Developing Regulations for the Gas Sector

Key issues to be addressed

From augmenting natural gas supplies to creating pipeline infrastructure to the growing acceptance of gas as a viable alternative fuel, the Indian gas sector is poised for a dramatic evolution. Some of these changes have already begun and more are expected, especially with the entry of a larger number of public and private sector players. As the very structure of this capital-intensive industry changes, there is a clear need for a transparent regulatory regime that will protect both investor and consumer interests. Crisil Infrastructure Advisory looks at some of the critical issues that need to be addressed while developing regulations for the gas sector.

The case for regulation

While regulatory models for the gas sector differ from country to country, almost everywhere the regulations typically depend on the developmental stage of the local gas industry, its consumer profile and government controls over the sector.

In some countries like the US, the UK and Argentina, the gas industry is governed by an independent regulator, transmission pipelines operate on an open access basis and the transmission function is separated from other activities in the gas chain. In some western European countries like France and Germany, the gas industry is controlled by the state through its stake in dominant industry players. Following a directive issued by the European Union, the transmission network in these countries was partially opened for third-party access in the second half of 2000. And in many developing countries like Poland, Mexico and Hungary, the gas industry is controlled by the state through relevant ministries.

The Indian gas sector has witnessed a spurt in activity in recent years on account of the increasing demand-supply gap. As a result, various initiatives have been taken to augment gas supplies. For instance, the government has sought to increase domestic gas supplies through its New Exploration Licensing Policy (NELP) regime. The country is also planning to import gas in the form of liquefied natural gas (LNG) as well as through transnational pipelines. Given the expected increase in supply, adequate pipeline infrastructure is being put in place to transport gas from the source to end-consumers. At the same time, given the concerns over increasing pollution levels in large Indian cities, the more environment-friendly gas is expected to replace traditional liquid and solid fuels. This will entail investments in gas distribution networks in such cities.

All these initiatives require huge investments in the entire natural gas chain and active private as well as public sector participation. Till recently, the Indian gas sector was dominated by a few public sector companies. Now, several new public and private sector players are expected to enter the business. Thus, the sector's entire structure is changing, which throws up a plethora of issues that need to be resolved if the sector has to attract substantial private capital. So a clear and transparent regulatory regime needs to be developed to resolve these issues in order to both safeguard the interests of prospective investors and protect consumers from a possible monopolistic exploitation by gas suppliers or infrastructure providers.

The Indian gas sector

Regulation attempts to mimic market dynamics where markets do not function properly. Unambiguous regulation is required to provide a "surrogate for the market", where the market cannot or does not provide requisite economic disciplining forces. By nature, several elements in the gas chain, such as pipelines and LNG terminals, are monopolistic and need to be regulated to infuse forces that enable both buyers and sellers to capture the benefits of a competitive market.

The Indian gas sector has been grappling with various issues that need to be resolved before moving towards a competitive market. In 1995, the Ministry of Petroleum and Natural Gas (MoPNG) initiated studies to discuss and debate these issues. Since then, various committees have given recommendations on how to tackle these issues. Recently, the MoPNG

formulated a regulatory bill to govern the downstream petroleum sector, including natural gas. This is expected to be cleared by Parliament soon.

In India, the objectives of regulation are likely to entail:

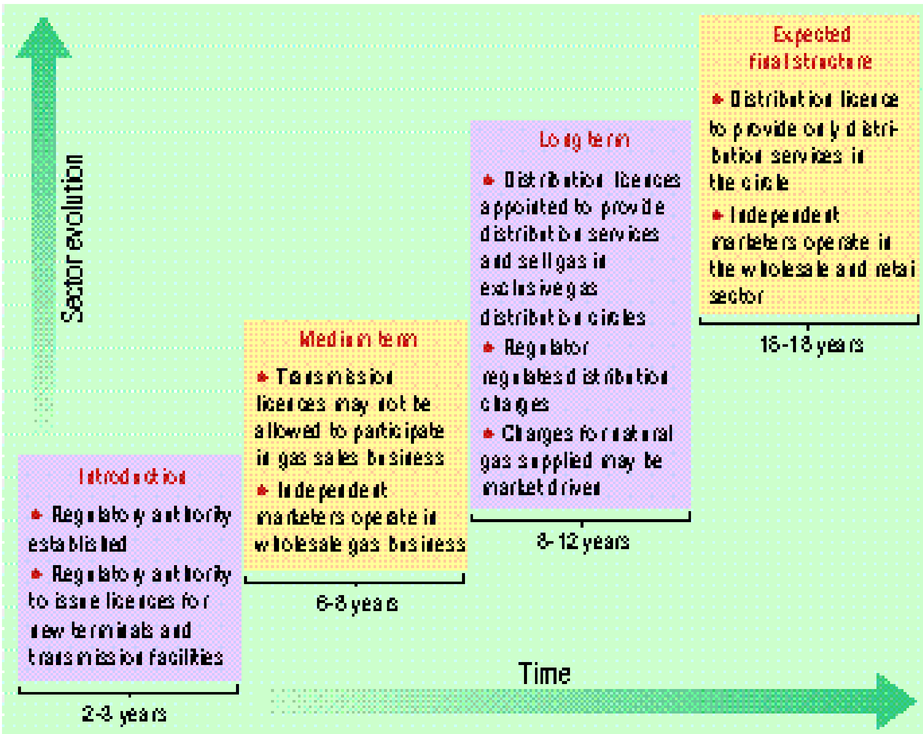
- Ensuring adequat availability of natural gas for consumers;
- Encouraging new delivery methods like LNG and transnational pipelines;
- Attracting substantial private investment in the natural gas sector;
- Introducing the latest technological standards in different elements of the natural gas chain;
- Ensuring sustainable development of the country's hydrocarbon reserves; and
- Encouraging competitive terms for supplies to downstream users.

Regulatory issues in the Indian gas sector

The key issues pertaining to regulation in the downstream gas sector that need to be addressed, especially in the Indian context, are as follows:

- The industry structure – Bundled versus unbundled: The extent to which players are allowed to be bundled, whether single companies can participate in different activities of the gas chain like upstream gas exploration, transportation and marketing, would depend on the type of structure that is desired for the domestic gas sector. For instance, gas trading by transmission pipeline owners creates a conflict of interests for the provider of pipeline services by giving them an unfair advantage over trading competitors. This increases the burden on the regulatory agency to ensure that other users have open access to the pipeline (if that is the regime). On the other hand, the size of such transmission companies that also undertake trading offers an advantage in negotiating gas purchases, which could, in turn, benefit consumers. Another issue in this regard would be the extent of unbundling desired, that is, should unbundling mean separation in ownership or would a separation of accounts suffice. This issue of a bundled versus unbundled industry structure gains importance given the expected emergence of multiple gas suppliers in the country.
- Form of regulation: The gas sector could be governed either through an independent regulatory commission or by an administrative regulation through an empowered interministerial group. As of now, the gas linkage committee, which is an interministerial group, allocates the available domestic gas supply to various sectors and consumers. The Petroleum Regulatory Board Bill, 2002, which is being considered by Parliament, envisages setting up a five-member regulatory board to govern the downstream petroleum sector, including gas. The board will comprise eminent people from the fields of petroleum, management, finance, law and administration or consumer affairs. It is important that the regulatory agency should be sufficiently independent of political processes and that a considerable degree of autonomy and discretion coupled with adequate accountability is provided to the regulator. The more independent the regulator is from the government, the greater the investor confidence.
- Jurisdiction of centre versus state: The existing legal framework for the domestic gas sector does not provide any clarity on whether the downstream gas sector comes under the jurisdiction of the central or state governments. Under Article 33 of the Constitution, the hydrocarbon sector, which includes natural gas, comes under the centre's purview and is not on the state list. Gas and gas works are, however, included as items under the state sector in the Constitution (Item 25, List II of Schedule 7). The issue of whether the gas sector is a state or a central subject came into prominence when the Gujarat government enacted the Gujarat Gas Act in 2000. The issue has been referred to the Supreme Court and a judgement is expected soon.

  Internationally, there are instances of both a single, central-level regulator (Enargas in Argentina) as well as of state and central regulators coexisting. The latter case can be found in the US, where the Federal Energy Regulatory Commission regulates at the central level and the Texas Railroad Commission carries out the function in the state of Texas. State- and central -level regulators also coexist in the Indian power sector. To coexist, however, such central and state regulators in the gas sector would either require a clear demarcation of their responsibilities or the sector would require a sufficiently robust state regulatory agency that can take cognisance of changes in the central regulatory framework. For instance, state-level authorities could regulate intra-state pipelines while the central authority could regulate interstate ones. Or the distribution business could come under the state regulator's purview. In short, as long as the regulations at the state and central levels are not conflicting, they can coexist.
- Form of access to infrastructure: The Gas Authority of India Limited currently owns almost the entire onshore pipeline network in the country although Gujarat State Petronet Limited has started building a gas grid in Gujarat on a contracted open access basis (wherein a supplier or a buyer contracts for capacity with the transmission services provider on a long-term basis). With multiple gas suppliers emerging in the country, open access to all existing and new pipeline networks is desirable. But even in the case of open access, the issue of contracted open access vis-à-vis a common carrier basis (wherein the system



carries excess capacity to be provided to the buyer or supplier on a short-term basis).

The type of open access would be determined by the extent of unbundling desired in the gas sector and also by the number of suppliers. As India is not expected to have a large number of suppliers, the contracted open access system seems a more feasible option. Another issue that needs to be tackled is whether LNG import terminals can be treated as monopolies or if they can be made available to natural gas buyers on a common access basis.

• Transmission tariff: Any regulatory regime will have to balance investor and consumer interests. On the one hand, sufficient incentives need to be provided to investors in order to attract capital to develop the necessary grid to deliver gas to customers. On the other, it must be ensured that grid owners are not then able to extract monopoly profits. In the case of transmission tariffs, then, the method for regulating tariffs needs to be determined. The options include a competitive bidding process for selecting developers of pipeline networks, regulating the return to pipeline companies and performance benchmarking of transportation tariffs.

• Regulation of bulk supplies: Regardless of how the gas sector is unbundled and the restrictions, if any, on cross-ownership of supply and transmission, the question that remains is whether bulk gas supply prices (excluding transportation costs) should be regulated. Liberalisation of gas prices at all levels will stimulate the exploration and production of gas and promote initiatives to import LNG. As long as gas supplies are limited, there exist justifiable concerns that consumers may be exploited. International experience, however, indicates that these concerns are mitigated by:

– The availability of competing fuels, which establishes an upper limit to which prices can be raised;

– The ability of large consumers to protect their interests by entering into long-term contracts through competitive bidding; and

– The availability of contract carriage service on pipelines, which enables major consumers to seek alternative supply sources.

• Other policy measures: Other policy measures like tax incentives, and infrastructure status for import terminals and pipelines would impact the competitiveness of delivered gas. Issues like a level playing field vis-à-vis alternative fuels in relation to taxes and duties, including the rationalisation of inter-state and local tax structures for natural gas and regasified LNG sales, will also need to be addressed. Moreover, while moving into a common access regime, issues related to commingling and incidental taxation-related issues would need to be sorted out. Although these issues may not directly come under the purview of the gas regulator, its regulatory measures will definitely need to take into account these issues.

Expected evolution of the Indian gas sector

Given the increased activity on the supply front and the regulatory initiatives that are being taken, the Indian gas sector is expected to undergo substantial structural changes. The expected structure is shown in figure 2.

Conclusion

Both the Indian gas sector's structure and the regulatory issues related to it will evolve in tandem. In fact, the resolution of these issues and the implementation of regulatory mechanisms to ensure that these changes are sustainable over the long term are expected to bring about significant vibrancy in the gas sector. Eventually, as the sector's participants gain experience and as the industry matures, new players such as independent gas marketers and traders are likely to emerge as important constituents of the industry. These entities would facilitate trading of gas and improve market efficiencies. It is true that the domestic gas sector will evolve and all these issues will only get resolved in the long term. Nevertheless, industry players would certainly require some of the more critical issues such as the debate over state and central jurisdiction, access to infrastructure and policy measures, especially those related to tax and bulk supply, to be resolved upfront. Hence, any new regulatory regime will have to rise to this challenge.

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