

ARTICLES

LEGAL ASPECTS OF OIL AND GAS PROJECTS IN INDIA

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This paper discusses the current framework of the oil and gas sector in India and also looks at the main factors within this framework that investors should ideally take note of. The legal aspects particular to oil exploration, importation, production and refining are dealt with and some important developments that are taking place with respect to two topical subjects in India today: pipelines and liquefied natural gas. The Government of India has responded to globalisation and the concerns of foreign investors by making significant efforts towards further liberalising policies and guidelines governing this sector. The steps that it has taken towards deregulation are considered and in the light of these, some conclusions are drawn.

Introduction

The distinct advantages of oil and gas over other forms of energy have led to their increasingly important role in displacing coal and other hydrocarbons as fuel in various sectors, particularly in the power sector. Oil contributes 40% of the world's energy sources, and India (along with China) accounts for approximately 12% of global energy demand; natural gas contributes nearly 8% to the primary energy supply in the country.

There is vast unexplored terrain in India; over 50% of its sedimentary basins are totally unexplored, approximately 35% of these basins are moderately or poorly explored, and fields offered in the past for acreage have been small and marginal.

Development during the 1980s saw a rapid rise in indigenous crude oil and natural gas production. The production from the Bombay High offshore basin contributed to the increase in oil production. In 1988-1989 the production from the Bombay High region was 21.7 million tonnes, accounting for 64% of the total crude oil produced in the country, and the gross production of its associated and free gas accounted for about 7% of the total gas produced in India in that period. Since the early 1980's the recoverable reserves of natural gas doubled from 352 billion m³ to over 707 billion m³. The net production of natural gas in 1994-1995 alone was 17.3 billion m³ and by the end of the century, the power sector is expected to emerge as the largest single user of natural gas.

Regulatory Framework

To understand the legal aspects of oil and gas projects in India it is important to appreciate the manner in which this area is regulated and dominated by the two major public sector enterprises; Oil India Limited (OIL) and the Oil and Natural Gas Corporation (ONGC). Both these undertakings are state-owned companies engaged in the exploration, development and production of hydrocarbon resources, accounting for approximately 92% of the total oil and gas produced in the country. Their role in management and

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decision making particularly with regard to private investment and along with the Ministry of Petroleum and Natural Gas (MPNG) was further strengthened in 1974, when this sector was nationalised.

Refining and marketing of oil is conducted by several public sector companies including the Indian Oil Corporation Limited (IOC) and Hindustan Petroleum Corporation Limited (HPCL). The state owned enterprises do not seem, at present, keen to give up acreage and in fact ONGC is still contesting existing awards of acreage on the grounds that with their indigenous knowledge and expertise they are potentially the best operators. Furthermore, these undertakings are currently, and quite prudently, awaiting the Administered Price Mechanism (APM) to be dismantled before giving up acreage, to ensure that they can compete on equal terms with private companies such as Bharat Petroleum Corporation Limited (BPCL), Madras Refineries Limited, Cochin Refineries Limited and the Indo-Burma Petroleum Company Limited. The Gas Authority of India is the main regulator of the transportation and marketing of gas. The newly conferred 'Navratna' status to all the oil sector state enterprises should allow these undertakings more autonomy and independence from the Central Government and the Department of Comptroller and Auditor General.

General Legal Issues

The 1980s and early 1990s in India have witnessed the emergence of large oil and gas projects with cross-border and structured transactions to support these projects. The legal aspects of such projects and their financial needs are even more emphasised by the environment that they are currently being developed in i.e. one of high demand, relatively low savings rates and developing domestic capital markets.

Of specific interest to foreign businesses keen to invest in the oil and gas sector is Government policy in respect of the establishment of fully foreign-owned companies or representative or project offices for the principal purpose of managing and administering business in India and of entering joint ventures for actual operations. The law provides enterprises in the oil and gas sector with certain import duty exemptions; exemptions from the requirement for certain licenses on the importation of machinery and equipment, tax exemptions for certain specified periods on income invested in projects in these sectors and furthermore the possibility of being able to employ foreign business and technical staff without cumbersome consents and clearances.

Other laws, regulations and policy which will impact on a foreign investor doing business in the oil and gas sector in India broadly include those relating to:

- investment criteria for foreign and domestic companies;
- consents and approvals from authorities such as the Foreign Investment Promotion Board (FIPB), the Cabinet Committee for Foreign Investments, the Reserve Bank of India (RBI), the MPNG and the Petroleum Investment Board etc.;
- repatriation of profits and capital;
- personal and corporate taxation;
- protection of foreign investment;
- export-import and customs rules and procedures;
- the framework and legislation applicable to pledges, loans and guarantees;
- terms and conditions of production sharing contracts;
- foreign currency transactions and exchange control regulations;
- land acquisition and state property privatisation;
- procedures and rules for the resolution of business disputes;

- operating and maintaining bank accounts;
- petroleum regulations;
- environmental and safety policies; and
- financing oil and gas projects in the Indian context.

FOREIGN INVESTMENT IN THE OIL AND GAS SECTOR	
Activity	Foreign Equity Allowed
Exploration	Up to 100% in the case of blocks offered under the new exploration licensing policy and already discovered small fields; up to 60% in the case of unincorporated joint ventures with state-owned companies; and 51% for incorporated joint ventures in the case of medium-sized fields.
Export-orientated refineries	Up to 100% foreign equity allowed.
Domestic tariff area refineries	Up to 26% in joint ventures with state-owned oil companies; up to 49% has been allowed in some joint ventures with private Indian companies.
LNG Terminal	Up to 74% is allowed as in the integrated LNG terminal and associated power plant proposed by Total and HPCL; the FIPB has also approved an 83.25% stake for Trans-Asia Petroleum in an LPG terminal and marketing venture. To an extent proposals for foreign investment in the LNG sector are being decided on a case-by-case basis and this may continue until specific guidelines for the sector are formulated.
Infrastructure related to marketing	Up to 74% is automatically approved by the RBI for investment in ports..
Trading and marketing	Up to 74%; foreign-invested companies allowed to market LPG, SKO, low speed heavy sulphur, lubricants, paraffin wax, refined petroleum coke, calcined petroleum coke, toluene, benzene and hexane; they may not sell products reserved for the state-owned oil companies under the APM (a recent application by Caltex-IBP to market all petroleum

	products was turned down).
Holding companies	Up to 100% in subsidiaries engaged in investment/financing or market studies and project formulation. ¹

It is not possible here to discuss in detail production sharing, acreage, canalisation, pricing taxation, the new exploration licensing policy, financing, pipelines and liquified material gas projects but a summary of the principal issues relating to each of those issues is provided below.

Production Sharing

The operative and fiscal regime of oil and gas projects is governed by the production sharing contract. At present, private and foreign ownership in the oil and gas sector in India is allowed in joint venture arrangements with one of the state-owned companies on a production sharing basis. Entry into the sector with regard to exploration, prospecting and extraction rights has to date been by concessionary agreements concluded between the investors and the Government after the investors have completed a competitive bidding process administered by the MPNG.

Until now, the main features of production sharing contracts and terms offered by the Government have included:-

- a 25 year term for crude oil extraction with the maximum period for exploration being no more than 7 years from the effective date. For gas exploration a period of 35 years is allowed, the longer period being on account of the fact that an initial gas discovery may not in itself be commercially exploitable without further exploration and discovery, infrastructure arrangements and/or market evaluations;
- no royalty payment, signature or production bonus or minimum expenditure commitment during the exploration period;
- profit oil and/or profit gas (oil or gas produced and saved from the contract area and not used in petroleum operations) tied to post-tax profitability;
- the Government's share to rise as production crosses pre-determined levels;
- the Government to have first option to purchase up to 100% of crude oil produced, at international market prices;
- certain exemptions from customs duty on imports;

1 Early in 1999 the FIPB approved in principle Exxon's proposal for a wholly owned subsidiary to act as a vehicle for investments in subsidiaries and joint ventures for various downstream activities. The Board has, however, not permitted the subsidiary to enter the business of marketing LPG and lubricants. This is despite the fact that Exxon has a technical tie-up with state undertaking HPCL to blend and market Esso brand lubricants. Exxon's proposed investment in this venture was approximately Rs 5.4 million.

- payment of corporate tax by the contractor on its share of oil or gas;
- the risk of exploration to be borne by the contractor;
- sharing of development and production costs between the Government and the contractor in proportion to the equity contributed by each.

Other features of the production sharing contract include provisions addressing title to assets and technical data, appraisal of commercial discovery, notification periods, minimum work obligations, liquidated damages, completion of work obligations, the scope of force majeure and its impact on extensions, completion guarantees and verification of completion, rights to sell or market gas, if at all, creation of infrastructure and third party access to such facilities including pipelines, their construction, tariff, title and operation, retaining profit oil or gas up to a certain percentage of the total marketable oil or gas, sales for domestic consumption, definition of costs recovery, prices and valuation of petroleum and termination events. A provision that contractors often seek to include in the production sharing contract relates to appropriate indemnities by the Government regarding loss and damage to operations resulting from wrongful acts of the Government.

Despite terms such as these, which are generally regarded as reasonably favourable, both foreign and domestic private interest in this sector has been slow to materialise. Several issues have contributed to this: offers of fields of low prospectivity to the private sector while more promising areas are reserved for national oil companies to explore; lack of adequate seismic field data; delays by the Government awarding bids, granting approvals and finalising contracts; limited involvement regarding downstream functions for contractors; and unclear profit oil/gas sharing formulae and cost recovery provisions. These, therefore, appear to be the areas where appropriate Government action should be taken.

Changes have also resulted in the production sharing contract as a result of the new exploration licensing policy announced in late 1997. Current production sharing arrangements allow for ONGC to elect for 10% participation during the exploration stage and often this is taken up by the ONGC. In the event that a commercial discovery is made, ONGC can automatically participate up to a further 30%. Under the new model contract participation by the ONGC is not mandatory.

With regard to import duties under the new model, public sector undertakings will have the advantage of not making a payment of 30% import premium on imported goods as they have been doing until now. Production sharing arrangements for foreign companies allow for free importation

Other changes which have taken place in the current production sharing contract include abolishment of cess payments to state petroleum development funds. However royalties will now be payable by both the private and public sector companies instead of ONGC, on behalf of the contractor, on the international value of the crude. The major advantage for the public sector undertakings is that they will receive the full international price for their crude sales and not the price as stipulated under the APM. Consequences of the APM have directly contributed to difficult subsidy repayments, an oil pool deficit of over US\$5 billion and saturation of borrowings from various state corporations such as the IOC to purchase petroleum products. International prices for crude oil sales will give the state companies more of a competitive focus, notwithstanding that production sharing contracts with private companies have, to a certain extent, always contained an element of receiving a price related to international prices. A concession to private companies is that they will no longer have to sell exclusively to the Government but will have access to a free market.

Acreage

In a recent development, the MPNG has been urged to release acreage for bidding in a series of licensing rounds. Until now, as between ONGC and OIL, much of acreage is gained on a nomination basis and private companies have to be assured that any new acreage will have high exploration potential. The first acreage to be offered is expected to be a group of 55 shallow marine and land blocks of predetermined size and shape that have featured in previous licensing rounds. This will be followed by deep-water acreage, the idea being that public sector undertakings will have to convert their nominated acreage operated under the terms of the APM to acreage conforming to the new exploration licensing policy.

As previously mentioned, the state owned enterprises do not seem, at the moment, keen to give up acreage and in fact the ONGC is still contesting existing awards of acreage on the grounds that with their indigenous knowledge and expertise they should be regarded as the best operators. Furthermore, these undertakings are currently, and quite prudently, awaiting the APM to be dismantled before giving up acreage, as they wish to be on a level playing field as private companies.

Canalisation

It may be useful to mention here the canalisation procedure which until now has been observed for import of a majority of petroleum products. This takes place through certain public sector oil companies and in accordance with the Indian Export-Import policy. The process works in the following manner: 1. the company proposing to import the crude oil makes a requisition to the canalisation agent specifying the quantity of the product to be imported; 2. the canalising agency will import the product from the foreign supplier. Thereafter, the canalising agency will sell the product to the importer by making a "high seas" sale, designed to avoid the imposition of sales tax on the transaction. Payment for the product can be made by the importer either opening a letter of credit in favour of the canalising agency which, in turn, opens a back-to-back letter of credit in favour of the foreign supplier, or opening a letter of credit directly in favour of the foreign supplier. The price payable for the bulk quantity of the crude oil to be imported is negotiated by the canalising agency with the foreign supplier on the basis of the prevailing international price for the crude. A nominal service charge is payable by the importer to the canalising agency as a fee for the canalising services rendered to the importer

However, with the proposed reforms, discussed later in this paper, there is the distinct possibility that the canalisation process will be dismantled. Investors should therefore be aware of this likelihood and provide for it in project documentation

Administered Pricing Mechanism

An important constituent of the oil and gas sector in India is the APM which requires certain petroleum products to be sold at certain prices and to such entities designated from time to time by the Government.²

2 Until 1973 and the first oil crisis, prices of crude oil and other petroleum products in India were based on the concept of 'import parity' under which the consumer had to pay the notional cost including insurances, freight, the f.o.b. value of oil, excise and customs duty, marketing and distribution margins. Around 1994 the 'retention' concept was introduced by the newly set up Oil Co-ordination Committee, according to which pricing would be based on the delivered cost of crude, the standard cost of refining and a reasonable return on the capital employed. The APM applies to all petroleum products other than those which are free trade products. Currently about 90% of the total volume of petroleum products in India are in the price administered category regulated by

However, the mechanism is being dismantled and some of the issues an investor will need to consider in those circumstances include product pricing, preferential rights, if any, of state owned enterprises to purchase products and the prices at which such purchases can be made. The sale, retailing and marketing of products, entitlement of the foreign company to utilise the state owned enterprises' logistic and marketing facilities for the sale and distribution of products in the local and/or export market, the extent of interference by the state oil companies in the sale or disposal of the product and product off-take guarantees will also need to be considered.

Taxation

Foreign contractors have, until now, had to pay corporate tax at a basic rate of 48%. However, the equivalent rate for ONGC, is 35%. These rates were introduced in the Indian Budget for 1997-98, announced by the Finance Ministry, when they were reduced from 55% to 48% for contractors and from 45% to 35% for ONGC. Despite much speculation over the tax rates that will apply to new contracts that are awarded under the New Exploration Licensing Policy, it seems that equal tax rates for public sector corporations and private companies is highly unlikely. On the other hand, a seven-year tax holiday is being offered as an incentive by the Government which, for small fields, where the plateau production period comes within this time-frame, may prove to be very attractive.

Revenue expenses are generally deductible in the year in which they are incurred. Deduction is also allowed for indirect and head office expenses, up to a limit of 5% of the expense. It is possible to carry forward unabsorbed losses and depreciation for 8 years. Furthermore, relevant guidelines specify different rates of depreciation for plant and machinery that is underground (100%) and above ground (25%). Two points that should be noted at the very outset are, it is worth bearing in mind, that production sharing contract participants are assessed individually and not as an association of persons and Indian tax laws apply up to 200 nautical miles from India's base line.

Up to 100% of revenue and capital expenditure is allowed for cost recovery. The production sharing contract classifies expenditure into three categories: exploration, development and production and there is separate assessment for expenses incurred towards site restoration.

the Oil Co-ordination Committee. Administered pricing is based on three measures: delivered cost of fuel (DCF), normative refinery operating cost (NROC) and return on capital employed (ROCE). The DCF is computed on the weighted average pooled f.o.b. cost on the estimated domestic and imported crude oil requirement. All other costs such as wharfage, freight, insurance, ocean loss and duty are also taken into account. This pooled DCF is applied uniformly to all refineries and any price difference is adjusted in what is known as the crude oil price equalisation account. The Oil Co-ordination Committee also determines each refinery's NROC, based on the operating costs incurred for chemicals, utilities, labour input, repairs and maintenance expenses. An annual upward adjustment for the cost of chemicals, purchased power and other material inputs and wages is made as appropriate. Finally, capital that is employed is taken as the sum of net fixed assets (after deducting depreciation) and the normative working capital. The ROCE is calculated at 12% net of tax on net worth and interest on borrowings at the average rate of interest actually incurred.

The APM is applicable to petroleum production as well as to marketing and distribution. The costs of operations of different companies are pooled (the lower cost indigenous crude with the higher cost imported crude) to ensure that the product prices from the storage points (the primary pricing points) are the same irrespective of the sources from which they come and that the price of any product at any location is the same for all companies marketing at that location.

Exploration costs, including unsuccessful exploration costs, are deductible in full, and this includes drilling costs. For physical assets, depreciation is allowed but for other expenses, deduction is not allowed until the commencement of business.

For production sharing contract participants all materials and machinery are exempt from import duty under certain conditions. There is also no signature, discovery or production bonus payable to the Government. A 12.5% royalty payment to the Government is required to be made for onshore fields, 10% for offshore fields and 5% for deep offshore for the first 7 years in upstream activities, but there are no licence fees payable for offshore areas.

In the downstream sector, there is normal tax computation subject to the Minimum Alternative Taxation principles and the tax holiday will be available depending upon the district in which the undertaking is set up. For example, in an undeveloped district falling under a category stipulated as Category A, a tax holiday of 100% will be available for the first 5 years and 30% for the next 5 years; similarly Category B calls for a 100% tax holiday for the first 3 years and for the next 5 years thereafter the tax exemption offered is 30%.

Other taxes will also need to be considered in situations where, for example, crude oil is being imported, refined and supplied to an Indian company. In such circumstances sales tax would be payable in the state in which the refinery processing the crude is based and where the supplier is foreign, income tax will be payable if the latter has a permanent establishment in India or if title to the oil passes on Indian territory.

In addition to the above general legal issues there are a number of specific guidelines, policies, rules and laws that relate to the oil and gas sector which need to be taken into account when implementing a project. Together these form the basic framework and delineate the technical parameters of projects in the sector. The Petroleum Act of 1934 controls the import, tanker transport, pipelines and storage of petroleum and generally specifies rules for its production, refining and licensing. There is also legislation regarding natural gas, oil pollution and damages, pipelines, the acquisition of right of use of land and control orders relating to petroleum products.

New Exploration Licensing Policy

The announcement of the new exploration licensing policy in 1997 and efforts towards its implementation since the beginning of 1998 is encouraging. The policy provides incentives to increase the domestic supply of oil and gas in order to meet the growing domestic demand for oil and seeks to decrease the country's dependence on imported petroleum products. The principal highlights of the policy include:

- no automatic state participation in commercial discoveries;
- companies, including ONGC and OIL, being paid the international price of oil for new discoveries made under the policy;
- royalty payments for exploration in deep waters being charged at half the rate for offshore areas for the first seven years after commencement of commercial production;
- freedom to market crude oil and gas in the domestic market;
- a tax holiday being available for a period of seven years after commencement of commercial production;

- state companies such as ONGC to have the same duty concessions on import of capital goods under the new exploration licensing policy as private company production sharing contracts;
- cess levied under the Oil Industry Development Act of 1974 being abolished for new exploration blocks; and
- tax stabilisation through a separate petroleum tax code approved in principle by the Finance Ministry, which codifies all the existing fiscal incentives provided for oil exploration. It will also give the investor a composite picture of tax levies and concessions.

Financing

Parties who are involved in the financing of oil and gas projects and arrangements made for production sharing, product off-take, transportation and infrastructure building will need to take into account risks that are unique to the structure of such projects as well as specific Indian legal, tax, environmental and political risks. The sources of funding can range from internal cash flows, limited equity access,³ strategic alliances, joint ventures, balance sheet debt, structured financings and project financing, perhaps the last being the most appropriate source of finance in the Indian context in the near future.

Factors such as globalisation of trade flows, capital markets and technologies, political liberalisation and privatisation and other regulatory reforms aimed at opening up traditional monopolies and financial markets to competition will, no doubt, help in presenting significant cross border financing opportunities to providers of capital to oil and gas projects in India.

Banks, local partners, foreign sponsors and others involved in financing generally allocate such risks through security sharing arrangements, intercreditor agreements, specific and post-completion sponsor guarantees, elaborate onshore and offshore security structures and the participation of export credit agencies,⁴ multilateral institutions and bilateral lenders. The goal of any lender will be to ensure that all the financing components of a project fit together contractually. In a developing investment environment such as India, it is imperative to identify as many risks as possible that might arise in a transaction and determine which of these are either controllable or avoidable and which are insurable [with adequate mitigants].

A decision to lend will depend not only on the overall project structure, that is, the objective of the sponsors, their project support pre- and post-completion, capitalisation, balance sheet structure of the borrower, the financial ratios and debt-equity mix but also the use of proven technologies, the nature of operations and maintenance support, the availability of workforce, management and technical skills, business knowhow, operating experience and track record and intercreditor issues of drawings, repayments, cash flows and cash flow controls. A workable balance must be struck between the requirements of the lender and borrower as far as tenor, amount, interest and yield and speed of disbursements is concerned.

3 Quasi equity – Apart from the contribution of cash as capital, there are other forms of capital investment such as subordinated loans and redeemable preference shares. Such forms do not usually have the same rights as ordinary shares.

4 Every OECD country has a special policy or institution to provide an internationally competitive facility to promote exports from its own country. Usually it takes the form of long-term guarantees or finance for the exporters or of an insurance facility to cover the exporter's risk of extending credit to the buyers.

Lenders will require an accurate breakdown of the project costs and the use funds, particularly the use of the funds that they are to provide. This should be available at a fairly early stage of project preparation. Uses of financing may typically include building/facility, machinery, installation, start-up expenses, training, professional fees, working capital and interest during construction. Some additional elements that should incorporated are:-

- how the costs have been estimated;
- supplier costs, engineering quotes, featured quotes, by whom (internally or by an independent contractor) and the estimated degree of accuracy in these costs;
- a timetable indicating when the costs will be incurred;
- details of any costs that have already been incurred;
- the valuation methodology of in-kind contributions or of existing assets;
- an explanation as to the sources of equipment, materials, etc, particularly if they are being provided by one of the sponsors;
- an explanation of cost contingency built into the projects costs; where one envisages potential overruns and whether there is any ensured sufficient back-up funding in the event of cost overruns.

Project costs should also take into account any eventual costs of registering security and insurance policies. These costs are usually incurred before loan and financing agreements are signed, but may be paid for from the financing provided to the project company.

Lenders generally rely on the sponsor to implement directly, or to appoint contractors to implement, the project in a timely manner and in a cost-effective way. In order for banks to judge the risks connected with project implementation, developers should:-

- summarise the implementation arrangements, including the names and agencies charged with implementing individual components of the project;
- give the rationale for the choice of these agencies and provide a description of their track record;
- describe, if applicable, the nature of the contracts with these agencies, highlighting in particular any completion covenants, progress payment schedules and performance bonds associated with the implementation of the project;
- provide a detailed implementation and disbursement schedule;
- indicate what are considered to be critical start-up dates within the project timetable, and how one envisages the dates being achieved;
- describe any back-up plans that in the event of time delays in the start-up.

Lenders require transparency and arm's length procurement when approving the funding of a project so the sponsor should address this area carefully. In particular expenses should indicate and justify the

proposed method for purchasing goods, services and equipment with the funds; confirm that the goods, services and equipment have been purchased at arm's length on proper commercial terms and describe the nature of the contracts (turnkey etc) for the project.

In some cases lenders may appoint a third party to examine the progress of the project and to report on any potential bottlenecks or cost overruns.

Typically, a particular lender will be only one of several sources of financing. Indeed, lenders will encourage the sponsor both to invest directly in the equity and to identify other potential sources of financing.

The advantages of other investors co-financing a project will include:-

Risk Sharing

Whereby entities with direct experience of the business would support the project as a worthwhile venture; and the presence of other investors will also act as a catalyst encouraging other financing entities to participate in the project, either through loans or through equity.

Various agreements will govern the financing of a project other than the financing documents. These include the sales agreements/off-take agreements; any guarantees by sponsor/third parties, additional support agreements; government support (i.e. subsidies, tax holidays)

The nature of the security available to the lenders of the project is also important.

Key assumptions that lenders will normally make on the project will be the annual sales volume and price by product including discounts and commissions; and breakdown of operating expenses including: - average salary (raw materials) – by local and foreign currency (transport/utilities/sales administration; capital expenditure on a yearly basis for maintenance; working capital: breakdown of how much stock must be carried, if any, terms of payment to company, terms of payment to supplier.

Financial projections of the project are made on the basis of the following issues and indicate the timetable for any costs incurred or revenues generated: profit and loss/income statement, including anticipated dividends; balance sheet, beginning with opening year going forward; operating cash-flow and net cash-flow describing sources and uses of cash – this should be linked to the above two points; debt schedule and interest schedule indicating life and terms of existing/new debt and the interest to be paid on the loans; depreciation schedule for assets; working capital schedule, highlighting changes and assumptions during loan; and the anticipated tax schedule that the project company will face during life of loan.

The security interest of lenders in project financings must be protected and some of the ways in which lenders go about this is by taking security in the form of a pledge of the project company's movable and immovable property, an assignment of its onshore and offshore bank accounts, other receivables, insurances and rights under project documentation, and an assignment (subject to any restrictions under applicable law) of rights in the production sharing contract, in subordinated debt and preference⁵ shares in the project company and a pledge of any stored hydrocarbons. Each of these and the registration

5 Preference shares are a class of share that benefits from preference in the payment of dividends or the repayment of capital.

requirements and enforcement of these interests will, however, depend on the local law that governs the project vehicle and its incorporation.

Political risk is often the most crucial and one on which the completion and success of a major infrastructure project perhaps most largely depends. Several changes in India and in the Indian oil and gas industry have altered the risk profile of projects in this sector. The issues of confiscation, nationalisation, expropriation, terrorism, riot, blockade, change in law, politically motivated violence and such other risks should be dealt with effectively in project documentation. Events that may trigger such circumstances are clearly documented and risk insurance policies are now commonplace in projects. The result is fewer risks, more solutions and less profession time and ideas wasted. In India the political, socio-economic and legal infrastructure still needs to be strengthened and for that reason potential investors sometimes need to be assured of the confidence that the former feels in itself].

A major risk is that of environmental liabilities and difficult standards that the project and its developers need to meet.⁶ Strict environmental legislation has been introduced in India which, with sometimes rather difficult social groups, can lead to extreme pressure on investors who wish to operate meeting all standards and guidelines and uphold their organisational skills, management and corporate practices.

In India, various sources of debt project financing have been successfully utilised. Participation by the World Bank, the International Finance Corporation, the Asian Development Bank and the MIGA⁷ have been used for political risk mitigation. Export credit agencies such as US-Exim, J-Exim, ECGD and others also have played a useful role in pre- and post-completion commercial risk mitigation; commercial banks have made available foreign and local currency funding under different terms and capital markets, with the involvement of rating agencies, and a large and growing investor base have provided a deep source of financing.

In addition, India has a large domestic banking network providing a full range of financing services and the presence of foreign banking institutions is growing. Up to 35-50% of the total project costs can be borrowed from foreign sources. Local financing is also available and developing rapidly. Indian financial institutions provide long-term maturities of up to 12 years. Investment institutions provide maturities under 7 years although they are characterised by fixed coupon and the need for credit rating. Mutual funds and foreign institutional investors provide shorter maturities and therefore have a limited appetite. Commercial, public sector and foreign banks have traditionally provided funds for working capital but have shorter maturities.

Finally, the domestic capital market is developing and offering longer average maturities. The use of non-convertible, partially convertible and fully convertible debentures is becoming more popular. The investor base is growing even though demand is still pent-up. The main advantage of capital markets is that they provide higher yielding assets to investors compared to bank debt and are a deep source of debt financing which can absorb, without much difficulty, large transactions.

6 All refineries have been strongly urged by India's Supreme Court to install appropriate diesel hydro desulphurisation units to lower the sulphur content of diesel in refining projects. IOC recently awarded a turnkey contract to Technimont of Italy to install such a unit at its Haldia refinery.

7 Multilateral Investment Guarantee Agency.

Indian oil and gas projects should observe and learn from benchmark projects in this sector that have successfully closed in other emerging markets. The US\$1billion Petrozuata project promoted by Conoco and Maraven had the largest Latin American bond financing with maturities of 12, 17 and 25.5 years. The US\$1.2billion Ras Laffan project in Qatar promoted by Mobil, Itochu and Nissho Iwai had significant US-Exim, ECGD, SACE and commercial bank finance participation. Both these projects benefited from strong sponsors and secure offtake agreements.

Oil and gas projects currently being implemented in India are working towards obtaining a strong offtake obligation, competitive feedstock and energy supplies, appropriate guarantees and support documents so that pre-completion risk is not borne entirely by debt holders, experienced and reputed project operators, offtake pricing mechanisms that generate good debt service coverage in situations of difficulty and creditworthy sponsors and other participants who have equity and funds at risk as well as strong commitment to see the project to completion. The experience of large multinationals in India in the recent past like Royal Dutch Shell, Conoco, Bechtel Corporation, BP, British Gas and several others at various stages of negotiation and project implementation, it is understood, has been good and many have been encouraged sufficiently to increase their investments in India.

Pipelines

Save for the last 10 years or so, oil and gas pipelines have been owned and constructed almost exclusively by the Central Government, the state governments and/or their agencies and undertakings. By and large, product, oil and gas pipelines belong to the Government-owned public sector undertakings, primarily IOC, OIL and GAIL. Currently, all allocations of gas are determined by the Gas Linkage Committee, which is part of GAIL.

It is in the last decade or so that there have been some private ventures in pipeline ownership and construction, particularly with the setting up by Reliance Industries of large petrochemical complexes at Patalganga, near Mumbai and a gas pipeline for Deepak Nitrites' Fertiliser Project, also outside Mumbai.

Since almost all major pipelines are owned by the Government or its undertakings and have been independent, point-to-point lines and not part of any inter-dependent grid, the ownership issues have been fairly straightforward and no new legislation has so far been necessary in order to regulate or manage them.

With regard to access, the existing framework is designed primarily in relation to state-owned pipelines and therefore is unlikely to be appropriate immediately for a private pipeline project. Similarly, the existing tariff mechanism caters for state-owned pipelines. If a third party transports products through such a pipeline, the existing mechanism is likely to be changed pursuant to recommendations made by the R-Group in this regard and provisions in proposed legislation.

Under the existing procedure, a proposal for the construction and design of a pipeline, including a full techno-economic and cost-benefit analyses, must be submitted by the MPNG. After the concurrence of other relevant ministries the proposal is sent to a body called the Petroleum Investment Board (PIB) whose clearance signifies assent of the Central Government to the proposal.

All other permits and consents, such as land acquisition, foreign equity investment, industrial licensing and explosives and environmental clearances would be processed in a manner similar to that of other private infrastructure projects..

An important development with regard to pipelines has been the preparation of a new Gas Act. This is expected to be enacted by the third quarter of 1998. According to provisions of this Act, licensing for the allocation of gas quota may be eliminated and Government control on the pricing of gas is also expected to be abolished.

As regards pipeline access and transportation, the Act proposes that if a producer conforms to certain "gas specifications" and if space is available, the owner and/or transporter will have to allow access to the pipeline.

An independent gas regulatory authority to be set up, will derive power from the Act and is likely to have between five and seven members on its board in addition to a chairman. It will have the authority to regulate transportation charged along gas pipelines and will also be responsible for regulating third party access to gas pipelines. Furthermore, private units as well as the public sector will be required to bid for erecting pipelines. The Act will provide for the laying of pipelines for gas transportation from the source to its end-users by entrepreneurs in the private sector. The authority will ensure safety standards of pipelines and the Act will make the guidelines legally enforceable. Prior permission will be required from the authority for erecting pipelines and the Gas Linkage Committee will not be disbanded but will work in tandem with the regulator. The regulatory authority will have complete freedom in respect of allocation to sectors such as the public or private sector industry and fertiliser, agricultural sectors and other end-users without being subject to any intervention from the MPNG.

An oil industry working group has identified 16 cross-country pipelines⁸ which should be commissioned soon. Many are already under way, some are awaiting investment approval including:-

- Indian Oil Corporation is constructing the US\$300 million Haldia-Baraudi crude oil pipeline;
- HPCL is implementing a 356 km pipeline of 4 million tonnes per year capacity at a cost of US \$160 million between Visakhapatram and Vijaywada;
- HPCL is building a 22 km products pipeline from the Mumbai refinery to the block oil terminals at Vashi. This pipeline is to have a capacity of 1.5 million tonnes/year and is expected to cost US \$14 million;
- HPCL is also proposing a 332 km 4.2 million tonnes per year capacity pipeline between Mangalore and Bangalore, in Karnataka state;
- BPCL is implementing a 250 km pipeline to transport kerosene and diesel from Mumbai to Manmad.

8 There are three major types of pipeline systems: gathering pipelines which gather gas from different sources to deliver it to a common delivery point; transmission pipelines that are generally long distance and/or high pressure pipelines, and which carry gas from a delivery point to the region of country where the gas is required; distribution pipelines that are a network of low pressure pipelines used primarily for the delivery of gas to individual consumers.

Sponsors of a gas pipeline project will usually have an equity interest in the pipeline and sponsors may vary depending on the pipeline system. For example producers might typically sponsor projects for gathering pipeline systems in order to deliver the gas from the source to a delivery point to be then shipped on via a Transmission Pipeline System. Typically the sponsors behind a transmission system would be the gas shippers.

Currently pipelines, as mentioned above, come within the authority of the Gas Linkage Committee although proposals to be incorporated in the new Gas Act include the laying of pipelines from the source through to end users by the private sector. A major factor determining ownership will be the extent to which the Government, through state owned gas companies, require an equity interest in the pipeline.

It is hoped that when competition is introduced more effectively into the market, project sponsors may offer an equity stake to companies prepared to make long term capacity bookings with the ownership interest related to the level of capacity booked.

An important legal aspect of pipeline construction, ownership or use is the project vehicle to be used generally. Factors influencing the choice of vehicle are tax and accounting considerations, restrictions on foreign investment and/or ownership and a desire by the project sponsors to limit their liability. The usual option is an incorporated entity. Partnerships and unincorporated vehicles (each participant has an undivided interest in the pipeline and other assets and usually finances its own interests) are not very common.

Liquefied Natural Gas

The LNG industry began some thirty years ago with the export of LNG from Algeria to the United Kingdom. Over the past three decades trade in LNG has grown dramatically, and has been the fastest growing sector of the international gas market. After concentrating on countries like Japan, Korea and Taiwan (which are importing countries) exporting countries like France, Spain, Belgium and Turkey are now looking at emerging markets as the best prospect for demand growth. India, as a potential new market for demand possesses very different characteristics than its mature counterparts. One of the major differences lies in the use of LNG. India is looking to LNG as a power source to support the development of gas-fired power generation project and has the advantage of flexibility in fuel choice.⁹

In October 1997, a 15 member Advisory Panel constituted by the Ministry of Power announced that there was an immediate and urgent need for integrated resource planning to meet India's increasing energy requirement. Further there was considerable scope for adoption and development of non-conventional energy sources.

The Panel recommended that the Government should adopt a cautious approach to attract private investment in the power sector on the basis of imported fuels. While considering the import of LNG as a fuel, it was important to ensure that the location for LNG terminals in the country are well chosen and that the cost of import of LNG is kept to the minimum by taking benefit of economies of scale.

There is, however, little in the form of precise legislation or policy in the current environment which would apply to LNG imports, related port and infrastructure facilities, design and construction, storage, regassification, distribution, transportation, pricing or marketing.

⁹ In most cases these power projects are selected on the basis of competitive bidding, with a heavy emphasis on the cost of the electric power they produce. As these projects are financed on a limited recourse basis, their lenders are concerned about the price and reliability of these gas supplies. As the generators generally own no physical facilities they present a real volume and credit risk to the LNG suppliers. The Indian Government is currently in the process of considering whether to allow the LNG supplier to also build its own infrastructure facilities (again on a project finance basis) although such a project-on-project financing will create many complications and risks.

Current LNG Projects in India

There are at present only about a dozen LNG projects,¹⁰ and most of these are in the early stages of negotiation of the basic terms either between themselves or with the Government.¹¹ Nearly all of these projects are developed on a Build-Operate-Transfer basis. Some of the most significant proposed projects include:-

- Gujarat Pipavav Port Ltd with British Gas, a 2.5 million tonne per annum joint venture which is estimated to cost approximately Rs1,480 crore;
- Ennore in Tamil Nadu, a joint venture being formed by oil and gas public sector undertakings, ONGC, IOC and GAIL.
- Dabhol in Maharashtra by Enron Oil and Gas Corporation of the US;
- a terminal in Karnataka State, a joint venture of Tamil Nadu Industrial Development Corporation with HPCL and Total S.A. of France;
- terminal at Kakinada port developed by CMS Energy Corporation, domestic company GVK and Unocal Corporation of the US; and
- Cochin Port Trust which is due to call for bids for construction of a LNG and LPG terminal as well as a container terminal.

The Cabinet Committee on Foreign Investment (the Cabinet) has approved the proposal of Reliance Industries to set up two LNG terminals at Jamnagar and Hazira in Gujarat. Reliance plans to raise Rs 11.5 billion (US\$291.9 million) through global or American depository receipts to partially finance the two terminals. Each terminal will have a capacity of 5 million tonnes which makes this perhaps the most ambitious of the current LNG terminal proposals.

In addition, the Cabinet has approved a proposal from Royal Dutch Shell to set up LNG terminals at Hazira and Surat, also in Gujarat. The terminal at Hazira by Shell is expected to feed the Essar power plant, the capacity of which is to be raised from 515 MW to 2000 MW.

There is no doubt that there is considerable demand for LNG in India.¹² GAIL is understood to be entering into a Memorandum of Understanding with National Thermal Power Corporation (NTPC) for the

10 The reason for the limited number of such projects is often cited to be the fact that LNG projects are capital intensive on the front side. Compared to conventional oil and gas exploration and production products, the financial payback period is, however, much longer, typically as much as 10 to 15 years.

11 A high profile company called Petronet has been formed by IOC, HPCL, BPCL and Infrastructure Leasing of Financial Services and one of the main functions of this company is the investigation and development of LNG projects including the importation of LNG and downstream functions. Transparent competitive procedures are being put in place to invite foreign LNG suppliers to do business in India. Petronet is also believed to have commenced work on three pipeline projects which run from Mangalore to Bangalore, Vadinar to Kandla and Cochin to Coimbatore and through to Karur.

12 The state owned Shipping Corporation of India, which is keen to undertake a significant role in the LNG transportation business has indicated an interest in taking a stake in an LNG terminal project proposed by Total and HPCL in the state of Andhra Pradesh for which LNG is to be shipped from the Middle East.

supply of LNG to three power projects of 2,000 megawatt (MW) each. These power projects are being planned by the NTPC and each is expected to consume 2.5 million tonnes of LNG per annum (mtpa). To import 2.5 mtpa a foreign exchange outflow of approximately Rs 200-300 billion would be required on the part of the Government.

GAIL also plans to set up 2.5 mtpa LNG import facilities at Mangalore, Hazira, Dahej, Chennai and Visakhapatnam in addition to Cochin and Ennore, as mentioned above.

It is also understood that GAIL is in the process of initiating and analysing technical bids of 17 companies for a proposed joint venture at some of these locations. It is expected that 7-8 companies will be short-listed for the commercial bidding process.

In November 1997, a high-level meeting chaired by the Prime Minister cleared the establishment of a regulatory mechanism for the import of LNG. The MPNG has been asked to prepare a detailed paper on setting up of such a regulatory authority before the end of 1997. Such an authority would, it is hoped, avoid projects becoming stalled due to the problems currently faced as a result of bureaucracy, excessive procedure, supplier's problems and delays in land acquisition.

Issues that are peculiar to LNG projects include the chain of inter-linking operations which concern gas production and gathering; transportation by a pipeline to a liquefaction plant; construction and operation of a liquefaction plant with adjoining port facilities; chartering of LNG ships to receive the output from the liquefaction plant and transportation of the LNG from the liquefaction plant to a re-gasification plant adjacent to port facilities at the receiving market; construction and operation of re-gasification plant to convert LNG back to a gaseous form; pipeline links to enable the re-gasified product to be transported, distributed and supplied to the consuming market.

The LNG chain is characterised by a fixed infrastructure having little use or value outside the LNG chain. Even the LNG ships are of bespoke construction and of considerably greater cost than an equivalent oil tanker. LNG facilities are complex and expensive and as well as the construction, operation and maintenance of the liquefaction plant, LNG ships and re-gasification facilities, there is often a requirement for the construction of new port facilities, loading facilities and other infrastructure. The nature of LNG projects has led to the making of long term commitments by the participants in the LNG chain, both for their own purposes and for the purposes of financiers.

One of the key issues in an LNG project will be the identification of the roles and contributions of the various organisations identified as being involved. Many of these issues concern the upstream and liquefaction operations but they will also be relevant to shipping and the re-gasification and distribution operations.

Centrally important both to the operations leading to liquefaction and the operations of re-gasification and distribution, is the extent of participation of the respective national entities having responsibilities and powers in relation to natural gas, or energy more widely. Again, issues of equity participation will arise as will broader consideration concerning state support in relation to infrastructure and political and legal considerations.

LNG projects are in many ways unique although they do have the same characteristics as many large infrastructure projects in that they require the identification, analysis and management of the risks inherent in the project and the appropriate allocation of those risks among the participants in the project.

Typically, these risks will include the reserve risk concerning the availability of natural gas over time, completion risk, operating risk, shipping and/or transit risk and, perhaps to a greater extent than in many other projects, regulatory risk in relation not only to regulatory control of operations and prices, but also in relation to the potential for third parties to acquire access to the projects facilities.

Some of the points and issues which are likely to be relevant to LNG projects in India include terminal design and construction; participation and structuring of entities at each link of the chain; production and liquefaction sharing and licensing; pricing; shipping operations and requirement of new port facilities; and environmental and safety considerations. The project documentation should include a State Support Guarantee, LNG Sale/Purchase Agreement, LNG Management and Operation Agreement and Maintenance Contract, Port Management Agreement, Transportation Agreement and Use of Services and an Infrastructure and Facilities Agreements.

Towards Complete Deregulation

To anticipate and appreciate the legal aspects of oil and gas projects in the Indian context it is important to understand the legal and fiscal reforms and the efforts that are being made towards the structural redesigning of the oil and gas industry. These reforms are aimed at revising the incentive structure, creating a regulatory framework to promote transparency and restructuring state-owned enterprises in order to promote competition. They are likely to be effected gradually and spread over three phases (each taking, it is understood, approximately two to three years). The approval of the high-level Cabinet Committee on Economic Affairs to these proposals is currently awaited. The MPNG has also directed that the reforms ought to be accompanied, over a period of time, by full freedom for oil producers to market their products either directly or indirectly whilst giving the benefit of competition to the consumer.

The R-Group¹³ has been set up to advise on the restructuring of the oil and gas sector. Out of many policy issues being considered by this group and the MPNG some are:-

- creating a regulatory framework to promote transparency and competition and reducing the extent of state participation (in terms of political interference);
- ensuring “fast-track” decision making (by the establishment of an empowered negotiating committee);
- co-ordination of intensive and extensive exploration in known basins;
- encouraging extensive exploratory efforts in lesser known areas;
- encouraging exploratory inputs in areas with previously encouraging results;
- a phased exploration programme of the deeper continental shelf;
- promoting the efficient use of capital and resources;
- development of basic infrastructure to improve transport and storage facilities;

13 A special strategic planning group set up by the Central Government to make recommendations in policies and guidelines for restructuring the oil and gas sector.

- faster conclusion of project documents and simplification of procedures;
- liberalising the market and consumer prices;
- reviewing the tariff and pricing policy, reducing import duties further and abolishing subsidies.

It is intended that over the next few years several import tariff changes will be introduced for petroleum products. These will start with zero for crude oil and 10-15% on other petro-products. The existing subsidy on Naphtha and fuel oil would be removed, but petrol and diesel would continue to be regulated. Also the existing liquefied petroleum gas and kerosene subsidy would remain for at least the next four years.

An advisory body, the Directorate General of Hydrocarbons (DGH) provides the function to the MPNG, to evaluate bids (technically and commercially) and to negotiate contracts.¹⁴

Structural changes are also envisaged by the MPNG to encourage private investment. One of these is to allow private companies who are awarded contracts through competitive bidding for seismic surveying to conduct such surveys themselves and then either to use the data for exploration or to sell it on to other companies. Currently, the private sector must rely on seismic data provided by the national oil companies.

The MPNG is also encouraging exploration in high-risk, deep water, and frontier areas and is also combining frontier areas with geographically compatible proven oil fields to attract investment. Also proposed is a single-window clearance scheme for awarding oil contracts and efficient dealing and resolution of private-sector inquiries and problems. The MPNG is reconsidering the current system of joint venture exploration and production sharing which allows the national oil companies to retain up to 40 % participating interest.

Finally, the oil refining sector has also been allowed to import capital goods during the Ninth Plan period at concessional duty rates which are on par with other sectors such as the fertiliser sector. Domestic capital goods suppliers in the refineries sector are also to get deemed export status. It remains to be seen how soon the MPNG implements these features and puts the policy into practice.

It is hoped that the new exploration policy paves the way for national oil companies to be given the right to market extracted crude oil to any buyer, whether national or international, without reserving for the

14 It is understood that the Cabinet has approved the framework and timetable for hydrocarbon reforms, including restructuring the APM framework. Duties on petroleum products have been reduced and rationalised and crude imports have been decanalised. The current duty on crude is to be reduced from 32% to zero by 2002-03 and duties of 32% on motor spirit, diesel and aviation turbine fuel will be reduced to 15%. Prices of paraffin map, bitumen, naphtha, fuel oil and low sulphur heavy stock are expected to be freed up as well. Imports and exports of aviation turbine fuel, motor spirit and high speed diesel are expected to continue being canalised for a period of 5 years. Marketing rights for transport fuels are to be conditional on owning and operating a refinery with an investment of Rs 20 billion or investment in oil exploration with an annual production of 3 million tonnes.

The Cabinet is also understood to have approved the setting up of a hydrocarbon regulatory authority which will take over the advisory, regulatory and developmental functions of the DGH. The authority will be responsible for the implementation of exploration contracts, awarded to the private sector under the new exploration licensing policy.

Government the first option to purchase the entire output. However regard is being given to the requirement for crude oil in the country and its high reliance upon imports.

Whilst planning to de-reserve the oil and gas sector in the future, the MPNG is understood to maintain some reservations on foreign investments in the industry being channelled through wholly foreign-owned subsidiaries. It has indicated that investment through vehicles which are more in the nature of holding companies would be preferred. These companies should then participate in joint ventures (the present and preferred permissible route) with public sector companies participating in the oil and gas sector. For private companies, working in a joint venture may offer several advantages- the foremost being one of a lower corporate tax rate, despite a dividend tax of 10% on distributed dividends and the strengths that come from working with a local partner who would, no doubt, have invaluable local knowledge, expertise and contacts.

Nonetheless, the Finance Ministry has set out softer terms for external commercial borrowings for oil companies in the exploration business, including granting them the freedom to swap dollar receipts to raise rupee resources. Furthermore, the average period for maturity of loans to this sector has been reduced from seven years to five. This change in policy has been welcomed by all concerned in the light of the large funding requirements of projects in the sector.

Concluding Remarks

It is hoped that the policy of deregulation adopted and encouraged by the Centre along with the recommendations of the MPNG, the DGH and the R-Group will bring about the much-needed boost to India's oil industry and facilitate new investments. The aim is to precipitate increased private participation, ease controls, decrease bureaucratic delays and cumbersome approval procedures, and bring about flexibility in the terms offered by the Government to private investors for setting up oil and gas ventures.

Fundamental weaknesses in the system need to be overcome - the non-competitive market structure, large capital requirements which cannot be met by the public sector or the domestic capital market, several pricing, structural and market inefficiencies, weak political institutions, patronage and lack of accountability and transparency. But efforts continue to be made. In the budget for 1997/1998, infrastructure in general and the oil sector in particular have found a special place. Oil exploration has been included in the category of infrastructure and will be able to benefit from the provision of a five-year tax holiday granted under the Indian income tax laws. Pressure groups and campaigners in the environmental protection lobby are beginning to see the strategic importance of major projects to the Indian economy and have set aside flimsy claims.

If the role of the public sector continues to be decreased and an efficient operating environment coupled with a progressive fiscal regime are encouraged then it may prove possible to do away with excessive regulation, the result being a competitive, international environment.