City Gas Distribution in India
Demystifying the Opportunity, Growth and Investment Potential
India is a new entrant in the natural gas market in comparison to the mature gas based economies of USA, UK, Korea and Japan amongst others. The share of natural gas in the energy basket of India stands at 10 percent in FY10 in comparison to the global average of 25 percent. To meet the insatiable demands of energy, natural gas is emerging as a potent source. It has become imperative to have a rapidly growing gas distribution infrastructure to be built up along with the back-up of appropriate supply sources.

### Key Highlights
- The profile and evolution of CGD market in India
- Overview of the regulatory framework impacting the CGD in India
- Assessment of the existing and planned CGD infrastructure
- Projected demand-supply scenario of natural gas in CGD sector
- Economic benefits of CGD roll-out to the end users and CGD operators
- Evaluation of various CGD project financing models
- Benchmarking analysis with countries such as Japan, South Korea, Pakistan, Turkey, US and UK
- Understanding of the synergy between LNG and CGD business and long-term prospects
- Role of IT in optimising the CGD operations
- Evaluation of the business case for OMCs to enter CGD business

### Key Questions Answered
- What is the future business potential of CGD in India?
- Major concerns and gap areas in CGD business in India
- Critical evaluation of the bidding parameters in CGD bidding
- What are the opportunities for various stakeholders in the CGD business?
- What are the risks associated with the CGD business in India and the ways to mitigate the risks?
- Spot LNG: A Viable Long-term Option for CGD?
- Are power plants suited for CGD in India?
- What is the scope for CBM in CGD in India?
- What are the strategies to succeed in CGD bidding?
- Prospective CGD investment map of India

### Status of CGD Business in India

<table>
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<tr>
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<th>Number</th>
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<tr>
<td>No. of CGD companies</td>
<td>23</td>
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<tr>
<td>No. of Cities covered</td>
<td>77</td>
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<tr>
<td>Volume handled (mmmscmd)</td>
<td>12.93</td>
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<tr>
<td>No. of CNG stations</td>
<td>589</td>
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<tr>
<td>No. of CNG vehicles (in lacs)</td>
<td>~12</td>
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<tr>
<td>CNG sales (million tonnes)</td>
<td>1.421</td>
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<tr>
<td>No. of PNG customers (in lacs)</td>
<td>~16</td>
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</table>

### A must buy for
- CGD Bidders
- CGD Operators
- EPC Companies
- Pipeline Manufacturing Companies
- Equipment Suppliers
- Project Financiers
- IT Companies
- Consultancies & Legal Firms
- Equity Research Firms
- Research, Educational & Training Institutes

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To have a conducive regulatory environment for CGD projects, in July 2006, the Petroleum and Natural Gas Regulatory Board (PNGRB) was notified. The implementation of CGD network in various cities is being taken up in a phased manner through bidding rounds. The current coverage of CGD in 77 towns and cities, PNGRB envisages to cover additional 300 towns and cities. With the commissioning of the pipelines, the demand of natural gas for CGD is expected to rise to 80 mmmscmd.

In terms of cost benefits, a CGD project generally has a debt-equity ratio of 2:1. Primary factors influencing financing of a CGD project are its cost structure, ownership structure and focus areas (PNG/CNG). CGD project costs depend on the extent of the geographical area (GA), demand composition and penetration in terms of domestic connections. Operational and financial risk assessment is integral to and crucial for success in the CGD business. With CGD segment becoming an integral part of the economic development of India, many players are moving towards commercialising this underlying market potential.

With this background, Infraline Energy is coming out with a business research report on “City Gas Distribution in India: Demystifying the Opportunity, Growth and Investment Potential!”, one of the most progressive segment of the natural gas industry, focusing on current market scenario, supply infrastructure, use of IT and technology frontiers. The report recognises the issues and challenges of CGD development keeping in view the objective of an inclusive growth. This report aims at providing an in-depth analysis of the indispensable opportunities in the CGD business for all the stakeholders across the value chain in view of the massive impending investments in the CGD segment.
1. Natural Gas: Promising Fuel for Indian Needs
   - Historical Perspective in India
   - Natural Gas: The Fuel for Future
   - Demand-Supply Dynamics
   - Growth Facilitators
   - Sectoral Achievements
   - CGD: Gateway to Prosperity

2. CGD Infrastructure & Stakeholders
   - Key Drivers
   - Components of CGD Infrastructure
   - Designing the Layout of a CGD Roll out in view of other Infrastructure
   - Benefits percolating to Stakeholders in CGD Business
   - Role of Gas Suppliers and Transporters
   - HSE Implementation and Intervention
   - Concerns

3. CGD Business Model & Economics
   - CGD: A Win-win Proposition
   - CGD Business Case
   - Gas Pricing in CGD
   - PNG Economics
   - CNG Economics

4. Status Check: Evaluation of Progress
   - Pre-PNGRB Era and CGD
   - Current CGD Coverage in India
   - Success Stories: GSPC Gas and Adani Gas
   - Emergence of PNGRB
   - NOC Spree and Clashes with PNGRB

5. Regulatory Developments: A Critique
   - Role of MoPNG
   - Role of PNGRB
   - Salient features
   - Concerns

6. CGD Bidding: The Preferred Route of CGD Roll-out
   - Post-PNGRB Era
   - CGD Bidding Criteria
   - So Far Status

7. Gap Areas in CGD
   - Regulatory Loopholes
   - Project Financing Concerns
   - Zero Tariff Bids
   - Overbidding
   - Marketing Exclusivity
   - Gas Allocation Principles
   - Gas Price Pooling
   - The Missing Momentum in CGD Bidding Rounds

8. CGD Financing
   - JV model
   - Project Financing in CGD
   - International Financing
   - Innovative Financing Models
   - Is India prepared to Attract FDI in CGD?

9. Benchmarking Analysis
   - US
   - UK
   - Pakistan
   - Turkey
   - Japan
   - South Korea
   - China
   - Malaysia
   - Positioning India vis-a-vis Global CGD Markets
   - Initiatives needed for maturation of CGD in India

10. Risk Assessment in CGD Business
    - Risk Factors
      ♦ Operational
      ♦ Financial
      ♦ Marketing
      ♦ Regulatory
      ♦ Legal
    - Mitigating the Risks

11. LNG and CGD: Surviving Together
    - Understanding CGD Business Model based on R-LNG

12. Innovations in CGD
    - IT Applications
    - Allied Services
    - Global Examples
    - Case for OMCs in CGD
    - Are Power Plants Suited for CGD?
    - Scope for CBM in CGD
      ♦ Economics
      ♦ Regulatory Approach Needed
      ♦ Approach of CBM Producers
      ♦ Dealing with CBM Gas Allocation
      ♦ Potential Map of CBM in CGD

13. Estimating the CGD Market in India
    - Understanding the Business Opportunities in CGD
    - Avenues for Small Players
    - Innovative Business Models
    - Strategies to Succeed in CGD Bidding
    - CGD Investment Map (Short Term, Medium Term & Long Term)
    - Formulating the Roadmap for an Effective CGD Roll-Out
    - Estimating the Natural Gas Demand - Supply Balance for CGD in India

14. CGD Opportunities in India
    - Opportunity for Natural Gas Suppliers
    - Opportunity for CGD Companies
    - Opportunity for EPC Companies
    - Opportunity for Equipment Manufacturers
    - Opportunity for Financial Institutions
    - Opportunity for IT Companies
    - Opportunity Matrix (Short Term, Medium Term & Long Term)

15. Conclusion
The report is priced at INR 50,000.

Note: TDS will not be deducted.

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