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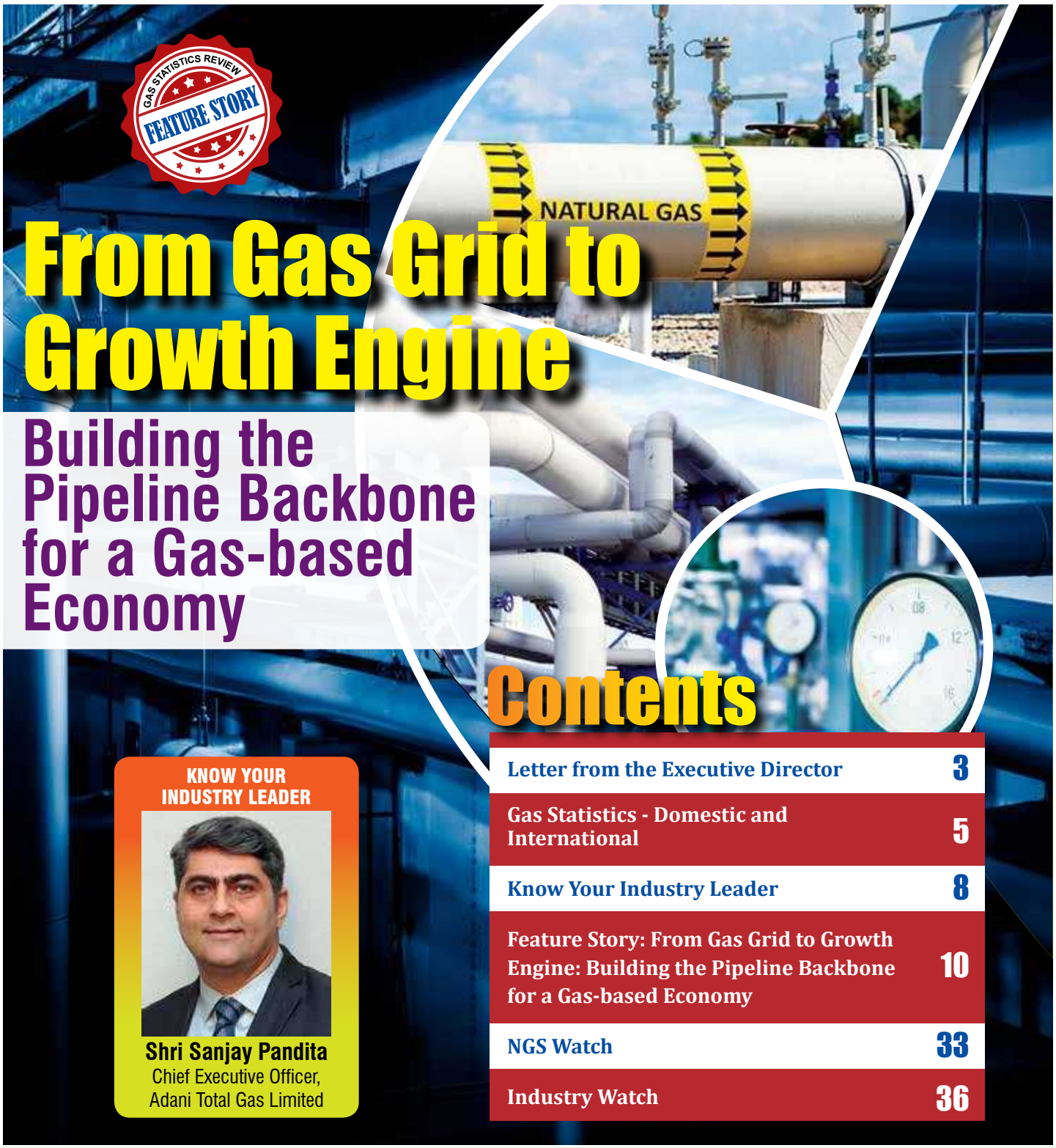
October-December 2026

Gas Statistics Review



From Gas Grid to Growth Engine

Building the Pipeline Backbone for a Gas-based Economy

KNOW YOUR INDUSTRY LEADER

Shri Sanjay Pandita
Chief Executive Officer,
Adani Total Gas Limited

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MAHANAGAR GAS

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Marching towards conservation of nature through the propogation of next-generation fuel. We at Mahanagar Gas strive to go beyond the possibilities. From homes to vehicles to industrial & commercial units, we are ushering in newer innovations and experiences to bring a delightful difference to uncountable lives.

31 LAKH+
DOMESTIC PNG CUSTOMERS

5840+
INDUSTRIAL & COMMERCIAL CUSTOMERS

12 LAKH +
CNG VEHICLES

8200+ KM
PIPELINE

500+
CNG STATIONS

The global natural gas market continues to navigate heightened uncertainty, with geopolitical tensions in West Asia, disruptions to LNG flows through the Strait of Hormuz and tighter supply margins underscoring the link between gas markets and energy security. Although LNG flows have begun to recover, supply risks and price volatility remain important concerns for gas-importing economies. At the same time, the United States continues to strengthen its position as a major global gas supplier, supported by robust domestic production and expanding LNG export capacity.

For India, these developments come at a critical juncture. Natural gas remains an important part of the country's transition towards a cleaner and more diversified energy mix, even as domestic production is unlikely to fully match the growth in demand. LNG imports stood at around **35 BCM in 2025–26,** accounting for roughly half of India's gas consumption, and are expected to rise further as gas demand expands.

The recent volatility has highlighted both the importance and vulnerability of LNG-dependent supply. While sectors such as fertiliser, CGD and transport continue to support gas demand, diversifying LNG sources, expanding import infrastructure and strengthening domestic pipeline connectivity will be essential to improving supply security.

The larger challenge, therefore, is not only how much gas India can import, but how efficiently and competitively it can move gas across the country. A connected, flexible and well-utilised pipeline network will be critical to linking diverse sources of supply with emerging demand centres and strengthening the role of natural gas in India's energy mix.

In this issue of Gas Statistics Review, our special feature, **"From Gas Grid to Growth Engine: Building the Pipeline Backbone for a Gas-Based Economy,"** examines this critical infrastructure story. The feature traces the evolution and current status of India's natural gas pipeline network, highlights the challenges affecting its utilisation and brings together industry perspectives on the investments, reforms and market solutions needed to build a more connected gas system and move India closer to its ambition of raising natural gas to **15% of the energy mix.**

NGS also continued its engagement with the industry during **July–September 2026** through safety initiatives, technical programmes, knowledge partnerships and sectoral events. Key highlights included the dissemination of the **Safety Handbook for CNG delivery salespersons,** participation as Knowledge Partner at the **5th Uttar Pradesh Fire & Safety Expo, an IT & OT cybersecurity workshop** with DSCI, the **Innovation Conclave 2026**, participation in the **HSSC–PNGRB skills workshop**, the **3rd NGS Conclave on Construction Management**, and engagement with the **PipeTech & India GasTech Conference and Exhibition.**

More details and highlights from these activities are featured in the new **"NGS Watch"** section in this issue.

We remain committed to supporting the growth of India's natural gas industry through continued value-adding initiatives. We thank our members for their continued support and look forward to their feedback and guidance.

With best wishes and greetings for the forthcoming festive season,

D V Shastry
Executive Director, NGS

NATURAL GAS SOCIETY

A Voice for India's Natural Gas Industry

VISION

The Natural Gas Society, a registered society under the Societies Act, seeks to represent the issues of the industry from time to time and provide critical inputs into sectoral policy through research, collaboration and dialogue. NGS, towards this end, promotes collaboration with similar organizations, so as to share information and best practices for the overall benefit of Natural Gas sector.

MISSION & OBJECTIVES

- **To represent the collective interest and promote, facilitate and further sustainable growth of Natural Gas Industry in India (except E&P)**
- **To serve as a nodal point for coordination of all efforts at generation and dissemination of information and technology, relevant to natural gas**
- **Work on common interest issues like Disseminating Best Practices in Constructions, Operations& Maintenance, Safety Standards, Technical Standards, etc.**

Become a Member Now!

Organizational Membership of NGS for Business Growth through Research, Resource Sharing, Branding and Capability Building

Individual Membership of NGS to enrich and enhance Professioinal Competencies and Networking

Branding Opportunities
to showcase your organization through popular Publications of NGS

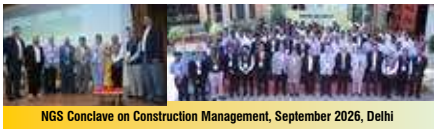
NGS: A platform for its Members to exchange knowledge, experience & best practices.

Advocacy: NGS has been taking up several sectoral issues with various authorities viz. PNGRB, PESO, Ministries concerned (Union and State Govts.) etc.

Collaboration with similar bodies in India such as **BIS, FICCI, ISGF, PHDCCI, SIAM**, etc.
Association Partnership for India Smart Utility Week (**ISUW**), Mission Net Zero India Summit (**MNZIS**), **PIPETECH**, **India LNG Summit, NGV India, India Gas Tech 2024 & 2025**, India Energy Week (**IEW**) 2024 & 2025 etc.
MoU with Hydrocarbon Sector Skill Council (**HSSC**)

Collaboration with International bodies and partnerships in projects and events such as GasTech, Future Energy Asia.
MoU with Institution of Gas Engineers and Managers (**IGEM**), UK

NGS ACTIVITIES


NGS Conclave on Construction Management, September 2026, Delhi

Innovation Conclave, August 2026, Delhi

India Energy Week (IEW) 2026, Goa

EDP - "Customer-Centric Mindset & Service Excellence" 2025, Varanasi

Gas Detection Workshop 2025, Delhi

Safety Seminar 2024, Noida

7th O&M Conference 2024, Mumbai

2nd GPS 2024, Bhopal

- **Voice for India's Natural Gas Industry**
- **Knowledge & Experience Sharing**
- **Collaborations with National & Internaional Bodies / Forums**
- **Research Studies; Data Analysis**
- **Industry Academia Collaboration** (RGIPT, PDEU, SNU & CU are the Members of NGS)
- **Seminars / Conferences** on O&M, Safety, Construction Management, etc.
- **'ज्ञानानुभव प्रवाह सहयात्रा' Gyanaanubhav Prawaah Sahayatra (GPS)**
  - A new initiative for Sharing of Knowledge, Experience and Best Practices in NG sector

NGS MEMBERS

PATRON MEMBERS

GAIL (India) Ltd | Mahanagar Gas Ltd | Indraprastha Gas Ltd | Petronet LNG Ltd

PRIMARY MEMBERS

Maharashtra Natural Gas Ltd | Green Gas Ltd

ASSOCIATE MEMBERS (Academic Institutions)

Central U.P. Gas Ltd | Engineers India Ltd | Pipeline Infrastructure Ltd | Shiv Nadar University

NG INDUSTRY FOCUSSED PUBLICATIONS

The Society publishes a quarterly publication **'Gas Statistics Review(GSR)'**, highlighting the periodical gas data including production, consumption, imports, CNG, PNG, LNG prices both domestic and international and much more. NGS also publishes **Snapshot-Fortnightly & Annual.**

NON-VOTING MEMBERS

Aavantika Gas Ltd | Adani Gas | Alethe Labs | Bharat Petroleum Corporation Ltd | Compac Industries India Ltd | IndianOil Corporation Ltd | Indradhanush Gas Grid Limited | IRM Energy | Nawgati Tech Private Ltd

Pietro Fiorentini DB | Respo Safety Solutions Pvt Ltd | South Asia Gas Enterprise Pvt Ltd (SAGE) | Secure Meters Ltd | THINKGas | Teledyne Gas Measurement | Tripura Natural Gas Company Ltd | Vadodara Gas Ltd

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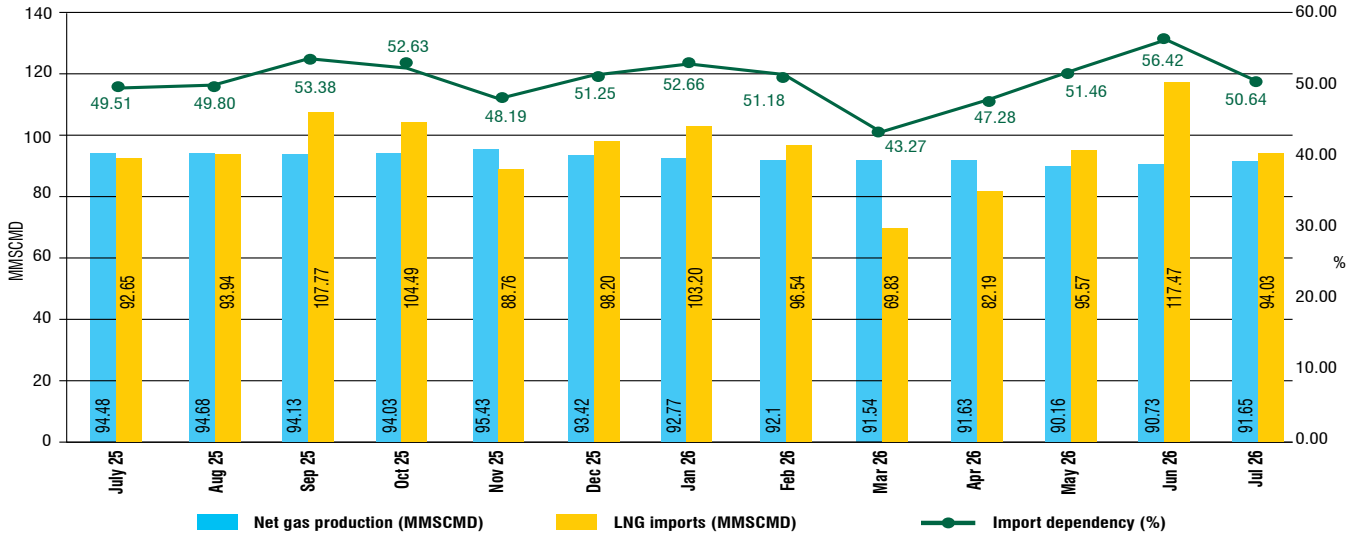
Tel: 0120 - 4222849 Email: ngs@ngsindia.org Website: www.ngsindia.org

GAS STATISTICS - DOMESTIC

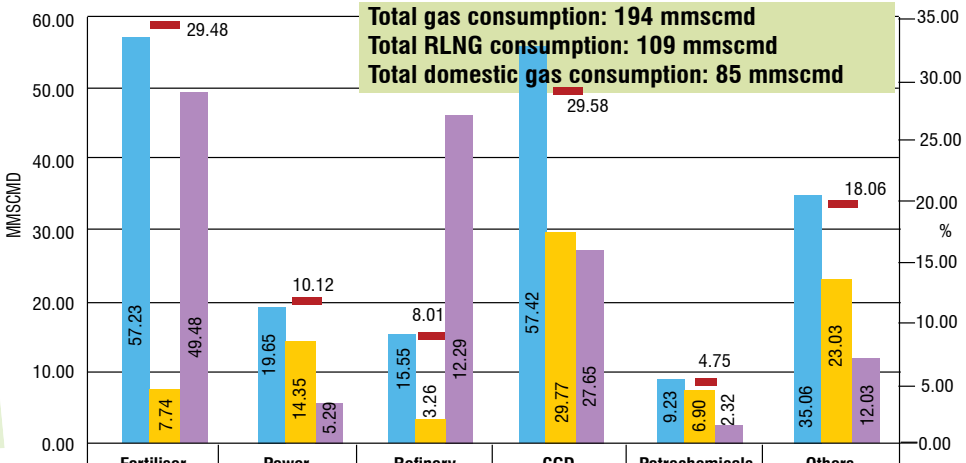
Gas Production/Consumption/Imports (MMSCMD)



Sector-wise Gas Consumption of Domestic Gas and RLNG (July 2026)

India's natural gas market continued to expand in 2026, with overall gas consumption crossing the 200 MMSCMD mark for the first time in June 2026. The growth was led by the City Gas Distribution (CGD) segment, which emerged as the largest consumer for the first time in July, accounting for 29.58% of total gas consumption, overtaking the fertiliser sector. Meanwhile, India's LNG regasification capacity rose to 58.5 MMTPA following the expansion of the Dahej LNG terminal, strengthening the country's import and regasification infrastructure.

Total gas consumption: 194 mmscmd
Total RLNG consumption: 109 mmscmd
Total domestic gas consumption: 85 mmscmd



	Fertiliser	Power	Refinery	CGD	Petrochemicals	Others
Total gas consumption by sector (MMSCMD)	57.23	19.65	15.55	57.42	9.23	35.06
Consumption of domestic gas (MMSCMD)	7.74	14.35	3.26	29.77	6.90	23.03
Consumption of LNG (MMSCMD)	49.48	5.29	12.29	27.65	2.32	12.03
Sector's share in total gas consumption(%)	29.48	10.12	8.01	29.58	4.75	18.06

Trend in Consumption of Petroleum Products ('000 METRIC TONNES)

In '000 MT	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26
LPG	2833	2794	2871	2843	3067	3012	2801	2358	2192	2114	2173	2346	2347
Naphtha	1065	1010	924	918	986	1057	991	948	727	951	830	830	828
MS	3544	3399	3665	3517	3555	3511	3369	3780	3684	3910	3784	3815	3836
HSD	6577	6786	7620	8557	8470	7993	7665	8726	8330	8725	8603	8093	7023
FO & LSHS	499	526	566	545	550	548	514	643	481	610	485	632	525
Petroleum Coke	2239	1495	1567	1330	1774	1391	943	1065	1332	1023	1224	1637	1599

CGD / LNG / Pipelines

Common Carrier Gas Pipeline Network (as of 31.03 2026))

Length in km & Capacity in MMSCMD		GAIL	GSPL	PIL	IOC	AGCL	RGPL	GGL	DFPCL	ONGC	GIGL	GITL	Others*	Total
Operational	Length	11184	2894	1485	249	107	304	73	42	30			321	16690
	Capacity	240.1	74.8	85	25.2	2.4	3.5	5.1	0.7	3.5			42.1	
Partially commissioned	Length	7118			1121						1419			9658
	Capacity	0			84.7						83.1			
Total operational	**Length**	**18302**	**2894**	**1485**	**1370**	**107**	**304**	**73**	**42**	**30**	**1419**	**0**	**321**	**26348**
Under Construction	Length	823	337		310						784	220	1172	3646
	Capacity	14.4	53.7									36		
Total Length		**19125**	**3231**	**1485**	**1680**	**107**	**304**	**73**	**42**	**30**	**2203**	**220**	**1493**	**29993**

Source: PNGRB, *Others-APGDC, , IGGL, IMC,GTIL,HPPL Consortium of H-Energy. Total authorized Natural Gas pipeline length including Tie-in connectivity, dedicated & STPL is 34,803 kms (P),however total operational pipeline length including Tie-in connectivity, dedicated & STPL is 27,905 kms (P) and Under Construction Pipeline length including Tie-in connectivity, dedicated & STPL is 8,551 kms (P)

Existing LNG Terminals

Location	Promoters	Capacity (MMTPA) on 1.9.2026	Cap. Utilisation (Apr-Aug 2026) (%)
Dahej	Petronet LNG	22.5	68.21*
Hazira	Shell Energy	6	38.3
Dabhol	Konkan LNG	5	42.2
Kochi	Petronet LNG	5	24.26*
Ennore	Indian Oil LNG	5	27.3
Mundra	GSPC LNG	5	28.2
Dhamra	Adani Total	5	45.2
Chhara	HPCL LNG	5	6.1
Total capacity		**58.5**	

*Cap Utilisation for Apr-Jul' 26

GAS STATISTICS - DOMESTIC

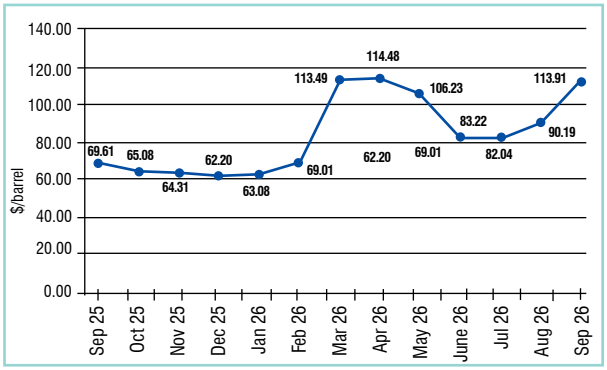
Status of CNG stations and PNG connections across India (Nos.) as on 31.07.2026 (P)

State/UT (State/UTs are clubbed based on the GAs authorised by PNGRB)	CNG Stations	PNG connections		
		Domestic	Commercial	Industrial
Andhra Pradesh	222	293,633	756	68
Andhra Pradesh, Karnataka & Tamil Nadu	52	18,894	66	53
Assam	49	81,180	1,652	492
Bihar	212	284,185	402	65
Bihar & Jharkhand	42	15,549	36	1
Bihar & Uttar Pradesh	36	64,196	0	0
Chandigarh (UT), Haryana, Punjab & Himachal Pradesh	37	34,529	290	102
Chhattisgarh	70	21,956	2	22
Dadra & Nagar Haveli (UT)	6	15,922	80	70
Daman & Diu (UT)	4	5,621	146	72
Daman and Diu & Gujarat	21	12,503	121	0
Goa	16	20,891	124	62
Gujarat	1,090	3,968,551	26,082	5,997
Haryana	576	618,942	2,163	3,224
Haryana & Himachal Pradesh	12	820	12	5
Haryana & Punjab	31	3,540	13	0
Himachal Pradesh	21	14,405	73	20
Jharkhand	136	191,443	394	45
Karnataka	522	619,668	1,067	508
Kerala	226	148,452	436	52
Kerala & Puducherry	33	14,490	41	0
Madhya Pradesh	385	339,049	957	720
Madhya Pradesh and Chhattisgrah	9	0	0	0
Madhya Pradesh and Rajasthan	44	2,897	8	0
Madhya Pradesh and Uttar Pradesh	22	105	2	5
Maharashtra	1,224	4,533,745	6,645	1,427
Maharashtra & Gujarat	114	239,130	48	79
Maharashtra and Madhya Pradesh	19	283	1	0
Meghalaya	4	0	0	0
National Capital Territory of Delhi (UT)	459	1,994,439	5,080	1,909
Odisha	161	192,425	347	12
Puducherry	11	0	0	4
Puducherry & Tamil Nadu	9	920	14	1
Punjab	264	134,906	1,207	416
Punjab & Rajasthan	35	41,422	0	0
Rajasthan	455	516,804	826	1,936
Tamil Nadu	494	137,414	255	157
Telangana	235	266,977	273	221
Telangana and Karnataka	15	146	6	8
Tripura	30	71,872	569	48
UT of Jammu and Kashmir	3	0	0	0
Uttar Pradesh	1,297	2,314,764	4,693	4,406
Uttar Pradesh & Rajasthan	57	34,541	140	352
Uttar Pradesh and Uttrakhand	41	19,424	4	0
Uttarakhand	46	86,902	257	182
West Bengal	249	169,376	58	11
Grand Total	**9,096**	**17,546,911**	**55,346**	**22,752**

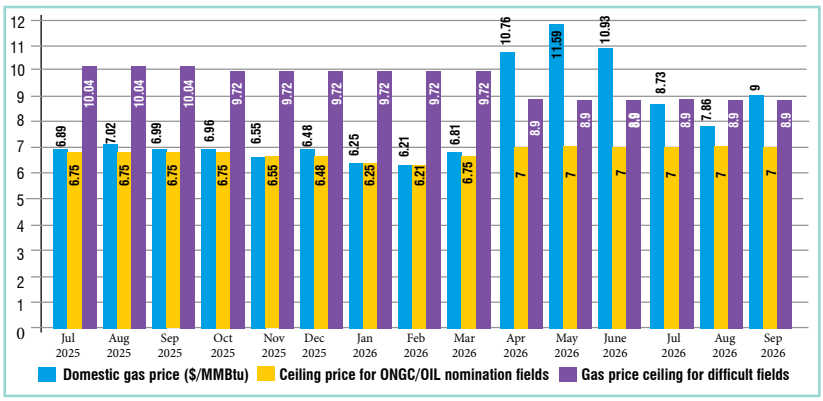
Note: 1. All the GAs where PNG connections/CNG Stations have been established are considered as Operational, 2. Under normal conditions. Operation of any particular GA commences within around one year of authorization. 3. State/UTs wherever clubbed are based on the GAs authorised by PNGRB.

Gas - Price & Analytics

Crude Price (Indian basket)



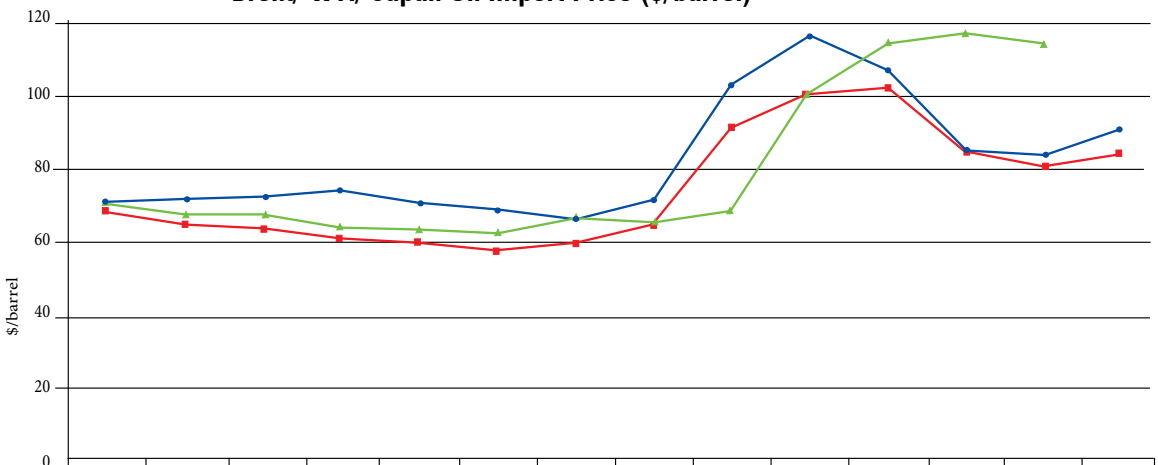
Domestic Gas Price ($/MMBtu)



Gas - Price & Analytics

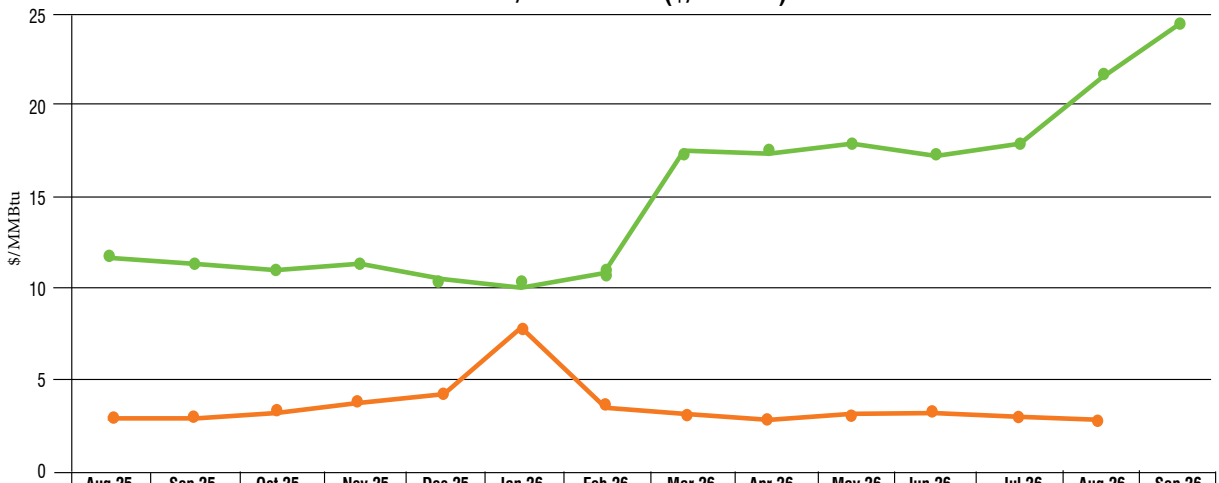
The energy market remained exposed to significant global price volatility. The Indian crude basket rose sharply from $62.20/bbl in December 2025 to $114.48/bbl in March 2026, amid heightened tensions surrounding the US-Iran conflict. Prices eased somewhat in June and July before rising again in August and September. In the gas market, Henry Hub remained relatively stable, supported by robust domestic US gas production, while the JKM LNG marker climbed from around $10–12/MMBtu in February 2026 to $24.61/MMBtu in September, reflecting tighter LNG market conditions in Asia. Together, these trends highlight the contrasting dynamics of India's growing domestic gas demand and the heightened volatility in global energy markets.

Brent/ WTI/ Japan Oil Import Price ($/barrel)



	Jul 25	Aug 25	Sep 25	Oct 25	Nov 25	Dec 25	Jan 26	Feb 26	Mar 26	Apr 26	May 26	Jun 26	Jul 26	Aug 26
Brent ($/barrel)	71.04	67.87	67.99	64.54	63.8	62.54	66.6	70.89	103.13	117.29	107.14	85.4	83.76	91.08
WTI ($/barrel)	68.39	64.86	63.96	60.89	60.06	57.97	60.04	64.51	91.38	100.32	102.13	84.81	80.46	83.9
Japan oil import price	71.38	72.16	73.05	74.36	71.32	69.59	66.74	65.74	68.86	101.89	114.60	117.22	114.35	

International Gas/LNG Prices ($/MMBtu)



	Aug 25	Sep 25	Oct 25	Nov 25	Dec 25	Jan 26	Feb 26	Mar 26	Apr 26	May 26	Jun 26	Jul 26	Aug 26	Sep 26
Henry Hub Spot	2.91	2.97	3.19	3.79	4.26	7.72	3.62	3.04	2.77	2.94	3.15	2.89	2.78	
Japan Korea LNG Spot Market	11.75	11.3	11.12	11.26	10.57	10.34	10.7	17.53	17.6	17.79	17.45	18.03	21.78	24.61

Month / Year

Source: EIA, LNG Journal, PPAC, Petroleum Association of Japan

Shri Sanjay Pandita

Chief Executive Officer, Adani Total Gas Limited

Natural Gas Society spoke to **Shri Sanjay Pandita, Chief Executive Officer, Adani Total Gas Limited,** about his professional journey, achievements, leadership philosophy and outlook on India's evolving gas sector.

Shri Sanjay Pandita currently leads Adani Total Gas Limited (ATGL) as Chief Executive Officer, having assumed charge in 2026 as part of the company's planned leadership succession. A mechanical engineer and an alumnus of the Indian Institute of Management, Calcutta, Shri Pandita brings over two and a half decades of experience spanning the natural gas value chain, from upstream gas marketing and midstream operations to downstream businesses and emerging low-carbon fuels.

His professional journey began as a service engineer with Burckhardt Compression before he moved into fuel retailing with Nayara Energy. Over the years, he took on leadership responsibilities at Gujarat Gas Limited and Mahanagar Gas Limited, where he was closely involved in commercial growth, customer expansion and strategic

business initiatives.

He subsequently moved to Reliance Industries Limited and Jio-bp, where, as Senior Vice President & Head – Gaseous Fuels, he led businesses spanning LPG, biogas, hydrogen and CNG. His responsibilities covered business development, project management, P&L management and the development of clean mobility solutions.

For Shri Pandita, sustainable growth is rooted in creating value across the entire value chain. **"A business grows sustainably only when it creates lasting value across the entire value chain and succeeds only when its customers do."** This philosophy has shaped his approach across diverse businesses and assignments.

Shri Pandita has played an active role in India's emerging clean-energy landscape, particularly in developing biogas, LNG and hydrogen infrastructure for mobility. His previous assignment included achieving the country's highest biogas sales and developing the first private-sector hydrogen retail outlet in India. Among the projects closest to his heart is the gaseous-fuels mobility business he helped build from the ground up. The initiative grew to around 175 multifuel gaseous retail outlets, achieved a 50% market share in biogas, and culminated in the development of India's first hydrogen mobility station by a private entity.

For Shri Pandita, these milestones represent more than individual business achievements. They reflect the evolution of India's energy transition—bringing cleaner fuel options closer to consumers, reducing emissions from mobility and demonstrating the potential of natural gas and allied fuels as practical alternatives for the transport sector.

At ATGL, Shri Pandita is leading a business that is expanding its clean-energy infrastructure across customer segments and geographies. The company has crossed several significant milestones, including **13.1 lakh domestic PNG connections, a combined network of 1,169 CNG stations and more than 5,100 EV charging points,** alongside the development of dedicated LNG retail outlets and expansion of biogas plants.

Together, these initiatives reflect ATGL's expanding portfolio across homes, industries, mobility corridors and emerging clean-energy solutions, while reinforcing the role of gas infrastructure in India's evolving energy mix.

Looking ahead, Shri Pandita sees significant scope for the gas sector as India builds a more diversified and future-ready energy system. He points to the rapid expansion of CGD infrastructure and the growing integration of digital and operational capabilities as important enablers of the sector's development. **The national CNG refuelling network is expected to expand to around 20,000 stations by 2030,** extending access across both urban and rural markets. Such infrastructure expansion, he believes, can strengthen the accessibility and adoption of natural gas across multiple segments while supporting India's broader energy-transition objectives.

For Shri Pandita, the evolution of the gas sector is therefore closely linked to India's ability to balance economic growth with environmental responsibility. As infrastructure expands and new fuels emerge, the sector will increasingly have to combine scale, innovation and customer-centricity to support the country's changing energy needs.

His interest in the industry extends well beyond his professional responsibilities. A keen student of the energy sector, Shri Pandita regularly keeps himself updated through technical papers, white papers and industry literature. For him, continuous learning is an integral part of staying relevant in a sector undergoing rapid technological and structural change.

Away from work, his interests are more relaxed. He enjoys classic cinema and, on weekends, can often be found on the cricket pitch, playing with colleagues and friends.

As he looks ahead, Shri Pandita's message to professionals—whether beginning their careers or leading large teams—is centred on purpose and collective effort. At the heart of his philosophy is a simple aspiration:

"Every effort we make is aimed at making everyday life easier and better today, tomorrow, and forever."

Disclaimer: The views and opinions on the gas sector are purely personal.

From Gas Grid to Growth Engine

Building the Pipeline Backbone for a Gas-based Economy

BY DEEPIKA LAL

Every successful gas economy has one defining characteristic: an extensive, reliable and accessible pipeline network. The scale of the gap is stark. The US has more than 5 million km of gas pipelines, including transmission and distribution, Europe over 2.2 million km, and China more than 1 million km. India, by comparison, has about 0.35 million km.

The difference is even more pronounced in consumption. India uses around 71 BCM of natural gas a year, compared with roughly 902 BCM in the US and 433 BCM in China. Gas accounts for only about 6% of India's energy mix, compared with around 36% in the US. At just about 50 cubic metres per person, India's per-capita gas consumption remains a fraction of that in other major gas markets.

The comparison points to a simple conclusion: India is still at an early stage of building a gas economy. Its 28,000-km operational transmission network and more than 17 million domestic PNG connections mark significant progress, but penetration remains low relative to a population of more than 1.4 billion and a gas share of only around 6% of the energy mix.

India vs International	USA	Europe	China	India
Transmission pipelines (km)	~483,000	>206,000	~124,000	27,905
Distribution pipelines (km)	~3.5 million	>2 million	Large & rapidly expanding	>300000 + Rapidly expanding CGD network
Gas consumption (BCM)	~902	~333	~433	~71
Gas share of energy mix	~36%	~20%	~8%	~6%
Per-capita gas consumption (m^3)	~2,700	~740	~300	~50

Why Pipelines Matter

Natural gas cannot reach consumers at scale without a connected pipeline network. From transmission and sub-transmission pipelines to city gas distribution (CGD), each layer of the network expands the market—connecting new cities, industries, CNG stations, households and LNG terminals.

That makes pipelines more than infrastructure: they are the backbone of India's gas economy. Expanding the network is therefore central to the country's ambition of raising natural gas' share in the primary energy mix from around 6–6.5% to 15%.

The challenge is no longer simply to build more kilometres. It is to create a **connected, commercially viable and well-utilised gas grid** capable of turning infrastructure into consumption.

From Gas Field to Consumer

India's gas grid links domestic gas production and LNG imports to consumers through processing facilities, high-pressure transmission pipelines, CGD networks and downstream distribution infrastructure.

Gas from domestic fields and LNG terminals is processed, compressed and fed into the National Gas Grid—the high-pressure transmission backbone connecting production and import hubs with major demand centres. Tie-in and dedicated pipelines connect terminals, processing facilities and large industrial consumers to the trunk network.

From the transmission system, gas moves through **sub-transmission pipelines to City Gate Stations (CGSs)**, where it is pressure-regulated, metered and odorised before entering the CGD network. Steel pipelines serve industries and CNG stations, while MDPE networks deliver PNG to households and commercial users.

SCADA, remote terminal units and leak-detection systems provide the monitoring and control layer across the network, supporting safe and reliable gas delivery.

Evolution of India's Gas Pipeline Network

India's gas pipeline journey began with the development of the **Bombay High offshore fields in the late 1970s.** Rising production created the need to transport gas to inland demand centres, leading to the construction of the **Hazira–**

THE GRID AT A GLANCE

COMPONENT	ROLE	SCALE / 2026
Domestic Gas Production	Supplies gas from offshore/onshore fields	~35–36 BCM/year
LNG Terminals	Import and regasify LNG to supplement domestic supply	58.5 MMTPA regasification capacity
National Gas Grid	High-pressure backbone transporting gas across regions	34,273 km authorised; 27,427 km operational
Compressor Stations	Maintain pressure and flow across long-distance pipelines	~180–200 units
City Gate Stations	Reduce pressure, meter and odorise gas for city distribution	700+
CGD Network	Distributes gas to households, businesses, industry and transport	321,630 inch-km
Consumer Reach	Connects gas with end users	16.95 mn PNG connections; 8,916 CNG stations
Geographical Reach	Extent of CGD rollout	307 GAs; ~98% population coverage

Vijaipur–Jagdishpur (HVJ) Pipeline.

Commissioned in 1987, HVJ became India's first major cross-country gas pipeline and the **backbone of the emerging gas transmission network**, supplying to fertiliser plants, power stations and petrochemical industries across northern India. Branch lines subsequently extended the network into Rajasthan, Haryana and Delhi, transforming a single transmission corridor into a regional gas grid.

The entry of Indraprastha Gas Limited (IGL) in Delhi marked another shift—from industrial supply to urban consumption—with the expansion of PNG for households and CNG for transport.

By the early 2000s, growing demand began to outpace domestic gas availability. The arrival of LNG imports fundamentally changed pipeline planning: infrastructure was no longer designed only to move domestic gas from producing fields, but increasingly to carry regasified LNG from coastal terminals to inland markets.

PHASE I | 1980-2003

The Birth of the Gas Backbone

Domestic gas | Western India | HVJ

KEY MILESTONES

1987
HVJ pipeline commissioned
(1,750 km | 18.2 MMSCMD)

Expanded to 3,474 km
Rajasthan | Haryana | Delhi

Supplied to fertiliser, power and petrochemical industries

1998
Delhi CGD begins (IGL)

PHASE I IN ONE LINE

Domestic gas → HVJ → Industry → Early CGD

- Domestic production dominated
- Bombay High & Western Offshore gas
- Western India concentration
- Fertiliser and power sector priority
- One backbone pipeline

PHASE II | 2004-2015

LNG Changes the Map

Imported LNG | New Corridors | Private Participation

KEY MILESTONES

2004
Dahej–Vijaipur Pipeline
(610 km)

East–West Pipeline
(~1,400 km)

Dahej–Uran corridor
(Gujarat → Maharashtra)

Gujarat Gas Grid
(LNG → Refineries → Industry → CGD)

LNG terminals
Dahej | Hazira | Dabhol | Kochi

PHASE II IN ONE LINE

LNG imports → New entry points → New corridors → Regional gas grids

- LNG becomes a major supply source
- Parallel pipeline systems emerge
- Multiple transmission corridors
- Private participation begins
- State gas grids develop

The **Dahej–Vijaipur Pipeline (DVPL)** created a high-capacity parallel corridor to the HVJ system, strengthening supplies to northern India. The **Dahej–Uran pipeline** connected western gas supplies to Maharashtra, while the **East–West Pipeline** opened up eastern offshore production to western and northern markets.

Meanwhile, **Gujarat pioneered a state-wide gas grid,** linking LNG terminals, refineries, petrochemical complexes, industrial clusters and city gas networks. As LNG terminals expanded at Dahej, Hazira, Dabhol and Kochi, the transmission network increasingly evolved around connecting coastal gas entry points with inland demand centres.

The third phase marked a fundamental change in ambition—from connecting individual sources and markets to building an integrated national gas network.

The **Pradhan Mantri Urja Ganga (PMUG)** programme extended the pipeline network deep into eastern India, connecting Uttar Pradesh, Bihar, Jharkhand, Odisha and West Bengal. Its objectives went beyond transmission: bringing gas to fertiliser plants, enabling CGD expansion and supporting industrialisation in regions historically underserved by gas infrastructure.

At the same time, the North-East Gas Grid is extending connectivity across the seven sister states, while new corridors such as the Mumbai–Nagpur Pipeline are opening central India to the gas network. Southern expansion has linked Kochi, Bengaluru, Mangaluru, Ennore and Chennai with the wider national grid.

PNGRB's successive bidding rounds accelerated this transformation, bringing multiple new cross-country pipelines and hundreds of CGD Geographical Areas (GA) into the network. The result is a rapidly expanding National Gas Grid—moving India from regional gas corridors towards a connected, nationwide gas market.

Where India Stands Today

As of March 2026, India's natural gas pipeline network stretches across **34,803 km** of authorised length — a web of steel connecting gas fields, LNG terminals, refineries and city kitchens across the country. Of this, **27,905 km (80%)** is

AT A GLANCE	
Indicator	**March 2026 (km)**
Authorised Pipeline	34,803
Operational Pipeline	27,905
Under Construction	8,551
Operational Common Carrier	26,403
Tie-in Pipelines	291
Dedicated Pipelines	653
STPL	558
Distribution Pipelines	>320000

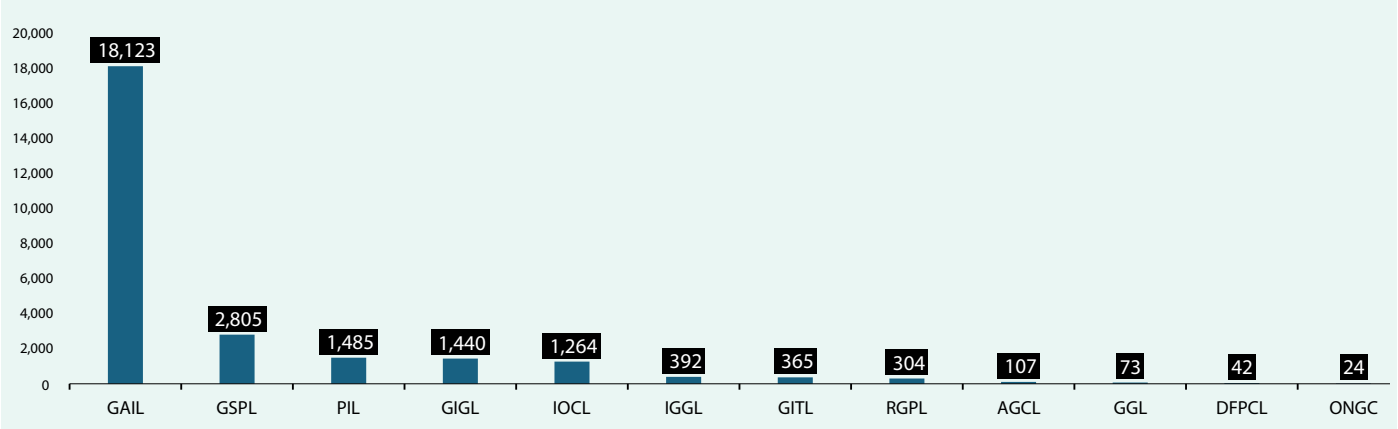
India's Gas Grid across Regions – From Mature Hubs to Emerging Corridors

Region	Current Status	Key Pipelines	Primary Demand	Outlook
Western India	Most mature, highest utilisation	HVJ, DVPL, Dahej–Uran, Gujarat Grid	LNG, refineries, petrochemicals, CGD	Continues to be India's gas hub
Northern India	Excellent connectivity	HVJ corridor, regional branches	Fertilisers, power, CGD, transport	Mature and diversified demand
Eastern India	Rapid expansion	Urja Ganga	Fertilisers, CGD, emerging industries	Highest long-term growth potential
Southern India	Improving connectivity	Kochi, Ennore and associated pipelines	Industry, CGD, refineries	Integration still underway
North-East	Strategic investment	North-East Gas Grid	Emerging industrial and household demand	Focus on inclusion and regional development

already operational, carrying gas to power plants, fertiliser units, industries and households every single day.

The network reveals a clear regional concentration pattern. The Western region remains the most mature and highly utilised part of the network, followed by the Northern region. Meanwhile, connectivity is expanding rapidly across Eastern and Southern India, while the North-East is receiving strategic attention to strengthen regional connectivity and development. Entity-wise, GAIL (India) Limited alone accounts for 18,123 km — nearly 68% of all operating common carrier pipeline in the country, dwarfing every other player. Behind it sit GSPL (2,805 km), PIL — the Kakinada-Hyderabad-Uran-Ahmedabad East-West Pipeline (1,485 km), GIGL (1,440 km) and IOCL (1,264 km). Smaller stretches are held by IGGL, GITL, RGPL, AGCL, GGL, DFPCL and ONGC, rounding out a network of 21 operational pipelines. Geographically, this reflects decades of GAIL's flagship trunk lines — the HVJ and DVPL systems, spanning states from Uttar Pradesh and Rajasthan to Delhi, Haryana and Uttarakhand — alongside Gujarat's dense High Pressure Gujarat Gas Grid (2,748 km operational) built by GSPL.

Entity wise NGPL Operating Length (Km)



Beyond the operational network, India has **15,888 km** of partially commissioned pipeline in progress — of which **10,436 km** is already carrying gas and **5,453 km** remains under construction. Marquee projects here include the **Jagdishpur-Haldia-Bokaro-Dhamra-Paradip-Barauni-Guwahati** line and the ambitious **North-East Natural Gas Pipeline Grid,** which is bringing piped gas connectivity to India's north-eastern states for the first time — though at 1,471 km still under construction, it's also among the most delayed.

A further 1,860 km is purely under construction, including strategic links like **Kochi-Kanyakumari-Thoothukudi** in Tamil Nadu/ Kerala and **Gurdaspur-Jammu,** extending the grid toward India's southern and northern peripheries.

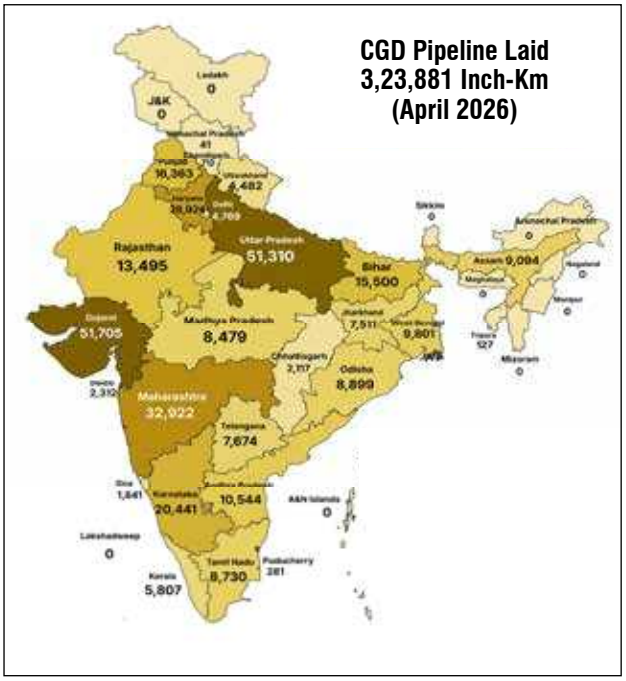
The bigger transformation, however, has been at the last mile. The rapid expansion of CGD has taken natural gas beyond the transmission network and into cities, industries, commercial

Progress of NGPL

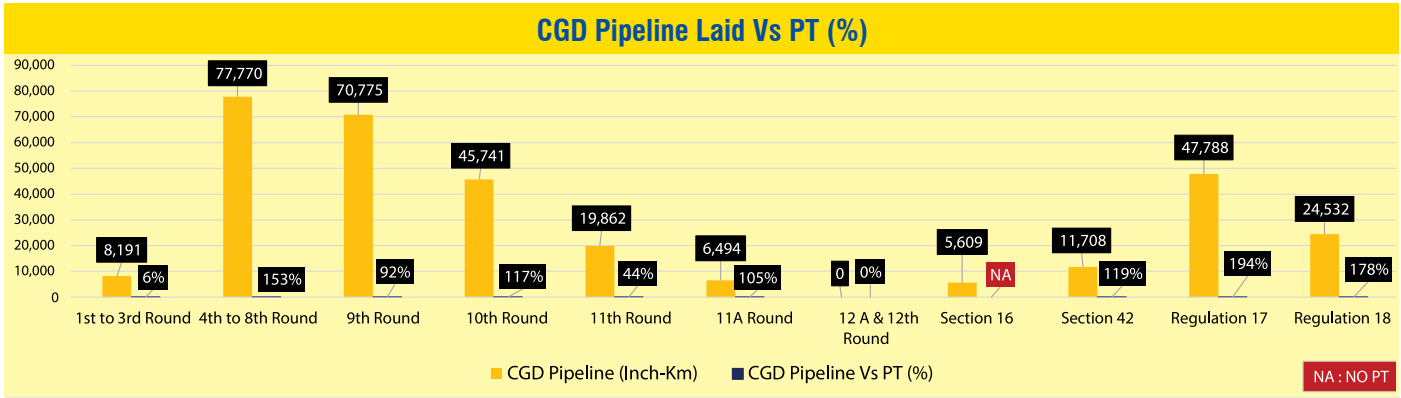
Total Operational NGPL Length as on March 2026*														27,905 Km
S. No.	Pipeline Name	Entity	Authorisation Date	Authorised Length (KM)	Authorised Capacity (MMSCMD)	Design/ Determined Capacity (MMSCMD)	Monthly Natural Gas Supplied (MMSCMD) (April 2026)	Capacity Utilisation (%) (April 2026)	Operating Length (KM)	Under Construction Length (KM)	Lowered Length (KM)	Welded Length (KM)	Hydrotested Length (KM)	Target date of completion	Passing through States
OPERATIONAL COMMON CARRIER PIPELINE															
1	Assam Regional Network	GAIL	04.11.2009	8	2.5	2.5	0.0	0	8	-	-	-	-	-	AS
2	Cauvery Basin Network	GAIL	04.11.2009	240	4.3	4.3	1.4	32	242	-	-	-	-	-	PY & TN
3	Hazira-Vijaipur-Jagdishpur -GREP - Dahej-Vijaipur HVJ/VDPL Dadri	GAIL	19.04.2010	6,169	111.3	111.3	71.5	64	6,732	-	-	-	-	-	UP, MP,RJ,GJ, HR, DL & UK
4	Dahej-Vijaipur (DVPL)-Vijaipur-Dadri (GREP) Upgd. DVPL 2 & VDPL		14.02.2011							-	-	-	-	-	
5	Kakinada-Hyderabad-Uran-Ahmedabad (East West Pipeline)	PIL	21.06.2019	1,459	85.0	85.0	37.7	44	1,485	-	-	-	-	-	AP,GJ, MH, TS & KA
6	Dahej-Uran-Panvel-Dabhol	GAIL	10.05.2010	920	22.5	22.5	22.0	98	943	-	-	-	-	-	GJ, MH,DD &DD
7	KG Basin Network	GAIL	12.05.2010	878	16.0	19.4	3.1	16	867	-	-	-	-	-	AP
8	Gujarat Regional Network	GAIL	03.12.2010	609	8.3	8.3	2.7	33	585	-	-	-	-	-	GJ
9	Agartala Regional Network	GAIL	13.12.2010	55	2.0	2.0	0.6	32	65	-	-	-	-	-	TR
10	Dadri-Panipat	IOCL	05.01.2011	132	20.0	20.0	4.6	23	143	-	-	-	-	-	HR & UP
11	Mumbai Regional Network	GAIL	14.03.2011	129	7.0	7.0	5.0	70	125	-	-	-	-	-	MH
12	Uran-Trombay	ONGC	03.05.2011	24	6.0	6.0	3.7	62	24	-	-	-	-	-	MH
13	High Pressure Gujarat Gas Grid	GSPL	27.07.2012	2,860	44.8	36.0	22.2	62	2,748	-	-	-	-	-	GJ
14	Hazira-Ankleshwar	GGL	05.07.2012	73	5.1	5.1	0.6	11	73	-	-	-	-	-	GJ
15	Low Pressure Gujarat Gas Grid	GSPL	19.03.2013	58	12.0	12.0	5.4	45	57	-	-	-	-	-	GJ
16	Shahdol-Phulpur	RGPL	11.07.2013	312	3.5	3.5	0.9	25	304	-	-	-	-	-	MP & UP
17	Assam Natural Gas Pipeline	AGCL	20.12.2013	105	2.4	2.4	1.6	67	107	-	-	-	-	-	AS
18	Dukli – Maharajganj	GAIL	09.01.2014	5	0.1	0.1	0.0	0	0	-	-	-	-	-	Agartala
19	Uran-Taloja	DFPCL	21.10.2014	42	0.7	0.7	0.0	0	42	-	-	-	-	-	MH
20	Chainsa-Jhajjar-Hissar	GAIL	13.12.2010	455	35.0	13.2	1.9	14	440	-	-	-	-	-	HR , RJ & DL
21	Dadri-Bawana-Nangal	GAIL	15.02.2011	921	31.0	31.0	6.5	21	998	-	-	-	-	-	PB, HR, UP, UK, DL& HP
TOTAL				**15,454**	**419.5**	**392.3**	**191.2**	**-**	**15,988**						
PARTIALLY COMMISSIONED COMMON CARRIER PIPELINE															
1	Mehsana - Bhatinda	GIGL	07.07.2011	1,943	83.1	83.1	4.9	6	1,339	604	0	0	0	Jun-26	GJ,RJ,HR & PB
2	Bhatinda - Gurdaspur	GIGL	07.07.2011	261	42.4	42.4	0.1	0.3	101	160	15	19	11	Dec-24	PB
3	Mallavaram - Bhopal - Bhilwara - Vijaipur	GITL	07.07.2011	1,881	78.3	78.3	2.2	3	365	1517	0	0	0	Mar-20	AP,TG,MH,MP,RJ& GJ
4	Dabhol-Bangalore	GAIL	14.11.2011	1,414	16.0	16.0	3.1	19	1,182	232	0	0	0	Feb-13	MH,KA & GA
5	Kochi-Koottanad-Bangalore-Mangalore	GAIL	31.05.2012	1,104	16.0	16.0	2.9	18	675	429	267	276	46	Dec-25	KL,TN,KA & PY
6	Ennore-Tuticorin	IOCL	10.12.2015	1,431	84.7	84.7	5.4	6	1,121	310	1279	1282	1141	Mar-25	TN,KA,AP & PY
7	Jagdishpur-Haldia-Bokaro Dhamra-Paradip- Barauni-Guwahati	GAIL	29.01.2018	3,546	23.0	23.0	10.3	45	3,289	257	229	250	113	Dec-25	UP,BR,JH,WB,OD & AS
8	North-East Natural Gas Pipeline Grid	IGGL	17.11.2020	1,863	5.8	5.8	0.0	0	392	1471	1129	1193	756	Mar-26	AS,MZ,MN,AR,TR,NL,ML,SK & WB
9	Mumbai-Nagpur-Jharsuguda	GAIL	15.05.2020	1,755	16.5	16.5	0.46	3	1,503	252	203	203	203	Feb-26	MH,MP,CG & OD
10	Srikakulam-Angul	GAIL	23.07.2019	690	6.7	6.7	0.0	0	469	221	258	267	179	Jun-26	AP,OD
TOTAL				**15,888**	**372.4**	**372.4**	**29.3**	**-**	**10,436**	**5,453**	**3,380**	**3,488**	**2,448**		
UNDER CONSTRUCTION COMMON CARRIER PIPELINE															
1	Ennore- Nellore	GTIL	02.12.2014	220	36.0	36.0	-	-	0	220	0	0	0	Apr-20	AP & TN
2	Kakinada-Vijayawada-Nellore	IMC	19.02.2018	667	18.0	18.0	-	-	0	667	0	0	0	Mar-24	AP
3	Kanai - Chhata - Panitar	HPPL	08.07.2019	317	19.2	19.2	-	-	0	317	0	0	0	Mar-24	WB
4	Hazaribagh-Ranchi	IOCL	09.02.2023	71	1.0	1.0	-	-	0	71	5	10	0	Feb-26	JH
5	Gurdaspur-Jammu	GAIL	12.07.2023	160	3.1	3.1	-	-	0	160	108	121	59	Jul-26	JK & PB
6	Kochi-Kanyakumari-Thoothukudi	IOCL	09.03.2026	425	6.8	6.8	-	-	0	425	0	0	0	Mar-29	KL & TN
TOTAL				**1,860**	**84.2**	**84**	-	-	**0**	**1,860**	**113**	**131**	**59**		

establishments and households. By April 2026, the CGD network had crossed 3.2 lakh inch-km, spread across the country. The distribution is heavily skewed towards the west and north: **Gujarat** leads the country at 51,705 inch-km, closely followed by **Uttar Pradesh** (51,310), **Maharashtra** (32,922) and **Haryana** (28,924). **Karnataka** (20,441), **Punjab** (16,363) and **Bihar** (15,500) form the next tier. At the other end, large parts of the **North-East and Union Territories — Sikkim, Arunachal Pradesh, Nagaland, Meghalaya, Manipur, Mizoram, Ladakh, Jammu & Kashmir and Lakshadweep** — currently show zero CGD pipeline laid, underlining how much ground remains to cover before "gas for every home" becomes a pan-India reality rather than a western/northern one.

Perhaps the most revealing dataset is how CGD pipeline rollout compares against **Performance Targets (PT)** set for each bidding round — and it tells a story of improvement over time, with a sharp private-sector shortfall.



overshot: the 4th-to-8th round hit 153%, and Regulation 17 and 18 entities have overshot their targets spectacularly, at 194% and 178% respectively. The 11th round, however, stands out as an underperformer at just 44%.



Section/Regulation: What it means

Regulation 05 : Criteria for selection of entity for expression of interest route through bidding process
Regulation 17 : Entities authorised by the Central Government for laying, building, operating or expanding natural gas pipeline before the appointed day
Regulation 18 : Entity not authorised by the Central Government for laying, building, operating or expanding natural gas pipeline before the appointed day
Section 42 : Policy directives issued to PNGRB by MoPNG under Section 42 of the PNGRB Act 2006

In terms of who is building it, by bidding round, early licensees badly lagged their targets — the 1st to 3rd rounds achieved just 6% of the promised pipeline — while later rounds have significantly

By category of entity, the gap is stark: State-run players and their joint ventures aren't just meeting targets — PSU JVs are nearly 1.5x ahead

Entity Type	GAs	Target (Inch-Km)	Achieved (Inch-Km)	Achievement
PSUs & Subsidiaries (6 entities)	115	1,27,706	1,32,681	104%
JVs of PSU Companies (21 entities)	75	67,728	1,00,381	148%
Private Entities (14 entities)	117	2,02,275	85,407	42%

of what they committed to. **Private players, however, have delivered less than half (42%) of their promised pipeline**, despite holding the single largest target allocation and covering the most GAs (117 GAs) — a gap that likely explains much of the unevenness in last-mile gas access across the country.

Capacity Utilisation – The Real Story

India's gas grid has expanded rapidly, but pipeline length alone does not reflect network efficiency. The more meaningful indicator is pipeline utilisation, which measures how much of the available transportation capacity is actually being used. As of March 2026, India's overall natural gas pipeline utilisation stood at around 29%, indicating that less than one-third of the country's transmission capacity is currently being utilised. However, utilisation varies significantly across pipeline categories.

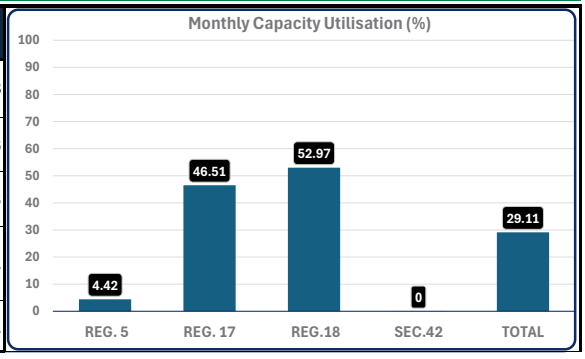
- **Regulatory Region 17** runs at 46.5% utilisation and carries the lion's share of throughput — 178.5 MMSCMD, or 81% of all gas moved on regulated pipelines.
- **Region 18** is the most efficiently used stretch, at nearly 53% utilisation.
- **Region 5,** by contrast, limps along at just 4.4% — pipeline capacity built well ahead of demand.
- **Sector 42** shows essentially 0% utilisation — infrastructure waiting for gas that hasn't arrived yet.

The picture worsens on the country's "partially commissioned" pipelines — newer lines still being built out. These have **372.4 MMSCMD** of designed capacity but are running at just **29.3 MMSCMD**, a mere 8% utilisation — a reminder that pipeline construction has, in several corridors, outpaced the gas markets and demand centres meant to justify them. Several structural factors continue to constrain pipeline utilisation:

- **Demand has lagged infrastructure.** More than 34,000 km of pipelines have been authorised, but industrial clusters, fertiliser plants, gas-based power projects and CGD networks often take years to develop. In many cases, pipelines are commissioned well ahead of downstream demand.
- **Power sector remains a major constraint.** India has nearly 25 GW of gas-based power capacity, much of it underutilised as high LNG prices make gas-fired generation commercially unviable. This limits gas offtake from trunk pipelines.
- **High LNG prices weaken discretionary demand.** With nearly half of India's gas requirement met through imports, elevated global prices have discouraged price-sensitive industrial consumers from increasing gas consumption, particularly during periods of geopolitical disruption.
- **CGD demand is still building.** While CGD coverage has expanded rapidly, PNG connections, CNG stations and industrial customers take time to scale up. Several regional pipelines, therefore, continue to operate below capacity as downstream demand catches up.
- **Seasonality affects throughput.** Gas demand fluctuates through the year, with winter typically bringing stronger consumption, while maintenance shutdowns and monsoon-related slowdowns can temporarily depress pipeline volumes.

Monthly Capacity Utilisation of NGPL (as of March 2026)

SL	PARAMETER	REG. 5	REG. 17	REG.18	SEC.42	TOTAL
1	PIPELINES (Nos)	7	17	3	1	**28**
2	OPERATING LENGTH (KM)	5,202	17,944	2,878	392	**26,416**
3	AUTH/DETERMINED CAPCITY (MMSCMD)	315	384	53	6	**758**
4	TOTAL NATURAL GAS CAPACITY UTILISED(MMSCMD)	13.91	179	28	0	**221**
5	MONTHLY CAPACITY UTILISATION (%)	4.42	46.51	52.97	0	**29.11**



The Economics of a Gas Pipeline

Unlike highways, where revenue is generated immediately through tolls, natural gas pipelines require substantial upfront investment and generate returns gradually over decades. A cross-country pipeline typically involves capital expenditure of **₹5-8 crore per kilometre** depending on terrain, river crossings, compressor stations and land acquisition. Consequently, a **1,000-km trunk pipeline** can cost anywhere between **₹5,000 crore and ₹8,000 crore**, while some challenging projects exceed this range.

To recover such investments, pipeline operators rely on a regulated tariff framework approved by PNGRB. Revenue depends not on the existence of the pipeline but on the volume of gas transported (throughput). A pipeline operating significantly below its design capacity generates lower transportation income, extending the payback period. Consequently, most major pipelines are designed with an economic life of 30-35 years, while capital recovery is typically expected over 20-30 years.

Because of these long payback periods, developers seek anchor customers before construction begins. Large consumers such as

Why Pipelines Need Anchor Customers

Project Characteristics	Typical Value
Capital Cost	₹5–8 crore/km
1,000-km Pipeline Cost	₹5,000–8,000 crore
Economic Life	30–35 years
Typical Payback	20–30 years
Revenue Driver	Transportation tariff × gas volume
Key Risk	Low throughput
Risk Mitigation	Long-term take-or-pay contracts

Key Acts & Regulations Governing Gas Pipelines

Legislation / Regulation	What it governs
PNGRB Act, 2006	Establishes PNGRB and provides the overarching framework for transportation, distribution, marketing and sale of natural gas, including pipeline authorisation, access and competition.
Natural Gas Pipeline Authorisation Regulations, 2008	Governs laying, building, operating and expanding pipelines, including eligibility, bidding, Minimum Work Programme and performance security.
Natural Gas Pipeline Access Code Regulations	Provides the framework for third-party access and use of pipeline capacity, supporting non-discriminatory access.
NGPL Tariff Regulations	Determines the framework for natural gas pipeline transportation tariffs, including the evolution towards the unified tariff system.
NGPL T4S Regulations, 2009	Prescribes technical and safety standards and specifications for natural gas pipelines.
NGPL Integrity Management System Regulations, 2012	Requires systems for pipeline integrity, inspection, monitoring and management of risks over the life of the pipeline.
ERDMP Regulations	Covers emergency response and disaster management for pipeline infrastructure. PNGRB's framework has been amended over time, including in 2026.
Petroleum Act, 1934 & related safety rules	Provides the broader statutory framework governing petroleum safety, with PESO having responsibilities under the petroleum/explosives safety regime.

fertiliser plants, refineries, steel manufacturers, petrochemical complexes, LNG terminals and CGD companies provide assured gas volumes through long-term take-or-pay contracts, under which customers pay for contracted capacity even if they do not fully utilise it. These agreements provide predictable cash flows that improve project bankability.

Once operational, many pipelines function as common carriers, providing open access to multiple shippers on a non-discriminatory basis. As throughput increases, transportation costs per unit of gas decline because fixed costs are spread over larger volumes. These economies of scale explain why mature pipelines with high utilisation can offer lower tariffs while remaining profitable.

For this reason, pipeline planning often precedes demand. Infrastructure is intentionally built ahead of industrial development, allowing future consumers to connect as demand emerges. While this results in lower utilisation during the initial years, it avoids costly capacity shortages later and supports long-term expansion of India's gas market.

Regulatory Framework

India's natural gas pipeline sector is principally regulated by the Petroleum and Natural Gas Regulatory Board (PNGRB) under the PNGRB Act, 2006. The Act provides the overarching framework for transportation and distribution of natural gas and empowers PNGRB to promote competition,

ONE NATION, ONE GRID, ONE TARIFF: Rewriting the Economics of Gas Distribution

The Old System: Distance Was a Cost Penalty

Until recently, transportation charges for natural gas depended on how far the gas travelled through the pipeline network. Consumers located close to gas sources or LNG terminals enjoyed relatively low transportation costs, while those hundreds or thousands of kilometres away paid significantly higher tariffs.

This "distance penalty" made expansion of CGD networks in eastern, central and southern India less competitive. Even where pipeline infrastructure existed, higher delivered gas prices reduced the attractiveness of CNG and PNG compared to competing fuels.

The Shift to Unified Tariff

In April 2023, the PNGRB introduced the **Unified Tariff** under the Natural Gas Pipeline Tariff Regulations and the framework was simplified further through **amendments notified on 7 July 2025:**

- The unified tariff applies to all interconnected pipelines forming the **National Gas Grid System (NGGS)** as listed by PNGRB. Consumers transporting gas across the national grid pay a **single unified transportation tariff** instead of multiple pipeline-wise tariffs.
- The tariff is based on **two zones**, with the Unified Tariff calculated as the **weighted average of the approved zonal tariffs** of all pipelines within the NGGS. PNGRB periodically notifies the tariff and the corresponding tariff path.
- Pipeline operators continue to earn their approved revenues through a **fortnightly settlement mechanism**, ensuring all entities remain revenue neutral. Revenue-sharing provisions ensure that when pipelines carry volumes above their normative capacity, part of the additional earnings are shared through lower tariffs while the remaining amount is reserved for future pipeline expansion. Pipeline operators are also required to procure most of their system-use gas under long-term, least-cost contracts, helping improve cost stability.
- The settlement framework is administered through an Industry Committee representing all NGGS pipeline operators and a Settlement Committee responsible for operationalising revenue reconciliation. **From 1 April 2026, GAIL serves as the Lead Member of the Settlement Committee.**
- The reform supports One Nation–One Grid–One Tariff by simplifying gas transportation, encouraging open access, improving pipeline utilisation, and reducing tariff-related barriers to the development of a national gas market.

Why This Changes the Economics of CGD

The biggest impact is that **transportation cost is no longer a major barrier to expanding city gas networks into newer markets.** CNG and domestic PNG consumers now pay the **Zone-1 transportation tariff**, irrespective of where they are located, the revised tariff being **₹54/MMBtu** for Zone 1 (up to 300 km) and **₹102.86/MMBtu** for Zone 2 (beyond 300 km). **This has improved viability of new CGD areas** located far from LNG terminals or western gas hubs making them commercially more attractive. However, this mechanism also redistributes transportation costs across the national network. Customers located close to gas sources effectively share part of the network cost that previously fell only on distant users leading to cross subsidisation.

protect consumer interests and ensure adequate and uninterrupted gas infrastructure. The regulatory framework governing pipelines rests on four broad pillars:

- **Pipeline Authorisation:** The 2008 authorisation regulations govern who can lay, build, operate or expand natural gas pipelines, with provisions covering eligibility, competitive bidding, Minimum Work Programme and performance security.
- **Common Carrier & Open Access:** The common-carrier framework enables third-party access to available pipeline capacity, helping separate infrastructure ownership from market access and promoting competition.
- **Capacity & Tariff:** Regulations govern capacity determination, booking and access, while the tariff framework determines the transportation charges. India's move towards One Nation–One Grid–One Tariff represents a significant evolution in this area.
- **Safety & Integrity:** PNGRB's Technical Standards and Specifications including Safety Standards (T4S) and Integrity Management System (IMS) regulations prescribe requirements for safe construction, operation, inspection and maintenance of natural gas pipelines.

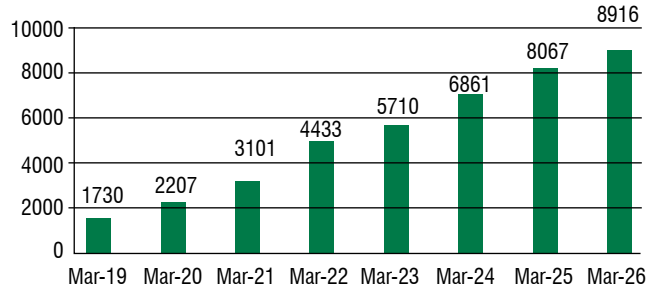
Together, these regulations seek to balance investment, open access, safety, competition and efficient utilisation of India's growing gas pipeline network.

Expansion and Reforms Enable CGD revolution

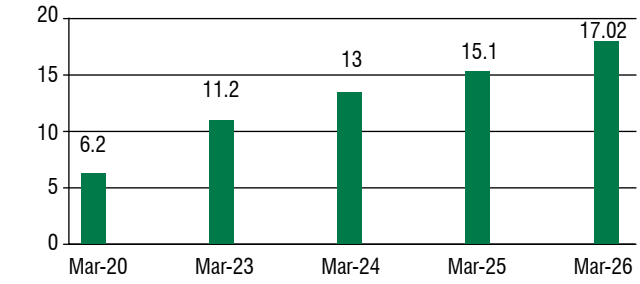
India's natural gas pipeline network has evolved from an industrial transportation system into the backbone of the CGD revolution. The expansion of trunk and regional pipelines has extended gas access to cities, industries and households well beyond the traditional gas-consuming regions of western India.

Today, 307 (GAs) have been authorised, covering nearly **96% of India's geographical area and about 99%** of its population. The expanding gas grid has enabled the rapid growth of downstream connectivity, with more than **17 million domestic PNG connections and nearly 9,000**

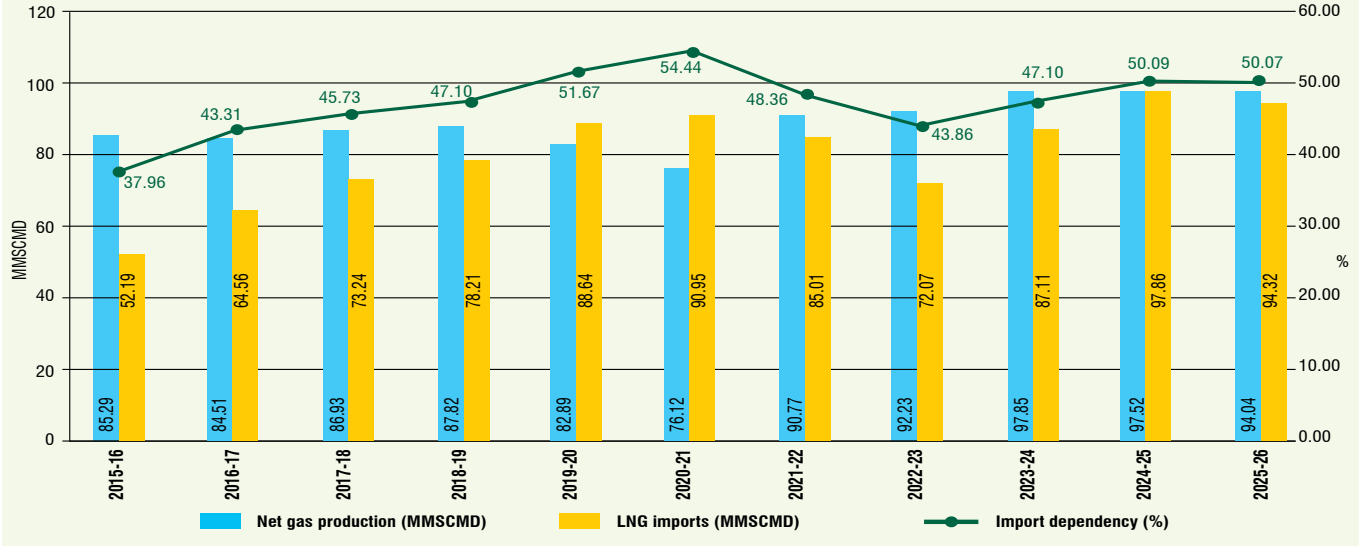
CNG Stations



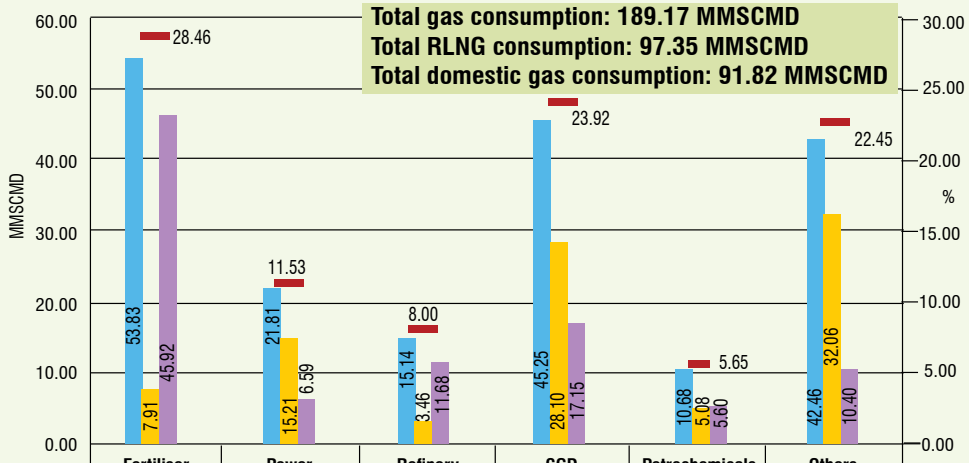
PNG Connections (in million)



Gas Production/Consumption/Imports (MMSCMD)



Sector-wise Gas Consumption of Domestic Gas and RLNG (2025-26)



	Fertiliser	Power	Refinery	CGD	Petrochemicals	Others
Total gas consumption by sector (MMSCMD)	53.83	21.81	15.14	45.25	10.68	42.46
Consumption of domestic gas (MMSCMD)	7.91	15.21	3.46	28.10	5.08	32.06
Consumption of LNG (MMSCMD)	45.92	6.59	11.68	17.15	5.60	10.40
Sector's share in total gas consumption(%)	28.46	11.53	8.00	23.92	5.65	22.45

CNG stations. CGD now accounts for around **24% of India's natural gas consumption,** making it one of the fastest-growing demand segments. Growth has been driven by rising CNG adoption, expanding household PNG, industrial fuel switching and policy support—including wider CGD licensing, priority domestic gas allocation for CNG and domestic PNG, and the **Unified Tariff regime**, which has reduced regional disparities in gas transportation costs.

The relationship between pipelines and CGD is **mutually reinforcing**. Transmission infrastructure brings gas closer to consumers, while growing CGD demand strengthens pipeline utilisation and supports further investment. Together, they are helping transform natural gas from a fuel concentrated in a few industrial corridors into a **more widely accessible national energy source**.

Challenges to a Fully Connected Gas Grid

Unlike highways, gas pipelines cannot create demand on their own—they must anticipate it. Investors build transmission infrastructure years before consumption materialises, making pipeline economics highly dependent on industrial growth, expansion of CGD, availability of affordable domestic gas and LNG, and supportive policy reforms. As India's gas market matures, addressing these interconnected infrastructure, regulatory, commercial, financial and market challenges will be critical to improving pipeline utilisation and achieving the national objective of increasing natural gas's share in the energy mix.

Challenge Area	Key Issues	Why It Matters
Infrastructure Challenges	Right of Way (RoW), forest and environmental clearances, land acquisition, difficult terrain	Pipeline construction often spans multiple states and thousands of land parcels. Delays in permissions and land access significantly increase project timelines and costs.
Commercial Challenges	Low pipeline utilisation, uncertain and uneven regional demand, high LNG prices, limited domestic gas production	Many newly commissioned pipelines are operating well below capacity as demand develops gradually. Expensive imported LNG further suppresses industrial and power sector consumption.
Regulatory Challenges	Pipeline tariff structure, GST exclusion, State VAT, implementation of open access	Multiple taxes and evolving tariff mechanisms affect delivered gas prices, while effective open access is essential for creating a competitive gas market.
Financial Challenges	High capital expenditure, long gestation periods, delayed returns	Transmission pipelines require investments running into thousands of crores, with asset recovery spread over 20–30 years. Returns depend on sustained growth in gas demand and utilisation.
Market Challenges	Competition from coal, weak power sector demand, dependence on fertiliser sector, seasonal industrial demand and slow	Natural gas competes with lower-cost fuels in several sectors, while demand remains concentrated in fertilisers and CGD, resulting in uneven utilisation across the network. industrial fuel switching

Policy Priorities and Possible Solutions

To maximise the value of India's pipeline investments, policymakers could focus on:

- Accelerating industrial clusters along pipeline corridors to improve utilisation.
- Expanding gas-based power generation where economically viable.
- Bringing natural gas under the Goods and Services Tax (GST) framework to reduce tax cascading.
- Rationalising state-level VAT on CNG and PNG to improve affordability.
- Encouraging long-term LNG contracting alongside greater domestic gas production.
- Strengthening open-access mechanisms and transparent capacity booking to foster competition.

- Fast-tracking statutory clearances through a single-window mechanism for pipeline projects.
- Integrating pipeline expansion with CGD rollout, fertiliser plants, petrochemical hubs and emerging sectors such as LNG trucking and heavy-duty transport.

Source: PNGRB, PPAC, MoPNG, LNG Journal, EIA, GAIL, News & Media reports, NGS Research

The author of this article is Deepika Lal. She has been the lead content writer for GSR since 2015. An economics graduate and an MBA (Finance), she has over 22 years of experience in research and analysis and content writing in the energy sector. She has produced several industry reports and research papers and has profiled many leading names in the oil and gas domain in her professional career.

EXPERT OPINION

To understand what lies ahead for India's natural gas pipeline sector, Natural Gas Society spoke to industry leaders and key stakeholders across the gas value chain. Their perspectives offer a ground-level view of the market's evolution, the challenges ahead, and the reforms needed to strengthen the pipeline framework and advance India towards its 15% natural gas share target.

Q. With GAIL's over 18,000 km of operational pipelines and several new projects under execution, what are the biggest challenges in pipeline development and how is GAIL addressing them?

A.K Tripathi,
Executive Director (Projects), GAIL (India) Limited

GAIL currently operates over 18,600 km of natural gas pipelines, with around 7,300 km under various stages of development, making pipeline execution increasingly complex. The key challenges include:

- **Land Acquisition and Right of Use (RoU):** Securing land access across multiple states remains one of the most significant challenges and is often a major cause of project delays.
- **Environmental and Statutory Clearances:** Cross-country pipelines require approvals from multiple agencies. Timely clearances therefore require meticulous planning, continuous coordination, and effective stakeholder engagement.
- **Regulatory Framework and Project Viability:** Developing gas infrastructure in emerging markets often requires substantial upfront investment before demand matures. The **Urja Ganga project,** for instance, received government support through viability gap funding to enhance project viability.
- **Demand Creation:** Pipeline infrastructure and gas demand need to develop simultaneously. Connecting industrial clusters, fertiliser plants, refineries, CGD networks, and other emerging consumers is essential to ensure optimal utilisation of pipeline capacity.

GAIL addresses these challenges through **early stakeholder engagement, close coordination with state and central authorities, phased project execution, leveraging government support where required, and expanding connectivity to industrial clusters and CGD networks.** This integrated approach strengthens the National Gas Grid and supports India's transition towards a gas-based economy.

It is pertinent to highlight that, despite these challenges, **GAIL has successfully completed most of the pipeline projects entrusted to it, with several others nearing completion.** While PNGRB has authorised approximately **35,000 km of natural gas pipelines** across various entities, the operational pipeline network is currently around **27,000 km**. A significant length of authorised pipelines is yet to be completed, with some projects having remained under development for more than a decade after authorisation.

This highlights the complexity of cross-country pipeline execution and underscores the importance of **timely clearances, effective stakeholder coordination, demand creation, and a supportive regulatory framework**.

Q. Despite rapid expansion of the pipeline network, utilisation levels vary significantly across regions. What policy and market interventions are necessary to improve utilisation and maximise returns on infrastructure investments?

To improve pipeline utilisation and maximise returns on gas infrastructure investments, a combination of policy support, infrastructure planning, and market development is essential. Few key measures include:

- **Bringing natural gas under the GST** to eliminate tax cascading, lower production costs, and support green energy goals.
- **Time-bound action** to be initiated by PNGRB against an entity to cancel the authorisation in case the authorised entity is not undertaking any execution at the site.
- **Ensuring availability of natural gas at competitive prices,** with greater price stability, for increasing gas consumption across sectors.
- **Promoting natural gas** by giving appropriate incentives considering its lower carbon footprint compared with higher-carbon fuels to encourage fuel-switching and accelerate gas adoption.
- **Enhancing connectivity between** trunk pipelines and consumption centres, industrial clusters, CGD networks, fertiliser plants, power plants, and refineries to maximise utilisation.
- **Avoiding duplication of pipeline assets by** coordinated planning and better utilisation of existing infrastructure to optimise capital investment.
- **Connecting LNG terminals** through the National Gas Grid to enhance supply flexibility and improve energy security.
- **Synchronising pipeline development** with CGD networks, LNG terminals, industrial corridors, domestic gas production, and downstream demand centres to ensure that infrastructure is effectively utilised from the outset.
- **Accelerating demand creation by checking that expansion of CGD networks**, gas-based industries, power plants, fertiliser units, and industrial clusters keeps pace with pipeline development to ensure sustained growth in throughput.
- **Strengthening market-based mechanisms,** for example, through a deeper and more liquid gas trading ecosystem.
- **Expanding connectivity to underserved regions**

Adoption of AI-driven predictive maintenance, real-time pipeline monitoring, SCADA upgrades, digital twins, advanced leak detection systems, and asset integrity management will enhance reliability, safety, and operational efficiency across the gas grid.

Q. Looking ahead to India's goal of increasing natural gas to 15% of the energy mix, what technological innovations, digitalisation initiatives or regulatory reforms do you believe will be most critical in creating a smarter, more resilient, and future-ready gas transmission network?

To achieve India's target of increasing the share of natural gas to **15% of the energy** mix, the next phase of pipeline development should focus on three key pillars:

- **Digitalisation and Smart Operations:** Adoption of AI-driven predictive maintenance, real-time pipeline monitoring, SCADA upgrades, digital twins, advanced leak detection systems, and asset integrity management will enhance reliability, safety, and operational efficiency across the gas grid.
- **Network Flexibility and Resilience:** Greater integration of LNG terminals, underground gas storage, bidirectional flow capabilities, and enhanced interconnectivity among regional pipelines will strengthen supply security and enable the network to respond more effectively to fluctuations in demand.
- **Market and Regulatory Reforms:** Continued development of transparent gas trading mechanisms, open-access pipeline frameworks, streamlined approvals, and stable tariff structures will promote competition, improve pipeline utilisation, and attract investment in new infrastructure.

At the same time, expanding **CGD networks, industrial gas consumption, and emerging applications such as hydrogen blending** will help future-proof the gas transmission network. Together, advanced technologies, integrated infrastructure, and supportive policies can create a **smarter, more resilient, and future-ready National Gas Grid** capable of supporting India's transition towards a gas-based economy.

Q. Is the current natural gas pipeline tariff framework adequately supporting investments in new pipelines while ensuring affordability for consumers? What changes would you recommend?

The current tariff framework has supported the expansion of the natural gas pipeline network; however, further reforms are required to **balance infrastructure investment, pipeline viability, and affordability for consumers. My key recommendations:**

- **Develop LNG dispensing stations** along major transport corridors to support wider adoption of natural gas in transportation.
- **Ensure stable and predictable returns** to encourage investment in new pipelines, particularly in emerging and low-demand regions.
- **Rationalise and simplify tariff structure** to make gas transportation more competitive and minimise regional disparities.
- **Promote utilisation-driven tariffs** by incentivising higher throughput and efficient utilisation of pipeline assets.
- **Provide targeted policy support** for strategically important pipelines in low-demand regions until sufficient gas volumes are developed.
- **Ensure regulatory certainty and transparency** to provide confidence and attract long-term investment in gas infrastructure.

Q. IndianOil has steadily expanded its presence in natural gas infrastructure alongside its traditional petroleum pipeline network. How does the company view natural gas pipelines as part of its broader transition towards a diversified energy portfolio?

Natural Gas pipelines are a strategic component of IOCL's transition towards a more diversified and integrated energy portfolio. Building on its extensive in-house experience in successfully implementing, operating and maintaining hydrocarbon pipelines, the company has progressively expanded its natural gas pipeline footprint to connect gas sources with refineries, petrochemical complexes, industries and CGD networks.

IndianOil's natural gas pipeline portfolio includes the **Dadri–Panipat R-LNG Pipeline (DPPL), Dahej–Koyali R-LNG Pipeline (DKPL),** and **Ennore–Tuticorin–Bengaluru–Puducherry–Nagapattinam–Madurai–Trichy Pipeline (ETBPNMTPL).** The company is further strengthening its gas transmission footprint through the Hazaribagh–Ranchi Pipeline (HRPL), Kochi–Kanyakumari–Thoothukudi Pipeline (KTPL), and gas compression facilities at Nagapattinam.

IndianOil has also partnered with various other companies through JVs such as IGGL, GIGL and GITL to expand its presence in national and regional gas infrastructure. Going forward, the company will continue to strengthen its gas pipeline infrastructure in line with emerging demand centres, supply availability and the development of the National Gas Grid, while maintaining a balanced and commercially sustainable approach to capital deployment.

Shailesh Tiwari,
Executive Director (Pipelines), Indian Oil Corporation Limited

Q. Several new refinery, petrochemical and CGD projects are increasing gas demand. How is IOCL planning pipeline investments to ensure reliable supply and commercial viability, and how important is synchronised planning across transmission pipelines, LNG terminals, CGD networks, industrial clusters and domestic gas production to increase gas' share in India's energy mix?

IndianOil follows an integrated, demand-centred approach to gas infrastructure development, leveraging its presence across LNG, pipelines, refining, petrochemicals, gas marketing and CGD.

Its existing infrastructure reflects this approach. DPPL caters to Panipat refinery, naphtha cracker plant, National Fertilizers Limited and other industrial and CGD customers, while ETBPNMTPL connects the Ennore LNG terminal and domestic gas sources with major demand centres across southern India. **The Ramanathapuram Compressor Station facilitates the transportation and integration of regional domestic gas fields** with connected CGD GAs, while KTPL is being developed to strengthen connectivity between the Kochi LNG source and the southern gas market.

Going forward, investments will be evaluated based on demand potential, source availability, expected utilisation, connectivity, infrastructure synergies and long-term commercial sustainability. The objective is to create reliable, scalable and flexible infrastructure while ensuring prudent capital allocation and efficient utilisation of existing and new assets.

The Unified Tariff framework has been an important step towards creating a more integrated national gas market and facilitating wider access to natural gas.

Synchronised planning across the Natural Gas value chain is fundamental to creating an efficient, resilient and well-utilised gas ecosystem. LNG terminals, domestic gas production, transmission pipelines, CGD networks and industrial demand centres are interdependent and therefore need coordinated development.

IndianOil's participation in the NEGG through IGGL, GIGL and GITL demonstrates the importance of collaborative development of transmission infrastructure. Its backward integration through investments in North Karanpura and Dirok gas fields also provides an upstream dimension to its presence across the gas value chain.

Such coordination can improve infrastructure utilisation, enhance supply flexibility and reduce the risk of under-utilised or stranded assets. Source-to-market integration, supported by coordinated planning of supply, transmission and demand infrastructure, will be critical to unlocking the full potential of Natural Gas as part of India's broader energy transition.

Q. What regulatory or tariff reforms would help accelerate private and public investments in gas pipeline infrastructure while ensuring affordable transportation costs for consumers?

Natural gas pipelines are long-life and capital-intensive infrastructure assets. A stable and transparent regulatory framework is therefore important to provide investment visibility while ensuring that transportation costs remain reasonable for consumers.

The **Unified Tariff framework** has been an important step towards creating a more integrated national gas market and facilitating wider access to natural gas. Going forward, continued emphasis on efficient recovery of prudently incurred costs, along with appropriate incentives for capacity creation and utilisation, would support investment in new pipeline infrastructure. Mechanisms for ensuring timely completion of authorised projects will also accelerate private and public investments in gas pipeline infrastructure.

There is also merit in ensuring that the regulatory framework facilitates the integrated development of pipelines, LNG terminals, domestic gas sources and

downstream demand centres. Such an approach would improve asset utilisation and transportation efficiency while reducing the risks associated with developing standalone infrastructure.

Streamlining project approvals and ensuring timely development of associated facilities, including compressor stations, spur lines and other connectivity infrastructure, can further reduce project gestation periods.

The objective should be to maintain an appropriate balance between investment viability, efficient asset utilisation and consumer affordability, thereby creating a conducive environment for sustained investment in India's natural gas infrastructure.

Q. The North East Gas Grid (NEGG) represents one of India's most strategically important pipeline projects. How has the project evolved over the years, and what key milestones have been achieved despite the region's challenging terrain?

Subrata Das,
Chief Executive Officer,
Indradhanush Gas Grid Limited

The NEGG is a long-term strategic initiative to integrate the eight Northeastern states and the region's gas resources with India's National Gas Grid. The vision originated from the Hydrocarbon Vision 2030 for **North-East India, in alignment with which IGGL was incorporated in 2018 as a joint venture of five PSUs—IOCL, ONGC, GAIL, OIL and NRL.**

The 1,670-km grid, with a design capacity of 4.75 MMSCMD, is being implemented in three phases to account for the region's terrain, statutory clearances and evolving demand. A major milestone was the commissioning of the **392-km Guwahati–Numaligarh Pipeline,** with commercial operations commencing on 11 November 2025. The pipeline supplies gas to Numaligarh Refinery Ltd. and **marked IGGL's first revenue.** Phase I was subsequently dedicated to the nation by the Honourable Prime Minister, Shri Narendra Modi, on 13 March 2026.

The network has now moved beyond the construction phase into operations, with gas being supplied to the anchor consumer, NRL, as well as CGD entities on the north bank of the Brahmaputra. The grid has also established a connection with the Khoraghat gas source of ONGC (Jorhat asset), evacuating previously untapped stranded gas through the grid.

The proposed **Duliajan Feeder Line (DFL)** (approximately 175-km, 24-inch) is another critical milestone in this journey. It will connect the major gas-producing hub of Duliajan with the NEGG and enable more than 3.5 MMSCMD of currently stranded gas to become available to the gas grid. This will improve the utilisation of indigenous gas resources, reduce dependence on imported LNG and, consequently, help reduce the overall cost of gas supply to the region.

In many ways, these developments demonstrate that IGGL has now substantially fulfilled the core purpose for which the company was established: connecting regional gas sources, connecting the capital cities of the Northeast, supplying the anchor customer, and extending the gas network to CGD entities and other consumers across the Northeast.

The significance of NEGG therefore goes well beyond the physical construction of a pipeline. It is creating the **backbone of an integrated gas ecosystem** for the Northeast and laying the foundation for greater utilisation of the region's own gas resources.

Q. Building pipelines across the North Eastern states involves unique geographical, environmental, and logistical challenges. Which have been the most significant, and how has IGGL overcome them?

The Northeast presents a combination of challenges rarely encountered together: steep and undulating terrain, dense forests, landslides, heavy rainfall and flash floods, seismic sensitivity, major river crossings, limestone-mining areas, difficult accessibility, Right of Use constraints and, in certain areas, law-and-order issues.

IGGL has addressed these challenges through a combination of engineering innovation, route optimisation, phased execution and strong inter-governmental coordination.

A significant strength has been the support extended by IGGL's promoter companies—OIL, ONGC, GAIL, NRL and IOCL—which have provided technically experienced manpower on deputation. This access to specialised experience in pipeline planning, construction and operations has strengthened IGGL's ability to take informed engineering decisions and manage complex execution challenges.

Technology and data-driven planning have also played an important role. IGGL has made extensive use of the **PM GatiShakti National Master Plan portal** to examine existing infrastructure and identify the most suitable alternative routes wherever alignment changes have been necessary. This has helped improve coordination with road, rail, transmission and other infrastructure projects and avoid potential conflicts.

Another important mechanism has been the **Inter-Ministerial Coordination (IMC) mechanism**, through which IGGL has worked closely with the Ministry of Petroleum and Natural Gas, State Governments, district administrations and central agencies to resolve issues relating to Right of Use, highway permissions, forest clearances, statutory approvals and other project impediments. This institutionalised coordination has been particularly important for a project spread across eight states and involving multiple agencies.

Another important mechanism has been the Inter-Ministerial Coordination (IMC) mechanism, through which IGGL has worked closely with the Ministry of Petroleum and Natural Gas, State Governments, district administrations and central agencies to resolve issues relating to Right of Use, highway permissions, forest clearances, statutory approvals and other project impediments.

The project has also involved some remarkable engineering achievements. One such example is the **5.7-km Jorhat–Majuli underwater NG pipeline crossing,** executed through Horizontal Directional Drilling (HDD). This is a highly challenging engineering feat and stands as the longest underwater hydrocarbon pipeline crossing in Asia.

Q. The long-term success of pipeline infrastructure depends on sustained demand. How do you see the NEGG catalysing industrial development, CGD, power generation, and cleaner energy adoption across the region?

The success of the NEGG will ultimately be measured not merely by the kilometres of pipeline constructed, but by the economic activity, cleaner energy adoption and gas demand that it enables across the region.

NEGG has the potential to make natural gas more available, accessible and, over time, more affordable across the Northeast. By connecting indigenous gas sources with anchor consumers, CGD networks and industries, the grid can create the infrastructure for a deeper natural gas ecosystem. **The Northeast has significant indigenous gas resources, and the Duliajan Feeder Line will further strengthen this ecosystem.**

The CGD sector can become one of the strongest demand drivers for NEGG. Expansion of CNG for transportation and PNG for households, commercial establishments and industries can provide consumers with a cleaner, safer and more reliable energy source while creating a diversified and sustainable demand base.

There is also considerable potential for industrial fuel switching. Industries such as tea processing, ceramics, glass, food processing, bakeries, textiles, pharmaceuticals,

paper, steel re-rolling and other MSMEs that currently depend on coal, furnace oil, diesel, LPG or biomass can potentially shift to **natural gas wherever pipeline connectivity and delivered gas economics are favourable.** For the tea industry, in particular, the availability of natural gas on the North Bank of the Brahmaputra creates an important opportunity to move towards a cleaner fuel.

Natural gas should also be viewed in the context of the energy transition. While renewable and other sustainable energy sources will form an increasing part of India's future energy mix, industries require reliable and flexible energy sources during the transition. **Natural gas can serve as a transition fuel,** enabling industries to progressively move away from higher-emission fossil fuels while preparing to adopt cleaner technologies.

Therefore, the objective is not simply to increase gas consumption, but to use natural gas as an enabler of a cleaner and more sustainable energy system—supporting industry today while creating the conditions for greener energy solutions tomorrow.

For NEGG, the long-term opportunity lies in creating a virtuous cycle: greater availability of indigenous gas → better pipeline utilisation → more competitive delivered gas → industrial and CGD demand growth → cleaner fuel adoption → stronger regional economic development.

Q. As the North East strengthens connectivity with the national gas grid and neighbouring countries, what opportunities do you foresee for regional energy integration and cross-border gas trade?

The **first priority** is to achieve deep internal integration, connecting the Northeast's indigenous gas sources, demand centres and capital cities with the National Gas Grid.

This will also create the possibility of **bidirectional gas movement**, allowing the Northeast to receive gas when required and potentially evacuate surplus gas when available.

In the longer term, the Northeast's location provides strategic possibilities for energy connectivity with **Bangladesh, Bhutan and Myanmar.** Such cross-border trade would, however, depend on commercial viability, bilateral agreements and the requisite regulatory and security framework.

The larger opportunity is to position the Northeast not merely as a gas-consuming region, but as an integrated energy hub and an important energy gateway to India's eastern neighbourhood. In this sense, NEGG can complement the Government's Act East Policy by strengthening the region's energy infrastructure, supporting industrialisation and creating the foundation for deeper economic integration with Southeast Asia.

The Honourable Prime Minister has rightly called the Northeast not just a Frontier Region, but a Front Runner!

Q. Is the current natural gas pipeline tariff framework adequately supporting investments in new pipelines while ensuring affordability for consumers? What changes would you recommend?

The current natural gas pipeline tariff framework adequately supports investment in new pipelines, as PNGRB, as the regulator, ensures a return on investment for the pipeline operator through the **unified tariff mechanism for the entire National Gas Grid.** The Unified Tariff is an important reform in the gas pipeline business and is particularly important for geographically disadvantaged regions such as the Northeast, where transportation costs can otherwise discourage gas adoption.

For strategic greenfield pipelines in difficult geographies such as the Northeast,

In the longer term, the Northeast's location provides strategic possibilities for energy connectivity with Bangladesh, Bhutan and Myanmar. Such cross-border trade would, however, depend on commercial viability, bilateral agreements and the requisite regulatory and security framework.

the challenge is to balance investment viability with affordability and initial low utilisation. In this context, Government support through both Viability Gap Funding and the Northeast Gas Subsidy Scheme is particularly important.

For NEGG, the Government has sanctioned **₹5,559 crore as VGF,** equivalent to 60% of the estimated project cost of **₹9,265 crore.** This substantially reduces the capital that IGGL needs to finance through equity and debt, thereby reducing the financing burden and helping keep the resulting transmission tariff more competitive.

For consumer affordability, the second important intervention is the Northeast Gas Subsidy Scheme, under which subsidy support on APM gas helps moderate the effective gas cost for consumers in the Northeast region. This is particularly relevant because the Northeast has historically faced a structural disadvantage due to its distance from major gas markets and relatively low demand density.

By reducing the delivered cost of gas, such support can make CNG, PNG and industrial gas consumption more competitive, thereby encouraging demand and improving utilisation of the pipeline network.

Rajesh K Mediratta,
MD & CEO, Indian Gas Exchange

Q. Despite significant expansion of India's gas pipeline network, pipeline utilisation remains uneven. What are the key market and regulatory measures needed to improve utilisation across the network?

Though the fundamental issue is that pipeline connectivity in the South and East is yet to be completed, the gas demand has also shrunk due to the crisis and consequent price hikes.

From a regulatory and policy standpoint, a few important issues for further streamlining are as follows:

First, capacity booking is still time-consuming and operator-specific. There is limited ability to book capacity on a truly short-term, day-ahead or intra-day basis. Gas demand can change much faster than the current booking process allows. Thankfully, GAIL and Pipeline Infrastructure Limited have been prompt in pipeline capacity booking, but regulatory change through a formal Access Code is still pending. Once the final Access Code is issued, this issue would be resolved.

Second, the tariff structure, while simplified under UFT, still isn't a true Entry-Exit system. In fact, PNGRB has explicitly cited the objective of "One Nation, One Grid, One Tariff." However, we still follow a path-based system rather than a true Entry-Exit model, where a shipper simply pays to enter and exit a market area, irrespective of the route. A true Entry-Exit system would make procurement, sale and trading easier and make gas re-trading much easier, thereby increasing pipeline utilisation.

Thus, the reforms that would need to be prioritised to increase system utilisation are:

- 24x7 online pipeline capacity booking
- Day-ahead and intra-day booking, with a short lead time
- Transparent display of available and booked capacity
- Completing the move from the current two-zone UFT structure to a full Entry-Exit system
- An independent System Operator for integrated network management
- Easier access to RLNG terminal capacity

- A secondary capacity market, so that unused capacity can be resold
- Market-based balancing of the pipeline network

Q. How can market-based gas trading through IGX complement the expansion of the national gas grid and improve access to gas for consumers across different regions?

While pipeline expansion solves the physical connectivity problem, IGX helps solve the market access problem. Today, gas markets in India are still relatively fragmented. A consumer may have pipeline connectivity but still have limited choice of suppliers, or may be dependent on bilateral contracts.

IGX brings multiple buyers and sellers onto one platform and provides transparent price discovery. IGX today offers Intraday, Day-Ahead, Daily, Weekday, Weekly, Fortnightly, Monthly (up to 12 months), and Balance-of-Month products, plus two **Long-Duration Contracts (3-month and 6-month) linked to benchmarks including GIXI, JKM, WIM and Dated Brent.**

One of the biggest advantages of trading through IGX is flexibility and choice. A buyer is not restricted to one particular seller or a long-term bilateral arrangement. A buyer can choose from multiple sellers, different delivery locations and different tenures—from intraday and day-ahead to weekly, monthly and longer-duration contracts.

Other benefits include transparent price discovery and better procurement efficiency. The exchange provides significant flexibility, which creates opportunities to buy cheaper gas and can, in turn, induce higher demand.

This flexibility is equally important for sellers, particularly domestic gas producers. A producer is no longer dependent on selling its gas to a limited set of counterparties. Through IGX, it gets access to a broader pool of buyers across sectors and locations. It can also choose the tenure that best suits its commercial strategy and discover the market price for its gas.

IGX is also important for consumers who are not connected to the main pipeline grid. The introduction of small-scale LNG (ssLNG) trading provides these consumers with access to gas in LNG form, which can then be transported by road to their premises.

Q. With increasing LNG imports and evolving global gas trade, what role can pipeline connectivity and gas exchanges play in enhancing India's energy security and supply resilience?

India's gas demand is increasing, while domestic production cannot meet the entire requirement. LNG will therefore remain an important source of incremental supply. This makes diversification and flexibility very important.

The first requirement is pipeline connectivity. India has multiple LNG terminals and domestic gas-producing regions, but the benefit of this supply can be fully realised only when gas can move efficiently across the country.

The second requirement is flexible access to pipelines and RLNG terminals. If capacities are not easily available to third parties, the country cannot fully utilise the diversity of LNG supply.

The third requirement is a liquid Indian gas market, and this is where IGX complements physical infrastructure directly. Global LNG prices can change sharply, and LNG cargo availability can change at short notice. A buyer therefore needs the ability to adjust its procurement.

The development of LNG trading on the high seas through the exchange is

IGX today offers Intraday, Day-Ahead, Daily, Weekday, Weekly, Fortnightly, Monthly (up to 12 months), and Balance-of-Month products, plus two Long-Duration Contracts (3-month and 6-month) linked to benchmarks including GIXI, JKM, WIM and Dated Brent.

particularly relevant here, for which IGX has already applied to the PNGRB for approval. It provides a mechanism for participants to respond to short-term changes in demand and supply. We should also continue building a stronger indigenous price index, GIXI, to shield ourselves from global events.

So, **energy security** is not simply about having more LNG terminals or more pipelines. It is about having:

Multiple sources of gas + multiple routes to move gas + multiple buyers and sellers + the ability to trade gas at short notice.

Q. What reforms in pipeline access, transportation tariffs, or capacity booking would be most effective in creating a more competitive and efficient gas market?

1. **Move from point-to-point tariffs towards Entry-Exit:** The current system makes it relatively complicated to determine the transportation cost ex-ante when gas moves across multiple pipeline systems and zones. An Entry-Exit system would make the tariff structure much simpler. A shipper pays an entry charge or exit charge, while the gas can move within the whole grid as one market area without having to calculate a separate charge for every physical route. This will help reduce the number of market areas (delivery points) from the current more than 20 to just one. The whole country will become one virtual gas hub.
2. **Make capacity booking prompt, easy and online:** Capacity should be available through a 24x7 online platform, including intra-day and day-ahead booking.
3. **Create an independent market-area/System Operator:** Today, the transmission system is managed from an individual pipeline/operator perspective. An independent System Operator can look at the entire network, book capacities, manage balancing and optimise flows.
4. **Create a secondary capacity market:** If a shipper has booked capacity but does not need it, that capacity should be made available through a secondary capacity platform to another participant.
5. **Finally, bring natural gas under GST.**

Physical connectivity can only help, while commercially, IGX provides a platform for supply to meet demand in the most transparent and competitive manner and for discovering the true price.

Q. Looking ahead, how do you see the integration of pipelines, LNG terminals, CGD networks, and gas trading platforms shaping India's vision of a unified national gas market?

Today, these four pieces largely exist, but they don't yet operate as one fully integrated market. LNG terminals bring imported gas into the country, domestic production provides another source of supply, pipelines transport gas, and CGD networks take gas to end consumers. However, domestic gas production and the fertiliser sector demand do not participate in the marketplace in discovering prices and adding liquidity.

The next step is to connect these pieces commercially as well as physically. Physical connectivity can only help, while commercially, IGX provides a platform for supply to meet demand in the most transparent and competitive manner and for discovering the true price.

This requires a few important reforms. First, we should commence by allowing 10–20% of domestic production and fertiliser demand to participate in exchanges/markets. Second, move towards an Entry-Exit tariff system and eventually treat the country as a single virtual gas hub. Third, create a common, transparent and 24x7 capacity-booking mechanism. Fourth, establish an Independent System Operator to manage capacities.

A snapshot of NGS activities, initiatives and industry engagement

The July–September 2026 quarter saw NGS actively engage with the natural gas industry through knowledge initiatives, technical workshops, conclaves and sectoral partnerships. The Society also continued to expand its membership and strengthen its engagement with industry stakeholders.

Innovation Conclave 2026

NGS organised its inaugural **Innovation Conclave 2026 in New Delhi on 6–7 August,** themed "Innovations & Operational Excellence in Natural Gas Transmission, CGD, LNG & Future-Ready Infrastructure."

Shri Kapil Jain, ED (RM & TQM), GAIL, delivered the keynote address, while **Shri Shailesh Tiwari, Divisional Head & ED (I/C – Pipeline), IOCL,** delivered the inaugural address. The conclave brought together industry leaders, policy-makers, technology providers and operational experts, with around 100 participants attending.

SAFETY HANDBOOK: Taking Safety to the Frontline

at CUGL, Kanpur

at Gujarat Energy Ltd, Gandhinagar

at BPCL, Mumbai

NGS continued its initiative to disseminate its pocket-sized Safety Handbook for CNG Delivery Salespersons, following the guidance of Dr. Anil Kumar Jain, IAS, Chairperson, PNGRB, to make the handbook available to frontline personnel, including in regional languages.

The handbook was formally distributed at Gujarat Energy Ltd., Ahmedabad (3 July); BPCL, Mumbai (24 July); and CUGL, Kanpur (23 September 2026).

Workshop on "Training Leads to Transformation"

The Executive Director, NGS, participated as a panellist at the HSSC–PNGRB workshop "Training Leads to Transformation – Bridging Skill Gap in CGD Sector" on 25 August 2026 in Noida.

The panel discussion focused on future workforce requirements, emerging skills and technologies, including CGD, AI, pipeline integrity and safety.

3rd NGS Conclave on Construction Management

The 3rd NGS Conclave on Construction Management 2026 was held on 10–11 September at GTI, Noida, bringing together natural gas transmission companies, CGD entities, consultants and vendors to discuss execution excellence, construction innovation and project management.

Dr. A. K. Balyan, former MD & CEO, Petronet LNG Ltd., and former Director (HR), ONGC, was the Chief Guest. **Shri Pramod Narang, Director (Technical), Petronet LNG Ltd.,** delivered the keynote address, while **Shri Sukhmal Jain, former Director (Marketing), BPCL,** was the Guest of Honour.

5th Uttar Pradesh Fire & Safety Expo

NGS participated as **Knowledge Partner at the 5th Uttar Pradesh Fire & Safety Expo, held on 10–11 July 2026** at India Expo Centre & Mart, Greater Noida. The NGS team participated in the Technical Conference, while its exhibition stall attracted hundreds of visitors from across the industry.

Strengthening IT & OT Cybersecurity

In association with the Data Security Council of India (DSCI), NGS organised an **online workshop on "Strengthening IT & OT Cybersecurity for Natural Gas Transmission and CGD Companies" on 22 July 2026.**

The programme featured a keynote by Shri AVM Devesh Vatsa, Advisor – Critical and Emerging Technologies, DSCI, and was inaugurated by Shri Kedar Gadre, AVP, MGL. More than 125 participants from member companies, vendors and other organisations took part.

Pipe-Tech & India Gas-Tech 2026

NGS participated as Knowledge Partner at the Pipe-Tech & India Gas-Tech 2026 Conference and Exhibition, organised by ITex & AIRM Institute in New Delhi on 24–25 September 2026.

Shri D V Shastry, Executive Director, NGS, served as the Convener of the event.

Natural Gas Society

NGS FlowTech-2026

Natural Gas Metering: (Capacity Building & Expo)

Flow Metering in Natural Gas Transmission and CGD Networks: Learning from Industry Experiences

UPCOMING EVENT

"Accurate Measurement • Assured Value • Sustainable Gas Future"

Date: 17-18 November,2026
Venue: Hotel Holiday Inn, Mayur Vihar, New Delhi

The **NGS FlowTech-2026** is being organized by the Natural Gas Society (NGS) on **17th & 18th November, 2026** at Delhi. The event is supported by key organizations from the natural gas & CGD industry, and reputed Vendors from the Gas Sector.

This conference aims to focus on examining the principles, technologies, and operational strategies that drive metering excellence in natural gas networks. By evaluating real-world field experiences and industry case studies, it aims to provide clear guidance on selecting, deploying, and maintaining flow meters across varying pipeline conditions, pressures, and dynamic gas compositions. The event is expected to attract a wide and diverse participation from NG Transmission Companies, CGD entities, consulting firms, regulatory bodies, and the reputed vendors.

The conference will feature **Leadership Forum Panel Discussions, Presentations, and experience-sharing sessions by senior professionals and experts involved in project execution, planning and Contracts & Procurement.**

Technology Showcase & Live Product Demonstration - A unique opportunity to see, compare and experience the latest flow measurement technologies from leading global and Indian manufacturers.

Sponsorship Opportunities

GOLD SPONSOR — ₹2.0 Lakhs

BENEFITS

Complimentary:
- Stall (3x3 Mtrs)
- Delegates 6 numbers
- Branding at the Event Venue
- Full page advertisement in NGS Publicaion (GSR)

SILVER SPONSOR — ₹1.0 Lakh

BENEFITS

Complimentary:
- Stall (3x2 Mtrs)
- Delegates 3 numbers
- Branding at the Event Venue
- Half page advertisement in NGS Publicaion (GSR)

BRONZE SPONSOR — ₹0.75 Lakh

BENEFITS

Complimentary:
- Stall (2x2 Mtrs)
- Delegates 2 numbers
- Branding at the Event Venue
- Quarter page advertisement in NGS Publicaion (GSR)

PARTICIPATION FEE

i) **NGS's MEMBER ORGANIZATIONS:**

Patron Members - **08 (Eight) delegates free** - **Additional delegates** – discounted rate @Rs. 8,000/-* (Rupees Eight Thousand only) each

Primary Members - **06 (Six) delegates free** - **Additional delegates** – discounted rate @Rs. 8,000/-* (Rupees Eight Thousand only) each

Associate Members (Other than Academic Institutions) - **04 (Four) delegates free** - **Additional delegates** – discounted rate @Rs. 8,000/-* (Rupees Eight Thousand only) each

Associate (Academic Institutions) **& Non Voting Members** - **02 (Two) delegate free** - **Additional delegates** – discounted rate @Rs. 8,000/-* (Rupees Eight Thousand only) each

Individual Members - Rs.2,000/-* (Rupees Two Thousand only) each

ii) **Non-members** - Rs.10,000/-* (Rupees Ten Thousand only) each

*Plus GST @ 18%.

Note: A Special discount @ 15% will be extended for nomination of more than three additional delegates/delegates from an organisation.

Delegate fee may be paid preferably through NEFT /RTGS in any one of the bank accounts mentioned below or through Cheque/demand draft:

Name of Bank	:	**ICICI Bank Limited**	:	**HDFC Bank Limited**
Bank Address	:	Shop No.-9, ACE City, Plot No. GH 01, Sector-1, Greater Noida, Gautam Budh Nagar, U.P. 201306	:	C-5/32, Safdarjung Development Area, (SDA) New Delhi-110016
Payee's Name	:	Natural Gas Society (Regd.)	:	Natural Gas Society (Regd.)
Bank Account No.	:	538805000104	:	50200002128566
Bank Branch MICR No.	:	201229017	:	110240004
Bank Branch IFSC Code	:	ICIC0008463	:	HDFC0000032

Contact person:
Shatendra K Verma
M. 9818219887

This section tracks key developments over the past quarter across the global and domestic natural gas industry, covering the entire value chain—from upstream exploration and production to midstream infrastructure and downstream consumption trends.

NATIONAL NEWS

CITY GAS DISTRIBUTION

50 CNG trucks launch green logistics corridor: AVG Logistics, Nestlé India and Ashok Leyland launched a dedicated green logistics corridor deploying 50 CNG trucks for Nestlé's supply chain. The fleet is expected to cover 2.75 lakh km per month and reduce CO_2 emissions by around 1.1 lakh kg annually, while improving fuel efficiency and lowering dependence on conventional transport.

GAIL–NER to connect 700 railway quarters to PNG: GAIL and North Eastern Railway (NER), Varanasi, signed an MoU to connect around 700 railway residential quarters to GAIL's PNG network.

HPCL expands PNG network across West Bengal: HPCL commissioned a District Regulating Station (DRS) at Chakdah, Nadia. PNG supply has begun in Gayeshpur, Kataganj and Shaguna Gram Panchayat.

Indian Army targets PNG transition across 41 establishments: BPCL, PNGRB, the Indian Army and CGD companies have launched a coordinated roadmap for PNG adoption across Army establishments. 41 establishments have been identified in Phase I.

Maharashtra's first LPG-free PNG village: Ashiv village in Latur district has become Maharashtra's first LPG-free PNG village, with Mahanagar Gas providing PNG connectivity to 1,050 households. The network delivers uninterrupted cooking fuel directly to kitchens, marking a shift from LPG cylinders to piped natural gas at the village level.

NCR commissions first LNG station at Dadri: IGL commissioned NCR's first LNG station at the CONCOR multimodal logistics park in Dadri, Gautam Buddha Nagar, at an investment of ₹11.8 crore. The station has 20 tonnes/day dispensing capacity, a 56.8-KL (~22-tonne) storage tank,

and can refuel 50–60 long-haul vehicles daily, supporting cleaner freight transport.

Patna expands PNG supply: PNG supply has commenced in Gardanibagh, with 200 of around 1,000 applicants activated and more than two dozen homes already connected. Patna now has five DRS units.

PNGRB–EESL partnership to drive smart PNG metering: PNGRB and Energy Efficiency Services Ltd (EESL) signed an MoU to accelerate deployment of Smart Domestic PNG Meters across the CGD sector. The meters will offer digital monitoring, tamper alerts, leak detection, remote operations and cybersecurity safeguards, improving billing accuracy, revenue assurance, safety and consumer service. The initiative covers states including Andhra Pradesh, Telangana, Kerala, Tamil Nadu and Karnataka.

NATURAL GAS/ PIPELINES/ COMPANY NEWS

BPCL takes full ownership of Brazilian oil & gas JV: BPCL's upstream arm, Bharat PetroResources Ltd (BPRL), completed the acquisition of Videocon's remaining stake in IBV Brasil Petróleo, increasing its ownership from 65.40% to 100%. The Brazilian JV holds interests in the BM-SEAL-11 and BM-C-30 concessions, with BM-SEAL-11 potentially adding around 1 million tonnes of oil equivalent per annum once production begins.

GAIL–RCF sign ₹10,000-crore fertiliser project MoU: GAIL and Rashtriya Chemicals & Fertilizers (RCF) signed an MoU for a ₹10,000-crore gas-based fertiliser project at Saoner, Nagpur, to be implemented through an SPV. Phase I will include a 1.27 MMTPA urea plant along GAIL's Mumbai–Nagpur–Jharsuguda Pipeline, aimed at boosting domestic fertiliser production and reducing import dependence.

GAIL, DPA and DNV explore LNG bunkering at Kandla: GAIL, Deendayal Port Authority (DPA) and DNV signed a tripartite cooperation agreement to explore an LNG bunkering facility at Kandla Port. The collaboration will examine bunkering infrastructure, LNG supply chains, safety frameworks and operations, supporting the adoption of cleaner marine fuels and greener shipping in India.

GAIL flags concerns over proposed IGX LNG booking platform: GAIL has opposed IGX's proposal to facilitate LNG terminal regasification-capacity bookings, arguing that an additional platform could increase transaction costs without addressing existing inefficiencies.

GAIL, Petronet LNG and IIT Hyderabad drive energy-tech innovation: GAIL and Petronet LNG partnered with the MC² Foundation and IIT Hyderabad's iTIC Incubator to accelerate startup-led digital innovation in energy. The programme focuses on AI, machine learning, sensors, robotics, drones and digital twins, while selected startups can receive convertible funding up to ₹50 lakh and milestone-based funding up to ₹1.5 crore; the accelerator aims to support 30 early-stage startups.

Think Gas seeks 30% cut in LNG terminal charges: Think Gas has urged PNGRB to mandate at least a 30% reduction in LNG terminal usage charges, citing high regasification fees of ₹73–104/MMBtu and truck-loading charges of ₹81–120/MMBtu, alongside 5% annual escalation.

₹1,000-crore investment planned for 10 BioCNG plants: KIS Group and Paras Dairy will form a JV to develop 10 BioCNG (CBG) plants across Uttar Pradesh, Madhya Pradesh, Maharashtra and other states, involving an estimated ₹1,000-crore investment. KIS Group will manage technology, construction and operations, while Paras Dairy will arrange feedstock, land and approvals.

POLICY MATTERS/ GAS PRICING/ OTHERS

Assam unveils 10-year hydrocarbon policy: Assam launched its Hydrocarbon Exploration, Production and Upstream Ecosystem Development Policy 2026, aimed at attracting investment, streamlining clearances and accelerating oil and gas exploration.

Centre pushes states to accelerate LPG-to-PNG transition: The Petroleum Ministry has asked states and UTs to appoint district-level nodal officers to accelerate household conversion from LPG to PNG. Under the 2026 Pipeline and LPG Control Orders, households in areas with PNG availability cannot retain both LPG and PNG connections; CGDs and OMCs must establish PNG Coordination Committees to identify households, issue notices and facilitate connections.

HPHT gas allocation formula revised for CGD: The government has revised the allocation of high-pressure, high-temperature (HPHT) gas to CGD companies serving CNG transport and domestic PNG. Allocation will now be based on each company's shortfall after accounting for APM, NAPM and New Well Gas supplies. As of June 2026, India had 1.74 crore PNG connections and 9,026 CNG stations, while cumulative CGD gas sales rose about 14% to 1,120 MSCM from July 2025 to June 2026.

Ladakh cuts natural gas VAT from 21% to 5%: Ladakh has reduced VAT on natural gas, including CNG and PNG, from 21% to 5% to improve affordability and accelerate CGD development. The move follows PNGRB's recommendation for a concessional tax regime, citing Ladakh's difficult terrain, dispersed population and high energy-transport costs. BPCL has been authorised to develop CGD infrastructure in the Union Territory.

Delhi tightens CNG cylinder hydro-test enforcement: Indraprastha Gas Limited has directed that CNG vehicles without valid hydro-test certificates will not be refuelled at its stations across Delhi-NCR. Under Rule 35(1) of the Gas Cylinder Rules, 2025, CNG cylinders operating at around 200–250 bar must undergo hydrotesting every three years at a PESO-approved centre. The stricter enforcement follows an August 19 CNG cylinder explosion that killed three pump workers and seriously injured three others.

PNGRB mandates legal separation of gas marketing and pipelines: PNGRB has amended the Affiliate Code of Conduct Regulations, 2008, mandating legal separation between natural gas marketing and pipeline transportation activities. Entities authorised as common or contract carriers on or before March 31, 2017 must create separate legal entities, with the Right of First Use available to the marketing affiliate. The move aims to promote competition and more transparent transportation tariffs.

PNGRB plans third-party access to CGD networks: PNGRB's annual action plan proposes opening CGD networks to third-party capital and infrastructure sharing after geographical-area exclusivity expires. It also plans to review pipeline authorisation through capex-based bidding, move towards an independent Transmission System Operator (TSO), enable CBG trading and RLNG terminal-capacity booking on gas exchanges, and establish a digital consumer grievance portal.

'Samudra Manthan' scheme approved: The Union Cabinet approved the ₹84,084-crore National Offshore Exploration Scheme through FY2030-31 to accelerate deepwater and ultra-deepwater exploration. The scheme targets discovery of over 600 MMTOE of hydrocarbon reserves.

LNG USE / LNG DEVELOPMENT AND SHIPPING

CONCOR, GAIL sign LNG dispensing agreement: CONCOR and GAIL have signed a 15-year agreement to establish an LNG dispensing station at CONCOR's Khodiyar ICD, Ahmedabad. GAIL will invest in and operate the facility, while CONCOR will provide about 3,000 sq m of land and deploy 15 LNG-powered commercial vehicles from the first year.

First LNG-based power plant moves ahead in Andaman Islands: Environmental clearance process is advancing for NTPC-VVNL's 55 MW LNG-based power plant at Hope Town, Sri Vijaya Puram. IOCL will develop the LNG supply infrastructure, including a 0.07 MMTPA FSRU, with LNG transported by small tankers.

GreenLine, Dabur join hands for LNG-powered freight: GreenLine Mobility Solutions has partnered with Dabur India to deploy LNG-powered heavy commercial vehicles for long-haul logistics.

IndianOil LNG's Ennore terminal expansion gets green clearance: MoEFCC has approved the ₹3,400-crore expansion of IndianOil LNG's Ennore terminal, doubling regasification capacity from 5 to 10 MTPA and 20 to 40 MMSCMD.

US overtakes Qatar as India's largest LNG supplier: The US emerged as India's largest LNG supplier during May–July 2026, supplying 2.19 MT, up 253% YoY, while Qatar's supplies plunged 91% to 0.23 MT. India's total LNG imports rose 15% YoY to 7.08

MT, with Nigeria at 1.31 MT and Oman at 1.22 MT. June gas demand rose to 197 MMSCMD, with LNG accounting for 110 MMSCMD and import dependence at 56%.

HYDROGEN/ ELECTRIC MOBILITY/ BIO- METHANE

Flex-fuel vehicles face policy uncertainty: India's flex-fuel push faces uncertainty after Delhi proposed allowing only electric two-wheelers from April 2028 and the Centre cut CAFE "super credits" for flex-fuel vehicles from 1.5 to 1.1, while EVs retain 3x credit. E85 petrol is priced only about 20% below E20, against the industry's requested 30% discount, potentially affecting investment and adoption.

India tightens hydrogen fuel-quality testing: The Bureau of Indian Standards (BIS) has notified updated laboratory methods to measure impurities in hydrogen supplied to PEM fuel-cell vehicles. The voluntary standard covers contaminants including carbon monoxide, sulphur compounds, ammonia, halogenated compounds and moisture, providing a common framework for testing, quality assurance and interoperability.

NDDB, Suzuki to develop CBG plant in Assam: NDDB, Suzuki R&D Centre India and NEDFL have signed an MoU to establish a compressed biogas (CBG) plant in Assam, converting agricultural and dairy waste into CBG and organic fertiliser.

India's EV charging network reaches 67,657: India had 67,657 EV chargers, including 1,139 battery-swapping station chargers, as of 7 August 2026. Under FAME-II, 16.72 lakh EVs had been sold by June 2026, while 5,299 e-buses had been deployed; PM E-DRIVE had supported 26.59 lakh EV sales.

Hyundai, Jio-bp integrate EV charging networks: Hyundai Motor India and Jio-bp are integrating their charging networks, giving users access to 37,000+ charging points through the myHyundai app. Jio-bp contributes 7,000+ points across 300+ cities, including 60–480 kW DC fast chargers, while Hyundai's proprietary network has 183 operational stations and is planned to reach 600 by 2030.

NEWS FROM MNGL

MNGL Strengthens Pune Natural Gas Network

Maharashtra Natural Gas Limited (MNGL) has completed key network augmentation works at GAIL's RT Talegaon under its Pune Network Strengthening Initiative. Pipeline looping at Talegaon now facilitates gas flow towards RT Pune (Chikhali), improving connectivity and operational flexibility.

MNGL has also upgraded the Talegaon gas handling skid from 75,000 SCMD to 0.7 MMSCMD, along with associated piping and integration works. The upgrades enhance supply flexibility, network redundancy and pressure availability, supporting reliable CNG operations during peak demand and meeting Pune's growing natural gas requirements.

MNGL Expands Natural Gas Adoption Across Institutional Campuses

MNGL is accelerating the adoption of natural gas across major institutional campuses in Pune, supporting the shift towards safer, cleaner, reliable and energy-efficient solutions. Initiatives at DRDO Pune, NDRF Campus, Sudumbare and CRPF GC Pune are expanding the use of natural gas for diverse energy requirements. Through strategic collaborations with defence and national security establishments, MNGL is also strengthening access to PNG and CNG infrastructure across large campuses.

MNGL and SSPU Sign MoU to Strengthen Academia–Industry Collaboration

MNGL and Symbiosis Skills & Professional University (SSPU) have signed an MoU to strengthen academia–industry collaboration through skill development, research, executive learning and CSR initiatives. The partnership aims to build future-ready talent and capabilities aligned with the evolving needs of the energy sector.

NATURAL GAS SOCIETY

A Voice for India's Natural Gas Industry

Grow Your Business by becoming an Organizational Member of Natural Gas Society (NGS)

Branding opportunities
to showcase your Organization
through advertisement in Popular Publications of NGS.

Rate of advertisement in the Quarterly Publication 'Gas Statistics Review' (GSR):

Full Page	- Back Cover	Rs.1.50 lakhs
	- Front Inside Cover	Rs.1.05 lakhs
	- Back Inside Cover	Rs.1.00 lakh
	- Inside Page	Rs.90,000
Half Page		Rs.50,000
Plus GST, as applicable. *· 10% discount admissible for annual commitment for four issues plus* *· Additional 5% discount if the costs are paid in advance.*		

Rate of advertisement in our Digital Publication 'Snapshot' issues published fortnightly; (24 issue in ayear).

Size 600 x 400 pixel	Rs. 5,000 per issue
Special Rate:	Rs. 1,00,000 for annual commitment for 24 issues
Plus GST, as applicable	

INTERTIONAL NEWS

NATURAL GAS / TRANSNATIONAL PIPELINES/ OTHERS

Australia: Shell and PetroChina approve 143-well gas expansion: Arrow Energy, a 50:50 Shell–PetroChina joint venture, approved the Surat Gas Project Central expansion in Queensland. The development will add 143 wells and around 79 MMcf/d (84 TJ/d) of gas production, with first gas expected in 2028. Supply will serve both the Australian domestic market and LNG exports through Queensland Curtis LNG.

Azerbaijan: Natural gas supply agreement with Georgia approved: Azerbaijan has approved its May 18, 2026 agreement with Georgia for natural gas supply. A presidential decree formally approved the agreement, with Azerbaijan's Ministry of Economy tasked with implementation and the Ministry of Foreign Affairs to notify Georgia once domestic procedures are completed.

Egypt: New Western Desert well adds 40 MMcfd: Khalda Petroleum has started production from the Watada deep-gas well in Egypt's Western Desert at 40 MMcfd. A 10-km production pipeline, costing about $2.3 million, connects the well to existing infrastructure.

China: Bohai gas field enters full production: CNOOC's Bozhong 19-6 gas field in the Bohai Sea has entered full production, with proven geological gas reserves of 200+ BCM and liquid petroleum reserves exceeding 200 MMT. Phase one drilled 10 ultra-deep wells, with depths exceeding 6,000 m, while cumulative gas production has already surpassed 2.8 BCM.

Colombia: Petrobras makes new deepwater gas discovery: Petrobras has made another gas discovery in Colombia's Sirius offshore play, taking estimated in-place volumes unlocked through five wells to more than 6 TCF. The Sandia-1 well was drilled at a water depth of 1,251 m, about 42 km offshore, with production targeted for the early 2030s through a subsea-to-shore system.

Israel: New pipeline boosts gas exports to Egypt: Israel's INGL has commissioned a 46-km subsea pipeline section between Ashdod and Ashkelon, raising transmission capacity to 850 MMcfd (~8.5 bcm/year). Leviathan can now supply about 6.5 bcm/year to Egypt, in addition to nearly 2 bcm/year via Jordan.

Iran: Gas discovery announced: Iran has announced the discovery of more than 200 BCM of natural gas in southern Fars province, of which over 160 BCM is reportedly recoverable. The petroleum ministry described the resource as sweet gas, potentially reducing development and operating costs.

Indonesia: $15 billion deepwater gas hub under construction: Indonesia began construction of the Makassar Strait North Hub, a major ultra-deepwater gas development in the Kutai Basin with an estimated investment of $15 billion. Its FPSO will operate in waters up to 2,000 metres deep and process up to 1 BCF/d of gas and 80,000 barrels/day of condensate. First gas is targeted for Q4 2028.

Jordan: Gas supply route through Syria approved: Jordan has approved arrangements to supply natural gas to Lebanon through Syrian territory, using Jordan's existing LNG import, regasification and transmission infrastructure. The gas is intended for electricity generation, building on a three-country gas-exchange framework involving Jordan, Syria and Lebanon and the use of the Arab Gas Pipeline.

Libya: Eni-NOC Offshore Project adds 0.8 bcm gas: Eni and Libya's NOC have started production through the Sabratha Compression Project at the offshore Bahr

Essalam field. A new 1,600-tonne compression module provides 440 MMcfd compression capacity and is expected to add about 800 mcm of gas annually.

Germany: Strategic gas reserve planned for energy security: Germany is planning a state-owned emergency gas reserve of around 24 TWh, equivalent to just under 10% of national storage capacity, financed through a levy on gas consumers. Gas purchases would be spread over 2–3 years, with initial storage bookings for winter 2026/27 and filling from summer 2027; estimated setup and procurement costs are €1.2–1.5 billion.

Nigeria: $25-bn Trans-African gas pipeline advances: West African leaders signed the intergovernmental agreement for the $25-billion Nigeria–Morocco Atlantic Gas Pipeline, clearing the legal framework for the approximately 6,000-km project through 13 countries. Construction is expected to begin in 2028, with planned capacity of 30 bcm/year, around half earmarked for European markets via Spain.

US: FERC clears $5.2-bn Southeast gas pipeline expansion: US regulators approved Kinder Morgan-backed projects worth about $5.2 billion to expand Southeast gas infrastructure. The Mississippi Crossing (MSX) and South System Expansion 4 (SSE4) projects will add more than 3.8 million dekatherms/day of firm transportation capacity.

US: Solitude Pipeline Gets Final Investment Decision: The Solitude Pipeline System has reached FID on two 48-inch pipelines linking the Permian Basin to Katy, Texas. The system is planned to provide 2.25 Bcf/d initially in late 2029, with another 2.25 Bcf/d added in 2030—potentially reaching 4.5 Bcf/d, subject to demand and approvals.

Russia: Power of Siberia 2 renamed "Power of Baikal": Russia has renamed the planned Power of Siberia 2 pipeline to Power of Baikal, with construction preparations reportedly advancing despite prolonged pricing discussions with China. The proposed 2,600-km pipeline would transport up to 50 BCM/year from Yamal through Mongolia to China, complementing the existing Power of Siberia 1.

Trinidad and Tobago: bp to take full control of Calypso gas project: bp agreed to acquire Woodside Energy's 70% stake in Block TTDAA 14, giving it 100% ownership and operatorship of the offshore Calypso gas project, subject to regulatory approvals. The early-stage deepwater development will leverage bp's existing offshore, pipeline and processing infrastructure in Trinidad and Tobago. The transaction is expected to close by end-2026.

NATURAL GAS, CNG & LNG UTILISATION / BIOLNG

Canada: First commercial CCS System for gas turbine power completed: Entropy completed its Glacier Phase 2 CCS project in Alberta, described as the first commercial post-combustion CCS system applied to a natural-gas turbine generating electricity. The system is designed to capture more than 90% of CO_2 from the turbine's exhaust for underground storage. The project includes a 15 MW gas turbine, alongside 11 gas engines totalling about 30 MW.

UAE: ADNOC unifies LNG marketing and trading operations: ADNOC launched a combined LNG marketing and trading platform, bringing together the LNG marketing activities of ADNOC Gas, XRG and ADNOC Trading. The platform targets 47 MMTPA of marketable LNG by 2035, positioning it among the world's largest LNG players.

LNG DEVELOPMENT

Bahamas: Shell takes FID on LNG regasification terminal: Shell took FID on a small-scale LNG regasification terminal at Clifton Pier, New Providence, with Shell acquiring a 40% stake in New Providence Gas Ltd. The terminal will supply gas-fired power generation, replacing part of the Bahamas' reliance on imported diesel and fuel oil. Shell will supply LNG from its US LNG portfolio.

Germany: Uniper signs 20-year deal for Canadian LNG: Germany's Uniper signed a 20-year LNG SPA with Ksi Lisims LNG for 2 MTPA, equivalent to around 30 TWh annually, with first deliveries expected from 2032.

Germany: Equinor and Uniper sign 15-year gas supply deal: Equinor will supply Uniper with more than 30 TWh (about 2.8 BCM) of natural gas annually under a 15-year agreement running from 2027 to 2041. Deliveries will be made at Germany's Trading Hub Europe (THE), with pricing linked to market conditions. The agreement reinforces the role of Norwegian gas in Germany's long-term energy supply.

Japan: Inpex signs 15-year deal for Abu Dhabi LNG: Inpex will buy around 1 MTPA of LNG from ADNOC's Ruwais LNG project under a 15-year agreement starting when the project begins operations in 2028. Ruwais has a planned capacity of 9.6 mtpa, with 90% of output already committed. The deal comes amid continued uncertainty over LNG shipping through the Strait of Hormuz.

Malaysia: PETRONAS extends LNG supply to Shizuoka Gas through 2039: PETRONAS LNG and Japan's Shizuoka Gas signed a new agreement covering approximately 0.84 million tonnes of LNG over seven years from 2032, extending supply arrangements through 2039.

Mexico: ECA LNG ships first cargo to Asia: TotalEnergies shipped the first LNG cargo from ECA LNG Phase 1 on Mexico's Pacific Coast, marking the start-up of the country's first Pacific Coast LNG export terminal. The facility has 3.25 MMPTA capacity, with TotalEnergies contracted to offtake 1.7 MMTPA for 20 years and serving as sole offtaker during ramp-up. Supplied with US gas from the Permian Basin, the terminal's Pacific location provides a shorter route to Asian markets.

Mexico: Energia Costa Azul ships first LNG cargo: Energia Costa Azul, Mexico's second LNG export facility, shipped its first cargo on July 8, adding 0.4 BCF/d of nominal export capacity and tripling Mexico's LNG export capacity. Its Pacific Coast location strengthens North America's access to Asian markets, taking Pacific Coast export capacity to 2.2 BCF/d.

South Africa: Virginia Gas Project secures five-year LNG offtake: Tetra4, a subsidiary of Renergen, managing Virginia Gas Project, signed a five-year take-or-pay LNG agreement with a South African food-processing company. The contract represents around 10% of Phase 1 production capacity, with LNG priced at more than $16/GJ at the plant gate. Phase 1 is expected to produce around 2,500 GJ/day of LNG, with commercial operations targeted for Q3 2026.

Tanzania: EALNG signs gas sales agreement for small-scale LNG Project: TPDC, TAQA Arabia and Africa50 signed a gas sales agreement for East Africa LNG (EALNG), Tanzania's first small-scale LNG facility. The project will liquefy domestic gas for distribution by specialised vehicles to industrial, residential and transport customers, including areas beyond the existing

pipeline network. The agreement is a key milestone towards FID, with commercial operations targeted for 2027.

US: Equinor receives first LNG cargo from US Gulf Coast: Equinor received its first LNG cargo under long-term supply agreements with Cheniere, loaded at the Sabine Pass LNG facility in Louisiana and bound for Europe. The 15-year agreements will ultimately provide around 3.5 MTPA, helping Equinor expand its global LNG portfolio. Future US LNG cargoes will serve customers across Europe and Asia according to market demand.

US: BGN signs 20-year framework for 1 MTPA Texas LNG: BGN has signed a Heads of Agreement with Glenfarne Global Commodities for 1 MTPA of LNG from the Texas LNG project in Brownsville. Texas LNG is part of Glenfarne's 32.8 mtpa permitted North American LNG portfolio under development.

Vietnam: PV Gas signs first long-term LNG purchase deal: PV Gas has signed a term LNG sale and purchase agreement with Shell Eastern Trading covering supplies for 2027–2031. The deal marks Vietnam's first term LNG purchase agreement, following Shell's first-ever LNG cargo to Vietnam for commissioning the Thi Vai terminal in 2023.

LNG AS A MARINE FUEL/SHIPPING

Vietnam: Cai Mep LNG Terminal receives third commercial cargo: AG&P LNG's Cai Mep LNG terminal in Ho Chi Minh City received its third commercial LNG cargo from Bintulu, Malaysia, on 28 August 2026, delivered by Lucia

Ambition. The cargo replenishes supplies for LNG-to-power and truck-based industrial distribution.

Japan: MOL completes six-vessel CNOOC LNG Carrier Project: Mitsui O.S.K. Lines (MOL) has completed its six-vessel LNG carrier project for CNOOC with the delivery of Greenergy Cloud on 1 July 2026. The vessel, named on 17 June, marks the completion of a newbuilding programme launched with a shipbuilding contract in January 2022.

Malaysia: 'K' LINE delivers two LNG carriers for PETRONAS: Japan's 'K' LINE has delivered two newbuild LNG carriers, Puteri Johor and Puteri Kedah, for PETRONAS LNG Ltd. Puteri Johor was delivered on 29 May 2026 and Puteri Kedah on 30 June 2026, both from Hudong-Zhonghua Shipbuilding in China.

Greece: Capital Clean Energy Carriers takes delivery of new LNG carrier: Capital Clean Energy Carriers Corp. took delivery of the 174,000 m^3 LNG carrier Alcaios I on 31 July 2026. Built by HD Hyundai Samho, the vessel has entered an 18-month index-linked time charter. It is the company's 15th latest-generation LNG carrier.

DEVELOPMENT OF CLEAN TECHNOLOGIES/ HYDROGEN/BIO-METHANE

Germany: LANXESS replaces natural gas with hydrogen: LANXESS has begun using hydrogen instead of natural gas for pigment drying at its Krefeld-Uerdingen plant, making it one of Germany's first large-scale industrial facilities to operate continuously on hydrogen fuel. The switch is expected to cut emissions by around 6,000 tonnes annually. Hydrogen is supplied through a dedicated pipeline from neighbouring Covestro's chlorine electrolysis plant, demonstrating integrated industrial hydrogen use.

UK: Hydrogen fuel-cell vehicle trial launched in Swansea: Wales & West Utilities (WWU) has launched a 12-week green hydrogen vehicle trial in Swansea using a prototype Ford Transit fuel-cell van. The trial will assess range, payload, refuelling, towing capability and operating costs under real-world conditions, with hydrogen refuelling at 700 bar. WWU operates around 1,300 vehicles, which travelled more than 15 million miles in 2025 and consumed about 4.3 million litres of diesel.

Netherlands: Green hydrogen produced on offshore gas platform: The PosHYdon project has produced its first batch of green hydrogen on the Q13a-A natural gas platform, about 13 km off Scheveningen. The pilot combines offshore wind power, seawater electrolysis and continued natural gas production, demonstrating the potential reuse of existing offshore infrastructure. The project will assess costs, maintenance and operational performance to inform future large-scale offshore hydrogen development.

Norway: Hydrogen propulsion planned for two new vessels: German technology firm eCap Marine will supply 1.2 MW PEM fuel-cell systems for two new 3,000 DWT carrier vessels ordered by Norway's Green Maritime Infrastructure group. The vessels will be built by Chowgule Shipyards in India and are planned for operation in Norwegian waters from 2029. The project highlights the potential role of hydrogen fuel cells in smaller commercial vessels as maritime decarbonisation accelerates.

Vietnam: VinFast launches VF 2 electric city car: VinFast has unveiled the VF 2, a four-seat electric city car based on the Minio Green. The EV features a

30kW motor, 18.3 kWh battery and claimed range of 210 km, with DC charging from 10–70% in about 34 minutes.

China's FCB Challenges Tesla Model 3: Charges From 10 to 97% in Just 9 Minutes: BYD's sub-brand Fang Cheng Bao launched the Formula S, an electric sedan aimed at competing with the Tesla Model 3. Priced between ~$28,000 and $35,400 in China, it features BYD's Blade Battery with ultra-fast charging (10% to 90% in ~9 minutes) and offers up to 559 miles (900 km) of CLTC range. Output ranges from 329 hp to 657 hp on AWD models. Premium tech includes magnetorheological or air suspension, LiDAR driver assistance...

US: General Motors Builds Recycled EV Batteries With 100% Old Critical Minerals: General Motors has completed a closed-loop EV battery recycling pilot, producing new batteries using cathode material containing 100% recycled nickel, cobalt, and manganese from end-of-life GM batteries. In partnership with Cirba Solutions and Ultium Cells, 80 battery packs were recycled, refined, and converted into battery-grade cathode material. The recycled material was used in new cells and assembled into vehicle battery packs. The first production EVs equipped with these batteries are now reaching customers.

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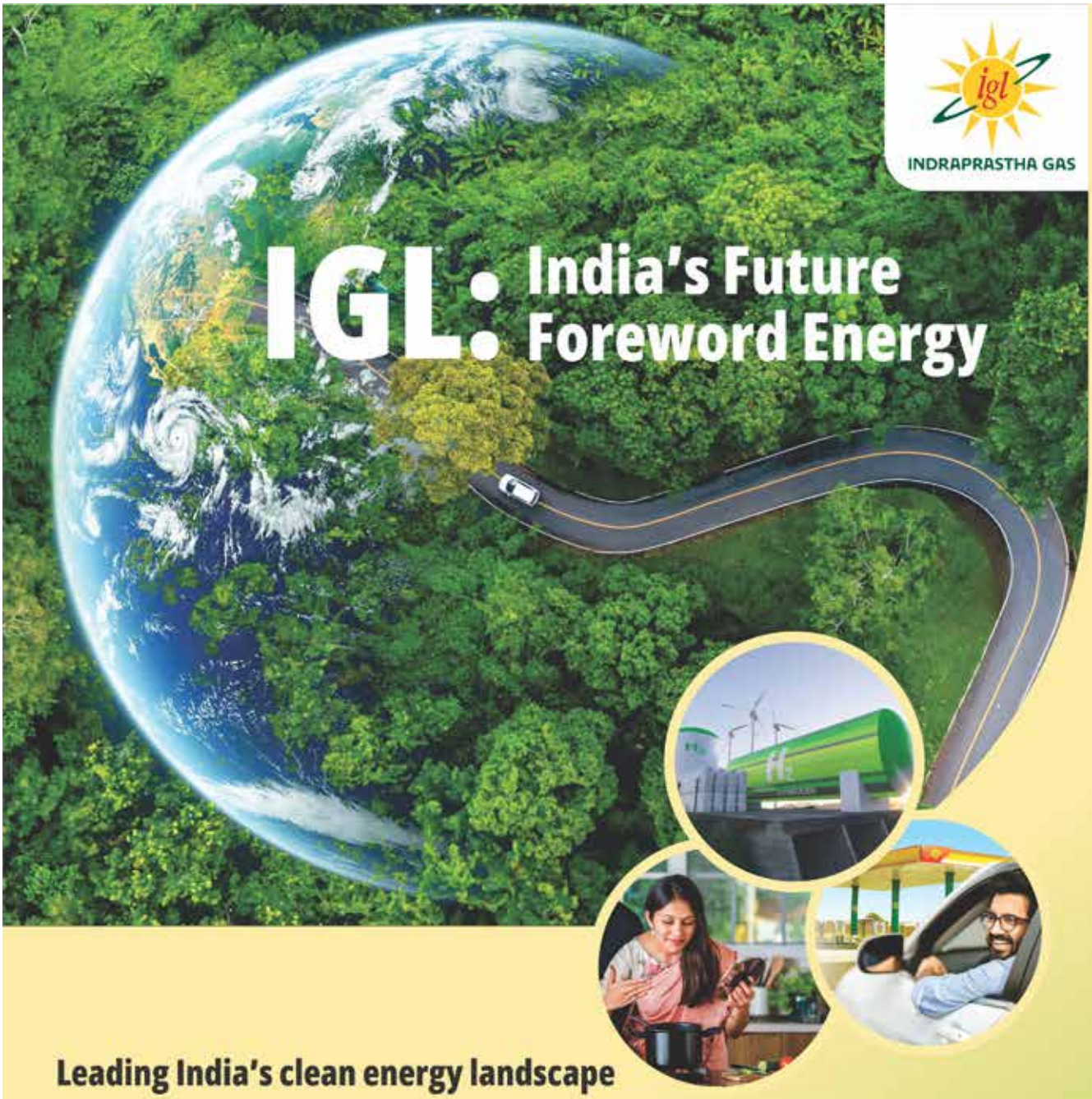

Leading India's clean energy landscape

IGL believes in a customer-centric approach and provides clean energy solutions through innovative technology and diversification in India and abroad. IGL is playing a crucial role in the emerging scenario, in augmenting its compression capacity by adding new stations and investing in new-age fuels like Liquefied Natural Gas (LNG), Compressed Bio Gas (CBG) and Hydrogen to address changing energy needs.

IGL's core deliverables include:

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- IGL offers various services to meet the needs of Residential, Commercial and Industrial customers.
- IGL is a growing company, strongly committed to safety, innovation, and customer satisfaction.

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