

STAKEHOLDER CONSULTATION *ON* GAS EXCHANGE

SUMMARY REPORT
& KEY TAKEAWAYS

7th March 2025

Agenda

Meeting Theme: Stakeholders Consultation on Indian Gas Exchange (IGX)

Venue: The Oberoi, Nilgiri Hall, Golf Links, New Delhi - 110003

Date: 7th March 2025 (Friday)

Time: 10:00 am to 4:00 pm

Agenda:

10.00 Hrs.	Welcome address by MD & CEO: IGX - Mr. Rajesh K Mediratta
10.10 Hrs.	Keynote address on Theme by Chairperson, PNGRB - Dr. Anil Kumar Jain, IAS
10.30 Hrs.	Presentation on Overview of Indian Gas Market - Mr. Jalaj Jain, Partner, McKinsey
	Panel Discussion 1 Reforms to increase buyers/sellers' participation on the Gas Markets in general and Exchange
10.50 – 11.50 Hrs.	Shri Bhashit Dholakia - COO: IOAGPL Shri Praveen Sawant - CGM: HPCL Shri Ashok Parasramka - EVP: JSW Shri F C Rastogi - Vice President: Kajaria Ceramics Moderator - Shri Gurpreet Chugh - MD: ICF Q&A
	Panel Discussion 2 Reforms to increase liquidity on the Exchange platform
11.50 – 12.50 Hrs.	Shri Praveer Agarwal - Executive Director: GAIL Shri Akshay Wadhwa - Business Head - Gas: BPCL Shri Himanshu Kelkar - AGM: GSPC Shri Sandeep Jain - ED: IOCL Moderator - Shri Sanjay Sah - Partner: Deloitte Q&A
12.50 Hrs.	Lunch
13.50 Hrs.	Open Forum—Each participant to speak for 5 minutes. <ul style="list-style-type: none"> • How to increase liquidity on Exchange • Feedback on Exchange operations • Changes required (if any) in Gas Exchange Regulations • Reforms/changes required to increase liquidity at IGX • Additional segments/products required on the Exchange platform • Roadmap for Developing a vibrant Gas Hub in India
15.10 Hrs.	Valedictory and concluding remarks by Member, PNGRB - Shri A K Tiwari
15.30 Hrs.	Tea



The Stakeholder Consultation on the gas exchange was organised to discuss key challenges, reforms and initiatives to enhance the Indian gas market. The event featured insights from regulator and industry leaders, covering market liquidity, infrastructure, regulatory reforms, and other initiatives or opportunities.

Welcome Address by MD & CEO, IGX Mr. Rajesh K Mediratta



Market Performance and Current Status

Total Gas Traded (since inception)	4 BCM (16cr MMBtu)
Total Gas Traded (FY25 YTD)	1.4 BCM (5.5cr MMBtu)
Growth Rate	37% up YoY, but 3-Year average growth rate at 17%, indicating minimal growth given the small starting base
Active Participants	45+ members, 200+ clients
Seller Base	35
Buyer Base	190
Market Share	2% of total gas volume in India, 20% of spot market
Buyer Segmentation	CGD (40%), Marketers (30%), Power (18%), Refining (8%), Others (4%)

Challenges in Market Liquidity and Trading Volume

He further defined liquidity as a combination of multiple factors and the need to focus on each of them:

- **Market Depth:** A deep market should minimise price fluctuations.
- **Market Resilience:** Demand and supply variations should be absorbed efficiently.
- **Immediacy:** Buyers should be able to access market swiftly and purchase gas as needed.
- **Trade Frequency:** The exchange should offer a broader product range with frequent trading opportunities.



Key Challenges and Proposed Solutions

Limited participation from some major sectors such as Fertiliser, Power and CGDs remains a significant challenge for the exchange market today. The fertiliser sector being the largest gas consuming sector is absent from the exchange market due to policy barrier, the power sector despite being a critical gas consuming sector has limited engagement with the exchange due to price volatility and restricted capacity access. Similarly, the city gas distribution (CGD) sector though participates in the HPHT gas segment, but its involvement in the RLNG segment is otherwise limited. Small consumers also face hurdles in accessing the market on capacity access side, and many are tied up in stringent ToP contracts with no option to resell unused gas.

On the supply side, the availability of HPHT gas is restricted due to Ministry-imposed volume caps, while RLNG remains underutilised because of access constraints and limited open terminal capacity. Additionally, some major LNG terminals, such as those in Kochi, Ennore, Dhamra, and Dabhol, are not fully integrated into the exchange, further limiting market liquidity. Another key challenge is price volatility and geopolitical influences, as fluctuating gas prices driven by global factors impact trade volumes and market stability. Addressing these supply and pricing challenges through regulatory reforms and infrastructure improvements could enhance participation and liquidity in the gas exchange.

Proposed reforms/initiatives

To unlock the full potential of the gas market, Mr. Mediratta proposed several key initiatives focused on enhancing liquidity, improving infrastructure, and implementing structural reforms.

Enhancing Market Liquidity & Participation is crucial to driving growth. Increasing the diversity of sellers (HPHT gas suppliers, flexible marketing-driven gas), along with introducing flexibility for the resale of LNG contracts could improve supply availability.

Improving Infrastructure and Market Access is another vital area of focus. Expanding open access to gas terminal capacity would allow new entrants to bring LNG into the market. Addressing regulatory barriers to improve access for smaller consumers, while enabling fertiliser units to trade on the exchange could significantly boost participation.

Structural Market Reforms were also highlighted as a priority. The introduction of a balancing market could help manage supply-demand mismatches more efficiently and transparently. Bringing natural gas under GST would establish a unified pricing structure, making transactions more seamless across states. Additionally, encouraging pipeline capacity trading would enhance supply chain efficiency and promote greater utilisation of existing infrastructure.



Future Plans and Vision for the Gas Market

Mr. Mediratta outlined a long-term vision to transform India's gas market into a globally competitive hub.

Expanding Market Offerings is a key part of this strategy. Introducing new products such as LNG trading, futures, and derivatives. Extending LDCs from six months to one year. Introducing CBG certificates trading. Developing a virtual gas hub to serve as a pricing benchmark for pricing in India.

Enhancing Market Competitiveness by increasing participation from both buyers and sellers. Encouraging cross-sector collaboration to boost gas adoption. Aligning gas and power markets would create synergies.

Establishing India as a Global Gas Hub with industry-wide reforms, regulatory improvements, and infrastructure development. With the right interventions, India can position itself as a key player in the global gas market.

Conclusion

Mr. Mediratta urged all stakeholders to actively participate in shaping the future of the gas market.



Keynote Address by Chairperson, PNGRB – Dr. Anil Kumar Jain



Dr. Jain emphasised the government's role in fostering market transparency and competition through gas exchange. Unlike oil and coal, whose prices are influenced by international benchmarks beyond domestic control, the government sought to create IGX to ensure that gas trades occur at fair and transparent market prices.

Expanding on the **need for transparent gas pricing**, Dr. Jain stressed that for India's gas sector to grow from 6% to 15% of the energy mix, trade transparency is essential. He pointed out that a significant portion of India's gas consumption remains government-controlled, either through direct ownership of refineries or subsidised purchases by the fertiliser and power sectors. IGX, he argued, can play a pivotal role in facilitating efficient trading, enabling competitive pricing and reducing dependence on government-controlled mechanisms. However, despite the government's push for open markets, IGX's growth has been slow, raising concerns about capitalising the benefits the exchange offers.

Dr. Jain then raised questions to panelist & participants to respond - regarding the development of IGX and the gas market. He asked whether the government was premature in launching IGX and if it should have waited for better market conditions. He also raised a question whether IGX was missing an opportunity to expand India's gas market and whether mandating more sectors to trade through IGX could be a solution. Additionally, he examined whether the gas market could grow without IGX, acknowledging arguments from private players who believe they can manage gas trading independently. However, he cautioned that without market-driven price discovery, transparency would be compromised, which is precisely why regulators established IGX.

Discussing the government's next steps, Dr. Jain mentioned that one potential reform could involve enabling fertiliser and power companies to procure gas through IGX, which would significantly boost trade volumes and market liquidity. He also pointed out that regulatory barriers such as access codes and LNG terminal constraints must be addressed, as capacity limitations continue to hinder market expansion.

Looking ahead, Dr. Jain reaffirmed IGX's role in making India's gas market more transparent and efficient. Increasing gas trading on the exchange from the current 2% of total consumption to 20% while ensuring competitive pricing requires active stakeholder collaboration. Strengthening IGX's accessibility and effectiveness will be essential in achieving this goal.

In conclusion, Dr. Jain reiterated that while IGX is necessary, its role must continue to evolve. The industry must determine how to make IGX more impactful, while policymakers and market players must work together to create a dynamic gas market. He urged all participants to reflect on IGX's potential and contribute to shaping the future of India's gas industry.



KEY INSIGHT

For India's gas sector to grow from 6% to 15% of energy mix, transparency in trade is vital. And with this vision the exchange was institutionalised.

For a truly independent and competitive market, gas pricing must be aligned with India's own demand-supply dynamics, establishing a price benchmark that reflects local market realities. A robust gas exchange plays a crucial role in facilitating this.

For the gas exchange to thrive, wider participation from key sectors such as fertiliser and power is essential



Presentation on Overview of Indian Gas Market Mr. Jalaj Jain, McKinsey



Mr. Jalaj Jain provided insights on India's energy landscape, discussing the role of natural gas in reducing carbon emissions and ensuring energy security. Key highlights included:

Importance of Gas in India's Energy Landscape

For a country like India which has heavy reliance on energy imports particularly crude oil, gas is truly a transition fuel. It has clear advantages, including 50% lower CO₂ emissions than coal, 30% lower emissions than oil, and no sulfur emissions. Additionally, it serves as a reliable backup for renewables and is critical for industries that are hard to electrify, such as mining. However, the increasing competitiveness of renewables, battery storage, and emerging alternatives like hydrogen and Carbon Capture & Storage (CCS) could challenge gas's long-term role.

Global & Indian Gas Demand Trends

Despite these concerns, global gas demand continues to rise. In 2024, global consumption hit record levels, and India's LNG imports grew by 10% year-on-year. Gas is also playing a growing role in marine transportation, with LNG-powered ships becoming more common.

Current global gas consumption stands at 4,200 BCM, with projections varying based on decarbonisation efforts. Some forecasts suggest demand could rise to 4,800 BCM, while Shell predicts 4,500 BCM by 2050. Gas is expected to peak later than oil and coal worldwide, with India's demand peaking even later, likely post-2035.

Infrastructure Growth & Market Development

India has made significant strides in gas infrastructure over the past decade, with 50% of the total infrastructure built in just the last five years. The City Gas Distribution (CGD) network has expanded fourfold since 2019, and residential gas connections have tripled. Other key initiatives supporting market growth include the introduction of a Unified Pipeline Tariff, the launch of the Indian Gas Exchange (IGX), and Compressed Biogas (CBG) programmes.

★ KEY INSIGHT

India's untapped gas demand is significant—while current consumption is around 190 MMSCMD, the estimated demand stands at 480 MMSCMD, constrained by connectivity issues, contract barriers, and price volatility.



Key Learnings from successful Global Gas Exchanges

To scale India's gas market, he outlined three key strategies based on global best practices.

1. **Gas Release Programmes (GRPs):** Originally implemented in Europe, GRPs require large gas traders to release 5-10% of their supply to the exchange, enhancing market liquidity. While India can learn from these experiences, adaptations will be necessary for local market conditions.
2. **Enhancing Market Liquidity via Churn Efficiency:** Churn rate measures how often a unit of gas is traded before final consumption. A higher churn rate improves market efficiency and helps smaller buyers manage surpluses. Global benchmarks show the U.S. at 55, Europe at 97, while India lags significantly at just 2. Increasing churn efficiency can help strengthen the gas market.
3. **Open access and trading of gas infrastructure:** Enabling independent gas suppliers, consumers (small or big), and LNG importers to access pipelines and LNG terminals on equal terms.

Key Imperatives for India's Gas Market Expansion

To ensure a robust and efficient gas market, three key imperatives were identified:

1. **Increasing the diversity of suppliers** (international, domestic) and buyers (smaller end users, traders) on the exchange.
2. **Increasing the diversity and relevance** of products traded on the exchange (types of contracts, futures, options etc.).
3. **Incentivising trades through exchange** (early adopter incentives, volume incentives, gas release programmes, etc.)



Panel Discussion 1: Reforms to increase buyers/sellers' participation on the Gas Markets in general and Exchange



Shri Bhashit Dholakia - IOAGPL; **Shri Praveen Sawant** – HPCL; **Shri Ashok Parasramka** – JSW;
Shri F C Rastogi – Kajaria Ceramics; Moderator – **Shri Gurpreet Chugh**- ICF

Key Takeaways

The panellists agreed that IGX has significantly improved market transparency by making gas prices more visible and competitive. Companies trading on the exchange have benefited, but still, some rely on long-term bilateral contracts. Contractual restrictions, such as take-or-pay clauses, prevent some companies from freely trading gas.

India's gas market faces structural challenges, particularly high pricing due to transportation costs, cascading taxes, and contract limitations. Currently, buyers usually procure 80% of gas requirement through long-term contracts, with only 20% being procured through spot market for flexibility. To enhance liquidity, more suppliers and resellers need to participate in IGX.

Infrastructure constraints, especially limited pipeline access and connectivity, hinder supply security for many buyers. There was discussion on making short-term regasification capacity tradable on IGX to improve access. Additionally, the current transportation tariff charging mechanism based on contract path is a key issue preventing direct purchases from the exchange. Another suggestion was made that a resale market for transportation capacity could help optimise gas utilisation.

Regulatory reforms are crucial to increasing competition and allowing smaller industrial buyers access to affordable gas. Addressing take-or-pay contract restrictions and improving tariff charging mechanism could promote more trading activity. If implemented effectively, gas trading could evolve similarly to the power market, where resellers play a critical role in improving liquidity.

The discussion highlighted both progress and challenges in India's gas market. While IGX has improved price discovery and transparency, infrastructure constraints, tariff issues still limit the full potential of gas trading. The panellists emphasised the need for policy adjustments, increased competition, and better trading mechanisms to make India's gas market more efficient and accessible.



Panel Discussion 2

Reforms to increase liquidity on the Exchange platform



Shri Praveer Agarwal – GAIL; **Shri Akshay Wadhwa** - BPCL; **Shri Himanshu Kelkar** – GSPC;
Shri Sandeep Jain – IOCL; **Moderator** – Shri Sanjay Sah - Deloitte

Key Takeaways

Currently, only 2% of India's gas consumption is traded on exchange, compared to 80% in Europe. Panellists suggested setting a target of 20% gas trading via exchanges over the next five years. They also highlighted that IGX is working to improve accessibility for smaller consumers, but increased participation from large industries, power, and fertiliser sectors is necessary to drive liquidity. However, several barriers hinder market growth, including limited gas availability, infrastructure gaps, and restrictive bilateral contracts. Unlike Europe, India lacks surplus gas for open market trading, as most gas is tied to long-term contracts. Additionally, inadequate pipeline connectivity and last-mile delivery hinder nationwide access. Many industrial buyers remain locked in complex and restrictive gas contracts, making it difficult for them to participate in the exchange.

To expand gas trading opportunities, panellists emphasised the introduction of new products. Launching derivatives and long-term gas contracts of tenure up to 5 years on IGX could enhance price discovery, while loyalty programmes and incentives for frequent traders could boost participation. A single national pipeline tariff could reduce regional price differences and make gas more accessible across India. Additionally, reselling unused pipeline and LNG terminal capacity on IGX could improve market efficiency. Removal of rigid take-or-pay contracts was suggested to free up gas for trading. Regulatory reforms were also deemed necessary, including allowing more domestic gas (HPHT+APM)-to be traded on exchange and allowing sale of HPHT gas on exchange without applicability of ceiling price. This will result in true market price discovery and establish exchange price as benchmark price.

The role of LNG and terminal utilisation was another key area of discussion. India's dependence on LNG imports is growing, with an expected shortfall of 50 million metric tonnes by 2030. New LNG terminals, such as Chhara, are offering open access, reducing congestion at existing terminals like Dahej. Enhancing access to regasification terminals and integrating them with the national gas grid will improve supply flexibility.

Finally, panellists supported the vision of a national-level gas grid, where gas can be injected and withdrawn from anywhere. This would create a fair and transparent system and make gas trading more efficient. National gas grid supported by easy access would also help reduce congestion at high-demand locations, such as Dahej LNG terminal, fostering a more efficient and liquid gas trading ecosystem.



Open Forum

Summary of Key Points from the Open Forum Discussion

The open forum discussion highlighted several key points regarding increasing gas market liquidity and trading on IGX. While IGX has improved market transparency, it still requires greater liquidity for efficient price discovery. To achieve this, more buyers and sellers, including fertiliser plants, the power sector, and small consumers, need to participate. Regulatory changes are essential to allow greater trading flexibility, particularly enabling surplus gas to be sold on IGX. Additionally, introducing long-term contracts ranging from one to five years could encourage higher participation.



Infrastructure and capacity utilisation were also major discussion points. LNG terminal utilisation remains low, and capacity trading mechanisms could improve utilisation. Implementing a unified pipeline tariff under the "One Nation, One Tariff" policy is crucial to eliminating cost inefficiencies in transportation. Furthermore, streamlining the pipeline capacity booking process would enable easier access for buyers, while addressing capacity booking requirements at LNG terminals could facilitate greater participation from smaller buyers.

Challenges with existing contracts and the policy framework were another concern. Many buyers remain locked in long-term contracts, restricting their ability to switch entry points or resell gas. There is a demand for greater flexibility in sourcing gas from different suppliers without incurring additional financial burdens. However, gas contracts currently restrict gas resale and there are limits on destination, limiting overall market liquidity. Additionally, gas pooling policies and price ceilings impact trade flexibility, making it harder for the market to function efficiently.

Balancing mechanisms and market-based solutions were also discussed as crucial areas for reform. Improving gas balancing mechanisms could help manage supply fluctuations more effectively. Revising imbalance charges to prevent unnecessary penalties on buyers is necessary, particularly as the power sector requires greater flexibility in short-term gas procurement due to fluctuating demand. The potential for market-based balancing solutions needs to be further studied to optimise market efficiency.

Finally, regulatory and market reforms were emphasised as essential for the sector's growth. Simplified taxation policies, such as implementing GST on natural gas, could reduce cost burdens. Greater transparency in capacity booking and nominations through a centralised digital platform would improve efficiency. The introduction of derivatives and hedging instruments on IGX could help manage price risks and attract more participants. Additionally, positioning IGX as an international gas benchmark (GIXI) could draw global traders and enhance India's presence in the global gas market.



Closing Address by **Shri A.K. Tiwari,** **Member PNGRB**



In his closing address, Shri A.K. Tiwari, Member PNGRB, emphasised the importance of IGX in ensuring market transparency and efficient price discovery. Increasing liquidity on IGX is essential for fostering competition and enhancing market efficiency. To drive reforms and boost participation, sectoral committees for industries such as fertiliser, power, and refining shall be established. A diverse supplier base, including both domestic and international players, is necessary to create a competitive gas market. Additionally, aggregating consumer demand and enabling its trade on the exchange will lead to more competitive prices for end consumers.

✦ **KEY INSIGHT**

For us, The ultimate goal is to create a dynamic, efficient, and competitive gas market that benefits all stakeholders.

The expansion of natural gas infrastructure remains a key priority. A comprehensive pipeline network is being developed to improve connectivity across the country.

Better utilisation of LNG terminals is required to enhance gas accessibility, and capacity trading mechanisms should be explored to optimise the use of existing infrastructure.

On the policy and regulatory front, the introduction of a unified pipeline tariff marks a significant step toward achieving the vision of "One Nation, One Tariff." Further improvements will be made, with a transition to an entry-exit tariff system enhancing tradability and affordability. Simplifying customer processes is necessary to reduce transaction complexities and need to be revisited to improve market efficiency. GIXI (Gas Index of India) should be promoted as an international benchmark for gas pricing in India.

Looking ahead, collaboration between the government and the private sector will be crucial in advancing gas trading. Regular stakeholder discussions, held every six months, will ensure continuous improvements in policies and market mechanisms. The ultimate goal is to create a dynamic, efficient, and competitive gas market that benefits all stakeholders.







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