be expanded to higher size / capacity meters)	
2.	Meter Type	:	Diaphragm Gas Meter, with and without AMR Pre and Post Paid Additional Handheld device for physical meter reading	
3.	Connection	:	Two pipe connection (Inlet & Outlet), and pipe thread as per ANSI B1. 20.1	
4.	Design Parameters	:	Temperature	
			Maximum	50°C
			Minimum	0°C
		:	Flow Rate	
			Minimum	0.016 m ³ /hr
			Transitional	0.25 m ³ /hr
			Maximum	2.5 m ³ /hr
			Overload	3.0 m ³ /hr
5.	Standards	:	BS-EN1359	Steel and Aluminium Casing
6.	Certifications	:	Third party certifications for EN1359 / OIML / MID	
7.	Safety	:	Over pressure shut-off device Built-in reverse flow and reverse count protection	
8.	Communication	:	Standard communication protocol & interoperability so that AMR solution provider can easily interface	
9.	Accuracy Level	:	Class 1.5, Limits prescribed by EN-1359	
10.	Degree of Protection	:	IP54	
11.	Traceability	:	1:150 or better for natural gas, at a normal operating pressure of 21mbar	
12.	Mounting Accessories	:	Metal Seal Wire, Wall mounting Bracket with not less than 25 mm thick and 5 mm width. End connection to be protected by plastic caps	
13.	Leakage protection	:	All meters to be tested for external tightness and leakage for upto 1.5 times the design pressure.	
14.	Meter Interface Unit	:	Should be replaceable / retrofitted due to fault or upgrade of communication interface technology	
15.	Software Functions	:	Real time data acquisition system, storage and retrieval system on standard client/server architecture	
16.	Life	:	Minimum 10 years	
17.	Calibration	:	As per EN-1359	

2.0 AMR / AMI related features:

1. Can meter Support: RF / P2P (Walk by) / GSM / GPRS / Others, please specify?
2. Which protocols for AMI Interface to be used: LoRa / DLMS / ANSI C12 Protocol?
3. Can Meter support: Pre-paid Cards for Pre-paid meters?
4. Can 3rd Party AMI interface card be installed in the meter?
5. Expected Battery Life & type of Battery – with online reading once in month.

APPENDIX - B
TECHNOLOGY TRANSFER & LICENSING REQUIREMENT

1.0 TECHNOLOGY & LICENSING REQUIREMENT

The following are the key points for technology transfer and licensing requirement:

- The Client and the Potential Partner would enter into a technology transfer and licensing agreement, executed under the Laws of India, with Arbitration seat at New Delhi.
- The Potential Partner to provide inputs to detailed project report. The shortlisted potential partner shall jointly prepare DPR along with IGL after signing a MoU. This DPR will form the basis of signing of the Definitive Agreement (Term Sheet).
- In case the Potential Partner is not a meter manufacturer and offering meter technology from its principal then PP has to submit a consent for entering into a technology transfer and licensing agreement.
- Potential Partner to certify that there is no exclusivity to any local partners in the India or the Indian region.

APPENDIX - C
EXPERIENCE DETAILS

APPENDIX C-1

1. Details of the firm/company:

Name	Year of Establishment	Type of Organization			
		Individual	Partnership	Co. (LLP / Pvt Ltd / Pub Ltd)	Others (please brief)

2. Office / Business Address / Telephone Nos. / Cable Address (Registered Office, Head Office, India Office)
3. Narrative description of the firm (Use other sheet, if necessary)
4. Financial statement of the last three financial years (Note- In case of Consortium, details of all Consortium partners to be provided separately)

S. No.	Particulars	2019-2020	2018-2019	2017-2018
I	Annual turnover			
II	Total Assets			
III	Current Assets			
IV	Total Liabilities			
V	Current Liabilities			
VI	Net Worth			
VII	Revenue from Operations			
VIII	Operating Profit			
IX	Net Profit before Tax			
X	Profit after Tax			
XI	Depreciation			
XII	Equity share capital including premium			
XIII	Current Ratio			

Note:

1. All figures are to be indicated in Indian Rupees / USD.
2. In case, the Potential Partner is not a gas meter manufacturer, similar details are also to be provided for the meter manufacturer based on whose authorization, this proposal is being submitted for qualification.
3. The potential partner is requested to submit the copies of the relevant audited balance sheets. In case not submitted with the proposal, a self declaration on the submitted information / data/ figures should be done with the clear understanding that the same shall be submitted within a week's time from due date of EOI submission.

APPENDIX C-2

**EXPERIENCE DETAILS DURING THE PAST FIVE (5) YEARS AS MANUFACTURER /
TECHNOLOGY SUPPLIER**

Name and Address of the Technology supplier:

S. No.	Description	Project 1	Project 2	Project 3
A	Experience as Technology Supplier (specify as applicable)			
I	Name of License and its production capacity			
II	Brief details of the Business Structure, and Equity Structure			
III	Production - PNG Meters Type(s)			
IV	PNG Meters Sales (Nos.)			
V	PNG Meters Sales (in US\$)			
VI	Year of Start of Production, if complete; or Status of Manufacturing Setup			
VII	Certifications, Codes & standard compliance			

Annexure-1

Reference: EOI published in newspapers on 8 February 2021

Questionnaire for Gas Meter Manufacturers (as Potential Partner directly or providing authorization to the potential partner):

A. STRATEGIC QUESTIONS

A1: Do you have any international collaborations? What is your preferred route for collaboration – Equity Partner, Joint Venture, Technology Partner, etc.

A2: How do you see the size of the Indian Market in terms of Gas Meters? Do you have a presence in the Indian Market? What is your strategy pertaining to Indian market?

A3: What are the new market opportunities other than India, that open if IGL partners with you?

A4: What are the resources (people, money, technological expertise, relationships, and facilities) that the potential partner is ready to bring to the table?

A5: Have you granted any exclusive technology licenses to third parties? Would they be willing to enter into such an agreement with IGL?

B. MARKET ORIENTED QUESTIONS

B1: What is your selling model – B2B or B2C or B2F?

B2: Are you associated with any Meter Asset Financing, Meter Asset Providers or you sell Meters only to Gas providers/distributors?

B3: What is your general delivery time after receiving purchase order? What is your delivery model, retail channels etc.? What is your minimum order quantity (MOQ)?

B4: In which countries outside your own country your product is being supplied? What percentage quantity is exported outside your country out of total produced in a year? Please specify country wise distribution?

C. TECHNOLOGY QUESTIONS

C1: What international approval are there for your gas meters i.e. G1.6, G2.5, G4.0 and other product ranges - EN1359, OMIL etc. Is your plant ISO Certified? What all ISO certification you have (9001, 27001, 14001, any other) any other international accreditations?

C2: Have you considered Unified Smart metering solution with electricity, water etc? If yes, what was your preferred HAN (Home Area Network) communication technology?

C3: Testing capacity per day per testing set-up? What type of testing facilities you are having in house? Bell Prover / Sonic Nozzles? Do you also outsource meter testing jobs?

C4: What is the number of components in your basic meter and approximately what percentage of the same is produced in house?

C5: Do you supply data acquisition system for the Smart Gas Meters as well? How do you ensure that your meters are interoperable? Do you have any tie-ups with the AMI solution providers?

C6: What is your preferred WAN communication technology for Smart Metering Communication purpose (RFMesh/GPRS/NBIoT/etc)?

C7: Who are the reputed third party inspection agencies empanelled with your company? What is the necessary frequency of inspection?

C8: What is the capacity of testing of each type of meter you produce? What is the acceptance rate of your meters tested?

D. MANUFACTURING QUESTIONS

D1: How long have you been into meter manufacturing?

D2: What is the manufacturing capacity of your plant? Per Shift, Per Month, Per Year? What is criteria in terms of volume for stating an additional assembly line and what is the timeframe for the same?

D3: What are key support functions for your manufacturing capacity? (Planning, PPE, R&D,) Do you have any ERP system supporting the manufacturing process? If yes which one? Oracle/ SAP/ other?

D4: What is your manufacturing model? Electronic Unit and Mechanical Unit separate manufacturing and later on assembling of the same or complete Smart Gas Metering Unit manufacturing in one go?

D5: Is any part of your manufacturing process outsourced? If so Why?

D6: What is the product range of gas meters being manufactured at your plant? (Ultrasonic Meters, Turbine Meters, Coriolis Meters, Rotary Meters)? Also please mention the volume capacity of each Meter in litres (2.5L/3L/4L etc.)

D7: Are you also into smart meters? Please indicate AMR, Pre-Paid meters? If yes for prepaid what are the prepaid model you support – Thin Prepaid or Thick Prepaid?

E. Others

E1: For setting up of a meter manufacturing plant, from where would you source plant and machinery? Available in your own country or to be purchased from outside (if yes, from where, Europe or any other country including China?), including testing facility and equipment?

E2: What are the timelines of supplying and installation & commissioning of a meter manufacturing line of 1 million meters per year in a single shift of 8 hours, including testing facility for this capacity?

E3: What would be an approximate project cost of plant and machinery for setting up a single unit of 1 million per year capacity including testing and calibration facility?