Practical Law

Oil and gas regulation in India: overview

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A Q&A guide to oil and gas regulation in India.

The Q&A gives a high level overview of the domestic oil and gas sector, rights to oil and gas, health safety and the environment, sale and trade in oil and gas, tax and enforcement of regulation. It covers transfer of rights; transportation by pipeline; environmental impact assessments; decommissioning; waste regulations and proposals for reform.

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Domestic sector

1. What is the role of the domestic oil sector in your jurisdiction?

Domestic production

Projected crude oil production for the year 2018-19 was 37.01 million metric tonnes (MMT). Around 51.65% of total production was from onshore fields and around 48.35% from offshore fields.

Oil imports/exports market

Estimated crude oil import for the year 2018-19 was 229.54 MMT, which is 4.13% higher than in 2017-18.

Even though it is a net importer of crude oil, India is a net exporter of petroleum products due to its refining capacity. The estimated import of petroleum products for the year 2018-19 was 31.87 MMT, which is 10.12% lower than provisional imports of 2017-18. Estimated petroleum products export for the year 2018-19 was 62.53 MMT, which is 6.43% lower than provisional exports of 2017-18.

Domestic market structure

Before 1999, the Indian Government and national oil companies had a monopoly over the oil and gas sector. In 1999, the government adopted the New Exploration Licensing Policy (NELP) under which acreages for explorations of hydrocarbons were awarded through international competitive bidding, and domestic and foreign companies were given equal opportunity. Nine rounds of biddings were concluded under NELP, in which production sharing contracts for 254 exploration blocks were awarded.

The government has permitted 100% foreign direct investment through the automatic route in exploration activities, and there has been participation from the private sector, both domestic and foreign.

Public sector enterprises, Oil and Natural Gas Corporation Limited and Oil India Limited play a dominant role, contributing around 71.5% of production. The remaining 28.5% is produced by private/joint venture companies.

Government policy objectives

The government's Hydrocarbons Vision 2025 envisages a framework in the hydrocarbons sector. Its key focus areas are to:

- Develop the hydrocarbon sector as a globally competitive industry by upgrading technology and building capacity.
- Have a free market and promote healthy competition and improve customer service.
- Ensure oil security for India keeping in view strategic and defence considerations.

The objectives for the exploration and production sector include:

- Undertaking an appraisal of Indian sedimentary basins to tap hydrocarbon potential and optimise production of crude oil and natural gas with the aim of having a reserve replacement ratio of more than one.
- To be at the technological forefront in the global exploration and production industry.
- Achieving as near as zero impact on the environment.

The objective with regard to external policy and oil security is to supplement domestic availability of oil with a view to providing adequate, assured and cost-effective hydrocarbon energy to India.

Earlier hydrocarbon concessions were awarded under the NELP regime, in which the government invited bids for select blocks after a certain period of time. NELP followed a production sharing model and allowed exploration and production of conventional hydrocarbons.

There has been significant change to government policies since 2016, with the shift to the Hydrocarbon Exploration and Licensing Policy (HELP). Under HELP, a revenue sharing mechanism has been adopted and marketing and pricing freedom is provided for any hydrocarbons produced. In addition, HELP follows a uniform licensing policy under which one licence covers exploration and production of all hydrocarbons (such as oil, gas, coal-bed methane, shale gas/oil and gas hydrates). The Open Acreage Licensing Policy (OALP), one of the main facets of HELP, aims to fast-track upstream activities and create a continuous window of exploration opportunities in which exploration and production companies have the flexibility to choose the hydrocarbon blocks to carry out relevant activities. Under OALP, an applicant proposes a potential block and the Directorate General of Hydrocarbons (DGH), subject to certain conditions, invites bids from interested investors. 94 blocks have been awarded under the first four OALP bid rounds. Bids for 11 blocks have been received in June 2020 in the fifth bidding round. Expression of interest for unallocated blocks were allowed to be submitted in the sixth and seventh rounds (until 31 July 2020).

Various small and marginal hydrocarbon blocks under national oil companies were not monetised due to their isolated locations, small size and monetary prospects. The government adopted the Discovered Small Field Policy 2015 (earlier known as Marginal Field Policy) to bring these fields into production. Similar to HELP, under this policy, a revenue sharing mechanism and a single licence for all hydrocarbons is adopted. The contractors can sell the crude oil exclusively in domestic market through a transparent bidding process on an arm's length basis. In the first round of auctions, concluded in 2017 under the policy, 23 onshore and eight offshore blocks were awarded to public sector undertakings, private companies and foreign companies. Under the second round of auctions, 23 contract areas have been awarded in March 2020.

Current market trends

India's oil demand has outpaced supply and this gap is expected to widen in future.

2. What is the role of the natural gas sector in your jurisdiction?

Domestic production

Projected natural gas production for the year 2018-19 was 35.6 billion cubic meters. Around 67.22% of the total production of natural gas was from offshore blocks, while the remaining 32.78% was from onshore blocks. Coal bed methane (CBM) production from five operating blocks was about 1.94 million metric standard cubic metres per day in December 2018.

Natural gas imports/exports

Estimated imports of liquified natural gas (LNG) in 2018-19 was 21.05 MMT. Imports have increased steadily over the years and have risen by around 62% from the level of import in 2012-13. India does not export LNG.

Domestic market structures

See Question 1. Oil and Natural Gas Corporation Limited and Oil India Limited contribute about 81% of the production of natural gas. The remaining 19% is produced by private/joint venture companies.

Government policy objectives

See Question 1, Government policy objectives. In addition, the Hydrocarbons Vision 2025 lays down specific objectives relating to natural gas, including:

- Encouraging use of natural gas.
- Ensuring adequate availability through a mix of domestic gas imports through pipelines and importing LNG.

- Tapping unconventional sources of natural gas like CBM, natural gas hydrates and underground coal gasification.

Current market trends

There is a trend towards trying to develop India as a gas-based economy. The government and the regulator have pushed towards the expansion of the of city gas distribution networks. There are around 96 geographical areas which have been awarded until August 2018 for development. As on 1 January 2019, approximately 4.7 million households and 35,000 industries and commercial units were connected with gas supply. The government envisages connecting 10 million households with piped natural gas supplies by 2020. This is expected to increase the demand of natural gas.

3. Are domestic energy requirements met by domestic oil and gas production?

Oil requirements

India is the third largest consumer of crude oil and petroleum products. Domestic production only accounts for 13.88% of crude oil requirements and India is dependent on imports for the remaining 86.11% of its crude oil demand.

Natural gas requirements

Domestic production of natural gas is around 35.6 billion cubic metres. India is dependent on imports of 21.05 MMT of liquified natural gas.

4. Are there specific government policies to encourage the exploration and production of unconventional gas or oil?

One of the major policies encouraging the exploration and production of coal bed methane (CBM) was the CBM Policy in 1997, under which four rounds of bidding were implemented, resulting in 33 CBM blocks, covering 16,613 square kilometres. In addition, in 2013, the government under its Shale Gas Policy granted permission for shale gas exploration and production to national oil companies in onshore nomination blocks (that is, blocks awarded to the national oil companies before the NELP regime). The policy was announced with the sole purpose of promoting shale gas and oil operations in existing blocks operated by national oil companies. The government has also been promoting more exploration of shale gas and gas hydrates.

A key reason for the inadequate development of unconventional hydrocarbons was that NELP and earlier regimes allowed contractors to carry out petroleum operations only for the specified hydrocarbon, which often used to be either crude oil or natural gas.

In April 2017, the government introduced policy framework for early monetisation of CBM to provide marketing and pricing freedom to the contractors of CBM blocks to sell the CBM at an arm's length price in the domestic market.

In August 2018, the government introduced a policy framework for exploration and exploitation of unconventional hydrocarbons. The policy seeks to grant a uniform licence to all existing oil and gas blocks. Therefore, existing contractors under the NELP regime, pre-BELP regime, CBM Policy and nomination blocks will be allowed to tap the potential unused unconventional hydrocarbons like shale oil/gas and CBM (subject to certain conditions).

Regulation

Regulatory bodies

5. Who regulates the exploration and production of oil and gas?

Oil

Under the Government of India (Allocation of Business) Rules 1961, hydrocarbon exploration and exploitation business is transacted through the Ministry of Petroleum and Natural Gas (MoPNG).

MoPNG has set up the Directorate General of Hydrocarbons under its administrative control with the aim of promoting sound management of Indian petroleum and natural gas resources, with balanced regard for the environment, safety, technological and economic aspects of petroleum activity.

The Mines Act 1952 regulates the safety, welfare and health of workers employed in mines. The act is administered by the Directorate General of Mines Safety which is a regulatory agency under the Ministry of Labour and Employment, which aims to attain risk and hazard free conditions of work for persons employed in mines.

Natural gas

See above, Oil.

The regulatory regime

6. What is the regulatory regime for onshore and offshore oil and gas exploration and production?

India has a federal government structure under which the Indian government and governments at state level can enact legislation on the subjects reserved for them under the Constitution of India. Under the Constitution, the regulation and development of oilfields, mineral oil resources, petroleum and petroleum products falls within the jurisdiction of the parliament, that is, the central legislative body in India.

The Oilfields (Regulation and Development) Act 1948, deals with issuing petroleum exploration licences (PEL), petroleum mining leases (PML) and collection of royalties. The Petroleum and Natural Gas Rules 1959 (PNG Rules) regulate the grant of PELs and PMLs for petroleum and natural gas that belongs to government, and for their conservation and development. In addition, the Territorial Waters, Continental Shelf, Exclusive Economic Zone and the Maritime Zones Act 1976 provides for granting licences by the government to explore and exploit the resources of the continental shelf and Exclusive Economic Zone.

Enforcement of regulation

7. What are the regulator's enforcement powers?

Orders

The Directorate General of Hydrocarbons (DGH) has been delegated powers by the government to monitor upstream operations exploration programmes and enforce production and revenue sharing contracts. Under a revenue sharing contract, the government, acting through the DGH, can grant extensions for execution of the minimum work programme, accept or reject change of operator and impose liquidated damages.

In the midstream and downstream sector, the Petroleum and Natural Gas Regulatory Board (PNGRB) can adjudicate on complaints and resolve disputes in relation to refining, processing, storage, transportation, marketing and distribution.

Fines and penalties

Violations of revenue or production sharing contracts can lead to their termination. The rules under Oilfield (Regulation and Development) Act 1948 provides imprisonment for up to six months or with a fine up to INR1,000, or both for their contravention. For example, the PNG Rules provide for a penalty where an interest holder in a contract area does not maintain all apparatus, appliances and wells capable of producing hydrocarbons in good repair and condition, or does not execute prospecting or mining operations in a proper and workman-like manner.

For the downstream sector, the PNGRB can investigate and impose penalties. A fine up to INR250 million can be levied for contravening the directions of the PNGRB. Continuing a contravention is punishable with an additional fine of up to INR1 million for every day it goes on. Wilful failure to comply with an order of the Appellate Tribunal for Electricity, is punishable with fine up to INR10 million. Subsequent offences are punishable with fine up to INR20 million and a continuing contravention is punishable with an additional fine up to INR2 million for every day the default continues.

8. Is there a right of appeal against the regulator's decisions?

In the upstream sector, the courts at Delhi have jurisdiction over all matters arising out of or relating to a revenue sharing contract. A dispute between a contractor and the government under a revenue sharing contract that is not amicably settled can be submitted for conciliation or arbitration under the Arbitration and Conciliation Act 1996. The grounds of challenging the arbitral award include lack of impartiality or independence of the arbitrator and conflict with the public policy of India.

In the downstream sector, any person aggrieved by a decision made by the Petroleum and Natural Gas Regulatory Board (PNGRB) has a right to appeal to the Appellate Tribunal for Electricity (APTEL). An appeal to APTEL must be made within 30 days from the date of receipt of a copy of the direction from the PNGRB by the aggrieved party. An appeal against APTEL's decisions lies to the Supreme Court of India unless the decision was made with the consent of the parties. An appeal to Supreme Court of India must be made within 90 days from the date of APTEL's decision. APTEL and the Supreme Court of India can entertain an appeal after expiry of this period if they consider that there is sufficient cause for delay.

Rights to oil and gas

Ownership

9. How are rights to oil and gas held?

The rights to explore and produce oil and gas have been granted by the Indian government to private contractors under the production sharing contract regime, which sets out the rights and obligations of the parties. Under the new Hydrocarbon Exploration and Licensing Policy, the Indian government will enter into revenue sharing contracts (RSC) with private contractors. Apart from nominated blocks, production sharing contracts (PSC) are awarded by the government to successful private contractors under the NELP after an international competitive bidding process. After the blocks are awarded, the contractors are issued with petroleum exploration licences and petroleum mining licences under the Oilfields (Regulation and Development) Act 1948 (read with PNG Rules). The duration of these exploration and mining licences has the same term as the PSC or RSC (as the case may be).

Nature of oil and gas rights

10. What are the key features of the leases, licences or concessions which are issued under the regulatory regime?

Lease/licence/concession terms

Under the model revenue sharing contact issued according to the Hydrocarbon Exploration and Licensing Policy, an exploration period of eight years is provided for onshore (including coal bed methane) and shallow water blocks, and a period of ten years is provided for forward area, deep water area and ultra deep water blocks. In certain circumstances the period can be extended by six months. Requests for extensions beyond six months will be decided by the Directorate General of Hydrocarbons, based on the policy for extension of exploration phases set out by the government.

Statutory conditions of licence/lease

One of the main conditions of a petroleum mining licence is that the contractor is appointed and constituted as the exclusive entity to conduct petroleum operations in the oil and gas block. The contractor must bear all risks in carrying out the petroleum operations and is solely responsible to the government for executing and managing the petroleum operations in accordance with the production and/or revenue sharing contract. The contractor can lay pipelines, build roads, construct bridges, ferries, aerodromes, landing fields, radio telephones and related communication and infrastructure facilities as necessary for carrying the petroleum operations, subject to approvals from relevant authorities.

Where the contractor comprises two or more members, a joint operating agreement must be entered into, providing details on contribution to costs, default, sole risk, responsibilities relating to the preparation and implementation of the work programme and disposal of the petroleum.

During the exploration phase, the contractor must complete the minimum work programme set out, failing which it will be liable to pay liquidated damages to the government. The contractor is also required to submit a bank guarantee and a guarantee from its parent company for due completion of the minimum work programme under the production/revenue sharing contract.

Fees

Contractors must pay royalties, profit share (for blocks under the NELP regime) and revenue share (for blocks under the Hydrocarbons Exploration Licensing Policy (HELP) and Discovered Small Field Policy regimes) for petroleum operations.

Under the HELP, royalty rates for onshore blocks are 12.5% for oil and 10% for gas and coal bed methane. The royalty rates for hydrocarbons in shallow water, deep water and ultra deep water blocks are 7.5%, 5% and 2.5% respectively. In addition, no royalty is payable for the first seven years for deep water and ultra deep water blocks.

For revenue share, the bidder must bid a percentage share of revenue offered to the government at a lower revenue point equal to or less than US$0.05 million of revenue per day and at the higher revenue point equal to or more than US$7 million of revenue per day.

The Oil Industry (Development) Act 1974 provides for the collection of cess on production of indigenous crude oil. Previously, a fixed cess of INR4,500 per tonne of crude oil was charged. In 2016, the cess was made an ad valorem charge of 20% of the per-barrel cost. However, cess has been exempted for blocks awarded under the HELP regime.

Liability

Apart from liability undertaken or incurred in respect of the revenue sharing contract, a contractor is also liable for claims arising out of negligence, misconduct, any act or omission when carrying out petroleum operations or violations of applicable laws. The contractor is also liable, regardless of fault, for financial losses incurred as a result of pollution and waste from the petroleum operations, and the cost of reasonable measures to avert or limit the damage or loss.

Restrictions

All exploration and production of oil and gas must be carried out strictly according to the relevant licence or lease, granted under the PNG Rules.

11. How are rights to explore for and produce oil and gas awarded?

See Question 9. From time to time, the government formulates policies under which concessions for exploration of oil and gas are awarded through a transparent international competitive bidding process involving national oil companies and private and foreign investors. Currently, the acreages are being awarded under the Hydrocarbons Exploration and Licensing Policy and the Discovered Small Field Policy.

Transfer of rights

12. How are oil and gas rights transferred?

Transfer of rights

The assignment or transfer of a contractor's participating interest under a production/revenue sharing contract requires prior approval from the government under the terms and conditions of the contract. There are also restrictions relating to change in control of the contractor.

Restrictions on transfer

The government grants consent to transfer if it is satisfied that the prospective transferee is of good standing, has the capacity and ability to meet its obligations under the contract and is willing to provide an unconditional undertaking to the government to assume its participating interest share of obligations and provide guarantees in respect of them.

The government can restrict transfer to a company incorporated in a country with which the government, for policy reasons, has restricted trade or business, or if it considers that the transfer is contrary to the interests of India.

Tax

13. What payments are payable by oil and gas interest holders to the government?

See Question 10 for revenue share and royalty.

Oil and gas interest holders are subject to fiscal legislation in India, including the Income Tax Act 1961.

Deductions at the rate of 100% are allowed for capital and revenue expenditures, incurred in respect of exploration operations and drilling operations. Companies can claim depreciation for newly installed machinery or plants and carry forward losses to set off against future revenues. Special allowance can be claimed in relation to:

- Infructuous or abortive exploration expenses, drilling or exploration activities, and depletion of mineral oil in the mining area.
- Capital expenditure incurred when laying and operating a cross-country natural gas, crude or petroleum oil pipeline network for distribution, including storage facilities.

To incentivise exploitation and production in the north-east states, a 40% subsidy on gas operations has been extended to companies operating there.

14. What taxes and duties apply on import and export of oil and gas?

A national calamity contingent duty of INR50 per metric tonne is payable on domestic and imported crude oil.

Customs duty of 5% is levied on natural gas in gaseous form. Customs duty of 5%, additional customs duty of 14% and a central excise duty of 14% are levied on this natural gas in compressed form. Customs duty of 2.5% is levied on LNG.

India does not export crude oil or LNG.

Transportation by pipeline

15. What regulatory requirements apply to the construction of oil and gas pipelines?

Oil pipelines

The Petroleum and Natural Gas Regulatory Board (PNGRB), constituted under the Petroleum and Natural Gas Regulatory Board Act 2006, has been mandated to regulate refining, processing, storage, transportation, distribution, marketing and sale of petroleum, petroleum products and natural gas to:

- Ensure an adequate supply.
- Protect consumers' interests.
- Protect entities engaged in certain petroleum and natural gas-related activities.
- Promote competitive markets.

The PNGRB grants permission to construct oil and gas pipelines after a bid process organised under the PNGRB (Authorising Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipeline) Regulations 2010 and PNGRB (Authorising Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations 2008.

The PNGRB can, under the PNGRB (Determination of Petroleum and Petroleum Products Pipeline Transportation Tariff) Regulations 2010 and the PNGRB (Determination of Natural Gas Pipeline tariff) Regulations 2008 approve or determine the tariff for transporting petroleum, petroleum products and natural gas chargeable by the entity laying and operating the pipelines. While transportation tariffs for the petroleum products pipeline is determined by benchmarking against alternative mode of transport, the tariff for natural gas pipelines is calculated based on a discounted cash flow methodology and a reasonable rate of return.

Gas pipelines

See above, Oil pipelines.

16. What regulatory requirements apply to the operation of oil and gas pipelines?

The permission to construct oil and gas pipelines by PNGRB under PNGRB (Authorising Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipeline) Regulations 2010 and PNGRB (Authorising Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations 2008 also contain conditions relating to operations.

17. Is there a system of third party access to pipelines and other infrastructure?

Under the PNGRB (Authorising Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipeline) Regulations 2010 and PNGRB (Authorising Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations 2008, the entities authorised to lay, build, operate or expand petroleum, petroleum products and natural gas pipelines must make extra capacity available in them for use on a common carrier basis. The entities must also actively promote the capacity available in the pipelines to encourage maximum utilisation.

The PNGRB (Guiding Principles for Declaring or Authorising Natural Gas Pipeline as Common Carrier or Contract Carrier) Regulations 2009 and the PNGRB (Guiding Principles for Declaring or Authorising Petroleum and Petroleum Products Pipeline as Common Carrier or Contract Carrier) Regulations 2012 deal with third party access to pipelines and other infrastructure. The regulations recognise the concept of allowing capacity in pipelines to be used by any entity on a non-discriminatory basis through contract carriers or common carrier arrangements with entities laying, building, operating or expanding petroleum and petroleum product pipelines. While transportation contracts for common carriers are normally for a period less than a year, transportation contracts for contract carriers are for a minimum of one year.

The company laying, building, operating or expanding a common carrier or contract carrier pipeline has the right of first use of the capacity for its own and its associates' requirements. The common carrier capacity is allocated on a non-discriminatory first-come, first-served basis.

Health, safety and the environment

Health and safety

18. What is the health and safety regime for oil and gas exploration and production, and transportation by pipeline?

In addition to the generally applicable environmental, health and safety regulations, there are specific laws and regulations on safety in the oil and gas sector, including:

Petroleum and Natural Gas (Safety in Offshore Operations) Rules 2008.

PNGRB (Technical Standards and Specifications including Safety Standards for City or Local Natural Gas Distribution Networks) Regulations 2008.

PNGRB (Integrity Management System for Natural gas pipelines) Regulations 2012.

PNGRB (Technical Standards and Specifications including Safety Standards for Petroleum and Petroleum Products Pipelines) Regulations 2016.

Environmental impact assessments (EIAs)

19. Is an EIA required before extracting or processing onshore or offshore oil and gas?

Under the Environmental Impact Assessment Notification 2006, as amended in January 2020, all projects in respect of off-shore and onshore oil and gas development and production except exploration require prior environmental clearance. Seismic surveys which are part of exploration surveys are exempted provided the concession areas have got previous clearance for physical survey.

The assessment is completed by the Expert Appraisal Committee (EAC) set up under the aegis of the Ministry of Environment, Forest and Climate Change. It is comprised of experts in this field who assess and test the impact of the project. The appraisal is done in a transparent way and the applicant is invited to furnish clarifications. On conclusion, the EAC makes categorical recommendations to the regulatory authority concerned either to grant prior environmental clearance on stipulated terms and conditions, or reject the application for prior environmental clearance, together with reasons.

20. What are the different stages of the EIA?

An EIA involves scoping, public consultation and appraisal.

At the scoping stage, the Expert Appraisal Committee (EAC) determines comprehensive terms of reference addressing all relevant environmental concerns for preparation of the EIA report. In February 2020 in order to streamline the process of scoping and bring the uniformity across the proposals, as a standard operating procedure, sector specific standard terms of references has been developed. All new projects or activities are to be referred to the EAC by the regulatory authority within thirty days from the date of application, for recommending the specific terms of reference. In case, the regulatory authority does not refer the matter to the EAC within thirty days of date of application, standard terms of reference shall be issued on thirtieth day, by the regulatory authority.

The public consultation stage ordinarily comprises a public hearing at the site or in close proximity to it, to ascertain the concerns of local affected persons and obtain responses in writing from other concerned persons with a plausible stake in the environmental aspects of the project or activity. After completion of the public consultation, the applicant must address all material environmental concerns expressed during this process, and make appropriate changes to the draft EIA and environmental management plan. The final EIA report is submitted by the applicant for appraisal.

Appraisal covers detailed scrutiny by the EAC of the application and other documents like the final EIA report. The appraisal is done transparently and the applicant is invited to furnish any necessary clarifications. On conclusion of this proceeding, the EAC makes categorical recommendations either to grant prior environmental clearance on stipulated terms and conditions, or to reject the application for prior environmental clearance, together with reasons. Appraisal of an application must be completed by the EAC within 60 days of receipt of the final EIA report.

Environmental permits

21. Is there a permit regime for environmental damage or emissions produced during the extraction or processing of oil and gas?

In the event of an emergency, accident, oil spill or fire arising from petroleum operations affecting the environment, the contractor must notify the government and promptly implement a contingency plan and perform site restoration in accordance with modern oil field and petroleum industry practices.

Where there is environmental damage (including soil erosion, removal of vegetation, destruction of wildlife, pollution of ground or surface water, land contamination, air pollution, noise pollution, bush fire, disruption to water supplies or natural drainage or natural flow of rivers or streams and damage to archaeological, palaeontological and cultural sites), the contractor must take all necessary and reasonable measures to remedy the failure and its effects.

Environmental concerns

22. Are there any specific government policies and/or incentives aimed at meeting the environmental concerns associated with the exploration and production of oil and gas?

There are no specific government policies or incentives aimed at meeting the environmental concerns associated with the exploration and production of hydrocarbons.

Waste

23. What are the regulations on the disposal of waste products resulting from oil or gas extraction or processing?

The regulations on the disposal of waste products resulting from oil or gas extraction or processing include:

- Air (Prevention and Control of Pollution) Act 1981.
- Water (Prevention and Control of Pollution) Act 1974.
- Environment Protection Act 1986.
- Environment Protection Rules 1989.
- Hazardous Wastes (Management, Handling and Trans-boundary Movement) Rules 2016.
- Oil Mines Regulations 2017.

Flares and vents

24. Do regulations apply to the flaring or venting of oil and gas?

The Environment Protection Rules 1989 provide that all gaseous emissions must be flared. Elevated flares must be used except where it might affect crop production, in which case ground flares can be used. In addition, the Environment Protection Rules provide requirements with respect to flares, including minimum stack freight, height of stack and green belt.

Under the Oil Mines Regulations 2017, the gas produced at any installation must be discharged into the atmosphere from a flare line. The Oil Mines Regulations 2017 prescribe flare-stack height, anchoring requirement for flare-line and provision of remote controlled electrical ignition device to ensure continuous ignition of any gases.

Decommissioning

25. What are the decommissioning obligations and liabilities that arise?

Under the PNG Rules, when a petroleum exploration or mining licence ends, the land and wells must be delivered in good order and condition to the government concerned. Within six months from the end of the licence, the former licensee or lessee can remove or dispose of any petroleum recovered, along with stores, equipment, tools and machinery and any improvements on the land covered by the licence that the state government permits, failing which the government can auction them. The proceeds of the sale are held by the government until the former licensee or lessee applies for them to be released.

Under the model revenue sharing contract, "site restoration obligations" mean activities required to return a site to its state at the date of execution of the contract under the environmental impact study, or rendering a site compatible with its intended after-use. The site restoration obligation on a contractor can include abandoning wells and other facilities, removing equipment, structures and debris, establishing contours and drainage, replacing top soil, re-vegetation, slope stabilisation and in-filling of excavations.

For blocks under Discovered Small Field Policy 2015, a site restoration fund is required to maintained by the contractor, as per the Site Restoration Fund Scheme 1999.

Sale and trade

26. How is trade in oil and gas usually carried out?

The Hydrocarbons Exploration and Licensing Policy grants freedom to exploration and production companies to market and price natural gas and crude oil. For the purposes of domestic sale, companies have freedom to market the natural gas and sell its entitlement under the policy for utilisation of gas among different sectors. The contractor must sell 100% of its entitlement to petroleum from the contract area in the domestic market until India becomes self-reliant.

The Indian government envisages establishing a natural gas trading hub/exchange where natural gas can be traded and supplied through a market-based mechanism instead of multiple formula-driven prices. In June 2020, India’s first natural gas exchange was launched which allow trade in spot as well as forward market. The trading in exchange involved imported liquified natural gas being re-gassified and sold.

27. Are oil and gas prices regulated?

Oil pricing

A contractor has freedom to price and market the oil produced from blocks under a revenue sharing contract. The price of petroleum must be determined by the contractor on an arm's length basis. However, if the government believes that the price realised by the contractor is not consistent with the price realisable on an arms' length basis, the price for crude oil can be determined in United States dollars per barrel, on an import parity basis with crude oil produced and sold from the block in accordance with the appropriate basis for that type of sale.

Gas pricing

The government issued the New Domestic Gas Pricing Guidelines in 2014. The guidelines apply to gas produced from most of the nomination fields given to national oil companies, blocks allocated under the NELP, pre-NELP blocks and blocks allocated under the CBM Policy 1997. The Petroleum Planning and Analysis Cell under the Ministry of Petroleum and Natural Gas issues a half yearly revision of prices under these guidelines. The domestic natural gas price for the period from 1 April 2020 to 31 September 2020 is USD2.39 per one million British Thermal Units, on a gross calorific value basis.

Under the domestic sale obligation in the revenue sharing contract, the contractor has freedom to market the natural gas and sell its entitlement as per government policy for utilisation of gas among different sectors. The contractor must endeavour to sell natural gas produced and saved from the contract area at arms' length sales prices.

Insurance

28. Are there any insurance requirements that must be met by companies exploring for, producing or transporting oil & gas?

Under the model revenue sharing contract, exploration and production companies must maintain insurance coverage in relation to petroleum operations for any amount and against any risks that are customarily or prudently insured in the international petroleum industry. The insurance must cover:

- Loss or damage to installations used in connection with petroleum operations.
- Loss, damage or injury caused by pollution as a result of petroleum operations.
- Loss of property or damage or bodily injury suffered by any third party.
- The cost of removing wrecks and cleaning up operations following any accident (with respect to offshore operations).
- Liability to employees.

The Public Liability Insurance Act 1991 provides for mandatory public liability insurance for installations handling hazardous substances to provide minimum relief to the victims.

Reform

29. Are there plans for changes to the legal and regulatory framework?

The government's goal is to achieve its target of expanding the share of gas in the energy mix to around 25% by 2025 and reducing dependence on imports in 2022 by 10%. To achieve this objective and to attract increased investment into the oil and gas sector, various changes are made from time to time in the regulatory and policy framework.

Towards this end, last major reforms were carried out by the Ministry of Petroleum and Natural Gas in February 2019. In Category I basins (where potential is established and production is taking place), to encourage further exploration in unexplored areas of these basins, for evaluation of bids, weightage of revenue share to be offered to the government has been reduced from 50% to 30% with 70% weightage given to minimum work programme. Also, to ensure that revenue sharing does not disincentivise higher production, the maximum revenue sharing has been capped at 50%. In the less prospective Category II and Category III basins, revenue sharing has been abolished, and the allotment of basins is solely based on the exploration work programme. Therefore, on successful discovery, the operator is entitled to the entire production and revenue. The government takes a share of additional revenue as a result of a windfall gain only if annual revenue exceeds USD2.5 billion. The policy also reduces the royalties to be paid to the government if the oil fields are brought to production within four years for onshore and shallow water blocks, and five years for deep water and ultra-deep water blocks, from the effective date of contract. The policy also further simplifies approval processes, with measures promoting the ease of doing business by setting up a co-ordination mechanism, simplifying the process of obtaining approval from the Directorate General of Hydrocarbons (DGH), setting up alternative dispute resolution mechanisms and so on.

In April 2020, the DGH introduced new measures to make the processes associated with production sharing contracts (PSC) of New Exploration Licensing Policy (NELP) and pre-NELP oil and gas blocks simpler, swifter and more transparent. The DGH divided the processes into three categories:

- Processes where documents will be accepted on a self-certification basis, with no further approvals required (22 processes in total)
- Processes where approval is deemed to have been given after 30 days have expired from submitting the documents (three processes in total).
- Processes where approvals are required under PSC, Oilfields (Regulation and Development) Act 1948, or PNG Rules (12 processes in total).

Guidelines for early monetisation of hydrocarbon discoveries under production sharing contracts and revenue sharing contracts were issued by the MoPNG in June 2020. Under those guidelines, contractors (subject to certain conditions) can develop and monetise early stage discoveries within the exploration period and before completion of any of the following:

- Appraisal.
- Declaration of commerciality.
- Submission of development plan or field development plan in blocks.

The MoPNG also issued those policies in the last two years:

- A policy framework to promote and incentivise enhanced recovery methods for oil and gas in October 2018.
- A policy framework for streamlining the working of production sharing contracts in respect of pre-NELP and NELP blocks in August 2018.

Currently, a regulatory framework to enable the establishment and operation of a gas trading hub/exchange is also expected.

Contributor profiles

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Recent transactions

- Regularly advises domestic and international clients including government entities, project sponsors and developers in the oil and gas sector, power sector (conventional and non-conventional), mining, transportation (including roads, ports, railways and aviation) on the entire range of project development issues in the infrastructure sector.
- Advses on domestic and cross border investments, entry strategies, transaction structuring, financing and regulatory issues.
- Key clients include:
  - Abu Dhabi Ports;
  - Torrent Power;
  - Torrent Gas;

- Delhi International Airport Limited;
- CESC Limited;
- Oil and Natural Gas Corporation Limited;
- GAIL (India) Limited;
- Total SA;
- Inox Wind Limited;
- Xylem Inc;
- Gazprom EP International B.V.;
- Bharat Heavy Electricals Limited; and
- Hanwha Group.

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Professional associations/memberships. New York State Bar; Bar Council of Delhi; Supreme Court Bar Association; Association of International Petroleum Negotiators; American Bar Association.

Publications

- Simplification of processes under Oil & Gas Production Sharing Contracts, published by Khaitan & Co (April 2020).
- Policy Framework for Exploration and Exploitation of Unconventional Hydrocarbons, published by Lexology and Mondaq (August 2018).
- Policy framework for streamlining operations of production sharing contracts, published by Mondaq (July 2018).
- Open Acreage Licensing Policy, published by Lexology and Mondaq (January 2018).
- Column: Invest & Integrate, published by Business World (February 2017).
- Budget wishlist: Stable fiscal regime in oil & natural gas needed to attract investments, published by Firstpost (January 2017).

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Recent transactions

- Advises concession authorities, developers, investors, EPC contractors and O&M contractors on tendering and bidding, regulatory, project development and operational issues.
- Advises Indian PSUs, national and international companies and fund houses on transactions ranging from revamping of water supply system to redevelopment of railway stations and from electricity distribution franchisee contracts to offshore projects.

- Experience with transactions for the sale and acquisition of power, ports, oil and gas, and other infrastructure projects.
- Acts for lenders and borrowers on financing transactions relating to power, highways, airports and smart cities.
- Advises on multiple aircraft acquisitions and charter hire of rigs transactions.

Languages. English, Hindi

Publications

- Simplification of processes under Oil & Gas Production Sharing Contracts, published by Khaitan & Co (April 2020).
- Policy Framework for Exploration and Exploitation of Unconventional Hydrocarbons, published by Lexology and Mondaq (August 2018).
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