

PANORAMIC

GAS REGULATION

India



LEXOLOGY

Gas Regulation

Contributing Editors

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Dentons

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DOMESTIC SECTOR OVERVIEW

State of the market

Describe the domestic natural gas sector, including the natural gas production, liquefied natural gas (LNG) storage, pipeline transportation, distribution, commodity sales and trading segments and retail sales and usage.

The domestic natural gas sector has high potential in relation to the exploration and production (E&P) segment. This segment had not received adequate regulatory or policy attention in India, particularly since the failure of the Reliance Industries–British Petroleum joint venture to meet their projection from the KG-D-6 field on account of technical and related issues. Additionally, policy reasons for the lack of development in the upstream natural gas sector include the price regulation of Indian-produced natural gas, which had not permitted high capital investment to be viable, particularly for deep-sea drilling. At the same time, imported liquefied natural gas (LNG) pricing remains unregulated and results in price discovery, thereby becoming a commercial disadvantage to investment in the domestic gas E&P segment. The government had introduced an attractive production-sharing contract arrangement since the National Exploration Licensing Policy (NELP) from 1999 to 2000 and subsequently modified it to cover all types of hydrocarbons in the Hydrocarbon Exploration Licensing Policy (HELP) from 2016 to 2017, which provided for a revenue-sharing contract and also permitted open acreage licensing to enable investors to demarcate their own blocks based on their assessment of available E&P data. However, the pricing regulations have proved to be a hurdle for the high capital expenditure investment needed to tap the potential of India's difficult reservoirs.

The entire natural gas price regime in India underwent significant reform on 18 October 2014 when the government published the New Domestic Natural Gas Pricing Guidelines 2014, which provided a pricing formula for wellhead gas prices applicable for all natural gas produced domestically, irrespective of the source (whether conventional, shale, coal-bed methane, etc) and stipulated that the Director General of Petroleum Planning and Analysis Cell under the Ministry of Petroleum and Natural Gas (MoPNG) shall notify the periodic revision of prices under the Guidelines. This was made effective on 1 November 2014. The Domestic Natural Gas Pricing Guidelines apply to:

- all gas produced by the Oil and Natural Gas Corporation and Oil India Limited, both state-owned public-sector undertakings, from the nomination fields vested with them;
- NELP blocks;
- such of the pre-NELP blocks where the production-sharing contract provides for government-approved gas prices; and
- coal-bed methane.

The exceptions to the pricing formula were limited to situations where:

- prices have been fixed contractually for a certain period of time, until the end of such period;
- where the production-sharing contract itself is providing for a specific formula for natural gas price indexation or fixation;

- where the gas is produced under pre-NELP production-sharing contracts that do not provide for a government-approved formula or basis for gas prices;
- pricing of natural gas from small or isolated fields in nomination blocks of national oil companies, which is governed by the guidelines in respect of small or isolated fields issued on 8 July 2013; and
- the D1 and D2 discoveries of block KG-DWN-98/3, which at that time were under arbitration, in respect of which special provisions were built in until the arbitration was settled.

A special premium was also provided for gas from ultra-deepwater wells.

On 21 February 2016, the government made a notice concerning marketing freedom (including pricing) but only for deepwater, ultra-deepwater and high-pressure, high-temperature areas. This resulted in such fields undertaking certain capital expenditures to develop the fields, but the results of such development will take until at least 2023 to 2024 to be visible. On 15 October 2020, the government made a policy notice for providing marketing flexibility and price discovery vide Notification of 'Discovery of Market Price for Domestically Produced Natural Gas Through e-bidding' and then notified the process to be followed in the e-bidding vide Notification of 23 December 2020. The combined effect of these policy changes was that E&P entities could undertake a sale, on an arm's length basis, to third-party entities including their affiliates as long as the price is discovered through an e-bidding process that is undertaken and monitored through independent agencies empanelled by the MoPNG. This removed the bottleneck of such E&P entities being required to sell gas to government-nominated entities at prices determined per formula notified by the government.

However, the immediate benefit from this policy change was hampered due to the covid-19 pandemic arriving in India in March 2020, resulting in the worldwide collapse in demand for natural gas. The recovery of industrial activity has not been steady in light of the recurring waves of covid-19 variants. There was a surge in international prices for LNG in early and late 2021, which resulted in an increase in the offtake of domestically produced gas and lower imports of LNG for late 2021, primarily because of a lack of availability of LNG cargoes for the Indian market in light of better pricing available in Europe, China, South Korea and Japan. Even supplies to India under long-term contracts have been affected with suppliers taking innovative routes of declaring force majeure events to suspend cargo deliveries into India, while routing cargoes to other markets. LNG contracts are typically governed by English law and mandate international arbitration. This means that there would be an associated expenditure to pursue these disputes.

India's gas pipeline infrastructure also continues to remain a bottleneck in the development of India's gas market. Although the government has announced the creation of an interconnected national gas grid (as from 31 March 2021, 33,764 kilometres of natural gas pipeline network had been authorised), the physical development of the gas grid will take more time due to regulatory issues, and the time taken for route clearances.

The current policy focus is on the development of multiple LNG import and storage terminals. Presently, there are six LNG terminals operational in India, five being on the western coast along the Arabian Sea (Dabhol, Hazira, Mundra (all in the state of Gujarat), Dabhol (Maharashtra) and Kochi (in the state of Kerala)). On the eastern coast, along the Bay of

Bengal, the LNG terminal at Ennore port (Tamil Nadu) has started operations. Another six LNG terminals are being planned. However, the development of the planned LNG terminals will be affected by delays in the development of the natural gas pipeline grid, and also the landed and regasified price of gas from such terminals.

India is a price-sensitive market for natural gas, particularly since large consumers are essentially government entities used to regulate natural gas prices, and sectors such as electricity cannot pass through expensive natural gas. The absence of a suitable mechanism to enable the pass-through of gas prices has resulted in a large, stranded gas-based generation capacity in India.

The data for LNG import terminal capacity usage, as of December 2021, indicates the lower availability of imported LNG for the Indian market as well as capacity constraints including the availability of adequate pipeline connectivity. Out of a total operational capacity of 40.6 million metric tonnes per annum (Mmtpa), only 23.7 Mmtpa (approximately) was utilised between the period from April 2021 to December 2021. Low utilisation of the Ennore and Kochi LNG terminals is attributable to inadequate natural gas pipeline connectivity, which should be resolved in the coming months.

The stated policy direction of the government is to enable the development of a gas-based economy where natural gas constitutes up to 20 per cent of India's energy requirements by 2030; however, the potential for development is not fully supported by the current regulatory framework.

Law stated - 26 December 2023

Consumption

What percentage of the country's energy needs is met directly or indirectly with natural gas and LNG? What percentage of the country's natural gas needs is met through domestic production and imported production?

Presently, about 11 per cent of India's energy needs are being met through natural gas. However, the policy objective of the government is to create a gas-based economy. As per the data available relating to consumption from December 2021 for the period from April to December 2021, 49.4 per cent of India's natural-gas consumption was met by imported LNG. This reflects a reduction in the availability of LNG in the last quarter of 2021 on account of the international market scenario for LNG and not on account of the actual dependency on imported LNG. It should be noted that for the year 2019 to 2020, imported LNG accounted for 52.8 per cent of natural-gas consumption, and even for the period April to December 2020, which was the covid-19 impacted period, due to the increase in economic activity in the second quarter, imported LNG accounted for 55.2 per cent of natural-gas consumption in India. Any economic development based on natural-gas capacity is likely to increase the dependency on imported LNG, and it is projected that imported LNG will eventually account for almost 70 per cent of India's natural-gas demand by 2030. It is expected that total domestic sources will provide only about 230 million standard cubic meters of gas per day (Mmscmd) by 2030 out of the projected demand of 746 Mmscmd by 2030.

Law stated - 26 December 2023

Government policy

What is the government's policy for the domestic natural gas sector and which bodies set it?

Under the Indian Constitution, natural gas falls under the exclusive jurisdiction of the central government. The executive branch of the government dedicated to regulating this sector is the MoPNG. The exploration and commercial utilisation of unconventional sources is governed by the same framework as conventional sources. The applicable policy for upstream gas operations overall is HELP.

A detailed legal framework has been established to cover different aspects of the oil, petroleum and petroleum products sector is set out in the following.

Prospecting and extraction of petroleum

- The Oilfields (Regulation and Development) Act 1948;
- the Petroleum and Natural Gas Rules 1959;
- the Hazardous Wastes (Management and Handling) Rules 2016;
- NELP; and
- HELP.

Acquisition of land and land rights

The Petroleum and Minerals, Pipelines (Acquisition of Right of User in Land) Act 1962.

Production, refining and blending of petroleum

- The Petroleum Act 1934;
- the Explosives Act 1884;
- the Petroleum Rules 2002;
- the Hazardous Wastes (Management and Handling) Rules 2016;
- the Hazardous Wastes (Management Handling and Transboundary) Rules 2008; and
- the Manufacture, Storage and Import of Hazardous Chemicals Rules 1989.

Storage and import of petroleum

- The Petroleum Act 1934;
- the Explosives Act 1884;
- the Gas Cylinder Rules 2016;
- the Petroleum Rules 2002;

- the Manufacture, Storage and Import of Hazardous Chemicals Rules 1989.

The natural gas pipelines and city gas distribution network

- The Petroleum and Natural Gas Regulatory Board Act, 2006, and regulations notified thereunder; and
- the Explosives Act 1884 and regulations relating to transportation and compression of natural gas.

Transport of petroleum

- The Petroleum Act 1934;
- the Petroleum Rules 2002;
- the Explosives Act 1884;
- the Static and Mobile Pressure Vessels (Unfired) Rules, 2016; and
- the Merchant Shipping Act, 1958 (Part X-B, Part XI-A).

Sale of petroleum

- The Essential Commodities Act, 1955 and the various Control Orders issued thereunder in relation to Petroleum and Petroleum Products; and
- the Essential Commodities (Special Provisions) Act 1981.

General regulation

The Oil Industries (Development) Act 1974.

Law stated - 26 December 2023

Regulatory authorities

Which authorities make regulatory policies and decisions in respect of the production, transmission, distribution and supply of natural gas?

The MoPNG is the nodal ministry for the natural gas sector in India. The main regulatory authority within the MoPNG for the upstream sector is the Directorate General of Hydrocarbons (DGH).

The regulatory authority for the natural gas pipeline sector and city gas distribution sector is the Petroleum and Natural Gas Regulatory Board (PNGRB), which is a statutory authority created under the Petroleum and Natural Gas Regulatory Board Act 2006.

The clearances for specific installations and equipment from the safety perspective are provided by the Petroleum and Explosives Safety Organisation, which is an authority governed by the Explosives Act 1884 and is the authority for safety regulation of hazardous substances such as explosives and compressed natural gas, natural gas transportation and any storage of natural gas. The DGH is part of the MoPNG.

The PNGRB, although a separate statutory authority, is subject to policy directions given by the MoPNG. The appointment of members to the PNGRB is through a statutory process of a selection committee, and these are subject to the final approval of the government. Presently, out of a total stipulated strength of five members, there are only three members, one of which is a chairperson, and the other two are former employees of state-owned gas company GAIL, the largest natural gas transportation company, which owns and operates up to 75 per cent of present gas transmission pipelines of India and provides up to 50 per cent of all natural gas sold in India. There is no legal member to date, and the post of one more member is lying vacant. In the absence of a legal member, the PNGRB is presently not duly constituted and cannot adjudicate disputes.

Law stated - 26 December 2023

REGULATION OF NATURAL GAS PRODUCTION

Ownership and organisation

What is the ownership and organisational structure for production of natural gas (other than LNG)? How does the government derive value from natural gas production?

There is no statutory exclusivity for the government sector in the natural gas sector. Private or non-government entities can participate fully in the natural gas sector and develop upstream and downstream. However, there is presently an uneven playing field as the majority of existing natural gas infrastructure is owned and operated by government-owned entities.

The government derives value from upstream operations through the following:

1. a share in natural gas or petroleum, or both, produced (which is after adjusting for permitted cost-sharing as per applicable agreement);
2. royalty, licence fees and lease rentals in relation to mining lease of land;
3. surface area rent payable to state government;
4. in addition to (1), (2) and (3), for pre-National Exploration Licensing Policy (NELP) oil fields through administered pricing and allocation of gas to nominated buyers thereby enabling the provision of low-cost for entities and production as needed by the government; and
5. in addition to (1), (2) and (3) for NELP and post-NELP through regulating price discovery to ensure availability of comparatively lower cost domestically produced gas.

Law stated - 26 December 2023

Regulatory framework

Describe the statutory and regulatory framework and any relevant authorisations applicable to natural gas exploration and production.

In 1992, the government decided to allow private participation in the upstream segment of the oil and gas industry and decided to hand over several medium and small-discovered and developed oil and gas fields to joint ventures formed between selected private participants and the Oil and Natural Gas Corporation. However, it took the government about five years to formulate and adopt a comprehensive exploration licensing policy, NELP was announced in fiscal year 1997–1998.

The prospecting and exploration of oil and petroleum is governed by The Oilfields (Regulation and Development) Act 1948 and the rules made thereunder. The exploration and production of oil and petroleum in relation to offshore areas are enabled by the Territorial Waters, Continental Shelf, Exclusive Economic Zone and Other Maritime Zones Act 1976 (80 of 1976) that provides for the granting of a licence by the government to explore and exploit the resources of the continental shelf and exclusive economic zone. Initially, the details in relation to the control and regulation of exploration were governed by the Petroleum Concession Rules 1949, which were made under the Oilfields (Regulation and Development) Act 1948. However, these rules were replaced in 1959 by the Petroleum and Natural Gas Rules 1959, which regulate the field of exploration of oil and petroleum. The regulatory control over the prospecting and extraction of petroleum is extensive and no person can undertake any form of prospecting for petroleum or extraction of petroleum without obtaining a prospecting licence or a petroleum mining lease, which is granted under the Oilfields (Regulation and Development) Act 1948 read with the Petroleum and Natural Gas Rules 1956.

A prospecting licence or a petroleum mining lease must mandatorily contain the terms and conditions specified in the Petroleum and Natural Gas Rules 1956. In addition to the terms and conditions specified in the Petroleum and Natural Gas Rules 1956, a prospecting licence or a petroleum mining lease can contain the terms and conditions agreed to between the licensee or the lessee, as the case may be, with the central government. Even when a prospecting licence or a petroleum mining lease is to be issued by the state government, the additional terms thereof would be the ones agreed to between the central government and the licensee or lessee. Central government has the obligation, where the licence or lease is to be executed by the state government, to consult with the state government before executing any agreement in relation to the additional terms and conditions of the licence, but apart from this obligation to consult, the licence issued by the state government should contain the additional agreement between the licensee or lessee and the central government. The state government does not, under the Petroleum and Natural Gas Rules 1959, have any independent power to impose terms and conditions in any licence or lease that it issues.

The Directorate General of Hydrocarbons is the regulatory agency monitoring upstream operations in the natural gas sector. The Petroleum and Explosives Safety Organisation monitors safety related issues with respect to storage and related equipment used in natural gas operations.

Upstream operations are subject to the relevant production-sharing contract that would have been executed, which provides for the settlement of disputes through arbitration.

In relation to mining leases, the Petroleum and Natural Gas Rules 1959 specify that any dispute in relation to any:

- right claimed by the licensee or lessee under the licence or the lease;
- any breach alleged to have been committed by the licensee or the lessee of any of the terms of the licence or lease or any penalty proposed to be inflicted;
- the fees, royalty or rent payable under the licence or the lease; or
- any other matter or thing connected with the licence or lease shall be settled by arbitration under the Arbitration and Conciliation Act 1996, by two arbitrators: one appointed by the government and the other by the concerned licensee or lessee with the arbitrators appointing an umpire in the event of a conflict or deadlock between the arbitrators.

However, if there is an arbitrary action by the government that is not capable of being a subject matter of arbitration, then the writ jurisdiction of High Courts can be taken recourse to.

Further, foreign investors have access to investor protection clauses provided in bilateral investment treaties.

Law stated - 26 December 2023

Unconventional gas production

Are there different rules for, or any restrictions on, unconventional natural gas production (including fracking)?

Coal-bed methane had a separate framework; however, with the notification of Hydrocarbon Exploration and Licensing Policy (HELP) now both conventional and unconventional natural gas production is regulated under a common framework of exploration and production.

Law stated - 26 December 2023

Required security and guarantees

Are participants required to provide security or any guarantees to be issued with a licence to explore for or to store gas?

Under both NELP and HELP, the production-sharing contract through which the right to undertake exploration and production of natural gas is vested mandates bank guarantees as security for due performance. Under the petroleum exploration licence and the petroleum mining lease a security of 50,000 Indian rupees is to be deposited with the central government following Rule 11 of the Petroleum and Natural Gas Rules 1959.

Law stated - 26 December 2023

REGULATION OF NATURAL GAS PIPELINE TRANSPORTATION AND STORAGE

Ownership and infrastructure

Describe in general the ownership of natural gas pipeline transportation, and storage infrastructure.

There is no limitation on the private ownership of natural gas pipeline transportation and storage infrastructure. However, due to the legacy of government development of natural gas pipelines, presently, 75 per cent of all natural gas pipelines operating in India are owned and controlled by state-owned gas company GAIL.

Law stated - 26 December 2023

Regulatory framework

Describe the statutory and regulatory framework and any relevant authorisations applicable to the construction, ownership, operation and interconnection of natural gas transportation pipelines, and storage.

The Petroleum and Natural Gas Regulatory Board Act 2006 (PNGRB Act) regulates the development of natural gas transportation pipelines. The PNGRB Act mandates that any entity intending to develop a natural gas pipeline as a common carrier or contract carrier will be required to obtain an authorisation from the Natural Gas Regulatory Board (PNGRB). Although the PNGRB has no jurisdiction to authorise dedicated pipelines developed by consumers for their captive use or enable conversion of dedicated pipelines into a common carrier or contract carrier, the PNGRB has sought to exercise such jurisdiction, and this is the subject matter of pending litigation.

Apart from the authorisation under the PNGRB Act, to develop a natural gas pipeline, the relevant entity should obtain multiple clearances and land rights based on the route that the pipeline is taking. The authorisation under the PNGRB Act does not enable the entity to obtain the other related clearances to develop the pipeline in any preferential or assured manner. The relevant entity must separately undertake to obtain environmental clearances, forest land-use clearances, clearances to cross highways, railways, public roads, municipal areas, and acquire right-of-use through the specific process stipulated under the Petroleum and Minerals, Pipelines (Acquisition of Right of User in Land) Act 1962.

There is also no assurance of obtaining interconnection with other natural-gas pipelines and separately negotiated agreements for any such interconnection would need to be undertaken.

Law stated - 26 December 2023

Land rights

How does a company obtain the land rights to construct a natural gas transportation or storage facility? Is the method for obtaining land rights to construct natural gas distribution network infrastructure broadly similar?

An entity can either negotiate privately with landowners or seek to compulsorily acquire the right of use in land falling along its route using the provisions of the Petroleum and Minerals, Pipelines (Acquisition of Right of User in Land) Act 1962, which provides a specific framework by which a pipeline entity can compulsorily acquire right of use in landfalling on the route of its pipeline through a process assisted by the government administration. The process involves the evaluation of right-of-use and payment of compensation.

Law stated - 26 December 2023

Access

How is access to the natural gas transportation system and storage facilities arranged? How are tolls and tariffs established?

The PNGRB Act governs access to common carrier or contract carrier natural gas pipelines. However, access to dedicated pipelines is not permissible and if a dedicated pipeline is sought to be used for more than one consumer, it would need to be authorised as a common carrier pipeline. Under the PNGRB Act, the Petroleum and Natural Gas Regulatory Board (Access Code for Common Carrier or Contract Carrier Natural Gas Pipelines) Regulations 2008 has been notified, which mandates a mechanism for the provision of access to common carrier pipelines.

Law stated - 26 December 2023

Interconnection and expansion

Can customers, other natural gas suppliers or an authority require a pipeline or storage facilities owner or operator to expand its facilities to accommodate new customers? If so, who bears the costs of interconnection or expansion?

There is a mandate on common carrier pipeline operators to ensure that they connect all new customers that fall within a radius of 50 square kilometres from the pipeline. Any extension beyond that zone will have to be negotiated with the common carrier pipeline operator. However, there are provisions under general competition law in India that can be invoked in the event the common carrier entity refuses to provide such connectivity on reasonable terms.

The expansion of natural gas pipeline capacity is sought to be regulated by the PNGRB through a rule that requires approval of the PNGRB for any capacity expansion beyond 10 per cent of the existing capacity of the natural gas pipeline.

The PNGRB determines the transportation tariff for common carrier and contract carrier natural gas pipelines in India under the framework established by regulations in this regard.

Law stated - 26 December 2023

Processing

Describe any statutory and regulatory requirements applicable to the processing of natural gas to extract liquids and to prepare it for pipeline transportation.

The requirement of ensuring processing of natural gas to prevent condensation is contractually regulated and disputes have arisen between suppliers and consumers as a consequence of failure to undertake such processing. There is no statutory requirement for such processing to be undertaken presently.

Law stated - 26 December 2023

Contracts

Describe the contractual regime for transportation and storage.

The contractual arrangements for transportation and storage are provided by the relevant operator of the natural-gas pipeline. The standard terms developed by state-owned gas company GAIL form the basis for these provisions. The PNGRB under the PNGRB Act had sought to stipulate standard terms; however, those were set aside through litigation initiated by GAIL. Although there are competition law principles that can and have been invoked against the GAIL-imposed provisions, these have only had limited success, and several matters are still pending final adjudication.

Law stated - 26 December 2023

REGULATION OF NATURAL GAS DISTRIBUTION

Ownership

Describe in general the ownership of natural gas distribution networks.

In India, the natural gas distribution low-pressure network is called the city gas distribution (CGD) network. An entity intending to undertake the development of the CGD network must obtain an authorisation in respect of the geographical area in which it is seeking to develop the CGD network from the Natural Gas Regulatory Board (PNGRB). The ownership of the CGD network vests with the entity developing it under authorisation granted by the PNGRB.

Law stated - 26 December 2023

Regulatory framework

Describe the statutory and regulatory structure and authorisations required to operate a distribution network. To what extent are gas distribution utilities subject to public service obligations?

An entity seeking to undertake a development operation or expansion of a CGD network should obtain an authorisation from the PNGRB under the PNGRB Act. Authorisation for the CGD network is granted for specific identified geographical areas. The PNGRB Act and regulations made thereunder contemplate that authorisation can be granted based on the proposal submitted by an entity that is then placed for the competitive bidding process or

areas can be demarcated by the PNGRB and placed for the competitive bidding process. The PNGRB has undertaken several bidding rounds for granting authorisation to develop the CGD network in designated geographical areas over the years, during which 300 geographical areas covering about 98 per cent of the population and 88 per cent of the total geographical area of India, spread over around 630 districts in 28 states or union territories (UTs), have been covered. The PNGRB has recently launched bidding rounds 12 and 12A, covering the states of Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, Sikkim, Manipur and the remaining parts of the UTs of Jammu and Kashmir and all of the UT of Ladakh.

The annual targets for laying inch-to-kilometres of pipelines and connecting households are specified in each authorisation that is granted by the PNGRB. Also, the service quality standards are prescribed under the PNGRB (Code of Practice for Quality of Service for City or Local Natural Gas Distribution Networks) Regulations 2010.

Law stated - 26 December 2023

Access and pricing

How is access to the natural gas distribution grid organised? Describe any regulation of the prices for distribution services. In which circumstances can a rate or term of service be changed?

The entity authorised to develop a CGD network has service obligations and targets to connect domestic households, lay steel pipelines and develop compressed natural gas stations. It has the freedom to design the development of the CGD network but is under an obligation to ensure that domestic households are connected. It has a contractual freedom to connect commercial and industrial consumers, but it cannot deny connectivity unless there are technical reasons or it is not feasible to connect. The terms of the competitive bidding process indicate the price for transportation and compression charges are determined through the bidding process. Such pricing is applicable from the time the CGD network is declared as a common carrier or contract carrier. There is a period of exclusivity from the purview of a common carrier or contract carrier obligations that are usually vested with authorised entities. This period for areas granted through the competitive bidding process was five years until the eighth CGD bidding round (until 2018) and was increased to eight years from the ninth CGD bidding round (from 2019 onwards).

However, the price at which gas is supplied to consumers through the CGD network is not regulated.

Law stated - 26 December 2023

System/service expansion and limitation

May the regulator require a distributor to expand its system to accommodate new customers? May the regulator require the distributor to limit service to existing customers so that new customers can be served?

It is only after a CGD network is declared as a common carrier or contract carrier can the PNGRB issue directions for expanding the network. Until such time as the CGD network is

declared as a common carrier, no direction for expansion can be given. However, consumers will have recourse to filing complaints and seeking adequate protection and directions from the PNGRB to ensure connectivity and supply.

Law stated - 26 December 2023

Contracts

Describe the contractual regime in relation to natural gas distribution.

The terms and conditions for the supply of gas to domestic household consumers are regulated by the regulations notified under the PNGRB Act. However, the terms of supply to commercial and industrial consumers are purely contractual based. Usually, the terms are provided by the authorised entity in standard format with certain negotiations being undertaken. However, since the gas supplied by the CGD entity is sourced predominantly from state-owned gas company GAIL, the terms have to ensure back-to-back coverage of risks from the gas supply arrangements from the gas suppliers to the CGD entity.

Law stated - 26 December 2023

REGULATION OF NATURAL GAS SALES AND TRADING

Ownership and organisation

What is the ownership and organisational structure for the supply and trading of natural gas?

There is no restriction on the number and ownership of gas suppliers. Gas trading is a more recent development. The Natural Gas Regulatory Board (PNGRB) notified the Petroleum and Natural Gas Regulatory Board (Gas Exchange) Regulations 2020 on 28 September 2020 and authorisation for the first gas exchange was given in late 2020 to early 2021. However, the issue of jurisdiction of the PNGRB to regulate gas trading and gas exchanges is not clear and may result in dispute as under general law derivative contracts and commodity trading are regulated by the Securities and Exchange Board of India (SEBI). SEBI has also approved gas trading derivative contracts. This issue of jurisdiction would need to be clarified either by policy direction or it would eventually be settled through litigation.

Law stated - 26 December 2023

Government oversight

To what extent are natural gas supply and trading activities subject to government oversight? What authorisations are required to engage in wholesale trading of gas?

The PNGRB notified the Petroleum and Natural Gas Regulatory Board (Gas Exchange) Regulations 2020 on 28 September 2020. These regulations provide a detailed framework governing authorisation and various aspects of operations of gas exchange. However, there is a jurisdiction overlap as gas exchanges would also be liable to be covered under the

Securities Contracts (Stock Exchanges and Clearing Corporations) Regulations 2012 by SEBI.

There is also an issue of whether domestically produced gas can be the subject matter of trading in gas exchanges as by government policy the pricing for domestically produced gas must be in accordance with the specific policy issued by the government from time to time, which presently requires price discovery through an electronic-based competitive bidding process. There are also the Domestic Natural Gas Pricing Guidelines 2014 (the Guidelines), which are made applicable to:

- all gas produced by Oil and Natural Gas Corporation and Oil India Limited from the 'nomination fields' vested with them;
- National Exploration Licensing Policy (NELP) blocks;
- such of the pre-NELP blocks where the production-sharing contract provides for government approval of gas prices; and
- coal-bed methane.

The exceptions to the pricing formula were limited to situations where:

- prices have been fixed contractually for a certain period of time, until the end of such period;
- where the production-sharing contract itself provides for a specific formula for natural gas price indexation or fixation;
- where the gas is produced under pre-NELP production-sharing contracts that do not provide for a government-approved formula or basis for gas prices;
- pricing of natural gas from small or isolated fields in nomination blocks of national oil companies, which is governed by the Guidelines in respect of small or isolated fields, issued on 8 July 2013; and
- the D1 and D2 discoveries of block KG-DWN-98/3, which was at that time under arbitration, in respect of which special provisions were built in until the arbitration was settled.

A special premium was also provided for gas from ultra-deep-water wells.

The PNGRB has recently invited comments on proposed amendments to the Petroleum and Natural Gas Regulatory Board (Gas Exchange) Regulations 2020, to include the small-scale LNG segment at India Gas Exchange (IGX), and amendments to market rules notified by IGX to reflect this new segment. The public consultation is presently ongoing.

Law stated - 26 December 2023

Trading processes

How are physical and financial trades of natural gas typically completed?

The PNGRB notified the Petroleum and Natural Gas Regulatory Board (Gas Exchange) Regulations 2020 (the Gas Exchange Regulations) on 28 September 2020. These regulations

provide a detailed framework governing authorisation and various aspects of operations of gas exchange including the process of the trading and delivery of gas. The regulations mandate that each gas exchange will formulate its own bylaws to regulate the registration of participants and traders. It is also mandated that a clearing corporation be provided to ensure the delivery of gas pursuant to contracts. The Gas Exchange Regulations contemplate the following types of contracts:

- delivery based contracts for natural gas or liquefied natural gas (LNG) transacted on the gas exchange, namely:
 - day-ahead contracts;
 - intra-day contracts;
 - term-ahead contracts; and
- pipeline capacity contracts; and
- any contract for the trading of natural gas or LNG, including those with price linkage to other established markets or reported indices either in India or otherwise.

The Gas Exchange Regulations require that a gas exchange may carry out the clearing and settlement function of its trades by setting up a clearing house as part of the gas exchange until the board notifies the gas exchange to utilise the services of a separate clearing corporation for clearing and settlement of its trades.

A gas exchange shall avail the service of a clearing corporation pursuant to an agreement in writing between them stipulating their rights and obligations, the conditions for admission of gas volumes for clearing and settlement, risk-management measures, charges for clearing and settlement and other incidental and consequential matters.

Since state-owned gas company GAIL owns and operates 75 per cent of presently operating common carrier or contract carrier pipelines, there are separate gas transmission agreements for GAIL-connected buyers purchasing gas from the gas exchanges.

The delivery of the contracts shall be carried out under the terms of the respective contracts. The scheduling will be as per the quantity allocated by the transporter. The member or clients should preferably give priority to the gas exchange transactions at the time of the flow of the natural gas. In the case of preferability, the buyer and seller may first evacuate the natural gas allotted by the gas exchange before any other type of natural gas from the natural gas pipeline. Members or clients will be required to adhere to the delivery mechanism defined under the market rules of the relevant gas exchange, PNGRB (Access Code for Common Carrier or Contract Carrier Natural Gas Pipelines) Regulations 2008, and the Gas Transportation Agreement.

The mechanism for the delivery of gas pursuant to the trades undertaken on the gas exchanges depends on the broad category of the transaction; namely, whether they are 'delivered transactions' or 'ex-hub transactions'. The relevant gas exchanges are required to provide a detailed mechanism for the delivery of gas, which usually provides for the execution of gas transportation agreements and settlement through the clearinghouse of the gas exchange.

Financial settlement

The gas exchange shall manage financial settlement for all transactions. For delivery, the gas exchange shall offer options for ex-hub transactions and delivered transactions. The operations of clearing and settlement shall be managed by the clearinghouse of the gas exchange. The gas exchange may, from time to time, delegate such additional authority and responsibility to the clearinghouse as deemed fit. All contracts transacted on the gas exchange shall be settled by the gas exchange and delivered in accordance with the framework prescribed under the relevant regulations under applicable law and the terms of the Gas Transportation Agreement.

Law stated - 26 December 2023

Available services and products

Must wholesale and retail buyers of natural gas purchase a bundled product from a single provider? If not, describe the range of services and products that customers can procure from competing providers.

The Gas Exchange Regulations contemplate the following types of contracts:

- delivery based contracts for natural gas or liquefied natural gas (LNG) transacted on the gas exchange, namely:
- day-ahead contracts;
- intra-day contracts;
- term-ahead contracts; and
- pipeline capacity contracts; and
- any contract for the trading of natural gas or LNG, including those with price linkage to other established markets or reported indices either in India or otherwise.

Law stated - 26 December 2023

REGULATION OF LNG

Ownership and organisation

What is the ownership and organisational structure for LNG, including liquefaction and export facilities, and receiving and regasification facilities?

LNG is not regulated in India. The ownership of LNG vests with the importer and then the buyer. There is no requirement for government ownership of LNG terminals. Although some of the LNG terminals are owned and operated by government-owned entities, namely Petronet LNG Limited and Indian Oil Corporation Limited; however, several LNG terminals under development are privately owned.

Law stated - 26 December 2023

Regulatory framework

Describe the regulatory framework and any relevant authorisations required to build and operate LNG facilities.

There is presently no regulatory framework for the development of LNG terminals. Although under the provisions of the PNGRB Act, the Natural Gas Regulatory Board has a function to register LNG terminals, there are presently no regulations made to implement that function.

Law stated - 26 December 2023

Pricing

Describe any regulation of the prices and terms of service in the LNG sector.

There are no regulations on pricing or terms of service. However, the general law regulating competition, the Competition Act 2002, would be applicable in the event of any anti-competitive practices or abuse of dominant position being alleged.

Law stated - 26 December 2023

MERGERS AND COMPETITION

Competition authorities

Which government body may prevent or punish anticompetitive or manipulative practices in the natural gas sector?

The PNGRB Act defines 'restrictive trade practice' to mean a trade practice that has, or may have, the effect of preventing, distorting or restricting competition in any manner and in particular:

- tends to obstruct the flow of capital or resources into the stream of production; or
- tends to bring about manipulation of prices, or conditions of delivery or to affect the flow of supplies in the market relating to petroleum, petroleum products or natural gas or services in such manner as to impose on consumers unjustified costs or restrictions.

The PNGRB is bound to apply the standards stipulated in this definition in relation to anticompetitive or manipulative practices.

Competition issues are also governed by the Competition Act 2002, which is modelled on EU and US laws regulating competition. This Act uses the test of 'appreciable adverse effects on competition', and prohibits anticompetitive agreements, abuse of dominant position, and ensures regulation of combinations.

Law stated - 26 December 2023

Competition standards

What substantive standards does that government body apply to determine whether conduct is anticompetitive or manipulative?

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- tends to obstruct the flow of capital or resources into the stream of production; or
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Law stated - 26 December 2023

Enforcement

What authority does the government body have to preclude or remedy anticompetitive or manipulative practices?

Under the PNGRB Act 2006, the PNGRB is vested with the statutory authority to investigate complaints of violation of the PNGRB Act including restrictive trade practices being adopted.

Under the Competition Act 2002, the Competition Commission of India has the jurisdiction and authority to investigate complaints of anticompetitive behaviour or manipulative practices.

Law stated - 26 December 2023

Merger control

Does any government body have authority to approve or disapprove mergers or other changes in control over businesses in the sector or acquisition of production, transportation or distribution assets?

The PNGRB has the authority to regulate any restructuring of an authorised entity under the PNGRB Act in the event the restructuring occurs within a stipulated time period or relates to the assignment or transfer of the authorisation granted.

Under general Indian law, the Competition Commission of India has the statutory authority to approve combinations. It is stipulated that no person or enterprise shall enter into a combination that causes or is likely to cause an appreciable adverse effect on competition within the relevant market in India and such a combination shall be void.

Any acquisition, merger or amalgamation that meets the following jurisdictional thresholds, as provided in section 5 of the Competition Act 2002, is a 'combination' for the purpose of the Act. The thresholds relate to the assets and turnover of the parties to the combination, namely, target enterprise and acquirer (or acquirer group) or merging parties (or the group to which the merged entity would belong), and also the deal value.

At present, thresholds prescribed under the Act, are as under:

Thresholds for filing notice				
		Assets	Or	Turnover
Enterprise level	India	More than 20 billion Indian rupees		More than 60 billion Indian rupees
	Worldwide with India leg	More than US\$1 billion with at least 10 billion Indian rupees in India		More than US\$3 billion with at least 30 billion Indian rupees in India
Or				
Group level	India	More than 80 billion Indian rupees	Or	More than 240 billion Indian rupees
	Worldwide with India leg	More than US\$4 billion with at least 10 billion Indian rupees in India		More than US\$12 billion with at least 30 billion Indian rupees in India

Additionally, the Competition (Amendment) Act 2023 has introduced a 'deal-value threshold' (DVT) as a criterion, requiring notification of a transaction (in connection with the acquisition of any control, shares, voting rights or assets of an enterprise, merger or amalgamation) that exceeds 20 billion Indian rupees.

Law stated - 26 December 2023

Price restrictions

In the purchase of a regulated gas utility, are there any restrictions on the inclusion of the purchase cost in the price of services?

No. There are no regulations or restrictions on the inclusion of the purchase cost in the price of service.

Law stated - 26 December 2023

Corporate governance regulations

Are there any restrictions on the acquisition of shares in gas utilities? Do any corporate governance regulations or rules regarding the transfer of assets apply to gas utilities?

There are restrictions on acquiring shares of entities authorised to develop a city gas distribution network that obtained an authorisation through a competitive bidding route. The restriction prevents dilution of the lead member of the bidding consortium to less than 51 per cent for the first five years or until the work plan that the bidders had bid is achieved. However, less than 50 per cent of shares can be transferred during the five-year period if the lead partner of the original consortium or joint venture holds not less than the percentage stake lower than any other partners. The lead partner shall be declared upfront in the bid. The regulations also prohibit the assignment or transfer of the authorisation.

Law stated - 26 December 2023

INTERNATIONAL

Foreign participation

Are there any special requirements or limitations on foreign companies acquiring interests in any part of the natural gas sector?

As per the Consolidated Foreign Direct Investment Policy 2020, issued by the Department for Promotion of Industry and Internal Trade, 100 per cent equity participation under the 'automatic' entry route is permitted for exploration activities of natural-gas fields, infrastructure related to marketing of natural gas and marketing of natural gas. The automatic route means that the investment can be made without any prior approval from any government agency. However, sectoral regulations apply. For example, while inviting bids for the development of city gas distribution networks, the Natural Gas Regulatory Board stipulates lock-in requirements for consortium partners, which may need to be examined while structuring foreign investment in the sector.

Law stated - 26 December 2023

International agreements

To what extent is regulatory policy affected by treaties or other multinational agreements?

Regulatory policies will be affected by treaties and any multinational agreements executed by the government. However, presently, India is not part of any international treaty or multinational agreement relating to the natural-gas sector.

Law stated - 26 December 2023

Cross-border sales and deliveries

| What rules apply to cross-border sales or deliveries of natural gas?

Presently, the export of gas from India is not permitted. There are also no international gas pipelines that supply gas to India.

Law stated - 26 December 2023

TRANSACTIONS BETWEEN AFFILIATES

Restrictions

What restrictions exist on transactions between a natural gas utility and its affiliates?

The Natural Gas Regulatory Board (PNGRB) has issued regulations applicable to natural-gas pipeline entities, titled the PNGRB (Affiliate Code of Conduct for Entities Engaged in Marketing of Natural Gas and Laying, Building, Operating, or Expanding Natural Gas Pipeline) Regulations 2008, which specifies the manner of:

- interaction between an entity and its affiliate for carrying out transportation and marketing of natural gas on an arms-length basis; and
- transportation and marketing of natural gas by an entity on its own.

The regulations require accounting and legal separation for transportation and marketing activities. However, the requirement for the creation of a separate legal entity for transportation activities has been challenged before the Delhi High Court and is presently suspended.

Law stated - 26 December 2023

Enforcement

Who enforces the affiliate restrictions and what are the sanctions for non-compliance?

The PNGRB is the statutory regulatory body that has the power to enforce provisions of the Affiliate Code. Failure to comply with the Affiliate Code may lead to termination of the authorisation granted to the entity and penal action under the PNGRB Act. Prior to termination of the authorisation, the PNGRB is mandated to follow the procedure laid down in Regulation 16 read with Schedule G of the PNGRB (Authorising Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations 2008.

Law stated - 26 December 2023

UPDATE AND TRENDS

Gas sector-specific regulation

Describe recent trends and developments in the regulation of the domestic natural gas sector.

Sector-specific measures by the PNGRB

- The Petroleum and Natural Gas Regulatory Board (PNGRB) granted authorisation to Indian Gas Exchange Limited on 2 December 2020, to set up and operate a gas exchange, to promote a robust gas market and gas trading. The PNGRB has also recently invited comments on proposed amendments to the Petroleum and Natural Gas Regulatory Board (Gas Exchange) Regulations 2020, to include the small-scale LNG segment at India Gas Exchange (IGX), and amendments to market rules notified by IGX to reflect this new segment.
- The unified tariff regime for the national gas grid system, comprising natural gas pipelines specified in the schedule to the PNGRB (Determination of Natural Gas Pipeline Tariff) Regulations 2008, came into force on 1 April 2023. The first order notifying the unified tariff to be applicable from 1 April 2023 was issued by the PNGRB on 29 March 2023, and subsequently revised vide order dated 27 June 2023.
- Industrial consumers have been seeking to obtain an exemption from infrastructure and marketing exclusivity vested with city gas distribution (CGD) entities, which resulted in the Delhi High Court's judgment dated 15 March 2023 in the matter of *AGP City Gas Pvt Ltd & Anr v PNGRB & Ors* (WP(C) 11645/2022). In this judgment, the single judge of the Delhi High Court held that the infrastructure and marketing exclusivity vested with the CGD entities as per the terms of the authorisation granted to them under the Petroleum and Natural Gas Regulatory Board Act 2006 (PNGRB Act) and regulations, is reasonable limitation and needed to support infrastructure development for a CGD network. It further held that a balanced framework exists to monitor that exclusivity is not abused and consumer interest is protected. This judgment is presently under appeal to the division bench of the Delhi High Court, however, there is no stay on the judgment.
- The PNGRB has allowed entities to establish and operate liquefied natural gas (LNG) stations in any geographical area or anywhere else in the country for dispensing LNG in a liquid state, only to the transport sector, with a view to reduce fuel emissions and increase the share of LNG use.
- The PNGRB has in March 2023 released a new draft of PNGRB (Guiding Principles for Declaring City or Local Natural Gas Distribution Networks as Common Carrier or Contract Carrier) Regulations 2023, to provide non-discriminatory open access to third-party entities in areas where CGD networks have been developed. The PNGRB received public comments and convened an open house to discuss the draft; however, the regulations have not yet been notified.

CGD bidding rounds

The PNGRB is the statutory entity empowered to grant authorisations for the development of CGD networks in the country. It has made concerted efforts to enable the development of infrastructure to increase the market share of natural gas in India's energy pie and create a vibrant natural gas market. The PNGRB has recently launched bidding rounds 12 and 12A, covering the states of Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, Sikkim, Manipur

and the remaining parts of union territories (UTs) of Jammu and Kashmir and all of the UT of Ladakh. This bid process is presently ongoing.

Significant judgment of Supreme Court

The PNGRB Act was notified on 1 October 2007, and its specific requirement for authorisation to be obtained for developing natural gas pipelines or city gas distribution networks (section 16 of the PNGRB Act) was brought into force on 15 July 2010. There have been several disputes with respect to the validity of permissions granted by state governments before the PNGRB Act came into force. This aspect has been resolved by the judgment of the Supreme Court of 28 September 2021 in *Adani Gas Limited v Union of India & Ors* (SLP(C) 28192-28193/2018). The Supreme Court held that entities that were developing CGD networks prior to the commencement of the PNGRB Act without any authorisation from the central government had to necessarily obtain authorisation from the PNGRB in respect of the areas where they were operating.

Green hydrogen blending

The state-owned power entity National Thermal Power Corporation Limited (NTPC) has been running India's first green hydrogen blending pilot operation in the piped natural gas network in its township in Kawas, Surat, with the current blending rate of green hydrogen with natural gas being 5 per cent. This is a joint effort by NTPC and Gujarat Gas Limited. Adani Total Gas Ltd has also recently announced plans for a pilot project for blending green hydrogen with natural gas, aiming to gradually increase the percentage of green hydrogen up to 8 per cent. The pilot project is expected to commence operations in the financial year 2024–2025. Appropriate modifications need to be made to the regulatory framework under the PNGRB Act 2006 to enable wider use of the natural gas pipeline network for transporting hydrogen, including the safety standards that would need to be complied with.

Law stated - 26 December 2023

Other regulatory developments of particular relevance to the gas sector Describe any other recent regulatory trends and developments of particular interest to those operating in the domestic natural gas sector.

The Indian government has consolidated more than 40 laws governing wages, industrial relations, social security, workplace safety and working conditions, and contract labour into four new labour codes:

- the Code on Wages 2019;
- the Code on Social Security 2020;
- the Code on Occupational Safety and Healthy Working Conditions 2020; and
- the Industrial Relations Code 2020.

While the new labour codes consolidate and streamline the various compliance requirements, there is no exact date of implementation of the codes as yet.

Law stated - 26 December 2023