The current level of activity in the city gas distribution (CGD) sector provides significant opportunity for all stakeholders. CNG and PNG networks continue to grow and fresh licences are being issued at a much faster pace. The recently concluded ninth and tenth CGD bidding rounds have received overwhelming response from both domestic and global players. The combined investment requirements for the two bidding rounds are estimated at over Rs 1.2 trillion. Several amendments have also been made to the bidding criteria to address most of the concerns of the sector. Increasing importance is being given to deploying advanced information technology (IT) and operational technology (OT) solutions. Going forward, it is important that this growth momentum is maintained through timely execution of projects and sufficient gas availability to the sector. In addition, challenges such as high execution risks associated with huge capital expenditure, the slow pace of pipeline build-up, low sales and customer penetration, and the high cost of providing last mile connectivity need to be addressed in a time-bound manner.

1. Executive Summary and Key Insights

SECTION I: MARKET ANALYSIS, UPCOMING NETWORKS AND NEW OPPORTUNITIES

2. Overview
   - Network Size and Growth
   - Key Consumer Segments
   - Gas Supply for CGD
   - Notable Trends
   - Recent Authorisations
   - Major Players
   - Investment Projections (2024-25)
   - Issues and Challenges
   - Sector Outlook

3. CNG Network - Size and Growth
   - Current Network Size
     - CNG Stations
     - CNG Vehicles
   - Growth in the Last Five Years (2014-15 to 2018-19)
   - Growth in Network - By State
   - Growth in Network - By Operator
   - Trend in CNG Sales

4. PNG Network - Size and Growth
   - Current PNG Network
     - Domestic
     - Industrial
     - Commercial
   - Growth in the Last Five Years (2014-15 to 2018-19)
   - Growth in Network - By State
   - Growth in Network - By Operator
   - Trend in PNG Sales

5. Recent Regulatory Developments
   - Institutional Framework
   - Licensing Regime
   - New Bidding Criteria: Impact and Key Unaddressed Concerns
   - Domestic Gas Allocation Principles
   - Other Proposed PNGRB Regulations
   - Regulatory Outlook

6. Overall Bidding Experience
   - Experience So Far
   - Update on Licensing Rounds (1 to 10)
   - Amendments to Bidding Criteria
   - Recent Aggressive Bids (Round 9 and 10)
   - Trends in Network and Compression Charges
   - Impact of New Penalty Clause
   - Key Lessons Learnt

7. Performance of Key Operational Networks
   This chapter will cover profiles of 20-25 key operational CGD networks based on the following:
   - Key Features - Area, Population, Households, Operator, etc.
   - Network Size and Growth (CNG stations, PNG connections, pipeline network, etc.)
   - Gas Supply Sources/Mix - Domestic Gas and R-LNG
   - Pipeline Connectivity - Existing and Planned
   - Tariff Trends
   - CGD Sales
   - Future Plans/Network Expansion Plans

8. Progress of Key Under Construction Networks
   This chapter will cover profiles of 25-30 key under construction CGD networks based on the following:
   - Key Features - Area, Population, Households, Operator, etc.
   - Infrastructure to be Laid in the Next Eight Years (as per MWPs)
   - Investment Projections
   - GA-wise Gas Demand Projections
   - Top Investment Destinations
   - Issues and Challenges
     - Financial Limitations
     - Gas Sourcing
     - Pipeline Connectivity
     - Others

9. Round 9: Upcoming GAs, Demand Assessment and Challenges
   - GAs Granted Authorisations
   - Successful Bidders
   - Key Features - Area, Population, Households, etc.
   - Infrastructure to be Laid in the Next Eight Years (as per MWPs)
   - Investment Projections
   - GA-wise Gas Demand Projections
   - Top Investment Destinations
   - Issues and Challenges
     - Financial Limitations
     - Gas Sourcing
     - Pipeline Connectivity
     - Others

10. Round 10: Upcoming GAs, Demand Assessment and Challenges
    - GAs Granted Authorisations
    - Successful Bidders
    - Key Features - Area, Population, Households, etc.
    - Infrastructure to be Laid in the Next Eight Years (as per MWPs)
    - Investment Projections
    - GA-wise Gas Demand Projections
    - Top Investment Destinations
    - Issues and Challenges
      - Financial Limitations
      - Gas Sourcing
      - Pipeline Connectivity
      - Others

11. Rounds 2 To 8: GAs Yet to Receive Authorisation
    - Key Features - Area, Population, Households, etc.
    - Plan for Invitation of Fresh Bids
    - Infrastructure to be Laid as per MWPs
    - Investment Requirements
    - Issues and Challenges
12. New CGD Networks Along Uria Ganga Pipeline
   - Key Features - Area, Population, Households, Operator, etc.
   - Infrastructure to be Laid in the Next Eight Years (as per MWPs)
   - Progress So Far
   - Investment Projections
   - GA-wise Gas Demand Projections
   - Issues and Challenges

13. Future Outlook and Demand Projections
   - Growth Drivers
   - Overall Gas Demand Projections
   - Gas Demand Projections for the CGD sector
   - Investment Projections for the CGD sector (till 2024-25)
   - Region-wise CGD Outlook
   - Projected CGD Sales

14. Market Opportunities for Service/Equipment Providers
   - GAs under Round 9 and 10
     - CNG Dispensing Stations
     - Piping
     - Compression Equipment
     - Meter Manufacturers
     - Etc.
   - GAs under Round 2 to 8
     - CNG Dispensing Stations
     - Piping
     - Compression Equipment
     - Meter Manufacturers
     - Etc.

15. Tariffs, Economics and Cost Competitiveness
   - Trends in Network Tariffs
   - Commercial Viability of CGD
   - New & Innovative Business Models (ODOO Model, CNG highway corridors, etc.)
   - Capex and Opex Requirements
   - Cost Competitiveness of CNG
   - Cost Competitiveness of PNG
   - Profitability/Margins of CGD Players
   - Historical and Expected Returns
   - Business Risks and Challenges

16. Update on Pipeline Infrastructure
   - Current Status of Pipeline Infrastructure
   - Major Projects under Construction
   - Proposed Projects
     - Domestic
     - Transnational
   - Investment Requirements

SECTION II: GAS SUPPLY SCENARIO AND OUTLOOK

17. Domestic Gas Supply Availability and Outlook
   - Current Domestic Production
   - Policy Enablers (OALP, DSF, etc.)
   - Sourcing Options of CGD Players
   - Gas Supply Projections - Existing Domestic Fields
   - Expected Production from New Fields
   - Segment Outlook

18. R-LNG Supply Scenario
   - Trends in LNG Imports
   - Global Price Trends
   - Demand from the CGD Sector
   - LNG Sourcing Options for CGD Players
   - India’s Existing LNG Re-gasification Capacity
   - Upcoming LNG Re-gasification Capacity

SECTION III: TECHNOLOGY TRENDS AND NEW OPPORTUNITIES

19. Network and Asset Management
   - Current Practices (GIS, SCADA, ERP, etc.)
   - Select Case Studies
   - New Trends and Advancements
   - Future Plans and Outlook

20. Metering and Billing
   - Current Practices (Manual meters, AMR, LoRa, etc.)
   - Select Case Studies
   - New Trends and Advancements
   - Future Plans and Outlook

21. Other Focus Areas
   - LNG Fuel Stations
   - Compressed Biogas Plants
   - LNG-fuelled Vehicles
   - Others

SECTION IV: MAJOR PLAYERS

22. Profile of Major Players*
   - Aavantika Gas Limited
   - Adani Gas Limited
   - Assam Gas Company Limited
   - Bhagyanagar Gas Limited
   - Bharat Gas Resources Limited
   - Bharat Petroleum Corporation Limited
   - Central UP Gas Limited
   - Consortium of AG&P LNG Marketing Pte Ltd. & Atlantic Gulf & Pacific
   - Consortium of Think Gas Investments Pte Limited
   - Essel Gas Company Limited
   - GAIL Gas Limited
   - Green Gas Limited
   - Gujarat Gas Limited
   - Haryana City Gas Distribution Limited
   - Hindustan Petroleum Corporation Limited
   - Indian Oil Adani Gas Private Limited
   - Indian Oil Corporation Limited
   - Indraprastha Gas Limited
   - IRM Energy Private Limited
   - Jay Madhok Energy Private Limited
   - Mahanagar Gas Limited
   - Maharashtra Natural Gas Limited
   - Megha Engineering & Infrastructures Limited
   - Rajasthan State Gas Limited
   - Sabarmati Gas Limited
   - Torrent Gas Private Limited
   - Unison Enviro Private Limited
   - Others

(*Arranged in alphabetical order) Each profile will cover the company overview, operational and under construction CGD network, financial performance and the future plans and targets.

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