



Natural Gas Society

# Gas Statistics

## FROM THE EDITOR

## Some Room for Optimism?

**A**s we enter into the second quarter of the current financial year, there is some recovery and hope emerging. Business is slowly picking up on the domestic Gas front and demand and consumption has shown an upward trend. Globally, prices of Gas and LNG have remained in the lower range and while this will possibly keep the domestic gas price near current levels, the low LNG price is an advantage though how much benefit users can actually draw is to be seen. The rate of recovery should move on from here though businesses will have to probably contend with reduced growth in the current year. The one thing that can really give wings to the recovery is the power sector. **Given the current favourable price situation, any increase in consumption by the power sector would be a big boost.**

In the last issue, we talked of waiting “.....till the new normal”. And though the lockdowns have substantially eased and businesses are attempting to put their act together, it is still a far cry from business as it used to be whether it be logistics or operations.

Therefore, while there is a lot of talk of change or the environment necessitating change, not much seems to have emerged which could truly be called a New Normal. It has been easy to focus on the solutions necessitated by the COVID like Work from Home, staggered staffing etc.. But while some of these may have long range impact specially in future hiring, structure and staffing, it's still on inward look.

By legacy and perhaps owing to an absence of any great marketing pressure, the Gas business and the CGD business have largely been highly Projects and

**A major devolvement has been the launch of the Gas Exchange and one of the outstanding positives has been the industry support it has been able to garner.**

Operations driven and have developed supporting capabilities like strong supply chains, Safety systems and vendor tie ups. The COVID19 has to some extent disrupted or, if not disrupted, impacted these areas and perhaps therein lie the lessons of COVID for future. Maybe organisations have to learn to arm against disruption and this could be in any area: Capital availability, investment returns, labour and productivity, material availability, commercial contracting, markets etc. Another important aspect is the need to develop a strong industry collaborative system. In times like these, experience sharing and a consensus view on seeking Government and Regulatory support can play a critical role in the path to fast recovery. At a time when there is pressure on funds, collaborative efforts in the areas of generation of generic demand, research in areas of common interest, standardization of processes in Safety and equipment and components to the extent possible and according to their application, have the potential to reap good dividends.

Meanwhile, the MOP&NG and PNGRB have launched several initiatives in its reform process ostensibly for freeing up markets, pricing and trade.

The announcements, among other things, about freedom to set have up

LNG stations, working towards a unified pipeline tariff, talks to free up pricing (through exactly how is not clear) have been generally welcomed. A major devolvement has been the launch of the Gas Exchange and one of the outstanding positives has been the industry support it has been able to garner.

The Exchange is supposed to help in price discovery through its transparent trading process but in the current scenario, it would, at least for now, be price for trade through the Exchange and cannot be a benchmark price.

There are also some regulatory issues. Although the PNGRB has come out with public notice on regulations for the Exchange on the back of a Government Directive, whether PNGRB is empowered under the Act to do so, if not in doubt, is not exactly crystal clear either. Surely, the Regulator must have been confident of the legal aspects before issuing the public notice. Given the present environment, it is unlikely that this would be questioned directly but, as in the IGL price case, if there is any dispute in the future, its anybody's guess which way it would go. For the present, the notice is there for comments and it may not be fair to pass judgement.

Given the grim situation the industry was faced with in the start of the current financial year, the recovery so far and the initiatives by the Government do lend reason for optimism for faster return to the growth path.

**Vivek Joshi**  
Executive Director, NGS

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MAHANAGAR  
GAS



# WE ARE THE GREEN FUTURE. WE ARE MGL

## The foundation of future lies in the present.

At present, Mahanagar Gas Limited (MGL) is an organisation that reaches over 10 lakh families everyday through its ever expanding Piped Natural Gas (PNG) network. Simultaneously, it also fuels over 6 lakh vehicles with clean fuel - Compressed Natural Gas (CNG).

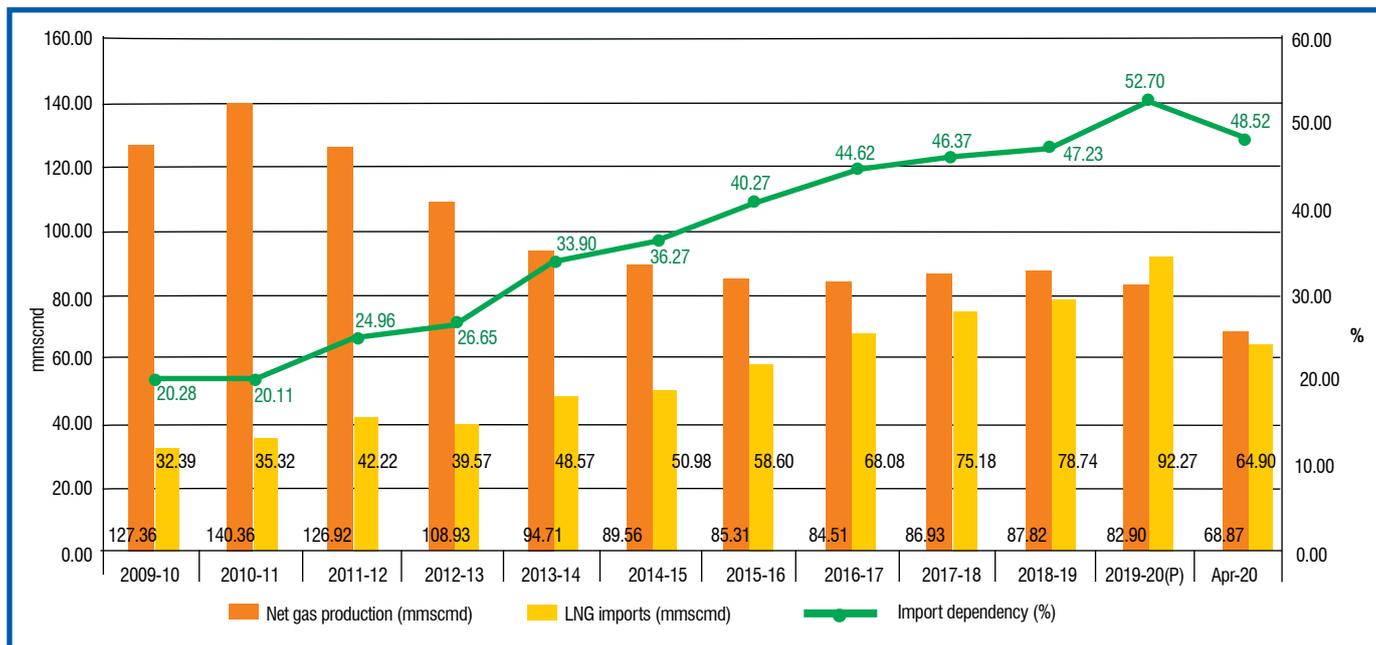
This reach concludes into lesser pollution with every progressing day.



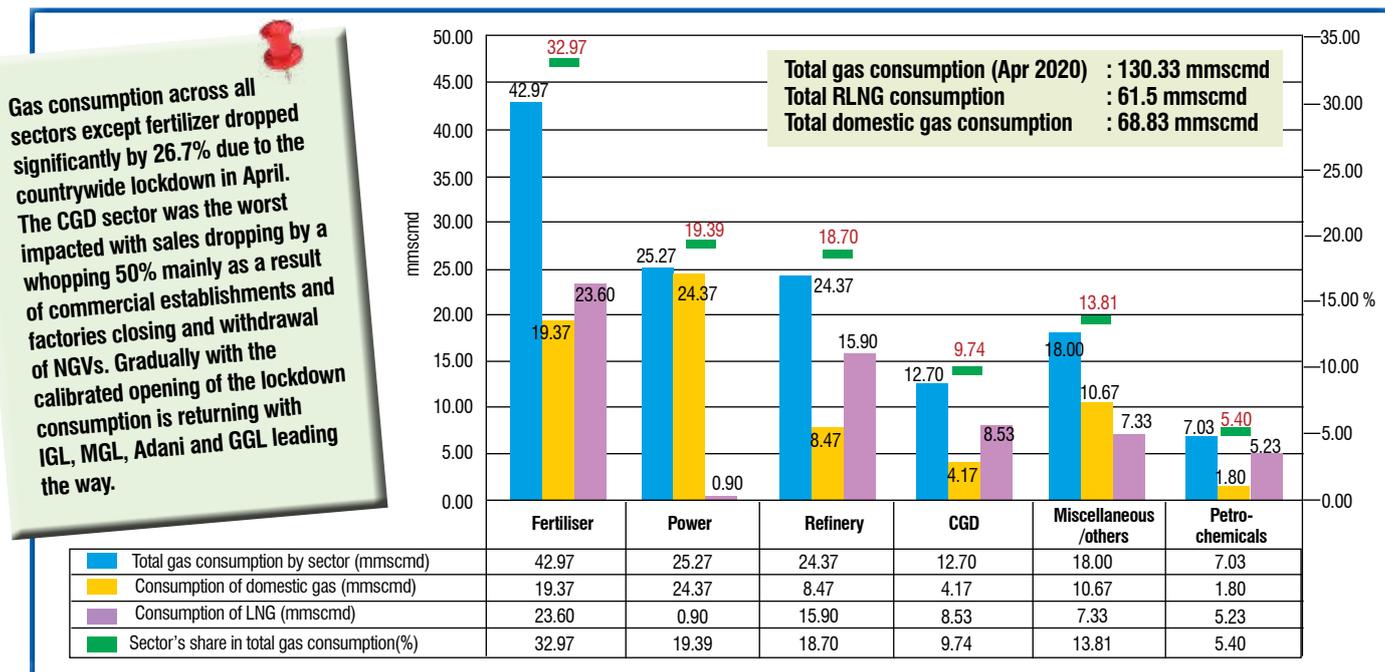
indhan  
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## Gas Production/Consumption/Imports (mmscmd)

### TREND IN GAS PRODUCTION/CONSUMPTION/IMPORTS (MMSCMD)



### SECTOR-WISE GAS CONSUMPTION OF DOMESTIC GAS AND RLNG (APRIL 2020)



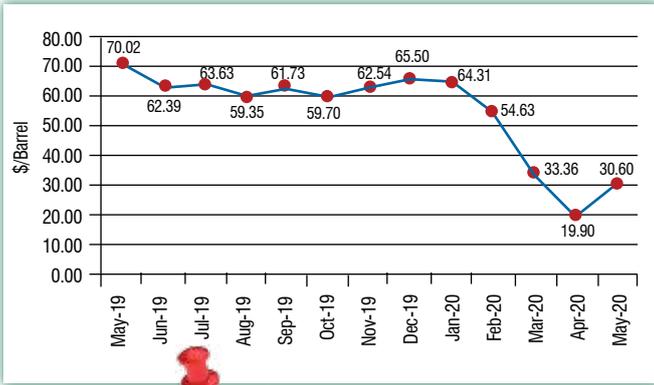
### TREND IN CONSUMPTION OF PETROLEUM PRODUCTS

In '000 MT	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (P)	Apr-20	May-20
LPG	13135	14331	15350	15601	16294	18000	19623	21608	23342	24907	26366	2132	2317
Naphtha	10134	10676	11222	12289	11305	11082	13271	13241	12889	14131	14436	859	1084
MS	12818	14194	14992	15744	17128	19075	21847	23765	26174	28284	29976	973	1769
HSD	56242	60071	64750	69080	68364	69416	74647	76027	81073	83528	82579	3250	5495
FO & LSHS	11629	10789	9307	7656	6236	5961	6632	7150	6721	6564	6094	297	479
Petroleum coke	6586	4982	6138	10135	11756	14558	19297	23964	25657	21346	21659	1135	1523

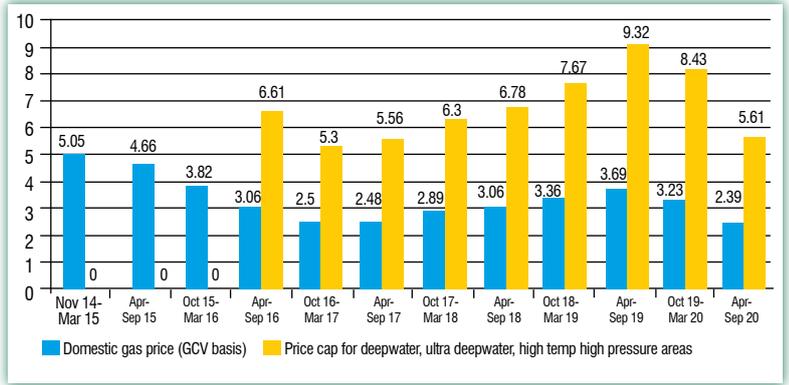
Source: PPAC, NGS Research

## Gas - Price & Analytics

### CRUDE PRICE (INDIAN BASKET)

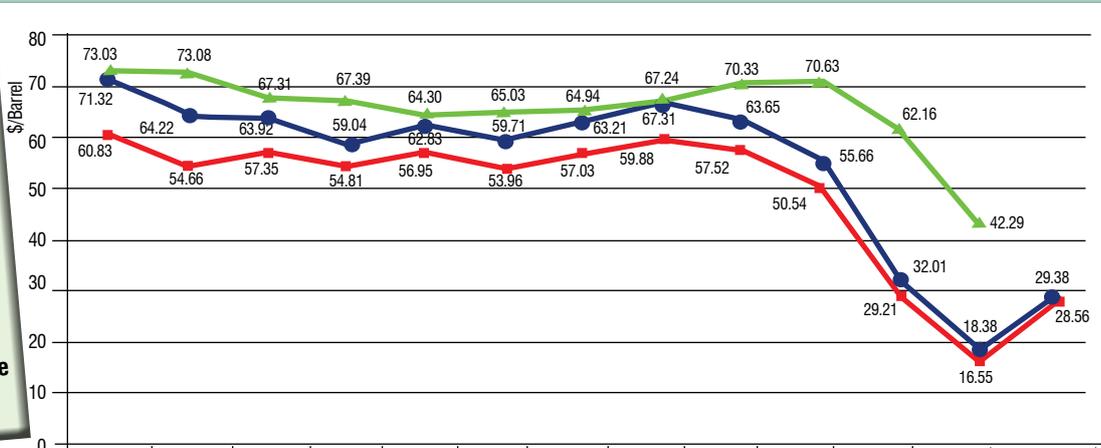


### DOMESTIC GAS PRICE (\$/MMBTU)



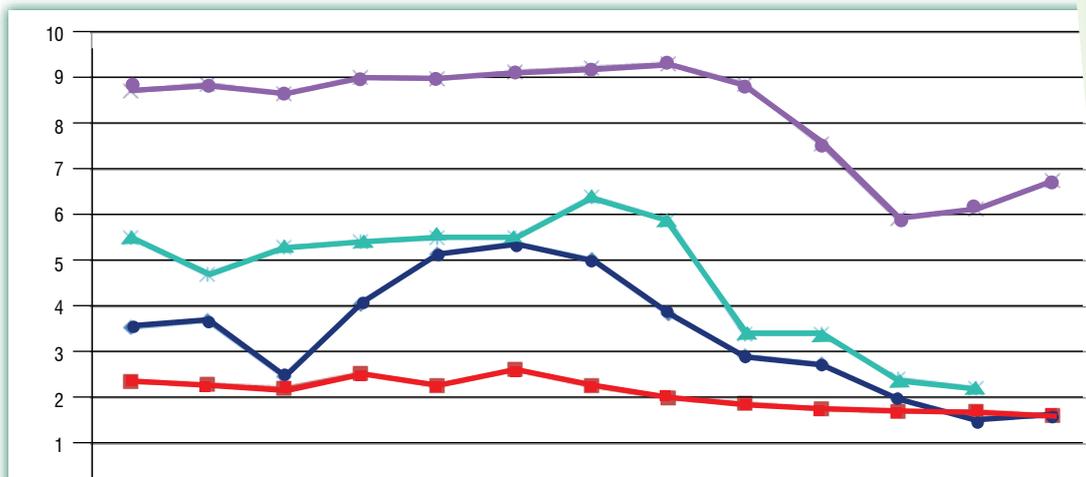
Crude prices had been showing a downward trend January 2020 with the outbreak of COVID19 in China, however, end March witnessed a precipitous fall in crude (Brent) price with the second highest fall in a single day in history. The soft price trend continued in April with an average of \$18.38/bbl to recover gradually to \$29.38/bbl in May. With the cooperation and collaboration of OPEC Plus, prices have since recovered in June to the level \$42/bbl. But we are still in a very volatile zone.

### BRENT/ WTI/ JAPAN OIL IMPORT PRICE (\$/BARRREL)



	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20	Mar 20	Apr-20	May-20
● Brent (\$/barrel)	71.32	64.22	63.92	59.04	62.83	59.71	63.21	67.31	63.65	55.66	32.01	18.38	29.38
■ WTI (\$/barrel)	60.83	54.66	57.35	54.81	56.95	53.96	57.03	59.88	57.52	50.54	29.21	16.55	28.56
▲ Japan oil import price (\$/barrel)	73.03	73.08	67.31	67.39	64.30	65.03	64.94	67.24	70.33	70.63	62.16	42.29	

### INTERNATIONAL GAS/LNG PRICES (\$/MMBTU)



The pandemic and the consequent lockdown equally impacted the gas/LNG markets across the globe. Demand across markets were destroyed in an already slowing market and an oversupply scenario. Both long term and spot markets were affected and spot price dropped below \$2/MMBTu. The arbitrage between long term and spot in the Indian market was around \$3/MMBTu, which became a big worry for long term contracted customers. Spot prices for April, May and June delivery continued to be below \$2/MMBTu, with July and August showing a slight recovery to \$2.20/MMBTu.

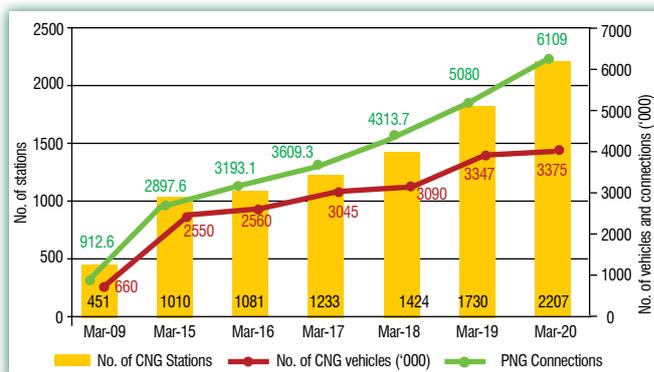
Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20	Mar 20	Apr-20	May-20	Jun-20
3.55	3.68	2.47	4.04	5.14	5.37	5.02	3.84	2.92	2.75	1.97	1.54	1.62
2.35	2.3	2.216	2.53	2.26	2.61	2.27	2	1.87	1.75	1.69	1.71	1.60
8.72	8.87	8.65	9.02	8.98	9.12	9.21	9.31	8.86	7.55	5.91	6.11	6.75
5.5	4.7	5.3	5.4	5.5	5.5	6.4	5.9	3.4	3.4	2.4	2.2	

Source: NGS Research, PPAC, EIA, LNG Journal

## CNG / PNG

City Gas Distribution which had been performing so well with a robust growth pattern took a huge hit during the lockdown months of April and May. The infrastructure growth was also impacted with the slowing/stopping of construction work in the new CGD authorized areas. However, in the first quarter of 2020, CNG retail stations, NGVs and residential connections grew significantly with PNG connections surpassing the 6 million mark, CNG stations expanding to 2207 with more than 3.37 million NGVs.

## CGD GROWTH OVER THE YEARS



## CNG STATIONS AND VEHICLES (AS ON 1.5.2020)

State	Entity operating	GA / City	No. of CNG Stations	No. of CNG Vehicles
Andhra Pradesh	Bhayanagar Gas, Godavari Gas, Megha Engineering	Kakinada, Vijayawada, East Godavari district (excluding area already authorized), West Godavari, Krishna district (excluding area already authorized)	66	25370
Assam	Assam Gas Company Limited	Upper Assam (covering Tinsukia, Dibrugarh, Sivasagar, Jorhat & Golaghat)	1	49
Bihar	GAIL (India) Limited	Patna	8	4835
Chandigarh, Haryana, Punjab & Himachal Pradesh	IndianOil-Adani Gas Private Limited	Chandigarh (UT) and Panchkula (part), SAS Nagar (part) & Solan (part)	11	7500
Dadar & Nagar Haveli & Daman & Diu	Gujarat Gas Limited, IndianOil-Adani Gas Private Limited	UT of Dadra & Nagar Haveli & Daman & Diu	10	1046
Delhi / NCR (inc Noida/ Ghaziabad)	Indraprastha Gas Limited	NCT of Delhi	419	775142
Goa	Goa Natural Gas Private Limited	North Goa	2	0
Gujarat & Dadar & Nagar Daman & Diu	IRM Energy Private Limited	Diu & Gir Somnath	7	277
Gujarat	Adani Gas Limited, Vadodara Gas Limited, Charotar Gas Sahakari Mandali Limited, Gujarat Gas Limited, Hindustan Petroleum Corporation Limited, IRM Energy Private Limited, Sabarmati Gas Limited	Ahmedabad City and Daskroi Area, Porbandar, Vadodara, Anand area including Kanjari & Vadtal Villages (in Kheda District), Bhavnagar, Jamnagar, Kutch West, Amreli, Dahej Vagra Taluka, Dahod, Anand (excluding areas already authorized), Panchmahal, Surat, Bharuch, Ankleshwar, Nadiad, Navsari (part), Rajkot, Surendranagar (part), Hazira, Valsad (part), Narmada (Rajpipla), Gandhinagar (excluding areas already authorized), Ahmedabad (excluding areas already authorized), Ahmedabad CNG Stations, Banaskantha, Patan, Gandhinagar, Mehsana, Sabarkantha, Kheda (Except areas already authorized), Morbi (except area already authorized) & Mahisagar District GA, Surendranagar (Except areas already authorized), Barwala & Ranpur Talukas, Navsari (Except areas already authorized), Surat (Except areas already authorized), Tapi (Except areas already authorized) & the Dangs	636	839470
Haryana	Adani Gas Limited, GAIL Gas Limited, Haryana City Gas Distribution Limited, HPOIL Gas Private Limited, IndianOil-Adani Gas Private Limited, Indraprastha Gas Limited	Nuh & Palwal, Faridabad, Sonipat (part), Gurugram, Ambala and Kurukshetra, Panipat, Rewari, Karnal, Bhiwani, Charkhi Dadri & Mahendragarh	104	169935
Jharkhand	GAIL (India) Limited	Ranchi, East Singhbhum	8	1655
Karnataka	GAIL Gas Limited, IndianOil-Adani Gas Private Limited, Megha Engineering & Infrastructure Limited	Bengaluru Rural and Urban, Dharwad, Tumkur, Belgaum	26	2224
Kerala	IndianOil-Adani Gas Private Limited	Ernakulam	8	1100
M.P.	Think Gas Bhopal Private Limited, Aavantika Gas Limited, GAIL Gas Limited, Indian Oil Corporation Limited, Naveriya Gas Private Limited	Bhopal & Raigarh GA, Indore (including Ujjain City) (part), Gwalior (part), Dewas (part), Vijaypur CNG Station, Dhar	64	37420
Maharashtra & Gujarat	Maharashtra Natural Gas Limited	Valsad (Except the area already authorized), Dhule and Nashik Districts	5	0
Maharashtra	Gujarat Gas Limited, HPOIL Gas Private Limited, Mahanagar Gas Limited, Maharashtra Natural Gas Limited, Mahesh Gas Limited, Unison Enviro Private Limited	Palghar and Thane Rural, Kolhapur, Raigarh (excluding areas already authorized), Mumbai & Greater Mumbai, Thane Urban and adjoining municipalities, Pune City including PimpriChinchwad & adjoining contiguous areas Hinjewadi, Chakan, Talegaon, Pune (excluding areas already authorized), Ratnagiri, Sindhadurg	370	1012967
Odisha	GAIL (India) Limited, GAIL Gas Limited	Khordha, Cuttack, Sundargarh & Jharsuguda, Ganjam, Nayagarh & Puri	19	4138
Punjab	Gujarat State Petronet Limited, IRM Energy Private Limited, Think Gas Ludhiana Private Limited, Torrent Gas Private Limited, Bharat Gas Resources Limited	Amritsar, Fatehgarh Sahib, Ludhiana (Except area already authorized), Barnala & Moga, Jalandhar (Except areas already authorized), Kapurthala & SBS Nagar, SAS Nagar (Except areas already authorized), Patiala & Sangrur, Rupnagar, Bhatinda	33	6790
Rajasthan	Rajasthan State Gas Limited, Torrent Gas Private Limited	Kota (part), Neemrana & Kukas CNG stations, Kota (except area already authorized), Baran & Chittontarh (Only Rawatbhata Taluka)	15	12510
Telangana	Bhayanagar Gas Limited, Torrent Gas Private Limited	Hyderabad, Medak, Siddipet & Sangareddy	66	26193
Tripura	Tripura Natural Gas Company Limited	Agartala, West Tripura (Except areas already authorized)	14	21710
U.P.	Adani Gas Ltd, Central UP Gas Ltd, GAIL (India) Ltd, GAIL Gas Ltd, Green Gas Ltd, Indian Oil Adani Gas Private Ltd, Indraprastha Gas Ltd, Sanwariya Gas, Torrent Gas Private Ltd, Bagpat Green Energy Pvt. Ltd.	Khurja, Jhansi (part), Bareilly (part), Kanpur (part), Varanasi, Meerut (part), Firozabad (Taj Trapezium Zone), Agra, Lucknow, Bulandshahr (part), Allahabad (part), Meerut (Except areas already authorized), Muzaffarnagar & Shamli, Gautam Budh Nagar, Ghaziabad, Mathura (part), Moradabad (part), Auraiya, Kanpur Dehat & Etawah, Gorakhpur, Sant Kabir Nagar & Kushinagar, Moradabad (Except areas already authorized), Bagpat	305	277520
Uttar Pradesh & Madhya Pradesh	Adani Gas Limited	Jhansi (Except area already authorized), Bhind, Jalaun, Lalitpur and Datia	1	0
Uttarakhand	IndianOil-Adani Gas Private Limited, Haridwar Natural Gas Private Limited	Udham Singh Nagar, Haridwar	5	150
West Bengal	Great Eastern Energy Corporation Limited	CNG stations at Asansol, Raniganj, Kultora, Durgapur	10	4077
<b>All India</b>			<b>2213</b>	<b>3232078</b>

Source: PPAC / NGS Research

## PNG / LNG / PIPELINES

PNG Connections (as on 1.5.2020)			Total		
State	Entity operating	GA/City	Domestic	Commercial	Industrial
Andhra Pradesh	Bhagyanagar Gas, Godavari Gas, Megha Engineering	Kakinada, Vijayawada, East Godavari district (excluding area already authorized), West Godavari, Krishna district (excluding area already authorized)	75832	193	14
Assam	Assam Gas Company Limited	Upper Assam (covering Tinsukia, Dibrugarh, Sivasagar, Jorhat & Golaghat)	35058	1149	406
Bihar	GAIL (India) Limited	Patna	943	8	0
Chandigarh, Haryana, Punjab&Himachal Pradesh	IndianOil-Adani Gas Private Limited	Chandigarh (UT) and Panchkula (part), SAS Nagar (part) & Solan (part)	18646	17	2
Dadar & Nagar Haveli & Daman & Diu	Gujarat Gas Limited	UT of Dadra & Nagar Haveli	6295	58	44
Delhi / NCR (inc Noida/Ghaziabad)	Indraprastha Gas Limited	NCT of Delhi	913139	2277	1297
Goa	Goa Natural Gas Private Limited	North Goa	3857	0	1
Gujarat	Adani Gas Limited , Vadodara Gas Limited , Charotar Gas Sahakari Mandali Limited, Gujarat Gas Limited, Hindustan Petroleum Corporation Limited, IRM Energy Private Limited, Sabarmati Gas Limited	Ahmedabad City and Daskroi Area, Porbandar, Vadodara, Anand area including Kanjari & Vadtal Villages (in Kheda District), Bhavnagar, Jamnagar, Kutch West, Amreli, Dahej Vagra Taluka, Dahod, Anand (excluding areas already authorized), Panchmahal, Surat, Bharuch, Ankleshwar , Nadiad, Navsari (part), Rajkot, Surendranagar (part), Hazira, Valsad (part), Narmada (Rajpipla), Gandhinagar (excluding areas already authorized), Ahmedabad (excluding areas already authorized), Ahmedabad CNG Stations, Banaskantha , Patan, Gandhinagar, Mehsana, Sabarkantha, Kheda (Except areas already authorized), Morbi (except area already authorized) & Mahisagar District GA, Surendranagar (Except areas already authorized), Barwala & Ranpur Talukas, Navsari (Except areas already authorized), Surat (Except areas already authorized), Tapi (Except areas already authorized) & the Dangs	2142112	20024	5126
Haryana	Adani Gas Limited, GAIL Gas Limited, Haryana City Gas Distribution Limited, HPOIL Gas Private Limited, IndianOil-Adani Gas Private Ltd, Indraprastha Gas Ltd	Nuh & Palwal, Faridabad, Sonipat (part), Gurugram, Ambala and Kurukshetra, Panipat, Rewari, Karnal, Bhiwani, Charkhi Dadri & Mahendragarh	131464	326	642
Jharkhand	GAIL (India) Limited	Ranchi, East Singhbhum	858	0	0
Karnataka	GAIL Gas Limited, IndianOil-Adani Gas Private Ltd, Megha Engineering & Infrastructure Limited	Bengaluru Rural and Urban, Dharwad, Tumkur, Belgaum	172909	220	126
Kerala	IndianOil-Adani Gas Private Limited	Ernakulam	5465	7	5
M.P.	Think Gas Bhopal Private Limited, Aavantika Gas Limited, GAIL Gas Limited, Indian Oil Corporation Limited, Naveriya Gas Private Limited	Bhopal & Raigarh GA, Indore (including Ujjain City) (part), Gwalior (part), Dewas (part), Vijaypur CNG Station, Dhar	85759	154	236
Maharashtra	Gujarat Gas Limited, HPOIL Gas Private Limited, Mahanagar Gas Limited, Maharashtra Natural Gas Limited, Mahesh Gas Limited, Unison Enviro Private Limited	Palghar and Thane Rural, Kolhapur, Raigarh (excluding areas already authorized), Mumbai & Greater Mumbai, Thane Urban and adjoining municipalities, Pune City including PimpriChinchwad & adjoining contiguous areas Hinjewadi, Chakan, Talegaon, Pune (excluding areas already authorized), Ratnagiri, Sindhudurg	1756669	4319	314
Odisha	GAIL (India) Limited, GAIL Gas Limited	Khordha, Cuttack, Sundargarh & Jharsuguda, Ganjam, Nayagarh & Puri	540	0	0
Punjab	Gujarat State Petronet Limited, IRM Energy Private Limited, Think Gas Ludhiana Private Limited, Torrent Gas Private Ltd, Bharat Gas Resources Ltd	Amritsar, Fatehgarh Sahib, Ludhiana (Except area already authorized), Barnala & Moga, Jalandhar (Except areas already authorized), Kapurthala & SBS Nagar, SAS Nagar (Except areas already authorized), Patiala & Sangrur, Rupnagar, Bhatinda	3057	22	21
Rajasthan	Rajasthan State Gas Limited, Torrent Gas Private Limited	Kota (part), Neemrana & Kukas CNG stations, Kota (except area already authorized), Baran & Chittontarh (Only Rawatbhata Taluka)	10076	16	14
Telangana	Bhagyanagar Gas Ltd, Torrent Gas Private Ltd	Hyderabad, Medak, Siddipet & Sangareddy	69073	14	32
Tripura	Tripura Natural Gas Company Limited	Agartala, West Tripura (Except areas already authorized)	44761	430	51
U.P.	Adani Gas Limited, Central UP Gas Limited, GAIL (India) Limited, GAIL Gas Limited, Green Gas Limited, IndianOilAdani Gas Private Limited, Indraprastha Gas Limited, Sanwariya Gas, Torrent Gas Private Limited, Bagpat Green Energy Pvt. Ltd.	Khurja, Jhansi (part), Bareilly (part), Kanpur (part), Varanasi, Meerut (part), Firozabad (Taj Trapezium Zone), Agra, Lucknow, Bulandshahr (part), Allahabad (part), Meerut (Except areas already authorized), Muzaffarnagar & Shami, Gautam Budh Nagar, Ghaziabad, Mathura (part), Moradabad (part), Auraiya, Kanpur Dehat & Etawah, Gorakhpur, Sant Kabir Nagar & Kushinagar, Moradabad (Except areas already authorized), Bagpat	716367	1370	1901
Uttarakhand	IndianOil-Adani Gas Private Limited, Haridwar Natural Gas Private Limited	Udham Singh Nagar, Haridwar	12387	24	24
<b>All India</b>			<b>6205267</b>	<b>30628</b>	<b>10256</b>

### Existing LNG terminals

Location	Promoters	Capacity (mmtpa) on 1.5.20	Cap. Utilisation Apr-19 to Mar 20 (%)
Dahej	Petronet LNG	17.5	103.1**
Hazira	Shell Energy	5	97.96
Dabhol*	Konkan LNG	5	32.9
Kochi	Petronet LNG	5	16.6**
Mundra	GSPC LNG	5	29.63
Ennore	IOC	5	9
<b>Total capacity</b>		<b>42.5</b>	

Source: PPAC/NGS Research, Includes Mundra terminal

\* to be increased to 5 mmtpa with breakwater \*\* cap utilisation in Apr19-Feb20

### Gas pipeline network (as on 1.5. 2020)

Company	Length	Design capacity (mmscmd)
GAIL	12160	246
Reliance	1774	84
GSPL	2692	43
ARN ^	215	6
DNPL	192	1
IOC	163	22
<b>Total</b>	<b>17196</b>	<b>402</b>

Source: PPAC

^ excludes CGD pipeline network

# EXCELLENCE IN LNG BUSINESS



Petronet LNG Ltd, one of the fastest growing world-class companies in the Indian energy sector, has set up the country's first LNG Receiving and Re-gasification Terminal at Dahej, Gujarat, and another Terminal at Kochi, Kerala.

While the Terminal at Dahej has a nominal capacity of 15 MMTPA [equivalent to 54 MMSCMD of natural gas], and currently being expanded to 17.50 MMTPA by 2019, whereas the Kochi Terminal has a capacity of 5 MMTPA (equivalent to 18 MMSCMD of natural gas).

**Petronet LNG Limited**

World Trade Centre, 1st Floor, Babar Road, Barakhamba Lane, New Delhi-11001 (INDIA)



# THE **LOCKDOWN** IMPACT – Recovering from the Lows

■ BY AFSIR AHMAD

**T**he COVID19 pandemic has hit an already declining global gas demand. As a result the global natural gas market has witnessed the biggest-ever drop in demand. This has clearly been an event which has impacted the gas industry growth not only for the immediate future but for a long time to come.

The International Energy Agency's Gas 2020 Report has projected consumption to slump by 4% this year under the successive impacts of lower heating demand from a mild winter and the implementation of lockdown measures in almost all countries. Faced with this unprecedented shock, natural gas markets too have been going through a strong supply and demand adjustments. This in turn has resulted in high volatility and historically low spot prices. It is expected that the pandemic will have a longer lasting impact on the gas markets. According to IEA, even though the global gas consumption was already starting to slowdown, the pandemic is expected to further impact the global demand growth to just 1.5% annually upto 2025, compared with a previous forecast of 1.8%. As of early June, all major gas markets have been experiencing a fall in demand or a sluggish growth at best as has been the case of China. Europe has been the hardest hit market, with a 7% year-on-year decline so far in 2020 mostly due to drop in use of gas in power generation and industrial use.

**The International Energy Agency's Gas 2020 Report has projected consumption to slump by 4% this year under the successive impacts of lower heating demand from a mild winter and the implementation of lockdown measures in almost all countries.**

## Indian Scenario: Similar but not totally so

In India, the impact on the oil and gas sector has been very similar but in a way a bit different also. And though everything went southward and in great measure, the recovery, specially in the CGD sector has perhaps been comparatively more rapid.

In the last financial year, India witnessed an increase in imports of all petroleum products except naphtha and aviation turbine fuel. More importantly due to the low commodity prices the government was able to maintain trade deficit. However, with declaration of COVID 19 as a pandemic by the World Health Organization and the consequent lockdown of almost two months to contain the spread of the Coronavirus dented the domestic oil and gas demand, thereby also impacting the government's revenue from taxes. The lockdown severely hurt the petroleum sector of the economy, including oil and gas production, and refining and consumption suffering a sharp decline.

Due to the lockdown, the overall oil demand is expected to fall to 4.60 million barrels per day in 2020 compared with 5.01 million barrels per day in 2019, according to sources. The natural gas output in April fell 18.64% to 2.161 BCM against 2.656 BCM a year ago. LNG imports dropped in April by a whopping 29.4% from a level of 2757 MMSCM a year ago to 1947 MMSCM, even though, in the financial year 2019-20, the country's import of LNG spiked 17% to 33,680 MMSCM. In value terms, however, imports declined 7.76% to \$9.5 billion. The decline in global commodity prices helped the country increase imports of petroleum products and LNG in 2019-2020 without inflating the import bill.

## COVER STORY

According to PPAC data India's oil imports, including petroleum products, decreased 8.15% to \$129 billion in 2019-2020, as compared to the previous year. However, in volume terms, oil imports increased 4% to 270 MMT.

### New Lows in LNG

The pandemic, as we all know, was immediately followed by a sharp fall in crude oil prices and consequently a drop in gas prices across the globe, spot prices of LNG fell to historic lows of \$1.3 per MMBtu. Long term contracted gas prices were also hit where gas prices with suppliers in Qatar, Russia or Australia are linked to moving average of crude oil prices for the past three or more months. GAIL's US LNG contracts are linked to gas hub rates but high liquefaction and transport costs make it uncompetitive. This has had serious implications for India as it becomes so much more difficult to be able to sell gas to long term contracted customers as supplies under long-term contracts have been at a much higher price of \$5-7 per unit. Though LNG rates had been under pressure for more than a year due to a supply glut but the extraordinary demand destruction by the coronavirus pandemic and the difficulty in storing the super-cooled liquid hammered global gas prices like never before.

A sharp fall in domestic prices followed the drop in international gas price; the new domestic prices fell by 26% in the last six-monthly revision on April 1 to \$2.39 based on the government-set formula. Today the maximum price producers can charge for gas from fields located in difficult terrains have also dropped a third to \$5.61 per MMBtu. Gas prices at various international gas hubs have declined, which would again lead to lower domestic gas prices in FY2021 based upon the current formula.

The average of spot-LNG prices in April dropped significantly as compared to \$5.2 in last April and \$6.4 in December, and is projected to be around \$2.30-2.40 per MMBtu for August 2020 delivery. This has the producer community worried over the medium term with no green shoots on the horizon. Gas marketers like GAIL, Indian Oil, GSPC and Bharat Petroleum have been procuring LNG via one or more long-term contracts (having take-or-pay provisions) with suppliers in Qatar, Russia, Australia and the US. They make this supply available to city gas distributors or industrial customers also with the "Take or Pay" provision in long term contracts.

The disparity in price between long-term and spot is very stark in the current times. Therefore, amid lockdown, consumers were forced to declare force majeure but suppliers were not agreeing, until the eventual suppliers

**India's natural gas consumption has been recovering slowly as the world's biggest lockdown starts to ease with the gradual resumption of economic and industrial activity. Gas demand has been rising as some industries start to come back, like chemicals and pharmaceuticals.**

like Qatar agreed to FM, thereby creating a strong possibility for litigation along the entire value chain. In the Indian context, bigger consumers like fertilizer have a cost pass-through facility but other industries don't. Smaller players would want to get out of such expensive contracts, but that could result in suppliers encashing their bank guarantees, resulting in legal disputes. Mercifully, there does not appear to have been much of consequence in this regard. However, the low price of LNG has the potential to revive some of the stranded power generating capacities. The current situation also has the potential to hurt margins of gas marketers. Pursuant to the drop in consumption, pipeline utilization has been falling which would diminish returns for operators like GAIL, IOC and Reliance (now Brookefields).

### India's gas demand gradually picking up as virus restrictions ease:

After a precipitous drop of 26.7% in April, when gas consumption dropped to 3910 MMSCM as compared to 5336 MMSCM a year ago, India's natural gas consumption has been recovering slowly as the world's biggest lockdown starts to ease with the gradual resumption of economic and industrial activity. Gas demand has been rising as some industries start to come back, like chemicals and pharmaceuticals. Some textile, ceramic, and steel have also started operations and demand from refineries is picking up fast. Daily gas consumption in Morbi in western Gujarat state, the country's largest ceramic industry cluster, has for instance risen to 0.9 MMSCMD from zero in April according to reports. Natural gas demand has risen by a third from its recent lows as factory activity continues to be expanded and more gas-driven vehicles come on the roads following the easing of lockdown curbs. The fertilizer sector had shown robust demand even in April, registering an increase of 11.9% over the same month last year, an increase of 137 MMSCM. Fertilizer plants are now operating at full capacity or more to meet with the immediate of farmers for the current sowing

# FUEL SCENARIO

India's fuel demand has recovered fast in May after falling at a record pace in April following the easing of lockdown that has permitted more vehicles on the roads and increased factory activity. Diesel and petrol sales by state oil companies had fallen by 28% and 47.5%, respectively, in the first fortnight of May from a year earlier. This was however a sharp improvement from April, when the sale of diesel and petrol had declined by 56.5% and 61%, respectively. A staggered easing of nationwide lockdown has got many factories humming back to life and more goods trucks and passenger cars on the roads, driving up demand for fuel. The first fortnight of April had witnessed the sharpest fall in fuel demand with diesel and petrol sales falling 61% and 64%, respectively, from a year earlier. An expected further easing of the lockdown curbs may boost fuel demand in the second fortnight of May. Jet fuel sales, however, have been barely recovering as passenger planes are still barred from flying. Jet fuel sales fell 87% in the first fortnight of May from a year earlier. In April, it had declined by 91.5%. The sales of liquefied petroleum gas (LPG), used mainly for cooking in the country, has jumped 24% in the first fortnight of May from a year earlier, further improving its blis-

tering growth pace of the past many months. The LPG sales in the first half of April was 21% higher though for the full month reduced to just 12% mainly because dealers slowed taking delivery towards the end of the month. Increased fuel demand has come as a big relief to refineries, which are now increasing their run rates. Indian Oil Corp said its refineries have raised capacity utilization to 60% from 45% last month and plan to raise it further to 80% by end-May. A demand collapse and overflowing storage had forced all refineries to cut capacity utilization. None of the refineries was shut down though some came very close to it.

## Fuel sales growth on the recovery path

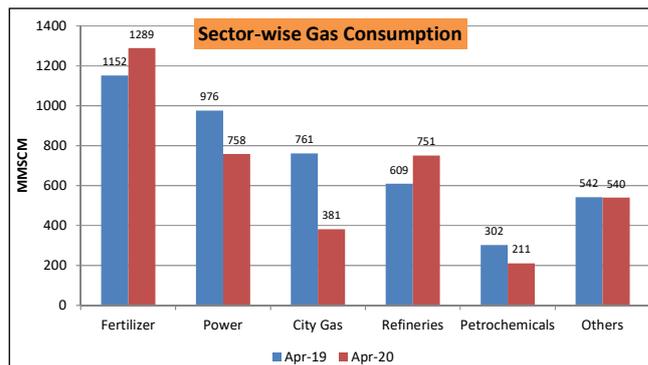
Fuel	May 1-15	April
Diesel	-28 per cent	-56.5 per cent
Petrol	-47.5 per cent	-61 per cent
Jet Fuel	-87 per cent	-91.5 per cent
LPG	24 per cent	12 per cent

Source: Economic Times/Indiatimes

season. Refinery and petrochemical consumption which had dropped in April by 20% and 30% respectively as compared to April 2019 have started contributing to increased gas demand. We have attempted to cover the city gas distribution sector in more detail here because of its growing importance in the sectoral demand curve. Over the years, the contribution of the CGD sector in the gas pie has been increasing and currently it stands just below the fertilizer sector.

## City Gas Distribution:

The city gas distribution business, which mainly caters to smaller production units, hotels, hospitals, homes, shops and natural gas vehicles, besides households, was the worst hit and the biggest contributor to gas demand slump during the lockdown. CNG sales in Delhi, Mumbai, Gujarat and other cities were down by about 70-80 per cent as except for a few buses and essential service vehicles other vehicles remained mostly off-road. CNG sales had reportedly dropped by a whopping 90



per cent to 3.5 lakh kilograms in April in Delhi NCR. IGL was forced to shut down half of their CNG retail stations in the Delhi-NCR region. Source said that IGL had closed 95 of its 150 COCO outlets to rationalize volumes. Commercial piped natural gas (PNG) volumes were also significantly down as restaurants and hotels were closed, and the scenario was similar for industrial PNG demand.

The sector was hit by a massive drop in gas consumption to the extent of about 50%. From a level of 25.36 MMSCMD (761 MMSCM) in April 2019, the consumption came down to 12.7 MMSCMD (381 MMSCM).

## Recovery of the sector:

With the government deciding to relax coronavirus lockdown restrictions in a phased manner, CNG sales have rebounded to around 30 per cent of the level prevalent before the lockdown was imposed. The sector has gradually started picking up. With more NGVs coming on the roads, the demand for CNG is expected

Comparative Consumption Table  
April 2020 vs April 2019 in MMSCM

Sectors	April 2019	April 2020
Fertilizer	1152	1289
Power	976	758
City Gas	761	381
Refineries	609	751
Petrochemicals	302	211
Others	542	540
<b>Total</b>	<b>5336</b>	<b>3910</b>

to go up. Further strengthening of gas demand would depend largely on how fast factories return to production levels seen before the lockdown. Factory activity could be challenged by the paucity of labour and demand in the economy. Lakhs of migrant workers have gone to their villages from cities and getting them back to factories could take months. The CNG demand growth would be largely determined by how quickly people start attending offices and the return to normalcy.

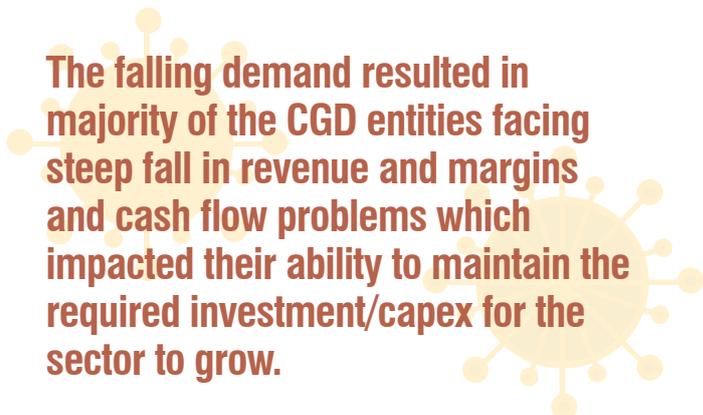
Similarly refiners and other gas players are also witnessing a consumption recovery. Indian refineries such as Indian Oil Corp, Hindustan Corporation and Bharat Petroleum Corp. had come back into the spot market to seek LNG cargoes for May to June delivery. India's Gujarat State Petroleum Corp is seeking five LNG cargoes for delivery over July to December, its first requirement since March, when it issued force majeure notices to its suppliers. An executive from India's top gas importer Petronet LNG, which declared force majeure on purchases from Qatar under long-term deals in late March, reportedly said there had been some recovery in demand compared to last month. However, with Indian gas major GAIL (India) halting LNG imports at its 5 MMTPA Ratnagiri terminal until end-September, any rise in imports of super cooled gas into the country will be limited. Full revival of demand will take a few weeks or months, depending on the sector and location. By the middle of April, in a scenario where gas demand had been going down and business falling due to the lockdown, city gas operators sought tax relief and loan restructuring to tide over difficult times. Barring supply of piped natural gas to households' kitchens, all segments under CGD showed a sharp fall in gas offtake. The falling demand resulted in majority of the CGD entities facing steep fall in revenue and margins and cash flow problems which impacted their ability to maintain the required investment/capex for the sector to grow. As a result of the slowdown in the overall economic activity, capex plans especially under the newly awarded city gas licenses is likely to be affected and will, therefore, act as a dampener for infrastructure growth. Some suggestions have been made by the CGD companies to provide the necessary impetus to the sector and bring back the growth story, like,

1. Seeking exemption of the CGD sector from excise duty on CNG
2. Deferment of statutory tax compliances at least till September-December, 2020.
3. Restructuring of loans by banks
4. Providing a moratorium on interest payments for at least another six months
5. Allocation of Government-priced controlled gas to

CGD operators

6. To do away with additional charges like excess gas, take-or-pay, imbalance etc. by suppliers and transporters,
7. Waiver of penalty for not making committed investment in a city gas area. It has been proposed that a deferment of at least 24 months in minimum work programme (MWP) be allowed post lockdown period and till the restoration of normalcy period in the industrial activities.
8. Assist in generation of finances for investment and to ease the financial stress being faced by the CGD entities, the Ministry of Petroleum should consider financial assistance to the sector, adding, this could be through creation of a special fund of the Oil Industry Development Board (OIDB) and the oil regulator PNGRB reserves.

Indian City Gas Distribution (CGD) companies were



**The falling demand resulted in majority of the CGD entities facing steep fall in revenue and margins and cash flow problems which impacted their ability to maintain the required investment/capex for the sector to grow.**

also found to be scrambling to deal with impending force majeure notices, demand destruction, labour shortage and liquidity squeeze as a result of Covid-19. The industry was of the view and rightly so that the time-line of pipeline and city gas distribution projects being implemented will be hit due to ongoing challenges faced by the industry. Some of the leading CGD companies are of the opinion that few of the challenges they see are invocation of force majeure, renegotiations to bring down the prices of old contracts and project execution during the lockdown. It is expected that even after the lockdown is lifted there could be delay in restarting operations owing to lack of adequate workers and equipment. It is also expected that there would be a shortfall in achieving the minimum work programme. This could have a cascading effect on all the CGD company's working capital requirement as there would be delays in realisation of receivables.

We are very confident that the CGD sector would bounce back to its accelerated demand growth path with the gradual return to normalcy. IGL, MGL, Adani and Gujarat Gas are few of the existing players expected to lead the growth, while GAIL Gas and other new entities who have entered the business recently are likely to add to the growing increase in demand from the sector.

# NATIONAL NEWS

## City Gas Distribution

### Maruti Suzuki launches natural gas version of the Celerio:

It is the seventh BS6 S-CNG offering from Maruti Suzuki, offering a mileage of 30.47 km/kg (Bharat Stage VI or BS6 is the most stringent emission standard issued by the Government of India). Maruti Suzuki sold 106,443



CNG vehicles in FY20. Sales of such vehicles increased 15.5% over a period of

five years. Maruti Suzuki also launched BS VI CNG Super Carry small CV at Rs 507,000. The launch is aligned to the carmaker's Mission Green Million announced at Auto Expo 2020. Skoda has also announced the launch of Octavia G-Tec, which is designed to run on CNG. It will be introduced in European markets later this year.

### Companies don't need city gas license to start LNG station, says regulator:

Anybody can start LNG dispensing station in the country and wouldn't require a city gas distribution license for it, the regulator has said in a big step towards aiding India's ambition of shifting some of its long-haul transport to natural gas. This helps resolve long standing regulatory confusion over LNG stations and would help many companies such as Shell or Petron LNG, which do not own city gas licenses but are keen on marketing LNG for transport, launch their own dispensing stations.

GAIL India will supply piped natural gas (PNG) in around 23,000 apartments belonging to various Tata group and other companies in the steel city Jamshedpur and has entered into an agreement for the same.

### India lockdown: Domestic natural gas demand set to plummet:

An economic recession will have an outsized impact on India's gas demand compared with countries like Japan or South Korea, where LNG is largely used for power production. In India, power generation accounted for only 17% of gas demand in January --the remaining demand came from the fertilizer sector, city gas distribution, oil refineries and petrochemicals. The 21-day lockdown imposed this week has already shuttered several factories and manufacturing units that are end-users of natural gas, and the demand destruction is cascading through the supply chain.

### India Automotive CNG/LPG Kit Market is expected to grow at a CAGR of over 7.77% from 2020-2026:

According to Blue Weave Consulting Indian Automotive CNG & LPG kit Market has reached USD 5.15 Million units in 2019 and projected to expand with a growth rate of 7.77%, in Volume terms, during 2020 to 2026. The market is expected to generate a revenue of USD 8.68 million units by 2026.

### Hyundai India launches CNG version of the BS6 Grand i10 NIOS:

The BS6\* Hyundai Grand i10 NIOS family recently added a CNG option. The new car features a bi-fuel (gasoline/natural gas) version of the 1.2-litre Kappa naturally aspirated four-cylinder engine. Running on CNG, this engine produces a maximum power of 69 PS at 6,000 rpm and a maximum torque of 95 nm at 4,000 rpm.



### E.S Ranganathan takes over as the Director (Marketing), GAIL:



He succeeds Gajendra Singh, who superannuated on June 30. Prior to his appointment Ranganathan was MD, Indraprastha Gas. Mr. Ranganathan was a senior member of the NGS Governing Council and contributed immensely to its development.

### AK Jana takes over as IGL's new Managing Director



Before joining IGL as Managing Director, Jana was Chief Executive Officer of GAIL Gas Ltd.. He has taken over from ES Ranganathan who ceases to be a Director and Managing Director.

### M.V Ravi Someswarudu takes over as GAIL Gas CEO:



Prior to this assignment, he was serving as Executive Director & Officer- In- Charge of the Petrochemical Project at GAIL, Pata. He has taken over the charge from A.K Jana, who is now the Managing Director for Indraprastha Gas Limited.

### GAIL chief Manoj Jain appointed Chairman of Mahanagar Gas as well:



Manoj Jain, the chairman and managing director of national gas major GAIL, has been appointed as the head of the city gas distributor Mahanagar Gas as well.

# Electric Mobility & Bio- Methane

## U.P. cabinet approves road tax relief to EV manufacturers, increases traffic fines:

There will be a 100% exemption in road tax on the first one lakh two-wheeler electric vehicles to be manufactured and 75% exemption for four-wheelers.

**Indian Oil Corporation and Germany's Oil Talking company** have jointly set up a bio-gas plant in Namakkal at the cost of Rs 34 crore. The plant is producing 2.4 MW of electricity.

## First lithium plant in India plans in progress:

India's first lithium refinery is forging ahead after Neometals Ltd. and Manikaran Power Ltd approved a feasibility study. The study will aim and focus to supply a nation set to become the fourth-largest electric-

vehicle market by 2040. This refinery will have a capacity of 20,000 tons a year of lithium hydroxide.

## MG Motor India partners with Tata Power to deploy Superfast chargers at select dealerships:

The company already has 10 SuperFast 50 kW charging stations across its dealerships in five cities - New Delhi- NCR, Mumbai, Ahmedabad, Bengaluru and Hyderabad. It signed an MoU with Tata Power to deploy 50KW DC Superfast chargers at select MG dealership locations which will be accessible by both MG ZS EV customers as well as other EV owners whose automobiles are compatible with the CCS / CHAdeMO charging standards.

## Hyundai, Kia and LG Chem join hands to invest in EV battery startups:

Hyundai Motor Group is planning to deploy 44 eco-friendly vehicles by the

## EV sales reach 2,80,000 units, Sales Report-Bajaj, MG Motor, Tata, MG Motor, TVS:

The sales of electric vehicles have reached to 2,80,000 units till November in India.

The sales list includes most of the three-wheelers that run on lead acid-batteries. The Union government has made a decision that EVs with lead-acid batteries will be stopped from receiving benefits of government incentives in the second phase of the FAME Scheme.



year 2025, which include 23 battery electric vehicles. Hyundai Motor Company, Kia Motors Corporation and LG Chem have joined hands to launch "EV & Battery Challenge" (EVBC), a global competition to identify up to 10 electric vehicle and battery start-ups for potential investment and collaboration, informed Kia in a release on June 23.

# Gas/Pipelines/ Company News

## Indian Energy Exchange (IEX) launches country's first gas trading platform



IEX launched the country's first gas trading platform, the Indian Gas Exchange (IGX), for physical delivery of natural gas on June 15. The IGX commenced its membership drive in February this year ahead of its formal launch. It has 12 members and 300 plus clients so far which includes buyers, sellers and users. The online gas trading platform intends to offer transparency, competitive price of natural gas, 24x7 trade facility, delivery facilitation and ease

of transaction to the market participants. LNG terminal owners, GAIL (India) Ltd and Petronet have joined the exchange. With others such as Manikaran Power, Torrent Power and Adani Gas onboard, the exchange will help in the revival of stranded gas fuelled power projects and reducing fertiliser prices and subsidy, Mediratta added. The other members and clients of the exchange are; Geeta Power, GMR Group, Piramal Glass, Asahi Glass, Gujarat State Fertilizers & Chemicals Ltd, Gujarat Narmada Valley Fertilizers & Chemicals, Krishak Bharati Cooperative Ltd, Saint Gobain, Kajaria Ceramics,

Bhagyanagar Gas, Maharashtra Natural Gas Ltd, Haryana City Gas and Gujarat Borosil. The natural gas trading platform will also help towards discovering market price of gas on the exchange. The government is moving towards free market pricing of gas with the current administered price mechanism going against the interest of domestic producers. GAIL (India) Ltd plans to acquire around 26% stake in India's first natural gas exchange. Also, PNGRB has come out with a Public Notice on July 10, 2020 inviting comments/views on the draft Petroleum and Natural Gas Regulatory Board (Gas Exchange) Regulations, 2020.

## Centre announces 1656 km pipeline for Northeast:

The pipeline will connect cities like Guwahati, Shillong and Aizawl among others. The Cabinet Committee on Economic Affairs (CCEA), on

June 10, approved a Rs 55.59 billion viability gap funding for the proposed northeast gas grid to be implemented by Indradhanush Gas Grid, a joint venture of GAIL India, Indian Oil Corporation (IOC), Oil and Natural Gas Corporation (ONGC), Oil India (OIL) and Numaligarh Refinery Ltd (NRL).

#### Self-certification of oil discovery allowed:

The government has simplified procedures for oil and gas exploration and production by providing for self-certification for a host of compliance, such as discovery notification and deemed consent for investment in fields in a stipulated time. Field

development plans will be deemed to be approved on the expiry of 30 days of submission of documents under self-certification. With a view to make it easier to do business, the government has provided that notification of a discovery and tests to confirm them will not require approval and documents will be accepted on self-certification basis, according to the notification issued on April 25.

#### EESL, GAIL sign MoU for trigeneration projects:

Trigeneration or Combined Cooling, Heat and Power (CCHP) typically involves natural gas-fired generators to produce electricity. The waste heat from flue gas is recovered to produce

**ONGC awarded 49 marginal producing oil and gas fields to seven companies** under a government plan to raise production from these acreages that are not economical for the state-run flagship explorer. The awarded fields make up 13 onshore contract areas spread across Gujarat, Andhra Pradesh, Tamil Nadu and Assam, the company said in a statement but did not identify the winners. The winners were selected through an international competitive bidding for 17 onshore contract areas.

hot water or steam which in turn is used for heating purposes and also in absorption chillers for cooling.

## Policy Matters/Gas Pricing/Others

**Government has decided to defer the roll out of the next stage of emission norms** for construction vehicles, agricultural combined harvesters and tractors by six months - from October 2020 to April 2021 - in view of the Covid pandemic.

#### DGH approves investments worth \$4.8 b during lockdown:

The Directorate General of Hydrocarbons (DGH) has given investment approvals worth nearly \$4.8 billion (approximately ₹36,000 crore) during the last two weeks for upstream oil and gas activities in India. Among the large investment proposals that have given approval are 'work-plan budgets' of projects in the Krishna-Godavari Basin, including projects of ONGC and Reliance Industries Ltd. Work-plan budgets of major investments in Rajasthan have also received approval.

**Centre sets up six-member panel to review the existing production sharing contracts (PSCs)** owing to the fall in crude oil prices and the Covid-19 lockdown. Because

of lower oil and gas price environment, there is a need to find ways of attracting investment in exploration and production of oil and gas. The committee's scope includes suggesting methodology for increased production and activities and changes required in the existing policies. The panel has members from ONGC, Oil India, DGH, ministry of petroleum, and former DGH officials, with expertise in the operational aspects of hydrocarbon industry.

#### Regulation

Petroleum Natural Gas Regulatory Board (PNGRB) in its public notice on 2nd June 2020 announced that any entity can set up an LNG station in any Geographical Area or anywhere else, even if it is not the authorised entity for that GA. This announcement would facilitate LNG dispensing infrastructure across the country on major national highways and encourages OMCs, CGD entities or any interested parties to set-up such retail stations.

## LNG Development and Shipping

#### NTPC poised to call bids for LNG terminal to power Andaman and Nicobar islands:

The Andaman and Nicobar (A&N) islands are set go green as state-run NTPC Ltd is poised to call bids to set up a floating micro-liquefied natural gas (LNG) terminal to power the Indian archipelago

#### Maharashtra State transport body mulls diesel-LNG shift for buses:

The state transport department is considering adopting the public private partnership (PPP) model to convert its fleet of diesel-run buses to LNG ones. Around 1,200 MSRTC buses are set to be converted in the first phase of the plan.

#### LNG recovery in Asia depends on China, India policies:

The latest International Energy Agency (IEA) report released on June 10 on the global natural gas market makes sombre reading, especially for current and would-be producers of LNG. According to the report,

## NEWS BRIEF

global natural gas demand will drop by 4% or 150 billion cubic metres (bcm) in 2020 as consumption takes a hit from the economic impact of the novel coronavirus. The IEA forecasts a gradual recovery in demand in 2021 and 2022, but the impact of the coronavirus will be long lasting, increase uncertainties and dampen growth rates. What recovery is there is in demand is likely to be led by LNG and will be led by Asian countries, the IEA said. This may sound encouraging for the LNG industry, but there are some caveats around the IEA's forecasts for Asia.

### India' LNG import drops 40% year on year to 1.5 MT in May:

However, the import volumes inched up 4% from the levels in April. For LNG imports, Petronet LNG's Dahej and Kochi terminals have been losing market share to Shell's Hazira and the newly commissioned Mundra terminals over last three months, analysts at Credit Suisse noted.



Petronet's Dahej, the largest among them with 17.5 MMTPA capacity, was operating at 55-60% utilisation in May. The Dabhol terminal, owned by a joint venture of GAIL and NTPC, has been closed from May 26 due to the monsoon season, and this is seen to provide some support to Dahej's LNG volumes, experts pointed. Import dependency of natural gas has increased to 53% of consumption in FY20 from 47% in FY19. Imports of LNG have increased at a CAGR of 12% during FY16-20, as the government plans to convert India into a 'gas-based economy' by 2030. As noted by Care Ratings, LNG imports have increased by more than 17% during FY20 with gas-based power plants, oil refineries and gas marketing companies taking

advantage of low spot LNG prices. Value of imports came down by 7.8% in FY20 to \$9.5 billion. India mainly sources supplies of LNG from Qatar, UAE, Niger, Angola and the US.

### Petronet invites partners for development of LNG stations:

Welcoming PNGRB's decision on establishment of LNG dispensing stations, Petronet LNG is now scouting for partners for development of LNG dispensing stations. Petronet has already launched its first commercially registered LNG buses and LNG dispensing stations at its Dahej and Kochi Terminals. These buses are deployed for commuting PLL employees between their residence and work location which demonstrates the safety of LNG as an automotive fuel and provides travel range of 900 km in a single filling. PLL is already developing LNG dispensing infrastructure along Delhi-Mumbai highway and has already floated a tender.

## INTERNATIONAL NEWS

### Natural Gas / Transnational Pipelines / Others

#### Trump administration shelves more oil and gas lease sales:

The move marks a shift for the US Department of Interior, which had proceeded with a slew of oil and gas lease sales on public lands earlier this year as the outbreak of the coronavirus caused energy prices to crash. The Trump administration has backed off its regular oil and gas lease sale schedule, postponing at least two auctions that had been set for later this month after delaying a major sale in New Mexico in May, according to an official web site.

#### Athens rejects 'illegal' Turkey drilling plan:

Greece on June 1 attacked Turkey's plan to carry out oil drilling in the



eastern Mediterranean, describing it as "a new provocation". It is the latest in a series of rows that has caused tensions to rise between the two neighbouring countries in recent months. Turkey's announcement came after Ankara signed a controversial agreement last year with Libya's UN-recognised government in Tripoli, which claimed extensive areas of the sea for Turkey. The agreement has raised hackles in neighbouring countries, including Greece which has

said the deal fails to take into account the island of Crete. EU member Cyprus has also expressed anger that Turkey has sent ships in search of oil and gas off the divided island. The EU has repeatedly called on Turkey to end its energy exploration off the coast of Cyprus, arguing that the drilling is illegal because it infringes the island's exclusive economic zone.

#### Russian oil output falls to 9.39 million bpd in May, close to OPEC+ goal – Ifax:

Russian oil and gas condensate production fell to 39.7 million tonnes (9.39 million barrels per day) in May, down from 11.35 million barrels per day (bpd) in April. Under the agreement between Russia and

the Organization of the Petroleum Exporting Countries, a group known as OPEC+, Moscow has pledged to reduce its output by around 2.5 million bpd to 8.5 million bpd to help support oil prices. The deal does not include output of gas condensate, a light oil. Russia usually produces 700,000-800,000 bpd of gas condensate. That means that excluding gas condensate, Russia produced 8.59-8.69 mln bpd of crude oil in May. The ministry does not disclose gas condensate

output on a monthly basis separately. Interfax also said that Russian oil exports outside former Soviet Union in May reached 17.36 million tonnes, or 4.1 million bpd, down 14.2% year-on-year. OPEC+ agreed to cut its combined output by around 10 million bpd, or 10% of global oil production, in May and June, with a subsequent easing of the reductions, to tackle economic fallout from the coronavirus pandemic.

the July delivery assessment of \$2.10 per MMBtu and an August estimation of around \$2.20-2.30 per MMBtu last week.

The global shake-out of oil and gas assets has reached Australia with Chevron Corporation planning to sell its 16.7% stake in the country's original and biggest LNG project.

### China may overtake Japan as the world's biggest LNG importer earlier than anticipated:

According to Rystad as China recovers from the coronavirus pandemic, while Japan's economy remains in a slump, China is poised to overtake Japan. Japan's LNG imports fell in May to an 11-year low of 4.5 MMT as the pandemic halted economic activity,

## Global LNG Development

### Global LNG-Asian LNG prices little changed as oversupply persists:

Asian spot LNG prices were little changed this week, as a demand recovery from some buyers in the

region was not enough to absorb global oversupply. The average LNG price for August delivery into northeast Asia LNG-AS was estimated at between \$2.15-\$2.30 per MMBtu, compared to

## A quick roundup

The first two months of this quarter (Q2 2020), gas demand in top LNG importer Japan has been weak as COVID-19 forced hotels and restaurants to shut and as factories suspend operations, demand dropped. Gas sales in the commercial segment fell by up to 50% in May from a year earlier, while gas sales for the industrial segment slid by 20% to 30%. Japan's monthly LNG import volumes in May hit the lowest in a decade after the country's state of emergency declared in early April remained in force until late May. South Korea's top LNG importer Korea Gas Corp. had to defer several cargoes to the later part of the year as it grappled with high inventory according to Reuters. In China, the world's No. 2 LNG importer, gas inventory was also full, as the country's capital faced new cases while India has limited import capacity and the demand has just started to pick up after the calibrated opening of lockdown. European gas inventories have also been at record levels after a warm winter. Storage capacity in Northwest Europe is expected to hit maximum capacity before the end of the injection season, which is estimated to be some time in August as per Simpson Spence Young.

IGU 2020 reports that global LNG trade increased in 2019, reaching 354.73 MMT, an increase of 40.93 MMT since the end of 2018. This constitutes an increase of 13%, a sixth year of consecutive growth, it said. Most of the additional exported volumes in 2019 were from

existing exporting markets: US (+13.1 MMT), Australia (+8.7 MMT) and Russia (+11 MMT). According to the IGU, top LNG exporter Qatar is followed by Australia at (75.4 MMT). The US (33.8 MMT) overtook Malaysia (26.2 MMT) as the third largest exporter, and added record export volumes. Russia is now the fourth largest exporter of LNG (29.3 MMT). Asia Pacific continued its growth trajectory as the largest export region (131.7 MMT), the IGU said.

Only three markets saw a drop in export levels versus 2018: Indonesia saw the largest drop in export (-2.7 MMT), followed by Equatorial Guinea (-0.65MMT) and Norway (-0.45MMT). No new importers were added in 2019. However, most recent new importers increased imports further in 2019, such as Bangladesh, Pakistan, Poland and Panama. The largest increases in imports were seen in Europe, with the UK, France, Spain, the Netherlands, Italy and Belgium accounting for most of the additional imports (+32 MMT). Asian and Asian Pacific markets too contributed to global trade especially China, India and Malaysia. Currently, 907.4 MMTPA of liquefaction capacity is in pre-FID stage, with the majority of the proposed capacity coming from the US and Canada. Africa has 93.3 MMTPA of liquefaction capacity proposed and could emerge as a key LNG production region if those projects materialise.

official data on Wednesday (June 17) showed. That is less than the 5.6 MMT China imported in May, ship-tracking data from Refinitiv shows. For June, China is set to import 5.4 MMT and Japan 5 MMT, the data shows.

**Global gas inventory swells as demand recovers slowly: sources:**

Global gas inventory has swollen as demand for liquefied natural gas (LNG) slowed to recover and fears of a second wave of the coronavirus outbreak are adding to caution as economies restart. Dozens of LNG tankers are idling as gas storage tanks become full in countries such as Japan, South Korea and in Europe

**Magnolia LNG acquired by Glenfarne:**

Glenfarne Group, LLC has completed the acquisition of Magnolia LNG through Glenfarne’s newly formed subsidiary Magnolia LNG Holdings, LLC. Glenfarne is a privately held energy and infrastructure development and management firm based in New York City. The transaction was signed and closed on May 26th, 2020 for a cash price of US \$2.0 million. Magnolia LNG is a planned 8 MMTPA LNG export terminal in Lake Charles, Louisiana.

**Buyers of U.S. LNG to cancel 40-45 cargoes for August loading: sources:**

Buyers of LNG are expected to cancel 40 to 45 cargoes for August loading from the United States due to a slow recovery in Asian gas demand and record high European gas stocks.

**China’s LNG demand shoots up at expense of pipeline imports:**

State-owned major China National Petroleum Corp (CNPC), the country’s sole pipeline gas importer, is cutting pipe gas imports because of aggressive pricing competition from LNG truck sellers who hold high inventories, said Chinese sources. LNG truck prices have been falling, as state-owned majors empty their

LNG terminal tanks, so that they can receive fresh cargoes. China’s overall gas imports increased by 3.7% year on year in May, with LNG imports rising by 21% to 5.9 MMT, according to data from customs and LNG Edge. In the first five months of 2020, China has imported 1.9% more natural gas than in 2019, with a total of 40.12 MMT.

**Global LNG demand faces first seasonal contraction in 8 years:**

The global LNG industry is about to face its first seasonal demand

contraction since 2012, with demand in summer 2020 expected to fall 2.7% or 3 MMT year-on-year according to Wood Mackenzie. previous winter season. In general, a return to stronger growth is not expected until mid-2021.

**Qatar maintains position as world’s largest LNG exporter in 2019: IGU:**

Qatar managed to maintain its position as the largest liquefied natural gas exporter in the world (at 77.8 MMT) in 2019, International Gas Union (IGU) said in its “2020 World LNG Report”.

## Natural Gas/LNG Utilization



**More than 700 new CNG buses begin operations in Kazakhstan:**

Chinese manufacturer Yutong has recently supplied 760 new natural gas buses to Kazakhstan. Of these vehicles, 590 were purchased by the Shymkent municipal government, while the remaining 170 units will be put into service in Atyrau city.

**New CNG station network will serve ambulance fleet in Murcia, Spain:**

Redexis has launched a new network of seven natural gas stations in order to supply the Murcia’s Health Service (SMS, as in its Spanish

acronym) ambulance fleet, made up of nearly 400 vehicles.

**Global logistics company orders CNG fuel systems for its truck fleet:**

Agility Fuel Solutions, a business of Hexagon Composites, has signed a master services agreement with a global logistics customer to deliver CNG fuel systems for medium and heavy-duty trucks. The initial order represents an estimated total value of USD 2.2 million with additional orders expected to follow.



## LNG as a Marine Fuel/Shipping

**Volkswagen, first voyage on world’s largest LNG-powered car carrier:**

For the first time, Volkswagen vehicles will be transported from Europe to North and Central America on a car freighter powered by LNG. The SIEM CONFUCIUS with more than 4,800 vehicles for North America left Emden, in Germany for Veracruz in the Gulf of Mexico. By 2025, in



accordance with the environmental mission statement “goTOzero”, Volkswagen Group aims to reduce its total net CO2 emissions by 30% and be get CO2-neutral in 2050.

### Biggest LNG shipper signs \$20 billion deal to secure more vessels:

Hyundai Heavy Industries Group and Daewoo Shipbuilding's largest shareholder Korea Development Bank (KDB) signed a conditional MOU under which Hyundai Heavy Industries Co. will split into a holding company and an operating company. The holding company will buy KDB's 55.7 percent stake in Daewoo. Qatar has signed a deal worth around \$20 billion with South Korean shipbuilders to help cement

its position as the world's largest producer of LNG.

### Algeria: Total and Sonatrach extend partnership in LNG:

Total and Sonatrach have signed an agreement to renew their partnership in the field of LNG. This agreement notably allows to extend the existing supply contracts for 3 additional years in order to provide 2 MMTPA of Algerian LNG to the French market, primarily through the LNG terminal at Fos Cavaou.

to Toyota Motor North America (TMNA) for its newest prototype hydrogen-powered heavy-duty fuel cell truck powertrains. The total sales value of the order is approximately USD 1 million.

### Germany registers strong increase in the share of biomethane in CNG fuel:

The 'Industriekreis CNG-Mobilität', a group of companies and associations composed of representatives of the automotive and energy industries as well as infrastructure operators and providers of renewable fuels like biomethane, reported very positive figures with respect to climate protection. According to recent information from members of this group, the proportion of renewable biomethane in the total amount of CNG fuel in Germany has reached record highs, and the number of CNG refueling stations offering 100% renewable gas as the only fuel has increased almost twofold. It is expected that the proportion of biomethane in CNG fuel will, on average, reach at least 50% by mid-2020.

### North America: first renewable gas made from wood waste project:

FortisBC is teaming up with REN Energy International Corporation (REN Energy) to offer renewable natural gas produced from wood waste to its customers. The innovative project features technology being used for the first time in North America.

## Technological Development for Cleaner and Greener Environment Hydrogen & Bio-Methane/Renewable gas



### Nikola buys electrolyzers for world's first 8-ton per day hydrogen stations:

Nikola Corporation, a hybrid truck manufacturer based in Phoenix, Arizona, signed a purchase order with Nel ASA for

85-megawatt alkaline electrolyzers supporting five of the world's first 8-ton per day hydrogen fueling stations. Together, these electrolyzers may produce over 40,000 kgs of hydrogen each day.

### Hexagon and Toyota strengthen alliance on hydrogen fuel cell trucks:

Hexagon Purus, subsidiary of Hexagon Composites, has been awarded a contract to supply hydrogen systems

### Finnish steel plant tests bio-LNG as a marine fuel:

SSAB, ESL Shipping and Gasum are working together to reduce the emissions arising in shipping SSAB's raw materials. Last year, SSAB and ESL Shipping introduced a new transport chain that, in comparison with its predecessor, nearly halved the CO2 emissions originating in shipping SSAB's raw materials between Luleå, Oxelösund and Raahé.

The Natural Gas Society (NGS), a registered body, is the emerging voice of the Indian natural gas industry and has been established to catalyse the development of the industry. NGS seeks to establish itself as an industry think tank and provide critical inputs into sectoral policy through research, collaboration and dialogue. It also works towards the enhancement of India's natural gas industry's competitiveness in global energy markets. NGS provides a forum for exchange of ideas and best practices for the Indian gas industry, especially in the transmission and distribution segments of the gas value chain.



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### Highlights

- ▶ IGL fuels world's largest fleet of CNG buses
- ▶ IGL fulfills fuel requirements of over 10,50,000 CNG vehicles including over 25,000 buses and over 6,00,000 private cars through a network of 429 CNG stations
- ▶ IGL provides energy solutions to major 5 star hotels, malls, hospitals and restaurants
- ▶ Nearly 9,00,000 households are availing the benefits of Piped Natural Gas
- ▶ IGL also supplies natural gas to industrial customers
- ▶ IGL's pipeline network spreads across Delhi, Noida, Greater Noida, Ghaziabad and Rewari



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- सार्वजनिक वाहन का इस्तेमाल करें
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