Reforms Play a Key Role in Lifting the Gas Sector

BY AFSIR AHMAD

Introduction:

Not too long ago, we were discussing India's ambitions to move towards a gas-based economy and to increase the share of gas in the energy pie from the current level of 6.2% to 15% by 2030. It was felt that there was need to focus on a much broader policy reform to attain the 15%. And as such new policy for incentivizing E&P activities, government initiatives for removal of price ceilings, regulations to create a more market friendly environment in the downstream gas business, introduction of third party access codes, a unified pipeline tariff structure, LNG utilization in the auto sector, infrastructure development and bringing natural gas under the GST regime, were being undertaken to improve domestic production and consumption. Now we can confidently state that quite a few of these initiatives have paid dividend to the gas sector.

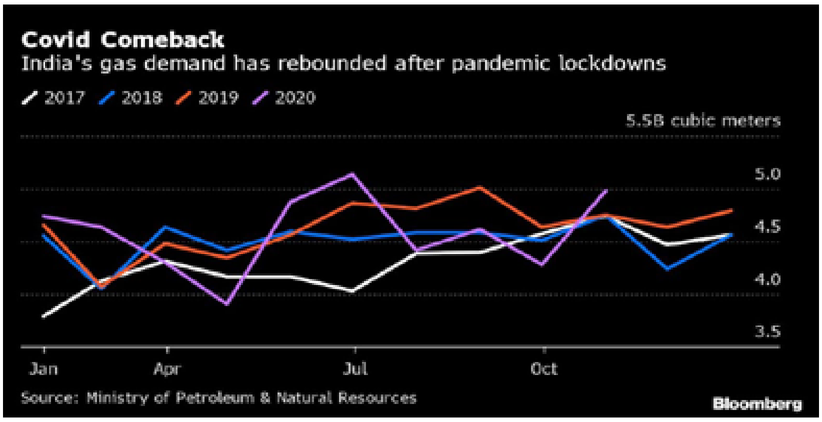
LNG utilization in the auto sector, infrastructure development and bringing natural gas under the GST regime, were being undertaken to improve domestic production and consumption.

On the market side, the government and the regulator paid special attention to the development of pipeline transportation infrastructure, LNG import facilities and local gas distribution systems. Over the last few years the number of local gas distribution networks have been expanded significantly with the authorization of more than a 100 City Gas Distribution (CGD) licenses by Petroleum and Natural Gas Regulatory Board (PNGRB). Clearly there has been a push to significantly increase gas coverage, more than 50% of the geographical area and over 70% of population has now come under CGD cover. Several other regulatory changes have been announced to improve and enhance the operational efficiency of the local gas distribution segment. On the production side, the recently announced e-bidding mechanism for natural gas sales from newly discovered fields is another step in the right direction. The gas exchange regulation which will help in building a more buoyant and robust gas market is a step in the right direction. It cannot be denied that the gas sector has grown over the years on the back of new policies and regulations announced by the Government and the Regulatory Board. The increase in consumption and import of LNG is a confirmation and a testament to the positive steps taken by the government and the regulator.

As a result of the massive expansion of the mid and down-stream gas supply infrastructure, both transmission as well as distribution, has created significant business opportunities for players in the gas industry especially in city gas distribution business, and a chance for industries currently using fuels like diesel and petcoke to shift towards a cleaner fuel.

Trend in domestic production, imports and consumption in the last five years (Figures in MMSCM)

	2015-16	2016-17	2017-18	2018-19	2019-20
Domestic gas Prod'n	31129	31897	32649	32058	30257
LNG Imports	21388	24849	27439	28740	33867
Consumption	52517	55697	59170	60798	64124



The proactive approach of the Regulatory Board and the government helped in the phenomenal comeback of the gas sector after the COVID pandemic lockdowns. The following graph is proof and confirmation of the various policies and regulations enacted by the government. We are of the view that the upward trend in consumption is most likely continue in the coming years

Recent Upstream Reforms - Exploration and Domestic Production:

The Open Acreage Licensing Policy (OALP) is one market-friendly policy enacted by the government, which continues to drive self-reliance in the energy sector. The successful roll-out of the Hydrocarbon Exploration & Licensing Policy (HELP) regime, followed by OALP Bid Rounds, led to increase in exploration acreage in India. The exploration acreage which stood at about 80,000 square km now stands at approximately 237,000 square km after the award of blocks under OALP Round-V. A total of 11 blocks in 8 sedimentary basins covering a total acreage of 19,789.04 square km has been awarded under OALP Bid Round 5. The recently announced e-auction reform policy will benefit gas output from newly discovered fields and coal-bed-methane in the near term, however, a large volume of indigenous gas production will not benefit from the reforms. The "difficult gas" fields already enjoy marketing freedom but their prices are capped at fuel import prices -- basket of LNG, coal, fuel oil, and naphtha. The current cap is $ 4.06 per MMBtu which is far below the earlier cap of $ 5.61 per MMBtu. The domestic gas selling price from the conventional gas fields in India announced for October 2020 – March 2021 has been set at $1.79/MMBtu, one of the lowest on record, which could discourage domestic gas producers from producing gas as they would not be able to breakeven as the cost of production is likely much more than this low price. Without delay, the Government should find a way of making domestic pricing attractive to encourage production. The good part is that the government is seized of the price issue and has been exploring other gas index so as to allow a fair price to producers, JKM is one of them which could find acceptance.

LNG utilization in the auto sector, infrastructure development and bringing natural gas under the GST regime, were being undertaken to improve domestic production and consumption.

ONGC, BP and Reliance have targeted major increases in output from the Krishna Godavari basin in the eastern part of the country. Now with the support of the new e-auction policy it is expected that commercial gas from KG Basin will start flowing sooner than later. The new policy guidelines announced by the Government gives Reliance Industries and other producers of natural gas to no longer require government approval for the gas price if it is arrived at using the new guidelines for the discovery of market price. According to the government guidelines, companies are expected to design the bid offer, including the eligibility criteria, bid parameters, evaluation criteria, tender fee, salient terms and conditions of Gas Sales Agreement and any other relevant information etc with a view to encourage wider participation from prospective buyers, promote competition and maximize the value of natural gas offered. These stipulations will help producers to find a fair price. ONGC and OIL are also to follow these guidelines for the discovery of the market price of natural gas produced from their fields wherever pricing and marketing freedom has been granted. It is also expected that the newly announced and now operational gas exchange too will play a key role in determining price in the future. In order to transition India towards a gas-based economy and boost the share of natural gas in India's energy basket, an appropriate and supporting environment is being developed.

The recent news of Reliance Industries (RIL) and BP Plc announcing the start of production from the R-cluster, the first of the three deep water projects in block KG D6 off the east coast of India, is welcome and comes after a long wait. This is a significant milestone in India's energy landscape, for a cleaner and greener gas-based economy. The R-Cluster is expected to reach plateau gas production of about 12.9 MMSCMD in 2021 which is good news for the nation.

Recent Downstream Regulatory Reforms:

Some of the recently announced downstream regulatory reforms could have far reaching impact on the gas sector. The Petroleum Ministry has been instrumental in pushing some of these regulations including the establishment of a gas exchange which has the potential to have a very positive effect on the sector.

Unified Tariff – Trunk Pipelines:

The recent gas reforms to bring in unified tariff system will clearly open up the sector to competition. So far, tariffs had been set depending on how far, or near, the consumer was from the gas source. The new system, however, will put in place just two tariff zones: Zone-I will comprise areas within 300 km from the gas source, and Zone-II everything beyond. The new system may also assist offshore gas producers, like; RIL/BP and ONGC get better prices for its east coast gas. However, for pipeline operators like GAIL and Gujarat State Petronet the new rules may be revenue neutral, but fuel costs for fertilizer plants and others in eastern and southern India is likely to be reduced. Buyers in key gas consuming states of Gujarat and Maharashtra may end-up paying higher transportation costs than before, however, the unified pipeline tariff would benefit producers of domestic gas on the east coast of the country as it would be more economical to transport gas from the Krishna Godavari basin to the West coast of the country through the PIL East-West pipeline. The new system will cut gas pipeline tariffs for areas far from gas injection points. This would encourage use of gas in far flung areas as we seek a cleaner and greener industrial development across the country. More importantly, in the long run, pipeline companies will benefit with increasing gas volumes.

City Gas Distribution:

Some recent changes in regulations governing city gas markets have the potential to shake the CGD industry. The changes do so much to throw open the sector to competition, but also extend some protection over the existing investments of incumbent players. For example, from an industry standpoint the rolling out of open market access has come in for vehement opposition from incumbents. CGD players have market exclusivity and fear that the decision to allow open access to 20 per cent of

Government exploring domestic gas floor price system

We understand from sources that the Ministry of Petroleum is considering a proposal under which domestic gas will have a floor pricing that would be linked to gas prices with the Japan-Korea Marker, a benchmark index used to determine LNG tariff in North Asia with a discount. With JKM prices hovering around $5 per MMBtu even with a $1 MMBtu discount, the Indian gas floor price under this formula will be close to $4 MMBtu. Domestic gas price has fallen to $1.79 per MMBtu for the October-March period of the current fiscal. The administered price of the gas has fallen in the last four six-monthly revision cycles and has now reached the lowest price levels since 2014. At this level of natural gas prices, exploration companies may actually lose money on fuel. While a gas floor price at this juncture would benefit oil companies, it could render the price of piped natural gas to households and CNG for transportation expensive.

CGD players have market exclusivity and fear that the decision to allow open access to 20 per cent of capacity could eat into their own investments

capacity could eat into their own investments. It is to be noted that many CNG players dispense gas from outlets located in oil marketing companies' fuel stations and major OMCs have expressed a keen interest in venturing into the CGD sector themselves. Even though, this has now been set to rest by PNGRB but it has its own advantages and disadvantages. The notification restricts existing OMC co-located CNG outlets from selling CNG under open access route mitigating any negative impact on existing earnings of CGD companies in the CNG segment.

(i) PNGRB's open access proposal: After facing opposition for its proposed transportation tariff for the CGD network, PNGRB faced further push back from some CGD companies who alleged that the proposed regulation for open access in the sector sidesteps those who have already invested heavily in the sector. According to reports, Torrent Gas Pvt Ltd, Adani Gas Pvt Ltd, GAIL Gas Ltd, Gujarat Gas Ltd (GGL), Mahanagar Gas Ltd (MGL) and Indraprashtha Gas Ltd (IGL) raised concerns about the PNGRB's move that aims to end exclusivity of supplier after five/eight years of operations. The apprehension was that it could lead to making the overall CGD development project as economically unviable for the authorized entity by making it the supplier of first and last resort for PNG domestic segment only, whereas it allows third party to pick and choose large volume end users and CNG. As we are aware, CGD projects are very capital intensive with long gestation period, allowing other entities to set-up CNG stations within such authorized geographical area would be a gross infringement on the interests of CGD entities.

After much deliberations, PNGRB's final gazette notification on 'Access Code for City or Local Natural Gas Distribution Networks Regulations, 2020' was released in the last week of November 2020 which stipulates that after the end of marketing exclusivity (5 years or 8 years as the case maybe), CGD networks will be declared as common carrier networks and CGD entities will be obligated to provide access/connectivity to 20% of network capacity to any third party for sale of gas within the authorized area. PNGRB while allowing the open access has made efforts to protect the CGD entities by disallowing the CNG or L-CNG stations existing till the date of notification of these Regulations (November 23, 2020). The biggest beneficiaries of this should be Mahanagar Gas Ltd (the firm that retails CNG in Mumbai) and Indraprastha Gas Ltd (Delhi) for whom CNG constitutes about 73% of total their total volume. This regulation will prohibit the OMCs from setting up their own dispensing units in their existing network that has been let out for CNG supplies on behalf of authorized CGD entities.

(ii)PNGRB's tariff determination proposal for open access in gas networks: The mechanism for tariff determination of CGD networks by the PNGRB which had initially met with stiff opposition from leading CGD companies, is also an attempt to make the sector more competitive. One of the criticism of the notified tariff system was that for the matured CGD entities such as IGL, MGL, Adani Gas and Gujarat Gas, the notified CGD tariff regulations provide for lucrative tariff with 12% post-tax ROCE on Cost of Service methodology using the last 3 year audited statements whereas tariffs of new entities, like Torrent, Think Gas, AG&P are based on competitive bidding and is at much lower levels. Quite a few of the CGD companies won bids on the basis of zero tariffs; and as such they would be required to provide free service in the future. The notified CGD tariff could negatively affect the earnings and cash flows of CGD companies. While the draft proposal PNGRB (Determination of transportation rate for CGD and CNG) Regulations, 2020 was made public by the natural gas regulator in the last week of September, after deliberations, the final regulations were notified in the last week of November 2020. We believe it may be early times to have brought in competition as the sector is still growing and it will take a few more years for it to reach maturity given its long gestation period. We will not be surprised if a few modifications are brought about in the future by PNGRB.

(iii) NGT asks CPCB to ensure states, UTs ban use of petcoke, furnace oil: The National Green Tribunal (NGT) played a key role in restricting /banning the use of dirty fuel, like, furnace oil and petcoke in industries. Several petitions were heard seeking regulations and to control the use of petcoke and furnace oil as fuel to prevent damage to the environment and public health. The NGT directed the Central Pollution Control Board (CPCB) to ensure that states and Union Territories ban the use of petcoke and furnace oil as fuel to prevent damage to the environment and public health. An Action Taken Report has been sought by the NGT from the CPCB for further hearing on January 2021, which has the potential to further ban the use of furnace oil and petcoke in large areas of the country. The Supreme Court had already banned the use of petcoke and furnace oil in the national capital suggesting further that other states and UTs take similar measures. Complete ban of furnace oil and petcoke will most likely increase the use of gas and have a positive effect on the environment. Already we have seen increased use of gas in industries wherever such bans have been implemented. Morbi ceramic industries in Gujarat is a case, where large scale conversion to gas has taken place.

LNG Utilization – On road and off-road automotive fuel:

LNG, as we are all aware, is suitable for long-haul trucks and buses as its higher energy density can help vehicles travel upto 1000 km with one fill. With the PNGRB opening up the development of LNG retails stations for public and private participation, the move has come as a big boost to the gas industry. PNGRB's announcement that no authorization was needed to set up LNG dispensing facilities for vehicles was clearly a step in the right direction. Obviously this has led to increased interest in the building of retail LNG dispensing facilities for vehicles. India's top gas importer Petronet LNG wants to partner with fuel and gas retailers on LNG stations along highways for long-haul trucks and buses. Petronet wants to set up 5 LNG stations in the fiscal year ending March 2021, and 300 by 2023 and eventually aims to have 1,000 LNG stations across India. Meanwhile, Indian Oil Corp, Bharat Petroleum and Hindustan Petroleum, the country's top refiner and fuel retailer are also keen to develop LNG retailing through its fuel pumps. GAIL (India) Ltd is also keen to explore setting up LNG dispensing facilities.

Lately we have witnessed loads of buzz around the development of LNG retail stations along major highways. Some estimates expect Indian companies to spend 100 billion rupees ($1.35 billion) over three years on 1,000 LNG stations along main roads and industrial corridors. The objective is to reduce diesel consumption, which is widely used by buses, heavy duty vehicles and the mining sector, and accounts for about two-fifth of India's refined fuel consumption. More importantly LNG being a cleaner fuel, it also adds to the improvement of the environment by displacing diesel. There is already awareness in the industry and various stakeholders about the benefits of LNG as a fuel. This opportunity for promoting LNG should be harnessed as early as possible. The environmental and economic dividend of LNG with the stated objective of moving the country towards the gas-based economy will drive LNG usage. In order to get there, huge investments in the gas infrastructure – LNG import terminals, pipelines, Stations, and CGD network will need to be made. We have already seen additional investments in import facilities on the west and east coasts.

Sooner than later, it is expected that government will bring LNG within the ambit of GST.

Indian Oil Corp, Bharat Petroleum and Hindustan Petroleum, the country's top refiner and fuel retailer are also keen to develop LNG retailing through its fuel pumps. GAIL (India) Ltd is also keen to explore setting up LNG dispensing facilities.

The potential use of LNG as an automotive fuel is expected to create a win-win situation for fleet owners, vehicle manufacturers & stakeholders in the value chain. Use of LNG will also help India to meet with its commitment under the Paris Accord to cut greenhouse gas emission intensity of its gross domestic product by 33-35% below 2005 levels by 2030.

Gas Exchange – Regulation and Establishment

As part of the larger reforms in the natural gas sector aimed at smooth trade of natural gas in the country, the government had been pushing for the establishment of gas trading hubs and exchanges in the country where natural gas could be freely traded and supplied through a market mechanism. It was also felt that the gas exchange and auction platforms could play an important role in the market in the future.

In this direction, the Indian Gas Exchange (IGX) was launched on June 15, 2020 as the country's first gas trading platform for physical delivery of gas, subsequently IGX obtained authorization from PNGRB on December 4, 2020. It is the first automated national-level electronic trading platform. IGX will provide a neutral and transparent marketplace to multiple buyers and sellers to trade in spot and forward contracts at designated physical hubs. The platform is expected to foster the government's vision of increasing the share of natural gas in the energy mix from 6% presently to 15% by the year 2030. Pursuant to the launch of IGX, the PNGRB came out with a regulatory framework for a Gas Exchange. The regulations, hosted on the PNGRB's website, is a maiden attempt by India to build a regulatory framework for a gas exchange that would trade physical contracts. It sets out the details of the regulations regarding the setting up and operation of an exchange, membership, shareholding and settlement of trades. It has been made amply clear, that no shareholder can have more than 15% stake in a natural gas exchange. A gas trading platform will go a long way in enhancing trade transparency, boosting consumer confidence, and increasing market opportunities for suppliers.

IGX is now India's first automated delivery-based gas trading platform. The Exchange will play an instrumental role in transparent discovery of gas prices, accelerate investments in the value chain, aid in capacity utilization of pipelines as well as boost consumer confidence and in turn increasing gas demand in the country. The unified tariff regulation has come as a boost to the gas trading activities. However, we expect the government to revisit the Gas Utilization Policy and the priority allocation regime to make the exchange more robust.

The potential use of LNG as an automotive fuel is expected to create a win-win situation for fleet owners, vehicle manufacturers & stakeholders in the value chain.

Fiscal Issues:

There are, however, areas that need reworking to facilitate a quicker push towards a gas-based economy. New Delhi has been reluctant to bring petroleum products—whether diesel, petrol, CNG, PNG or natural gas—under the rationalized goods and services tax (GST) as it prefers to retain flexibility to meet its fiscal goals. In the past few weeks, for instance, India steeply increased diesel and petrol retail tax rates while global crude oil prices slumped. New Delhi has been quick to ramp up tax collection as receipts have dipped due to the coronavirus pandemic. A relatively lower GST rate for gas would incentivize consumers to increase demand. But it must be noted that substituting one fuel for another—as it heavily imports both—will still leave India vulnerable to the volatilities of global market. In this regard, India's efforts in the upstream space have been lacking; oil and gas exploration efforts have

The Covid-19 crisis has narrowed the gap between spot LNG rates and the fixed local gas price, prompting New Delhi to re-examine the pricing formula.

suffered due to inefficient pricing and opaque policies. An example of skewed policy is the pricing of domestically produced gas in India. The local gas price is linked to a basket of low global reference rates in countries such as Canada, the UK and the US. Domestic producers say this low price level does not reflect the high cost of production or market realities in India. The gas price in India has been fixed at a multi-year low of \$1.79/MMBtu. However, the Covid-19 crisis has narrowed the gap between spot LNG rates and the fixed local gas price, prompting New Delhi to re-examine the pricing formula. India will gradually end federal controls on gas pricing as it seeks to attract foreign investment to lift local output, Pradhan said in late June. By backing gas, India wants to be counted as a nation sensitive to the environment. There is, however, work to be done to make the transition a success.

GAIL India – Proposed Unbundling

A government task force which was set-up to raise the share of gas in the energy pie suggested measures such as the splitting GAIL India Limited and bringing natural gas under the GST regime. It also wanted a market-linked price discovery mechanism through an exchange. The task force suggested unbundling the gas transmission and marketing segments to make them more competitive and also to enable non-discriminatory access to a transmission network. The petroleum ministry, as part of the unbundling of state-owned GAIL, suggested two entities be formed one with marketing operations and the other, the pipeline company. It is envisaged that the pipeline business would be hived off into a separate entity and later considered for a strategic sale. This would leave GAIL with the core business of marketing of natural gas and petrochemicals production. The creation of a transport system operator who would enable uninterrupted gas flows from any gas source to the end users.

However, the suggestions are still to gain traction, leaving GAIL to continue to be the largest pipeline owner and operator in the country besides marketing of gas.

Conclusion:

We have already started seeing the effect of the reforms in the gas sector, markets are expanding both geographically and by volume. The markets are becoming more robust market with the introduction of upstream and downstream reforms. The creation of an even platform to do business has been encouraging both the private and the public entities to enter the gas business. Larger participation will ensure growth not only for the sector but for individual entities too. The desired objective of 15% share, even though a stupendous task, seems to be coming in sight as we slowly but surely move towards our defined objective.

Acknowledgement:

1. LNG Global
2. Economic Times
3. Ministry of Petroleum & Natural Gas
4. Bloomberg