



EPIL
Pipeline Infrastructure Limited

PRESENTS

ANNUAL GAS FORUM

IN ASSOCIATION WITH

ET Energyworld

INDIA'S PATHWAYS TO A LOW EMISSION FUTURE

— JANUARY 23rd, 2024 —

EVENT SUMMARY

KNOWLEDGE PARTNER

S&P Global

Commodity Insights

CONTENTS

| | |
|--|---------|
| Thank You Note |05 |
| Event Snapshots |06 |
| Introduction |08 |
| Key Policy Actions From Forum Discussions |09 |
| Theme 1 Summary Global Energy Markets Outlook: Implications for India's Energy Transition |14 |
| Theme 2 Summary Is Hydrogen Blending with Natural Gas a reality? |17 |
| Theme 3 Summary Role of Natural Gas and Green Alternatives in India's sustainable future |20 |
| Theme 4 Summary Enhancing India's Natural Gas Infrastructure for a sustainable tomorrow |23 |
| Theme 5 Summary Fostering Gas Demand across sectors for India's emission-resilient future |26 |
| Abbreviations |28 |
| Attendees at PIL Annual Gas Forum - 2024 |30 |





Dear Attendees,

We extend our heartfelt gratitude for your active participation in the Annual Gas Forum 2024 hosted by Pipeline Infrastructure Ltd. (PIL) at the Hyatt Regency, New Delhi, on January 23, 2024.

Your engagement enriched the conference, themed "India's Pathways to a Low Emission Future," with insightful panel discussions on global energy markets, the role of natural gas in India's sustainable energy future, and strategies for enhancing the country's natural gas infrastructure.

The forum yielded key policy actions, focusing on negotiations with the Just Energy Transition Partnership for a coal-to-gas shift. Discussions emphasized including natural gas in the Goods & Services Tax, introducing carbon legislation, and addressing the gas-coal premium for increased power sector gas use. The importance of incentivizing natural gas in the MSME sector, promoting LNG in long-haul transport, and initiating hydrogen & CBG blending in gas infrastructure were highlighted.

Once again, thank you for making the 2nd Annual Gas Forum a resounding success. Your commitment to India's sustainable energy future is truly commendable.

We look ahead to host you at our next edition of Annual Gas Forum.

Stay Healthy. Stay Safe.

Best Regards,

Akhil Mehrotra

Managing Director

Pipeline Infrastructure Ltd, India.

Event Snapshots






120+
ATTENDEES


15+
EXPERTS


5+
SESSIONS

INTRODUCTION

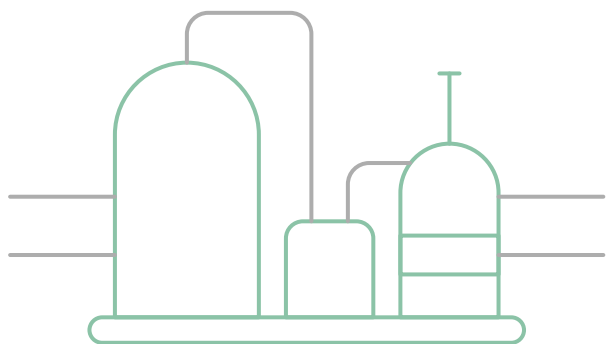
The Annual Gas Forum 2024 hosted by Pipeline Infrastructure Ltd. (PIL) was held at the Hyatt Regency, New Delhi, on January 23, 2024. The conference's underlying theme, "India's Pathways to a Low Emission Future", included panel discussions on global energy markets, role of natural gas in India's sustainable energy future, enhancing India's natural gas infrastructure and fostering gas demand across India's economic sectors.



The conference brought together energy professionals, industry leaders, policymakers, and investors with the objective of advancing India's ambition towards a low-emission future by leveraging natural gas. The scale and diversity of participants at the Annual Gas Forum highlighted the power of collaboration and knowledge sharing and identifying actionable solutions.

Discussions during the Annual Gas Forum addressed the inter-related aspects of addressing India's growing energy demand and its roadmap to a low-emissions future. Natural gas has emerged as a crucial bridge in the global quest for cleaner and more sustainable energy sources. Based on the core theme of "India's Pathways to a Low Emission Future", the Annual Gas Forum 2024 focused on exploring the role of natural gas in India's mission to secure affordable energy and bend its emissions curve. The following segment outlines the key policy actions emphasized by participants during the conference deliberations.

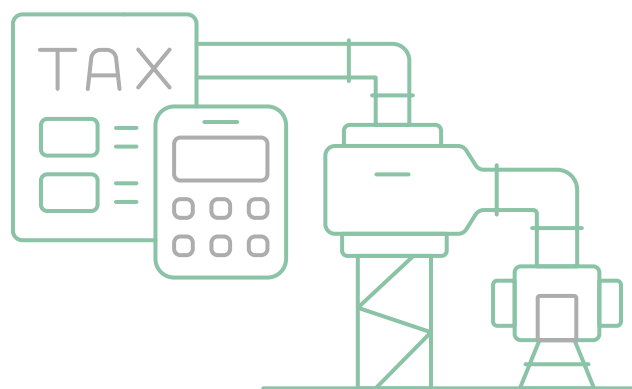
KEY POLICY ACTIONS FROM FORUM DISCUSSIONS



1

Negotiate with Just Energy Transition Partnership for coal-to-gas transition

To transition away from coal in India's power sector and increase the share of gas in the country's energy mix to reach closer to the 15% ambition, it is crucial to explore financing options for the gas-coal premium. Multilateral agencies can play a significant role in providing the necessary funds to support this transition. India's inclusion in the Just Energy Transition Partnership (JETP) would provide an opportunity for gas to act as a transition fuel.



2

Inclusion of natural gas under Goods & Services Tax

Bringing natural gas under the ambit of Goods & Services Tax (GST) via a consensus from central and state governments can substantially improve its utilization across all sectors. Improving tax structure around natural gas will directly improve the affordability and availability for end consumers and increase its adoption. Moderating central excise duty and state value added tax (VAT) can also support this initiative until GST is implemented.



3

Introducing carbon legislation with stringent emission targets

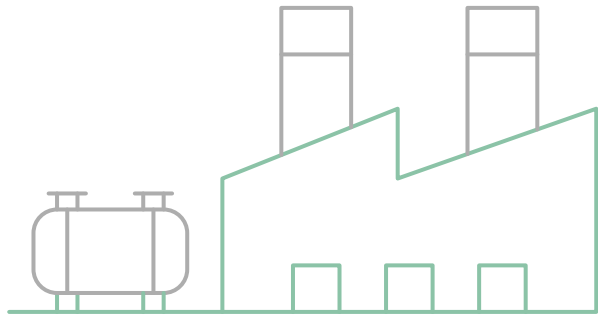
Implementing a carbon pricing mechanism for all stakeholders such as power, industrial, fertilizer and major energy consumers will promote the use of natural gas to reduce emissions. It will allow for consideration of externalities related to dirtier fuels, such as coal and oil, and support improvement in pollution standards across major cities. A carbon tax can bring long-term economic and environmental benefits as India sets ambitious targets to increase natural gas's share to 15% in the energy mix.

4

Solve the gas-coal premium issue to increase gas use in power sector

Given the intermittency of renewable power and expected large renewable capacity additions in India, natural gas-based power plants are fittingly placed to support grid balancing given their ability to operate at flexible loads with fast ramp up/down rates. The conference highlighted a pathbreaking solution to bring mechanisms such as the Just Energy Transition Partnership (JETP) to India to pay for the gas-coal premium. At the micro-level of contractual implementation, an example from Brazil's PPA structure with capacity and variable payments was shared that highlighted how LNG supports the variability of a majority hydro-based power system. The announcement of round-the-clock (RTC) tenders to combine thermal and renewable power sources should promote natural

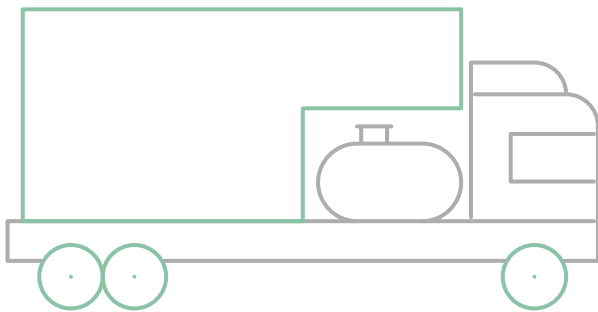
gas as the least-emitting generation source among thermal power sources. Considering higher gas prices relative to coal, adjustments to the payment structure might be necessary to ensure cost-effectiveness and investor interest.



5

Incentivize natural gas in MSME sector

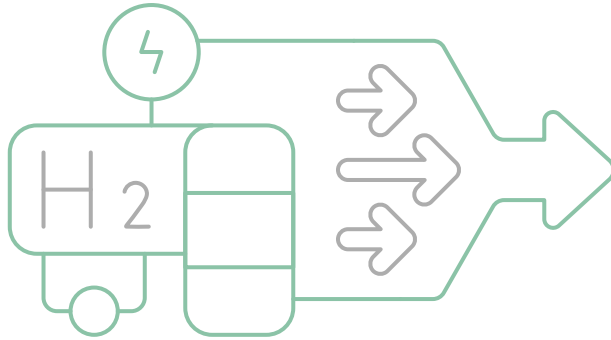
The MSME sector presents a huge opportunity to promote utilization of natural gas and displace higher-emitting fossil fuels such as coal, oil and diesel. Given its scale, the MSME sector can become an anchor load for natural gas demand in India through moderation of prices and local taxes and promotion of liquids-to-gas switch through capability building mechanisms.



6

Promote use of LNG in long-haul, heavy-duty transport

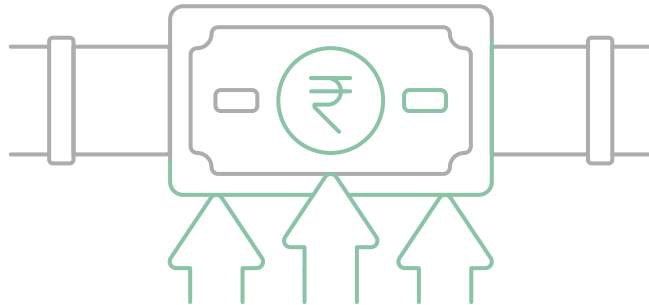
Encouraging the use of LNG in long-haul, heavy-duty transport systems can increase demand for natural gas in the transport sector and bring environmental benefits. LNG can readily displace diesel in long-haul trucking with adequate distribution infrastructure and financial incentives to manufacture and use LNG vehicles.



7

Initiate hydrogen & CBG blending in natural gas infrastructure (Transmission & Distribution)

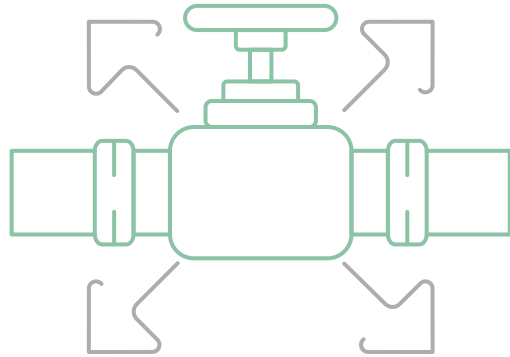
Natural gas infrastructure can be used as a versatile energy carrier to accommodate new energy fuels such as hydrogen and compressed biogas (CBG). Government-led initiatives to promote pilot demonstrations will support blending initiatives and the adoption of clean energy fuels. This will allow for maximizing infrastructure optionality and prevent stranded or mothballed assets in the future.



8

Incentivize long-term commitments in natural gas pipeline

In addition to the unified tariff system implemented recently, an incentivization mechanism of pipeline tariff can be considered in case of long-term capacity booking commitments for consumers. This can promote the use of currently under-utilized natural gas infrastructure in India and provide stable revenue streams for operators.



9

Upgrade capacity regulations to allow day-ahead & intra-day trading on IGX

To improve the liquidity at Indian Gas Exchange and enhance transparency of the Indian gas market, the government should seek to establish a day-ahead capacity market for natural gas. In the near future, it can be further developed to enable intra-day trading mechanisms.

10

Support PNG infrastructure development with strong policy support

With the implementation of “Har Ghar PNG” slogan by the central government and regulatory authorities, it is imperative for central and state governments to provide strong policy support in terms of priority approvals for land-use and promoting ease of doing business initiatives. Strengthening of local distribution networks will be necessary to provide reliable and clean natural gas. Awareness programmes for end consumers should be carried out to promote the use of clean fuels for day-to-day use in household and transport sectors.



SUMMARY OF PRESENTATIONS
AND PANEL DISCUSSIONS

THEME 1

GLOBAL ENERGY &
GAS MARKETS OUTLOOK:
IMPLICATIONS FOR INDIA'S
ENERGY TRANSITION

In the past four years, the global energy markets have experienced significant changes, with extreme price volatility (Brent crude prices ranged \$10-\$125), & fuel shortages impacted by the COVID pandemic and geopolitical events (the Russia-Ukraine war). The energy crisis has led to a shift in policy responses by governments across both advanced and developing economies.

KEY DATA POINTS

15%

SHARE OF NATURAL GAS AS THE ONLY RESILIENT FOSSIL FUEL IN THE WORLD'S ENERGY MIX BY 2050

\$360 Billion

(approx.)

SAVINGS BY REDUCING INDIA'S OIL-BASED IMPORTS & EMISSIONS IN THE LAST 34 YEARS

.....

In addressing the energy trilemma, the issues of energy security and energy affordability have been prioritized over energy sustainability. Nevertheless, as governments take steps to address these challenges, the move towards a cleaner & sustainable energy future is well underway.

The presentation on global energy markets provided an overview of the status of the energy system and its projected changes over the next three decades. As per S&P Global's base case scenario, it was pointed out that by 2050, natural gas will remain the only resilient fossil fuel in the world's energy mix, accounting for 15% of final energy consumption.

Natural gas has been a major factor in helping countries around the world transition to a low-emission energy pathway, especially in power generation. This has been observed in North America, Europe, OECD Asia-Pacific, where natural gas has replaced coal to a large extent. Natural gas markets are, unlike oil markets, more regional in scope and are affected by local factors for e.g., US LNG export policies, Europe's LNG demand rise, Russia-China trade. It was emphasized that natural gas will serve as a bridge fuel during the global energy transition, acting as a baseload fuel and support the growth of renewable energy sources.

KEY DATA POINTS

2X

INDIA'S GAS CONSUMPTION
GROWTH BY 2050

6% - 15%

EXPECTED INCREASE IN SHARE
OF GAS WHILE UNLOCKING
GAS-TO-POWER



In India's context, increasing the share of natural gas in India's energy mix will be necessary to achieve a low-emission energy future. Even though domestic gas has saved ~\$360 billion in the last 34 years reducing India's oil-based imports & emissions, the country has not fully realized its gas potential for a low emission pathway unlike other regions. India's gas consumption is expected to double by 2050, driven by industry & transport sectors. However, gas will remain non-competitive in the power sector, due to high prices and dependence on coal. Unlocking gas-to-power is critical to increase share of gas from 6% to 15% of the energy mix as envisaged by the government.

It was pointed out that to establish a viable coal-to-gas switch and drive gas-renewable integration, India needs to make use of international contractual mechanisms (like power-purchasing agreements designed for gas plants) and finance mechanisms (like the World Bank's Just Energy Transition Partnership JETP and Green Climate Fund). India can also examine carbon pricing and green bonds to accelerate gas adoption in its energy system.



SUMMARY OF PRESENTATIONS AND PANEL DISCUSSIONS

THEME 2

IS HYDROGEN BLENDING WITH NATURAL GAS A REALITY?

In the pursuit of a cleaner, more sustainable energy future, the blending of hydrogen with natural gas emerges as a promising reality, poised to revolutionize the energy landscape.

KEY DATA POINTS

60 terrawatt-hours

POTENTIAL OF POWER GENERATED THROUGH HYDROGEN BLENDING PER YEAR IN UK

20%

PERCENTAGE OF HYDROGEN BLENDING ADOPTED BY THE UK GOVERNMENT



With its potential to significantly reduce carbon emissions and facilitate the growth of a hydrogen economy, hydrogen blending holds immense promise. In the UK alone, it boasts a staggering potential of 60 terrawatt-hours annually, offering a pivotal pathway towards decarbonization.

Pioneering trials at Keele University and Winlaton have demonstrated the safe transportation and utilization of hydrogen blends within the gas distribution network, setting the stage for broader adoption. In a landmark policy decision, the UK government has paved the way for blending of up to 20% hydrogen, signaling a shift towards greener energy practices. While existing frameworks are compatible with hydrogen blending, ensuring safety remains paramount. Modification of network assets, robust training protocols, and meticulous policy adjustments are essential to mitigate risks and maintain safety standards.

Identifying early adopters and engaging potential producers are critical steps towards realizing the full potential of hydrogen blending. As exemplified by JERA's plans for 30% hydrogen blend trials, proactive initiatives are essential for driving the energy transition forward. In India, pilot projects spearheaded by NTPC, Adani Total Gas Limited, and Pipeline Infrastructure Limited (PIL) showcase the country's commitment to exploring hydrogen blending as a viable future fuel option. PIL's pilot study for blending various percentages of hydrogen in its transmission

KEY DATA POINTS

30%

HYDROGEN BLEND RATIO USED
IN JERA'S TRIALS

.....

network demonstrates promising results, with the potential for significant blends without major modifications. These initiatives underscore the pressing need to scale and refine blending efforts to make them economically and environmentally sustainable.

Looking ahead, collaboration between policymakers, industry stakeholders, and international partners is vital for advancing hydrogen blending initiatives. By aligning efforts across key workstreams such as policy, safety, market frameworks, operational readiness, and project pipelines, India can leverage hydrogen blending as a transformative tool in its journey towards a cleaner, more sustainable energy future.



SUMMARY OF PRESENTATIONS AND PANEL DISCUSSIONS

THEME 3

ROLE OF NATURAL GAS AND GREEN ALTERNATIVES IN INDIA'S SUSTAINABLE FUTURE

At COP26, India announced net-zero emission target by 2070, with interim targets of 45% emission intensity reduction and 50% non-fossil power capacity share by 2030. India is working towards a sustainable energy future, with the government and regulators taking steps to ensure energy security, affordability, and sustainability.

KEY DATA POINTS

45%

INDIA'S INTERIM TARGET FOR EMISSION INTENSITY REDUCTION BY 2070

50%

INDIA'S TARGET TO INCREASE NON-FOSSIL POWER CAPACITY BY 2030

.....

Considering India's air pollution issues, natural gas and alternative fuels can play a significant role in lowering India's emission curve.

As India aims to use natural gas as a transition fuel, the discussions in this session focused on the possibilities inherent in the adoption of natural gas & green alternatives such as compressed biogas in India's energy mix. At the outset, it was pointed out that natural gas has many advantages, being the cleanest fossil fuel and adaptability to a wide range of applications such as cooking fuel, and as feedstock in fertilizer industry. It produces fewer carbon emissions than coal and oil, making it a cleaner alternative for power generation & industrial processes. Gas use comprises less than 2% share in India's power generation, and there is a need for strategic planning to enhance its role in the power sector. It was mentioned that gas can evolve from its current peaking role to serve as the ultimate baseload solution, supporting the integration of renewables in the grid.

In the transport sector, there is an opportunity to leverage LNG in heavy-duty, long-haul transportation to reduce emissions. This move will help increase the utilization of gas, thereby reducing the environmental footprint of the transportation sector. However, gas faces issues regarding its overall availability, pricing, and accessibility. Volatility in international gas prices, inadequate long-term and medium-term gas contracts, inability of consumers to access gas pipeline grid were some of the major challenges cited by the participants in increasing the role of gas in India's energy mix.

KEY DATA POINTS

2%

SHARE OF GAS USE IN INDIA FOR
POWER GENERATION

40% - 50%

TARGET SET BY STEEL INDUSTRIES TO
REDUCE EMISSIONS BY ADOPTING DIRECT
REDUCED IRON (DRI) METHODS

.....

Encouraging the increased use of gas to meet emission reduction roles will require adequate carbon legislation, with the potential to set energy efficiency targets for various economic sectors. It was emphasized that the government should set stringent emission targets to increase gas absorption in the energy system, aligning with its sustainability goals. In this context, the potential of alternative fuels such as compressed biogas (CBG) and hydrogen was highlighted. The central government's energy policy involves integrating CBG into the gas market under the SATAT and GOBAR-Dhan schemes. There is also a specific focus on introducing hydrogen, especially in hard-to-abate sectors such as refineries and fertilizer manufacturing. Hydrogen holds potential in conjunction with natural gas, especially in blending hydrogen into existing natural gas pipelines. However, regulatory uncertainties persist, including questions about who will bear the costs associated with mixing hydrogen into natural gas pipelines.

The impact of regulations such as CBAM on India's exports of steel & cement to Europe was also discussed. CBAM regulations are pushing India's major steel industry players towards adopting Direct Reduced Iron (DRI) methods for a 40 to 50% emissions cut. These industries are gravitating towards sustainable practices by integrating greater amount of renewable energy sources and eco-friendly materials. These efforts will drive an increased adoption of gas and allow exporters to grab a larger market share in Europe.



SUMMARY OF PRESENTATIONS AND PANEL DISCUSSIONS

THEME 4

ENHANCING INDIA'S NATURAL GAS INFRASTRUCTURE FOR A SUSTAINABLE TOMORROW

India's energy sector is characterized by rapidly growing demand and the need of meeting economic goals sustainably. During the discussion it was noted that natural gas has the potential to become an essential part of India's energy mix and infrastructure growth will be paramount.

KEY DATA POINTS

6088

COMPRESSED NATURAL GAS STATIONS IN INDIA AS OF OCT'23

25000km

LENGTH OF INDIA'S GAS TRANSMISSION NETWORK

.....

Currently, there are nearly 6,088 CNG stations operating in 267 geographical areas as of October 31, 2023, and a transmission network on nearly 25,000km. India will require significant expansion in near future with a clear roadmap for infrastructure development to improve pipeline density. In addition, long-term contracts can provide stability and foster sustained growth and public-private investment.

The panelists observed that city gas distribution (CGD) sector has the potential to achieve and maintain gas-related targets in the primary energy basket. However, challenges still persist in terms of policy framework alignment to technological availability and infrastructure compatibility. These obstacles will require strategic resolution by policymakers and regulators. The prioritization of PNG infrastructure development will lay the groundwork for a more resilient gas distribution network. Collaboration between pipeline operators, CGD companies, and LNG terminals will be vital for cohesive infrastructure development.

The discussions highlighted the importance of public-private partnerships (PPPs) to finance the development of natural gas infrastructure development in India. There was a call for transparency in bidding mechanisms and the incentivization of long-term commitments through lower tariffs. As India navigates the path towards a sustainable future, the role of CGD, particularly powered by CNG, will emerge as a key part of expanding gas infrastructure. Gas infrastructure must also evolve into

KEY DATA POINTS

500+ Million

PEOPLE WHO STILL LACK ACCESS TO CLEAN COOKING FUEL IN INDIA



versatile carriers accommodating new energies such as compressed biogas (CBG) and hydrogen. Maximizing infrastructure optionality will prevent obsolescence and ensure adaptability in the face of changing energy mix. To achieve this, a clear roadmap and long-term contracts stand as imperatives, offering visibility into funding and investment.

Further, it was pointed that India's gas infrastructure development is critical to achieving the overall goal of providing universal energy access. Despite making significant progress, over 500 million people still lack access to clean cooking fuel, highlighting the urgent need to extend the reach of piped natural gas (PNG) to households. This ambition is underscored by the government's initiatives such as the National Gas Grid, 12th CGD bid round and "Har Ghar PNG" initiatives aimed at expanding coverage and fostering inclusive growth.

The discussion concluded that a multi-pronged approach bolstered by enabling regulations can further lead the transition towards a sustainable energy mix. Embracing an energy transition framework in policy formulation holds the key to strengthening India's gas infrastructure, guiding it towards a greener, more resilient tomorrow. With a concerted focus on collaboration, innovation, and long-term planning, the country is poised to leverage its vast potential in the gas sector to drive economic growth, ensure energy security, and mitigate environmental impact.



SUMMARY OF PRESENTATIONS
AND PANEL DISCUSSIONS

THEME 5

FOSTERING GAS DEMAND
ACROSS SECTORS FOR INDIA'S
EMISSION-RESILIENT FUTURE

India's natural gas demand is expected to double by 2040, driven by demand from transport, refineries, and the industrial sector. Government policies to support gas demand include blending of compressed biogas in CNG (transport) and PNG (domestic cooking) segments within the city-gas distribution (CGD) scheme. Fostering gas demand across different economic sectors will require further regulations and policies, which was thoroughly discussed in this session.

KEY DATA POINTS

2X

INCREASE IN DEMAND FOR NATURAL GAS IN INDIA BY 2040

43%

CURRENT SHARE OF COAL ENERGY USED BY MSME SECTOR IN INDIA

.....

Currently, power sector faces the challenge of low utilization of gas-based power plants and overcoming this challenge will require restructuring of gas supply contracts, introducing greater flexibility around delivery options and meeting varying consumption needs. In the short to medium term, India's domestic grid will require gas-based capacity to provide intermittent support as renewable capacity builds-up. The growth of the CGD sector will be crucial for gas demand growth in the next decade. For the transport sector, replacing diesel in long-haul transportation with LNG was advocated during the discussions. The MSME sector has the potential to boost India's gas demand, which currently uses around 43% coal, 20-25% petcoke, and 12% biomass of husk rice. Therefore, policies for the incentivization of natural gas in the MSME sector will be the key to emission resilient future. The role of the India Gas Exchange in fostering gas demand was also highlighted. It was emphasized that ensuring supply demand balance, providing price transparency, and fostering competition will be supportive of India Gas Exchange's aim to create a strong and effective gas market.

In conclusion, it was highlighted that collaboration among industry players is crucial for increasing gas in the energy mix, with multiple supply sources, transparent mechanisms, and capacity building trainings to enhance skilled workforce and address industry concerns.

ABBREVIATIONS

| | |
|--------------|--|
| CBAM | Carbon Border Adjustment Mechanism, a carbon tariff imposed by the European Union (EU) on the carbon emitted during the production of carbon-intensive goods that are entering the EU, and to encourage cleaner industrial production in non-EU countries. |
| CCUS | Carbon Capture, Utilization, and Storage |
| CNG | Compressed Natural Gas |
| CBG | Compressed Biogas |
| CGD | City Gas Distribution |
| PNG | Piped Natural Gas |
| PNGRB | Petroleum Natural Gas Regulatory Board |
| COP28 | 28th meeting of Conference of Parties of the United Nations Climate Change Conference |
| G20 | Group of Twenty is an intergovernmental forum comprising 19 countries and the European Union |
| IRA | Inflation Reduction Act, United States federal law |

| | |
|-----------------|---|
| LNG | Liquefied Natural Gas |
| LPG | Liquefied petroleum gas |
| NDC | Nationally Determined Contribution |
| MRTS | Mass Rapid Transit Systems |
| IEA | International Energy Agency |
| IMF | International Monetary Fund |
| MSME | Micro Small and Medium Enterprises |
| MMBtu | Micro Small and Medium Enterprises |
| JERA | JERA was created through the consolidation of the fuel and thermal power departments of the Tokyo Electric Power Company and the Chubu Electric Power Company |
| RFP | Request for Proposal |
| Net Zero | Net Zero carbon dioxide (CO ₂) emissions are achieved when anthropogenic CO ₂ emissions are balanced globally by anthropogenic CO ₂ removals over a specified period. Net Zero CO ₂ emissions are also referred to as carbon neutrality. |

ABBREVIATIONS

- OECD** Organization for Economic Co-operation and Development
- Scope 1** Direct GHG emissions that occur from sources that are owned or controlled by the organization
- Scope 2** Scope 2 emissions are indirect emissions from the generation of purchased energy by an organization, from a utility provider i.e., all GHG emissions released in the atmosphere, from the consumption of purchased electricity, steam, heat, and cooling.

ATTENDEES AT PIL ANNUAL GAS FORUM - 2024



ATTENDEES AT PIL ANNUAL GAS FORUM - 2024





About PIL

Pipeline Infrastructure Limited (PIL) owns and operates a 48 - inch diameter pipeline with an overall network length of 1480 km, including spur and dedicated pipelines. India's first bi-directional pipeline traverses 5 states across the peninsular region from Kakinada in the East to Bharuch in the West. PIL acts as the vital link in supplying clean and green energy across the country in a safe, sustainable, and reliable manner. With a design capacity of 85mmscmd, it commenced operations in 2009 to transport record gas off the East Coast. The above-ground facility of the PIL pipeline includes 10 compressor stations with a total installed power of 900+ MW.



About ET Energyworld

Energy constitutes 6-7% of India's GDP, making it a significant sector in the country's economy. The Indian energy market is among the world's top five and is rapidly growing. ETEnergyworld keeps industry leaders informed with the latest developments, curated news, and tailored analyses.

With a commitment to staying at the forefront of the ever-evolving energy sector, ETEnergyworld not only reports extensively on the industry but also organizes major events both domestically and internationally, with a primary focus on the energy domain. Additionally, we provide customized digital and on-ground solutions, empowering brands to select options that align precisely with their requirements.

S&P Global

Commodity Insights

S&P Global Commodity Insights

S&P Global Commodity Insights is a division of S&P Global. For more than 100 years, we've been a trusted connector that brings together thought leaders, market participants, governments, and regulators to co-create solutions that lead to progress. Vital to navigating Energy Transition, S&P Global Commodity Insights' coverage includes oil and gas, power, chemicals, metals, agriculture, and shipping.

Disclaimer

©2024 S&P Global Commodity Insights, a division of S&P Global Inc. All rights reserved.

The Data you are accessing is for your company's internal business use only. No Data may be published, reproduced, or distributed, without S&P Global Commodity Insights' prior written consent or as otherwise authorized under license from S&P Global Commodity Insights ("SPGI"). SPGI, its affiliates and all of their third-party licensors disclaim any and all warranties, express or implied, including, but not limited to, any warranties of merchantability or fitness for a particular purpose or use as to the Data, or the results obtained by its use or as to the performance thereof. The content is provided "as is" and should not rely on any information and/or assessment contained therein in making any investment, trading, risk management or other decision. S&P Global Commodity Insights, its affiliates and their third-party licensors do not guarantee the adequacy, accuracy, timeliness and/or completeness of the Data or any component thereof or any communications and shall not be subject to any damages or liability, including but not limited to any indirect, special, incidental, punitive or consequential damages (including but not limited to, loss of profits, trading losses and loss of goodwill). For all queries or requests pursuant to this notice, please contact SPGI via email at support@platts.com.