



# CITY GAS DISTRIBUTION Imperative to Gas Growth in India

By Deepika Lal

According to IEA, the new price developments in the LNG sector is expected to boost natural gas demand in major importing regions including India, reinforcing the view

that natural gas is a fuel well placed to expand its role in the global energy mix. With climate change high on the political and economic agenda of governments the world over, use of cleaner energy is being encouraged and gas, as we all know, is universally recognized as a fuel which fits the bill for its efficiency and for the increased benefit to the environment.

In India too, the government is committed to increasing the gas share in energy to 15% from the present 6.7%. While demand for gas from the fertiliser sector has been more or less stagnant, demand from the power sector has been declining because of lower cost of the alternate fuels as compared to gas. In such a scenario, the CGD sector could help the government achieve its objective of raising the gas share in energy.

The importance of the CGD sector has always

CGD Sector Growth		
	2015-16	2021-2022
CGD gas consumption	17 mmscmd	33.2 mmscmd
% share of CGD in gas consumption	13%	20.4%
GAs covered	79	293
No. of CNG stations	~1026	~4433 (Mar 2022)
CNG Sales (2014-15)	2.1 million tonnes	
No. of PNG connections	~3 million	~ 9.3 million (Mar 2022)
No. of companies in CGD sector	17	~ 60
Pipeline network	16,000 km	20,000 km
CGD pipelines-Steel	-	1.09 lakh inch-km
CGD pipelines-MDPE	-	2.19 lakh inch-km

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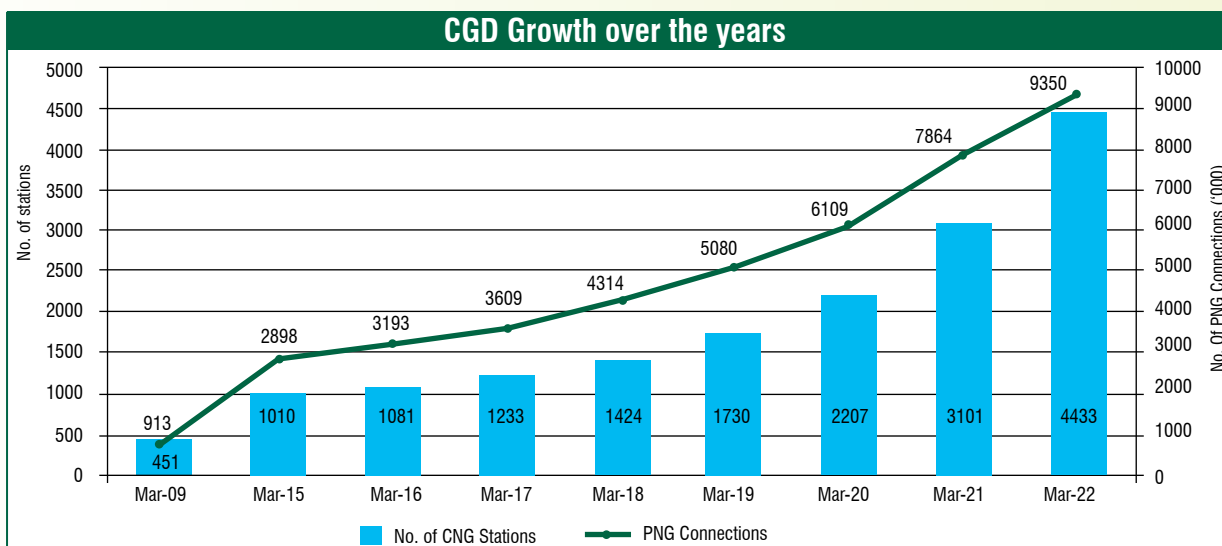
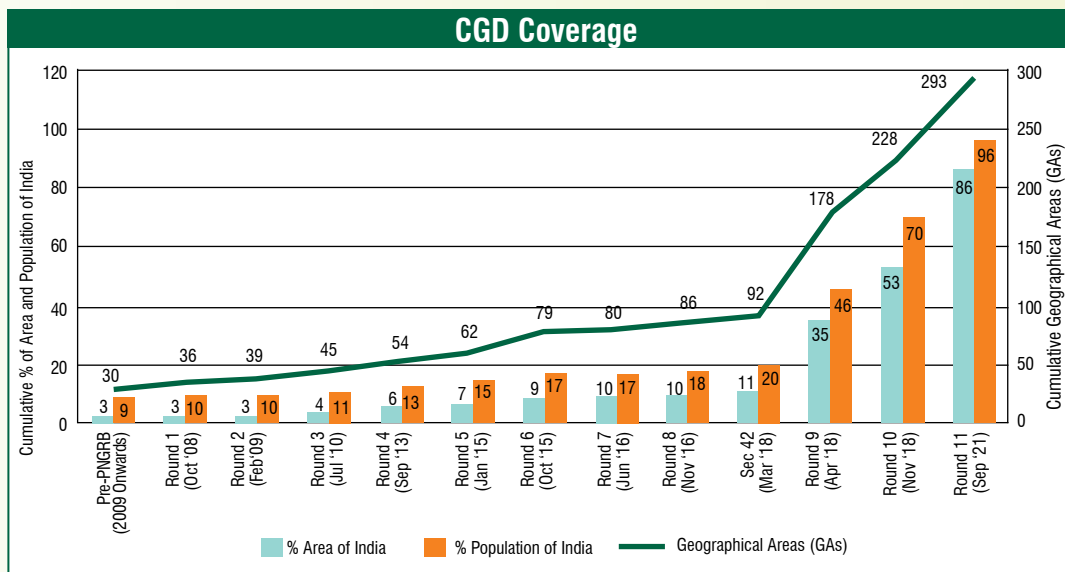
been recognized by the successive governments in India. Consecutive governments have brought more and more geographical areas across the country under CGD ambit by giving out licenses for them. The increase in allocation to the CGD sector and top priority to the automotive and

residential segment of the CGD sector in gas utilisation policy by earlier governments have been steps in the right direction. Due to this, the sector has witnessed many-fold growth in past few years. In 2016, the CGD network was spread over only around 80 geographical areas covering a mere 10% of total area and 18% of total population of India. The consumption of gas in the CGD sector was at around 17 MMSCMD. The number of CNG retail stations were 1000 with around 2.5 million Natural Gas vehicles (NGV) on the road and about 3 million households were connected to piped natural gas. Compare that with 293 GAs in 2022 covering a whopping 86% of area and 96% of total population of the country (another 5 GAs given out in the recently concluded 11A CGD bidding round). The CGD sector consumed 33

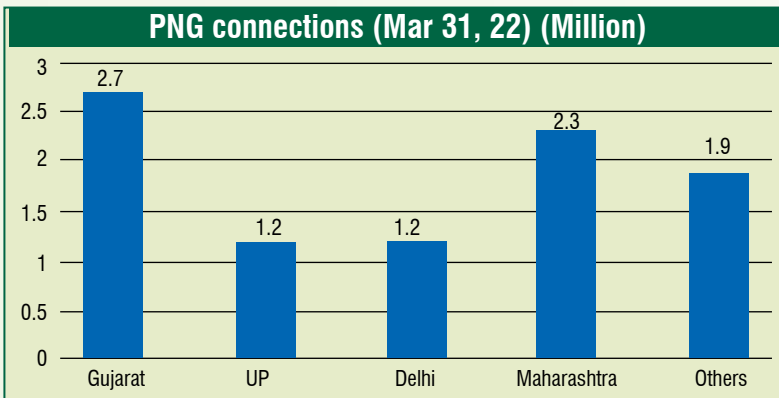
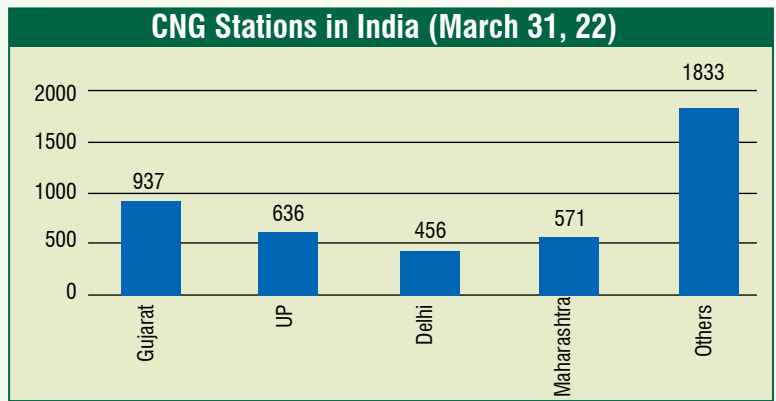
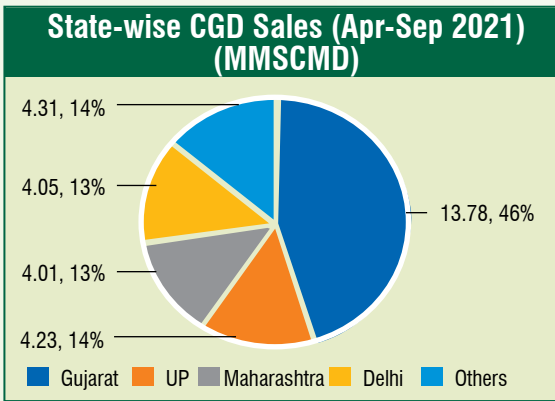
mmscmd of gas in 2021-22 and boasts of about 4500 CNG stations and 9.3 million piped gas connections today taking its share in total gas consumption to 20% in 2021-22 (and 23% in April 2022) from 17% earlier (2016). Now that is a remarkable achievement!

State-wise, Gujarat is clearly the frontrunner in total gas consumption in CGD sector because of the gas popularity in its industrial sector, driven by well-laid gas infrastructure in the state. It has the highest number of CNG stations and piped gas connections. Uttar Pradesh comes second in CNG stations while Maharashtra takes the second spot in piped gas connections. Within a few years, Uttar Pradesh has left behind even Delhi which now takes the fourth place. Other states such as Haryana, Rajasthan and Madhya Pradesh are also catching up.

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invest Rs 10,000 crore in CGD in the next five years. Similarly, GAIL has announced huge investment across city gas sector in the coming years.

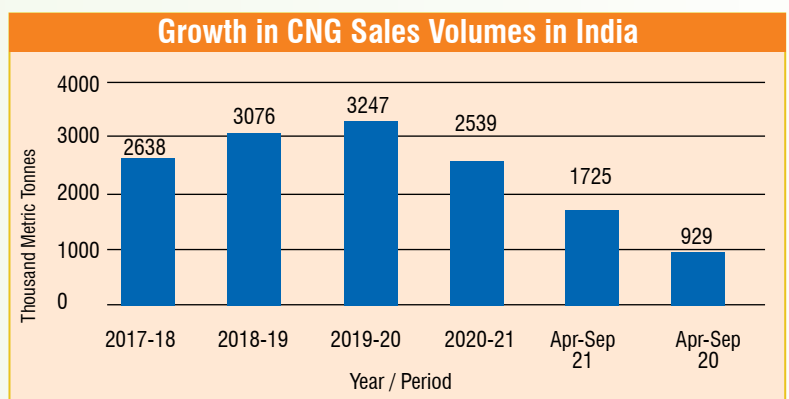
Segment-wise, out of total gas sales of 30 mmscmd in the CGD sector during the period April-September 2021, about 13 mmscmd of gas was sold as CNG while almost 17 mmscmd was sold as piped natural gas, largely going to the industrial segment.

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The amount of investment in CGD has also grown multi-fold with new areas opened for bidding and more and more companies entering the CGD space. From just a handful of companies present in the sector earlier, the number of companies has gone up to almost 60 lining up their ambitious investments in the sector. GAIL, BPCL, HPCL, IOC, Adani and Torrent, some of the biggies, have lined up huge investments either directly or through their joint ventures in multiple areas across the country. IOC recently announced investments of over Rs 7,000 crore alone in setting up city gas distribution networks in the cities for which it has secured a licence in the 11th bidding round. Similarly, BPCL has committed to invest Rs 10,000 crore in six new city gas networks it won in the same round. Adani Total Gas too plans to invest Rs 20,000 crore in CGD over the next few years in CGD. Torrent Gas announced in mid-2021 that it would

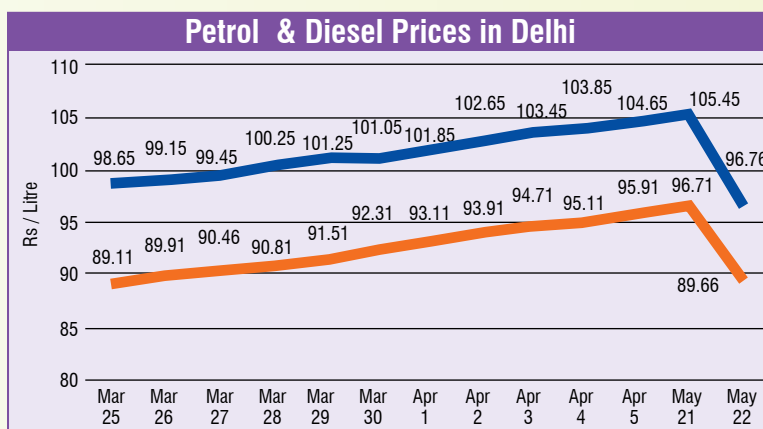
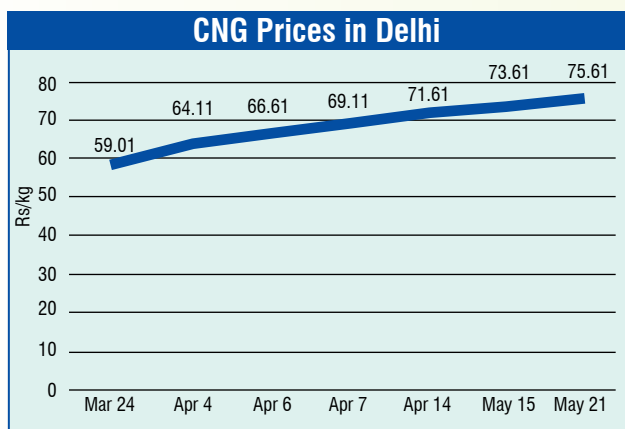
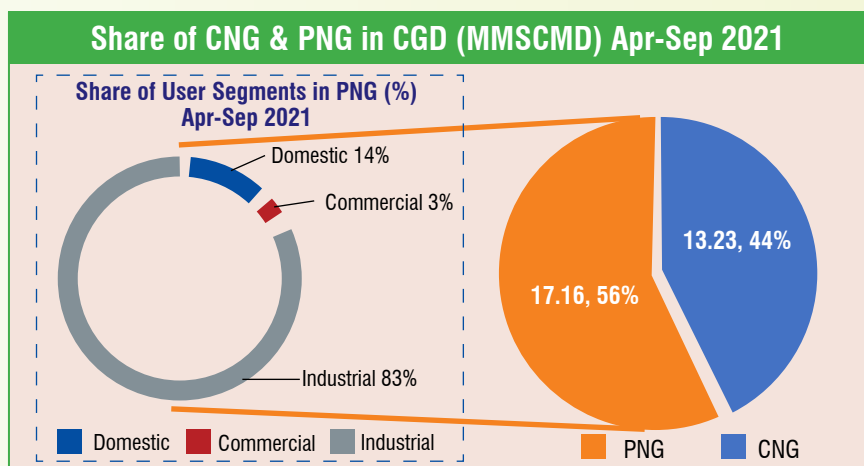
## Transport

The use of NGVs not only reduces emissions of carbon dioxide by 20% compared to diesel vehicles but also contributes to improving air quality by its low nitrogen oxide emissions. Natural gas advantages have led the European Union to recommend its use to improve the environmental performance of the transportation sector. The Trans European Transport Network Program (TEN-T) of European Union funds and supports CNG & LNG as a fuel for the transport and marine sector. In India, we could introduce similar programmes to incentivize the accelerated utilization of CNG & LNG as an automotive and marine fuel.



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Transport segment or CNG accounts for about 44% of CGD sector consumption. The volume consumption of CNG in Apr-Sep 2021 period was about 14 MMSCMD. This is rising because of increase prices of alternate fuels such as petrol and diesel. CNG sales in past few years have increased. Industry statistics indicate the growth in demand for CNG cars reached an all-time high of 49% (YoY) to 1.71 lakh units during FY2021. Further, 1.01 lakh CNG cars were sold in



India just within the first half of FY2022 (April-September 2021), a robust 97% year-on-year growth (April-September 2020).

Sensing the trend, top passenger vehicle makers, Maruti Suzuki and Hyundai have been pushing CNG models in the recent past. According to Maruti, country's largest car maker, the biggest driver of this growing demand is the low running cost of CNG cars, i.e. around Rs 5.20 km, which is one-third as compared to the fuel cost of cars running only on petrol/diesel.

While Maruti recorded nearly 31% growth to 2.35 lakh units during FY2022, Hyundai has also been seeing record high numbers. Tata Motors has sold 10,000 CNG cars since its launch in January 2022. Currently, CNG's contribution to the overall industry sales is about 8.5%

### DEMAND FOR CNG CARS DOUBLES% IN FIRST-HALF FY2022

Models	Apr-Sept '21	Apr-Sept '20	Change (in units)	% Change (YoY)
Maruti Wagon R	34913	16167	18746	116%
Maruti Ertiga	21610	10236	11374	111%
Maruti Eeco	13450	5693	7757	136%
Hyundai Aura	9578	2085	7493	359%
Hyundai Grand i10	7102	2133	4969	233%
Maruti Dzire	5505	2840	2665	94%
Maruti Alto	3483	2089	1394	67%
Maruti SPresso	2502	1857	645	35%
Hyundai Santro	1890	1131	759	67%
Maruti Celerio	888	6935	-6047	-87%
Hyundai Xcent	491	282	209	74%
<b>Total</b>	<b>101412</b>	<b>51448</b>	<b>49964</b>	<b>97%</b>

### RETROFITMENT OF CNG KITS

The road transport ministry in Jan 2022, issued a draft notification for setting the emission and other norms for retrofitment of CNG kits in BS VI petrol cars. As of now vehicles which meet the emission norms of up to BS-IV are allowed for CNG retrofitment. This will be allowed for vehicles that have gross vehicle weight (GVW) of up to 3.5 tonnes and the type approvals for vehicles retrofitted with CNG kits will be valid for three years. According to industry sources, the retrofitment of CNG in such vehicles kits could be around Rs 50,000 per vehicle, but the owners should recover the account quickly due to saving from fuel cost. The draft notification also proposes the replacement of the in-use diesel engine with a CNG engine. These developments would also help in deriving gas sales further in the CGD sector.



**As per the commitment of the CGD sector, it is expected that the number of CNG retail stations will increase to 10,000 in the next 7-8 years.**

which has a lot of potential to increase going forward given ever rising petrol and diesel prices and increasing retail infrastructure of CNG across the country. More than 1300 CNG stations were added in FY2022, taking the total stations to around 4500 across the country in March 2022.

As per the commitment of the CGD sector, it is expected that the number of CNG retail stations will increase to 10,000 in the next 7-8 years. Gas marketing companies, on other hand, are firming up their target to build LNG fuel stations across the country’s freight and industrial corridors. High cost of electric vehicles, limited charging infrastructure and related issues are also making CNG a more viable option in the transport sector.

**Residential/Commercial/ Industrial**

Currently, industrial segment accounts for a major part of the piped gas consumption. It consumed 83% of the total PNG consumption of 17 MMSCMD in Apr-Sep 2021 followed by residential segment at 14% and only 3% going to commercial segment. With rising

crude oil prices, LNG becomes affordable to the industrial and commercial segments where liquid petroleum is being replaced. Currently both crude prices as well as Indian imports of LNG are costly. However, they both compete well and industrial/commercial consumers often dump cleaner but expensive gas in favour of cheaper liquid fuels. This hurts volume off-take of gas suppliers and push up environmental costs for India. Every consumer wants cheaper fuel with the increasing preference for fuel oil among clients in glass, ceramics, chemicals, pharmaceuticals, agro, engineering and other industries. Most CGD companies face this pressure. A crash in crude oil prices prompts factories to reduce using gas for their energy needs and switch to fuel oil, a low-quality refined product that is usually cheaper than crude oil. The switch is smooth as factories increasingly use equipment that runs on both gas and liquid fuel. Consumers of natural gas (RLNG) have switched faster to dirty liquid fuel in industries and regions where environmental laws are not strictly implemented. Therefore, the authorities need to progressively curb the polluting fuels and encourage use of environment-friendly fuels such as natural gas.

The residential segment is currently in the grip of subsidized LPG. Given the current subsidy policy of the Government of India vis a vis supply of LPG to the residential segment, the task of replacing existing LPG residential customers by PNG is becoming more and more challenging. The key would be as to how quickly the government is able to reduce/eliminate this subsidy on LPG. Assuming the current New Delhi price of Rs 45.86 per SCM of PNG to a domestic customer and the price of LPG of Rs 1003 per cylinder of 14.2 Kg, the economics of supply works in favour of LPG. The government has been promoting LPG by providing a subsidy of Rs 200 per cylinder (Delhi) and if the government wants to increase the gas share as per its commitment, it will need to incentivise the demand for PNG as well. Going forward, PNG should also be included in the byelaws of the building/township plans to

Current fuel prices (Delhi) (June 8, 2022)	
CNG	Rs 75.61/kg
PNG	Rs 45.86/SCM
Petrol	Rs 96.72/litre
Diesel	Rs 89.6/litre
Non-subsidised LPG	Rs 1003/14.2 kg cylinder
Subsidised LPG	Rs 800/cylinder

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increase its usage. Raman Chadha, CEO, GAIL Gas shares, “Even in areas where PNG is easily available, LPG is not discontinued which could have been diverted to remote areas / rural areas which will also help in increased penetration of PNG”. Deepak Sawant, MD, MNGL suggests that “The gasified societies with PNG may be declared as ‘LPG free zone’ and mandate should be given for compulsory PNG connection to all households in the societies/buildings/colonies wherever PNG is available”.

### Key Enablers

One of the key reasons of success of city gas in past few years has of course been a constant government support. The government, aimed at increasing the gas share in energy, has been putting more and more areas on bidding. Since economically and environmentally both, CNG and PNG make for a better fuel than the other alternatives, companies are taking the sector as a good prospective investment area. Also in the wake of high crude and petrol, diesel and liquid fuel prices the consumers are getting attracted towards CNG and PNG.

Infrastructure development has also been a key enabler in CGD growth. With gas pipeline grid being established across the country and at various stages of completion, investing companies are optimistic about city gas. In February 2021, Prime Minister Mr. Narendra Modi announced that the Government plans to invest ~Rs. 7.5 trillion on oil and gas infrastructure in the next five years. About 35,000 km natural gas pipeline network across the country has been authorized with the aim to create a national gas grid. About 20000 km of natural gas pipelines are operational (as of December 2021) and another 15,000 km is under progress. With the completion of the PM Urja Ganga project in the eastern region, several fertiliser plants and refineries will provide a further boost to the gas demand. Completion of key trunk pipelines like Jagdishpur-Haldia, Kochi-Bangalore, Mehsana-Bhatinda, and the North East grid would also facilitate better gas penetration.

Then, there have been many other positives during the last couple of years; such as a ban on dirty fuel, like, pet coke and furnace oil in NCR and some other States (to be followed pan India hopefully), a very well-received tenth and eleventh round of bidding including some concrete steps being taken on establishing LNG corridor (setting up 1,000 LNG stations to replace diesel and petrol in long haul vehicles) etc. With all this, the CGD sector is showing signs that it could be a potential game-changer in increasing the gas share in energy. India’s commitment to the Paris COP21 and Glasgow COP26 is expected to give the gas industry a further boost because of environmental considerations.

According to experts, given the right ecosystem, growth rates could accelerate further given infrastructure and supply systems develop in an expected manner. If everything goes according to plan and commitments, and the PNGRB is able to monitor and course-correct, we can expect significant demand from this segment to replace the dirty and expensive fuels.

### Issues and Challenges

With the focus on increasing the usage of natural gas in the residential, industrial and transport sector, there are many hurdles/challenges which the sector needs to overcome and move forward into the fast lane. There are areas that need reworking to facilitate a quicker push towards a gas-based economy. Some of these issues are structural and may get resolved with time. However, on some other issues a collective front needs to be taken and intervention required.

Over the years, several challenges have plagued the sector including declining availability of domestic natural gas, increasing imports of high cost LNG, APM gas pricing, change in gas utilisation policy, regulatory issues, pipeline integrity and safety concerns, multiple clearances delaying the project implementation, and at times standards based on existing legislation not precisely suited to the

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**EXPERT SPEAK**


According to **Sanjay Kumar, Managing Director, Indraprastha Gas Limited**, top five challenges for CGD companies today are high gas prices, economic viability of gas vis-à-vis other transport fuels, taxation structure of gas, insufficient vendor availability and capacity and rising competition from electric vehicles. Some of these issues are structural and would get resolved with time. The current high gas prices are due to geopolitics and we may see lower prices in few months. On EVs, we may not be able to do much and would need to introduce them in our business plan.



**Raman Chadha, CEO, GAIL Gas** says unreasonably high targets for MWP set by CGD entities to win GAs are very challenging to achieve. Easy availability of reasonably priced alternate fuels such as LPG poses a big challenge for PNG. Inadequate land availability for CNG stations, tough competition to CNG from easily available auto LPG, taking permissions from various authorities for laying pipelines or CNG stations, competition to CNG from electric vehicles, third party damages are other some challenges.



According to **Deepak Sawant, Managing Director, Maharashtra Natural Gas Limited**, higher central excise duty of 14% on CNG, uneven tax rates on CNG across states, increasing cost of domestic gas and inadequate allocation to CGD, challenges in obtaining permissions for laying pipelines and CNG stations at multiple levels thereby delaying the project, scarcity of material, equipment and manpower, third party damages and inadequate availability of land for CNG stations are some of the key issues hindering the sector growth today.



**Suresh Manglani, CEO, Adani Total Gas Limited** says the sector needs timely permissions from authorities for projects, push for PNG adoption by households and adequate availability of domestic gas supplies.



**HK Srivastava, Managing Director, Aavantika Gas** opines that issues with local authorities in expanding PNG infrastructure, high cost of materials and equipment and delays in delivery, scarcity of skilled manpower, third party damages to pipelines, billing and recovery issues, decreasing availability of APM gas and taxation on gas are some of the key issues and challenges faced by CGDs today.



**A. Anbarasan, Managing Director, Tripura Natural Gas Company Limited** lists down the issues TNGCL faces in Tripura. There are fewer industries in the state and due to difficult geographical location of the state, transportation is a big issue. The prolonged rain causes delay in execution of projects. The demand for PNG is very minimal. There are more individual houses rather than apartments and so the installation cost turns out to be costlier. Most of the houses outside municipal limits are kachha and not suitable for PNG connection due to safety issue. There is also a lack of vendors and there is no utility corridor to lay city gas pipelines.

industry. These have impacted adversely on the economics of the CGD business. Industry feels that these kind of challenges slow down the growth of the CGD sector. Let's take up some of the challenges in CGD sector today...

**Domestic gas availability, allocation and gas prices – backbone of success?**

Though the domestic production of gas and its availability has increased in past year,

it is still not able to keep in pace with the growing demand. Inadequate availability of indigenously produced gas which is priced low and the increased dependency upon high priced LNG imports is therefore another issue that the CGD players have to worry about.

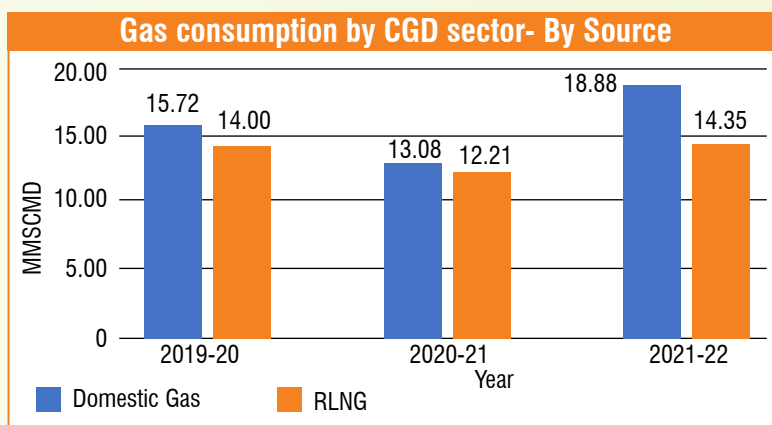
The current high gas prices reduce the price competitiveness of CNG and PNG vis-à-vis alternate fuels. However, the high prices are due to geopolitics and affected more by Russia

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Ukraine conflict. These may correct in the coming months once the situation improves.

The CGD companies have raised concerns that a 110% hike in domestic gas price from April 1 forced them to blend RLNG with domestic gas and increase the CNG and PNG prices substantially (Rs 10 per kg/scm). The price of domestic natural gas for the six months starting April 1, 2022 has been fixed at \$6.10 per mmBtu from \$2.90 per mmBtu earlier. The increase in prices comes on the backdrop of surge in global energy prices amid the Russia-Ukraine conflict. Russia's invasion of Ukraine, which began in February 2022, drove already-elevated gas prices even higher globally. Russia accounts for 17% of global gas output, and its pipeline via Ukraine caters to more than a third of European gas demand. The heightened supply uncertainty because of the ongoing conflict and Europe's intensifying efforts to reduce dependence on Russian gas by importing more LNG will keep gas prices high at least in the near term. India will feel the heat, too, as domestically produced gas, which meets almost more than half of its gas demand, is linked to prices at international gas trading hubs. The balance demand is met by term and spot LNG imports.

The recent change in gas allocation policy has also been strongly protested by the industry. According to CGD players, gas allocation to CGD sector has not kept pace with the increased demand in the last couple of months due to which CGD players have had to blend costly RLNG with domestic gas to produce CNG and PNG. Companies such as MGL are blending around 15-20% of RLNG with local gas. Despite a decision of the Union Cabinet to give 100% gas supply under 'no cut' priority to the CGD sector, current supplies are at March 2021 demand level (though the demand has increased in CGD segment). The ministry is supposed to make an allocation of domestic natural gas, which costs a sixth of imported LNG, every six months in April and October every year based on verified demand in the previous six months. But no allocation has been made



since March 2021.

In an attempt to boost consumption of natural gas under CGD and increase availability of gas, the Ministry has prepared a mechanism for uniform base price for gas. The uniform base price formula will be based on regassified LNG, compressed biogas, and domestically produced gas. The idea to bring in a uniform base price is to meet the increasing demand for gas required for CGDs which cannot be just met by domestic sources of gas. Uniform base price will help increase availability of gas from different sources and also meet the gas requirements of the CGDs. However, the uniform base price will have an impact on the margins for the CGD companies and also consumers if the companies decide to pass on the cost.

The planning body, NITI Aayog has also been favouring to sell all natural gas in the country through the Indian Gas Exchange. This would mean complete marketing and pricing freedom to all gas produced in the country, including that from nominated gas fields. The buyer and seller can decide on prices in a transparent manner on IGX. The move, if it gets cleared by the government, will be advantageous to companies like ONGC and Oil India, sitting on a majority of nominated fields. However, it may mean higher sourcing prices for CGD companies affecting their profitability and business margins.

### Regulatory provisions - Impeding growth or encouraging competition?

Some recent changes in regulations governing city gas markets have the potential

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**PNGRB floated a draft access code for common carrier or contract carrier natural gas pipelines in June 2021 as the government has been keen on allowing open access to CGD pipelines in order to increase the competition in the market.**

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 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.

PNGRB floated a draft access code for common carrier or contract carrier natural gas pipelines in June 2021 as the government has been keen on allowing open access to CGD pipelines in order to increase the competition in the market. Under the new code, the PNGRB has proposed the setting up of a National Gas Grid Management Services or “NGGMS” or a Transmission system operator (TSO) or Independent System Operator (ISO) which would be an entity appointed by the Board or by the government to regulate access to a common

carrier or contract carrier so as to ensure fair trade and competition amongst entities under these regulations to ensure non-discriminatory transportation access, capacity reporting monitoring, operation planning and control etc.

The draft access code elicited concerns from CGD companies which contended that any infringement on the infrastructure exclusivity of an entity is not appropriate and will severely harm the interests of the CGD entities who are spending huge amounts on creating infrastructure. According to Indraprastha Gas, “the code will 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”. Companies also think that “the code will allow third party marketers and shippers to ‘cherry pick’ customers, and thus endeavour to be opportunistic and endeavour to serve a very select customer type or population.

Another proposal that the Board came up with is to declare few CGD networks as common carrier or contract carrier CGD networks. In September 2021, 54 licensed geographical areas were identified including Delhi, Mumbai, Pune city, Thane, Hyderabad, Gandhinagar, Mehsana and Sabarkantha GA, Ahmedabad City and Daskroi Area GA, Chandigarh, Allahabad, Bengaluru, among others, where the regulator proposed to terminate exclusivity period and throw them open to new players. The incumbent players in the GAs objected to the proposal maintaining that PNGRB Act does not vest any power with the Board to end exclusivity period for CGD networks. On the other hand, some consumer industry bodies favoured the move aimed at ending exclusivity citing that this would encourage competition and lead to market forces take play thereby reducing prices. For example, a steep rise gas price over the past few years has left buyer industries such as ceramic in a position, where it cannot compete against imported goods from countries like China. The end of exclusivity will help consumers avail benefit of cheap natural gas available through existing CGD networks.

### Role of Government – Support essential

The Government 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, for instance, India steeply increased diesel and petrol retail tax rates while global crude oil prices slumped. A relatively lower GST rate for gas would incentivize consumers to increase demand. Non-inclusion of natural gas in GST is leading to a situation where the VAT paid on the procurement of natural gas is not available as input credit to industries making the products of medium and small scale industries economically unviable and uncompetitive. This is not only bad for the economy but is also bad for environment as the use of polluting fuels like coal/wood/fuel oil will increase being cheaper as compared to PNG.

Also, the pace of approvals for the CGD projects remains slow and despite recommendations by the PNGRB, states are yet to provide a regulatory push such as lower road tax on CNG/LNG vehicles, a single window clearance for approvals and lowering of road-cutting charges. Says HK Srivastava, MD, Aavantika Gas, “Availing permissions to lay PNG infrastructure from local authorities is a cumbersome task and requires dealing at various levels. Even after having proper permissions there are many challenges faced, like unavailability of dedicated utility corridor, congested roads, and resistance shown by society residents against excavation work. Municipal Corporations impose many restrictions on the digging work during ‘Swachhhta survekshan’ without any written notice”. Suresh Manglani, CEO, ATGL suggests that “The model approach should be to enable single window clearance and time bound issuance of a CGD permit which will be applicable to all relevant agencies/departments”.

The 11th bidding round has been successful and a vast part of the country has been covered, with allocation in rural areas as well, where

the population is sparse and wherein network provision and expansion may not be very economical. The idea is to cover most areas, wherever some sale is possible so as to gradually increase the number of CGD companies. There will be a need to start off with anchor customers, finally reaching out to areas where there is concentration of population, without leaving domestic customers out of loop. Constant monitoring at the state government level as well as focus from PNGRB to achieve set targets would be required. Manglani says “Some of the things the government could do are: include starting a national and regional campaign by the government so that the gas awareness / adoption gets a boost, incentivize consumers through a scheme (Prajwala for NG on similar lines as Ujjwala for LPG), boost CNG conversion for existing vehicles through schemes similar to FAME and provide higher allowance of CNG vehicle life under vehicle scrappage policy”.

Another area of concern is the inadequate availability of skilled manpower, CGD materials and equipment. There is a scarcity of skilled manpower like project engineers, fusion welders, plumbers etc and with rolling out of newer geographical areas it could prove to a big challenge to find skilled manpower at the central and State level. It is imperative to take-up large scale skill development of manpower which is/will be required in the construction, operation and maintenance of CGD companies. Existing CGD companies as well as Industrial Training Institutes in the States should also gear up to take up the task. Deepak Sawant, MD, MNGL says, “The manufacturing of CGD-related equipment may be enhanced in India under ‘Make in India’ initiative. Training and development of dedicated team for plumbing, welding and other functions needs to be explored at various exclusive training institutes under funding by CGD entities and/or CSR to sustain the long-term CGD business”.

### E-Mobility – Stealing attention?

The government as well as industry’s shift of focus from gas to electric has also impacted

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**City gas entities must ensure that CNG is made available across their areas, selecting routes for long distance travel as well so that the vehicle owners have confidence to travel in case, they own CNG vehicles.**

the optimism for CNG in the transport segment. With the government pushing EVs more and more by giving out incentives to EV players, the CGD companies feel that the treatment is unfair and partial. Though at a very nascent stage, electric has a lot of potential to challenge CNG and share of other fuels in the transport segment. The EV industry is facing initial teething problems but once those are taken care of, e-mobility is likely to impact CNG growth in urban areas - mainly public transport. Opines Raman Chadha, CEO, GAIL Gas Limited, “Even though, it is expected that EVs will grow at a faster pace than any other segment in near future, the share of CNG is slated to increase considering its wider availability, established technology, and better cost of ownership. However, to create a level playing field, incentives extended for EVs should also be made applicable for CNG vehicles”.

### Way forward

CNG segment needs a lot of efforts and growth, with some investment upfront. City gas entities must ensure that CNG is made available across their areas, selecting routes for long distance travel as well so that the vehicle owners have confidence to travel in case, they own CNG vehicles. LCNG stations may also be opted for to address this long connectivity issue and limited CGD spread. Also, EVs are here to stay and so going forward, the CGD

companies will need to evaluate their business and commercials accordingly.

In PNG segment, many operators fear losing money in domestic connections. For instance, an expense of Rs 15,000-25,000 on an average per connection coupled with poor revenue collection instills such fear among operators. Low PNG price and consumption is another such factor. Thus, CNG business is more profitable due to the presence of volumes. When it comes to PNG, it is also difficult to lay pipelines across various households. Operators will have to realise that the seriousness in the whole society or the area will come only if every household has a PNG connection.

Price volatility is another aspect that needs to be taken care of and a mechanism is needed so international volatility can be absorbed through an aggregation model. Environmental laws need to be enforced very strongly in cities, so that the industry shifts to natural gas, wherein low priced fuel oil is being used. Lastly, APM gas pricing should be taken care of, taking into consideration international price mechanisms and profitability for the companies, and linkages in terms of costs of production are needed to avoid companies from incurring losses.

When it comes to effective implementation in terms of bidding, the companies have set targets, although they need to be revised and worked upon. When it comes to benchmarks of safety and continuous monitoring, a lot needs to be done, along with a focus on skilled manpower for development in the sector. Uniformity in the charges across municipal corporations in various states is also needed to curb shocks to companies entering newer areas. Also, appropriate mechanisms should be in place to further convince people in shifting from LPG to better sources of fuel.

It's time for all stakeholders to get going!