

NGS' NG/LNG SNAPSHOT

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How soaring prices of petrol and diesel are fuelling switch to CNG

Runaway petrol and diesel prices may be pinching consumers hard but they are also offering a silver lining by prompting more and more vehicle owners to switch to clean-burning CNG in Delhi and suburbs. The rate of conversion has doubled from 1,500 a month to 3,000 per month over the last one year, practically tracing the upward curve of petrol and diesel prices. With CNG becoming economically more attractive due to the combined effect of high diesel price and green tax to enter Delhi, even LCVs (light commercial vehicles) and trucks regarded as key contributors of vehicular pollution in the capital — are also switching lanes. Data from IGL, Delhi's sole supplier of CNG, shows conversions doubling to 3,000 a month in the first quarter of the current fiscal from 1,500 in the year-ago period. The fleet of 1.5 lakh CNG LCVs has also expanded by 2,500, while currently 250 trucks are running on CNG. This is getting reflected in daily sales, which have risen nearly 15% from 27 lakh kg to over 31 lakh kg. Combined with a rush of vehicles from UP and Haryana as CNG is substantially cheaper in Delhi due to lower tax, the additional demand is leading to long queues of vehicles at filling stations in some Delhi areas. CNG offers 60% savings against petrol at the current level of prices and 40% against diesel. IGL has also taken the franchise route where suitable landowners are being given dealership on commission. Two such stations are in

operation and LOIs have been issued for 21 more for starting this year.

There are technical barriers as well. PESO (Petroleum & Explosives Safety Organisation) has capped pressure at 200 Bars/Kg and not allowing automatic card payment systems, which contributes to slow turnaround of vehicles. "Our system is rated at 250 Bars. A relaxation of even 10 Bars will improve filling rate. We have requested the sectoral regulator PNGRB and PESO for a review," Ranganath said.

<https://timesofindia.indiatimes.com/city/delhi/how-soaring-prices-of-petrol-and-diesel-are-fuelling-switch-to-cng/article-show/65877924.cms>

IGL hikes CNG, PNG prices; rise in subsidised LPG price too

The subsidy transfer in customers' bank account has increased to Rs 376.60 per cylinder in October 2018 against Rs 320.49 per cylinder in September. State-run Indraprastha Gas Ltd (IGL) has raised the price of CNG by Rs 1.70 per kg and of domestic piped gas by Rs 1.30 per SCM in Delhi, effective Monday, October 1, following a change in the rate of domestic natural gas prices payable to producers. As part of the six-monthly official revision of rates, the domestic natural gas price will go up from October 1 to \$3.36 per MMBtu from the current \$3.06. IGL has also raised the price of CNG by Rs 1.95 per kg in Noida, Greater Noida and Ghaziabad. "The new consumer price of Rs 44.30 per kg in Delhi and Rs 51.25 per kg in Noida, Greater Noida and Ghaziabad would be effective from midnight of Sep-

tember 30 and October 1," an IGL release said. "The price of CNG being supplied in Rewari is being increased by Rs 1.80 per kg from Rs 52.25 per kg to Rs 54.05 per kg. The price of PNG to households in Noida, Greater Noida and Ghaziabad have also been raised by Rs 1.50 per SCM. State-run oil marketer, Indian Oil Corporation (IOC), on Sunday also announced a marginal increase of Rs 2.89 per cylinder in the price of subsidised LPG cylinder for domestic customers in Delhi for October. "While the price of non-subsidised LPG at Delhi will increase by Rs 59.00 per cylinder in October 2018 mainly due to change in international price and foreign exchange fluctuations, the actual impact on subsidised domestic LPG customers is only Rs 2.89 per cylinder, which is mainly due to GST," IOC said.

[Source: ET EnergyWorld](#)

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Niti Aayog halts Oil India's CGD plans

The Niti Aayog has denied 'permission' to state-run Oil India (OIL) to venture into the country's reinvigorated city gas distribution (CGD) business, arguing that exploration companies must focus on their core activities given the country's stagnant oil production. An OIL-HPCL consortium had won bids for two geographical areas (GAs) Ambala and Kurukshetra in Haryana, and Kolhapur in Maharashtra during the eighth round of CGD bidding in 2017. Under the guidelines issued by department of public enterprises in 2016, a PSU looking to create a JV with other companies needs to obtain approval from the Niti Aayog. The move by the think-tank is at odds with the government's policy of encouraging integrated oil and gas businesses in the public sector via mergers of PSUs to create world-class entities. Last year, ONGC, the country's largest explorer, acquired 51% in downstream company HPCL under a government directive. Also, oil marketing companies like IOC and BPCL have interests in domestic and overseas exploration blocks and crude and product pipelines. The hurdle put by the public-sector think-tank would mean that residents of the two GAs would have to wait longer to get piped gas connections in their houses and run their cars on compressed natural gas (CNG). OIL had also won CGD rights for two other GAs (Cachar, Hailakandi and Karimganj; Kamrup and Kamrup Metropolitan) in Assam in consortium with Assam Gas Company and GAIL (India) in the recently concluded ninth round of CGD. According to an OIL executive, the firm is apprehensive that these JVs may also hit the Niti Aayog wall. An official from the ministry of petroleum and natural gas said: "These (upstream) companies want to expand in the downstream sector and share risk as the returns in the CGD business comes over a period of time." The OIL official said certain queries were raised by Niti Aayog and though OIL replied to them, the JV application hasn't yet been cleared. "We will take up the issue with the petroleum ministry," added the official.

[https://www.financialexpress.com/industry/niti-aayog-halts-oil-indias-cgd-plans/1315591/\[Edited\]](https://www.financialexpress.com/industry/niti-aayog-halts-oil-indias-cgd-plans/1315591/[Edited])

City gas retail licences: Adani, IOC, BPCL emerge big winners

State-run Indian Oil Corp (IOC), Bharat Petroleum Corp Ltd (BPCL) and private sector Adani Gas have emerged as the major winners of city gas distribution (CGD) licences, according to bid results of 84 cities released by the petroleum regulator PNGRB on Monday. The Gautam Adani-led Adani Gas won the most rights to retail compressed natural gas (CNG) for vehicles and piped natural gas (PNG) in 13 cities on its own, and in another nine in a joint venture with IOC. According to the list of winners in the country's biggest CGD bid round 84 cities released by the Petroleum and Natural Gas Regulatory Board (PNGRB), IOC on its own won rights to seven cities. BPCL subsidiary Bharat Gas Resources Ltd won the licence for 11 cities, while Torrent Gas Pvt Ltd bid successfully for 10. State-run GAIL Gas bagged the rights for five cities, while Indraprastha Gas Ltd, which retails gas in the national capital region, won the rights for the cities of Meerut and Muzaffarnagar in Uttar Pradesh. PNGRB said that a total of 4,346 CNG stations have been committed to be set up in the 84 Geographical Areas (GAs) in eight years. The winning companies have also committed to provide 21 million PNG connections to households by September 30, 2026, the regulator added. In a major step towards ushering in a clean gas-based economy, India launched its biggest auction of CGD networks in May offering permits for selling CNG and PNG in 86 geographical areas. Awards from the 9th CGD licensing round would help bring gas coverage to 174 districts in 22 states and Union Territories, covering 29 per cent of the country's area and 24 per cent of the population, the PNGRB said. So far, existing 91 geographical areas have been awarded to companies like Indraprastha Gas, GAIL Gas and Gujarat Gas, which cover 11 per cent of area and 19 per cent of the population. The existing CGD networks are concentrated in the northern and western regions of the country. Changes have been made to the bidding conditions to facilitate greater return from the exercise. For instance, CGD networks have been granted status of utilities by the Union Labour Ministry. <https://energy.economictimes.indiatimes.com/news/oil-and-gas/city-gas-retail-licences-adani-ioc-bpcl-emerge-big-winners/65850251>

Tenth round of licensing soon, to cover 50 districts

The tenth licensing round for city gas distribution will be launched in a couple of months to cover 50 districts, according to the chief of downstream regulator, which has just concluded the mega ninth round that auctioned permits for 174 districts. I think there is appetite among investors to take more. Many investors didn't get as many GAs (geographical areas) as they expected. They may come forward to commit more investment on immediate basis," Dinesh Kumar Sarraf, chairman of Petroleum and Natural Gas Regulatory Board (PNGRB), told ET in an interview. The tenth round is being planned to include places within 100 km of gas pipelines and to cover highways so that inter-city travel by natural gas-driven cars becomes a reality, said Sarraf. Besides the tenth round of auction, PNGRB is also preparing regulations for common access to more than a dozen city gas licence areas whose marketing exclusivity has expired, Sarraf said. In the ninth round, unprecedented in scale and participation, 400 bids were received for 86 geographical areas that covered 174 districts and 29% of the country's population. PNGRB has already issued letters of intent to 84 winners and plans to issue authorisation, after receiving bank guarantees from them, by the month-end, Sarraf said. Bids for Jhajjar in Haryana and Vizag in Andhra Pradesh are facing legal challenges and will likely take months to settle. PNGRB is putting in place a robust system to monitor licensees' project implementation, and plans to coordinate with state governments and other agencies such as municipal corporations, railways and highway authority to help companies resolve problems on the ground. The regulator is pushing industry to set up a centre of excellence, which will help city gas distributors pick up best practices and new technologies, jointly deal with equipment suppliers and prepare a common skilled talent pool. Many of the challenges are common to all companies. So we are urging them to come together to set up a centre of excellence," Sarraf said. <https://economictimes.indiatimes.com/industry/energy/oil-gas/tenth-round-of-licensing-soon-to-cover-50-districts/article-show/65850707.cms>

Fuel prices soar: Long queues at CNG stations cause traffic congestion

As prices of petrol and diesel continue to soar, long wait at Delhi's CNG stations lead to a traffic congestion leaving a serpentine queues on the roads. The queues have become longer in recent times as vehicles from adjoining townships have started rushing into Delhi for refill since petrol and diesel prices are constantly soaring up. The difference in prices of CNG and petrol and diesel are more than doubled. Petrol and diesel prices have scaled new highs as rates were increased on account of rupee depreciation and rise in international oil rates. Petrol in Delhi now costs Rs 81.28 per litre and diesel is priced at Rs 73.30 a litre. Since Goods and Services tax (GST) kicked in, the difference in the rate of CNG between Delhi and the suburbs doubled to Rs 9.49 per kg, making CNG 23 percent cheaper in the capital. Gas is out of the ambit of GST so Delhi does not tax on CNG, but Uttar Pradesh amended their VAT Act in the last July nearly doubling tax on gas purchased within the state to 26 percent. The longest queues could be seen at Delhi Gate near Ambedkar Stadium, Sukhdev Vihar red-light at Mathura Road, Adhechani Mod at Mehrauli Road and Indraprastha Gas Station at Sarai Kale Khan etc. Ramesh Kumar, Auto-rickshaw driver at Delhi Gate, said that for more than hours, he was waiting his turn to refill his Auto, yet could not get chance. The problem is more acute in South and Central Delhi, where Indraprastha Gas Ltd (IGL), the sole supplier of CNG in National Capital Region, has been hamstrung by paucity of land for expanding its network. "In what may cut down the long queues at various CNG stations, Indraprastha Gas Limited (IGL) is planning to open 50 more fuel stations across Delhi-NCR in financial Year 2018-19," said spokesperson of IGL. Currently, more than 15 lakh vehicles are CNG based. According to various estimates, 10,300 buses, 55,000 three-wheelers, 5,000 minibuses, 10,000 taxis and 10,000 cars are running on CNG. <http://www.millenniumpost.in/delhi/fuel-prices-soar-long-queues-at-cng-stations-cause-traffic-congestion-318801>

Public transport buses to be converted to CNG in a phased manner

Haridwar, Udham Singh Nagar and Dehradun have been linked in the Compressed Gas Distribution (CGD) value chain. Connection has been given to 150 homes in Haridwar with the distribution also being started. This was stated in a meeting held by the state chief secretary Utpal Kumar Singh with the officials of GAIL Gas Limited regarding facilitation of LPG gas connections in Dehradun. The Chief Secretary said that the State Government will extend all possible help in laying the gas pipeline and setting up gas station. The work of laying pipeline should be started soon. He said that public transport buses and other vehicles will be converted into CNG powered vehicles in a phased manner. Officials of GAIL Gas Limited informed that as in Haridwar, a city gas station will be constructed in Dehradun. The natural gas will come into use for making food, heating, heating water, running air conditioner, power back up and fuel in vehicles. Uninterrupted supply of gas will be facilitated through pipe lines. About the project plan for Dehradun, it was stated that a 90 kilometre pipeline will be laid and 50 CNG stations will be built in order to supply the gas to about three lakh people. Along with Dehradun, Mussoorie and Rishikesh will also be connected to the gas pipeline. The meeting was attended by principal secretary of Food and Civil Supply, Anand Wardhan, Urban Development secretary RK Sudhanshu, CEO of GAIL Gas Limited AK Jana, CEO of Haridwar Natural Gas Pvt Ltd RM Bharadwaj and other officials.

<https://www.dailypioneer.com/2018/state-editions/public-transport-buses-to-be-converted-to-cng-in-a-phased-manner.html>

Piped gas to fuel kitchens in 44 lakh Chennai homes soon

Chennaiites have something to look forward to in these days of high fuel prices. They will get more than 44 lakh piped natural gas connections and 333 Compressed Natural Gas (CNG) pump stations over the next few years under the Centre's city gas distribution (CGD) project. The Petroleum & Natural Gas Regulatory Board recently finalized the ninth round of bids under the project and Torrent Gas Private Limited and AG&P LNG Marketing Pvt Ltd will set up the facilities in Chennai, including the pipeline for uninterrupted supply of natural gas. Adani

Gas Limited, Indian Oil Corporation and a few other private players have won the tender to set up similar pump stations and PNG connections in other parts of Tamil Nadu. These projects aim at making Indian cities greener by putting up a gas grid by 2020. The average mileage for Compressed Natural Gas is also high: around 20-25km per kg. Piped natural gas too works out cheaper than liquefied petroleum gas. "As far as Tamil Nadu is concerned, natural gas supply might be routed through GAIL pipelines, which run from Kochi through the western districts," he added. Another possible route is Ennore-Tuticorin line. An LNG terminal is under construction at Ennore.

<https://timesofindia.indiatimes.com/city/chennai/piped-gas-to-fuel-kitchens-in-44-lakh-chennai-homes-soon/article-show/65942424.cms>

Government sets target of 50 more CNG pumps in Gurugram

Taking cognisance of the limited number of CNG pumps in the city presently at 25, the Haryana Government has set a target of 50 more CNG pumps in the city. They have also simplified the process so that more tenders can be invited. To ensure that there is more transparency in the process, the state government will now be auctioning the plots for the petrol and CNG pumps online. The announcement of auctioning the plots for petrol pumps was provided by the CM ML Khattar. According to the official estimate, there are over 20,000 vehicles in Gurugram that run on CNG. In addition to the present strength, there is also a large number of vehicles from Delhi and Noida also that frequent pumps in Gurugram for refilling. "Opening of more CNG pumps will definitely be more helpful to the commuters. As of now in the peak hours, it takes a lot of time for refilling the gas. Taking into consideration that CNG is cheaper than petrol and diesel more people are shifting to CNG," said Mudrit Rai, a city resident.

<http://www.millenniumpost.in/delhi/govt-sets-target-of-50-more-cng-pumps-in-gurugram-320540> [Edited]

Supply of CNG, PNG: HC dismisses Adani Gas plea challenging govt. company's bid

Gujarat High Court on Friday, September 28, dismissed a petition moved by Adani Gas Ltd of Gautam Adani-led Adani Group related to "development of city gas distribution networks and supply of Piped Nat-

ural Gas (PNG) and Compressed Natural Gas (CNG) in the areas of Sanand, Bavla and Dholka of Ahmedabad district." In a press release issued by Gujarat Gas Limited, a sister company of Gujarat State Petroleum Corporation (GSPC), stated that Adani Gas, which had lost in the same bidding, moved the High Court and obtained a stay order "hampering the development of infrastructure for commencing supply of PNG and CNG in these areas." The release said that the High Court dismissed the petition "upholding rights of Gujarat Gas Limited to develop infrastructure for supply of PNG, CNG and natural gas to commercial and industrial units." According to Gujarat Gas, the order "will also pave way for supply of natural gas as a clean and green fuel in the areas of Sanand, Bavla and Dholka which will in turn help in keeping air pollution levels in control once the infrastructure is ready." The petitioner company sought stay on its implementation for approaching higher forum. The High Court allowed the request and ordered to maintain status-quo for two weeks.

<https://indianexpress.com/article/cities/ahmedabad/supply-of-cng-png-hc-dismisses-adani-gas-plea-challenging-govt-companys-bid-5378953/>

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Green nod to ONGC for development drilling of 72 wells in KG-Basin

The Expert Appraisal Committee (EAC) under the Ministry of Environment, Forest and Climate Change, has given the green signal to state-owned ONGC Limited for Additional Development Drilling of 72 wells in the Krishna-Godavari basin. The Oil and natural gas PSU submitted a proposal to the Environment Ministry for environmental clearance (EC) to the project, related to the additional Development Drilling of 72 wells in East Godavari, West Godavari and Krishna districts of Andhra Pradesh, with an investment outlay of Rs 792 crore. "The EAC, after deliberations, recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under," the EAC said in the minutes of meeting held on August 30. The standard Terms of Reference for the project was granted on January 29, 2016 and public hearing was conducted by the State Pollution Control Board at West Godavari, Krishna and East Godavari Districts on January 20, April 7 and May 3 this year respectively. Some of the conditions laid down by the EAC while granting EC was that during exploration, production, storage and handling, the fugitive emission of methane, if any, should be monitored using Infra-red camera or appropriate technology. The project proponent ONGC should also ensure trapping and storing of the CO2 generated, if any, during the process and handling, EAC said. "Total land area will be required for each well will be 4.5 acres. The estimated project cost is Rs 792 crore. Total capital cost earmarked towards environmental pollution control measures is Rs 103 lakh (Rs 1.03 crore) per well and recurring cost (operation and maintenance) will be about Rs 10 lakh per well per annum," the Committee said. Blow Out Preventer system should be installed to prevent well blow-outs during drilling and on completion, the company has to plug the drilled wells safely and obtain a certificate from the environment safety angle from the authority concerned, it said.

<http://www.millenniumpost.in/business/green-nod-to-ongc-for-development-drilling-of-72-wells-in-kg-basin-320032>

Time for Indian Oil to rev up green energy

India's estimated demand for crude a couple of decades hence would be the equivalent of about 10 million barrels per day. Indian Oil Corporation (IOC), India's biggest oil refiner and marketer, has reportedly projected that domestic demand for petroleum crude would more than double to 500 MMT by 2040. India's dependence on crude oil imports is of course overwhelming and rising, and the way forward is to put proactive policy measures in place to speedily diffuse usage of electric vehicles (EV) nationally. India's estimated demand for crude a couple of decades hence would be the equivalent of about 10 million barrels per day (bpd), which is almost twice that for 2017, put at about 4.7 million bpd. Further, global oil demand is expected to increase by 15.8 million bpd between now and 2040. Note that we are already the third largest importers of crude, and about a quarter of all incremental oil demand worldwide up to 2040 would be from India, which is huge. Hence the need to policy induce a faster change in the techno-economic paradigm, and quicker switchover to EVs nationwide. And the way ahead is to opt for solar-powered charging points for EVs. IOC needs to explore setting up solar-powered chargers, particularly at highway oil pumps. Global oil majors have indeed lined up big plans on the renewable energy front; surely IOC should follow suit.

<https://energy.economictimes.indiatimes.com/news/oil-and-gas/opinion-time-for-indian-oil-to-rev-up-green-energy/65952161>

India: Crude oil production dips while gas flatlined in August

Crude oil production during August 2018 stood at 3.70% lower than crude production during August 2017. An official statement said oil production stood at 2.908 MMT during August 2018. Natural gas production on the other hand rose marginally by 0.59% when compared with August 2017 at 2789.34 MMSCM. The crude oil production was pulled down by ONGC this year. ONGC's oil production stood at 1.783 MMT which is 6.06% lower when compared with August last year. An official statement said that among other reasons, the shortfall was due to less than planned production from WO-16 and B-127 fields in the absence of mobile offshore production units at Sagar Samrat and Sagar Laxmi. There was also a sub-sea leakage in some well fluid lines of Mumbai High & Neelam Heera Assets leading to flow restriction. The line replacement will commence post monsoon under PRP-V scheme, the statement added. Refinery production during August, 2018 stood at 21.438 MMT which is 4.84% higher when compared with August 2017.

<https://www.hellenicshippingnews.com/india-crude-oil-production-dips-while-gas-flatlined-in-august/>

GAIL included in the global sustainability index

GAIL (India) Limited, the country's premier Natural Gas company, has been selected for the second year in a row as an index constituent of the prestigious FTSE4Good Emerging Index. GAIL's selection in the FTSE4Good reflects its leadership in environmental, social and governance (ESG) performance in the Oil & Gas Sector. The FTSE4Good Index Series is designed to measure the performance of companies demonstrating strong ESG practices worldwide. The Global Sustainability Index has been created by global index provider FTSE Russell, a wholly owned subsidiary of London Stock Exchange Group. On being included in the global ESG Index, Dr. Ashutosh Karnatak, Director (Projects), GAIL (India) Limited said, "GAIL's inclusion in the FTSE4GOOD Emerging Index for a second year in a row stands as a testimony of our efforts and long-term commitment towards Sustainability." On the inclusion of GAIL in the index, FTSE said "GAIL India has been independently assessed according to the FTSE4Good criteria, and has satisfied the requirements to become a constituent of the FTSE4Good Index Series."

http://equitybulls.com/admin/news2006/news_det.asp?id=236285

Reliance shuts offshore oil-producing field in Krishna-Godavari basin

India's Reliance Industries Ltd has shut down an offshore oil and gas field on the eastern coast of India, the company said in a statement on Friday, after seeing a natural decline in output for months. The closure marks the beginning of the end of the company's first foray into oil and gas exploration and production that started in September 2008 when the field produced first oil. "Production from the field had been under natural decline and facing continuous challenges due to high water production and sand ingress... and had no remaining reserves," the company statement said. The MA field, which was primarily an oil-producing field, is among the three oil and gas fields that the company has in the Bay of Bengal's Krishna-Godavari (KG) basin. The others are the D1 and D3 fields, which are natural gas producing fields. These fields started production in April 2009. Reliance Industries' turn into oil and gas exploration and production has had lacklustre results for the company's owner and India's richest man, Mukesh Ambani. He

promised to produce almost 45 percent of India's oil and gas needs by 2010 and save around \$20 billion in its import bill. The output from the fields started declining rapidly after reaching a peak of 30,000 barrels per day (bpd) of crude oil and 60 million cubic metres per day of gas as the company failed to manage the geological complexities of deep water production. After a hiatus of 10 years, Reliance, along with its partner BP Plc, has once again allocated an investment of \$4 billion to develop new projects in the basin which will produce up to 35 million cubic metres per day of gas in phases over 2020 to 2022, the company said in its annual report published in May.

<https://www.hellenicshippingnews.com/reliance-shuts-offshore-oil-producing-field-in-krishna-godavari-basin/>

Govt to appeal against arbitration panel rejecting its USD 1.5 billion claim against Reliance

The Law Ministry has held that an international arbitration panel's ruling rejecting the government's demand for USD 1.5 billion from Reliance Industries and its partners for allegedly siphoning

gas from fields of ONGC is a fit case for appeal, sources in know of the development said. The Oil Ministry had sought an opinion of the Law Ministry on the July arbitration award going against the government. Sources said the Law Ministry was of the opinion that the majority arbitration award was in violation of the terms and conditions of the production sharing contract (PSC), lacked required reason and was against the public good and public interest. A three-member international arbitration tribunal by a majority vote in July held that Reliance could contractually produce and sell any gas that might have migrated from adjoining fields of state-owned Oil and Natural Gas Corp (ONGC) into its area and that it was not obligated to seek prior permission of the government for doing so. Sources said the Law Ministry was of the opinion that the tribunal had ignored the contractual obligation and statutory duty on part of operators to furnish information to the government about any migration of gas.

[http://www.dailyexcelsior.com/govt-appeal-arbitration-panel-rejecting-usd-1-5-bn-claim-reliance/\[Edited\]](http://www.dailyexcelsior.com/govt-appeal-arbitration-panel-rejecting-usd-1-5-bn-claim-reliance/[Edited])

POLICY MATTERS/GAS PRICING/OTHERS

India raises natural gas price for Oct-March by nearly 10 pct to \$3.36/MMBtu

India has raised the price of its locally produced gas by nearly 10 percent to \$3.36 per MMBtu for the October-March period, compared with the previous six months, a government website showed on Friday. India has also set the ceiling price for gas to be produced from difficult fields at \$7.67 per MMBtu for October-March, compared with \$6.78 per MMBtu in the previous six months, the website of the Petroleum Planning and Analysis Cell of the oil ministry showed. The prices will be applicable on gross heat value basis. Higher gas prices will lead to higher earnings for state-owned Oil and Natural Gas Corp Ltd and Oil India Ltd.

<https://www.hellenicshippingnews.com/india-raises-natural-gas-price-for-oct-march-by-nearly-10-pct-to-3-36-mmbtu/>

Odisha: Congress fires Talcher delay salvo

Senior Congress leader and former Union minister Srikant Jena on Sunday criticised Prime Minister Narendra Modi for not telling the truth about the revival process of the coal gasification-based fertiliser plant at Talcher. Jena said: "The BJP government should apologise to the people for delaying the project by almost four years. It was the UPA government that took all steps for the revival of the Talcher project." He said: "The dismantling of the old fertiliser plant had begun during the UPA regime and the tender process had also been finalised. GAIL India had issued the tender for it. But the entire process has been delayed with an ill intention and the cost of the project has been escalated by Rs 5,000 crore." He said: "All the fertilisers plants in the country had been closed down by the NDA government in 2000-2004. But later the UPA government had tried to revive the plants. Even we had paid Rs 11,000 crore to the Board for Industrial and Financial Reconstruction (BIFR) to get the Talcher project clear of all financial burden." Jena said: "We had made the consortium with GAIL (India) Limited (GAIL), Coal India Limited (CIL), Rashtriya Chemicals & Fertilizers Limited (RCFL) and Fertiliser Corporation of India Limited (FCIL) for the revival of Talcher plant. Now the same practice has been adopted without even a single change. But the only difference is that the cost of revival of the project has gone up like anything." Giving an insight to the financial cost involved in the project, he said: "Had the project had not been delayed, the coal gasification plant project would have been revived at a cost of Rs 8,000 crore. Now the cost of the project has reached Rs 13,000 crore. Who will bear the burden of Rs 5,000 crore?" Criticising Modi's assurance that the project would start functioning within next 36 months, Jena said: "Had the project work not been delayed, it would have gone into production by 2017. There has been almost a four years' delay." Attacking Jena, BJP state vice-president Samir Mohanty said: "They conceive projects, but they abort quickly. The Congress leaders are never able to translate the plans into reality. Once Prime Minister Narendra Modi commits something, he ensures that it takes a concrete shape."

<https://www.telegraphindia.com/states/odisha/cong-fires-talcher-delay-salvo/cid/1669923>

PLL proposes LNG terminal and power plant at South Andaman

Petronet LNG Ltd (PLL) has signed a Memorandum of Understanding (MoU) with Andaman and Nicobar Administration for establishment of small scale floating LNG Receiving, Storage and Regasification Terminal and Gas based Power Plant at South Andaman. Petronet LNG has completed pre-project studies like environment impact assessment, geo-technical investigations, marine studies including navigational studies etc., output of which has been used to prepare the detailed feasibility report. The company has submitted a Detailed Feasibility Report (DFR) to Andaman and Nicobar Administration for their consideration.

[Source: Indian Oil & Gas](#)

Gujarat Gas rises 2% as company accepted authorisation for LNG distribution

GGL has been granted 300 months of infrastructure exclusivity i.e. valid up to September 05, 2043 and 96 months of marketing exclusivity valid up to September 05, 2026 for the CGD network. Shares of Gujarat Gas rose 2.2 percent intraday

on Tuesday, September 18, as company accepted authorisation from PNGRB for local natural gas distribution. PNGRB has issued the letter for grant of authorisation to Gujarat Gas (GGL) to lay, build, operate, or expand city or local natural gas distribution network for the geographical area of Narmada (Rajpipla) district in the state of Gujarat. GGL has been granted 300 months of infrastructure exclusivity i.e. valid up to September 05, 2043 and 96 months of marketing exclusivity valid up to September 05, 2026 for the CGD network. Further, the authorised area for laying, building, operating or expanding the proposed CGD Network shall cover a geographical area of 2,817 sq. kms. At 10:59 hrs Gujarat Gas was quoting at Rs 722, up Rs 3.40, or 0.47 percent on the BSE.

<https://www.moneycontrol.com/news/business/markets/gujarat-gas-rises-2-as-co-accepted-authorisation-for-lng-distribution-2960301.html>

LNG buyers turn to tenders for long-term purchases

LNG buyers are making the best of a surge in gas supply. Most of the recent sale-purchase agreements (SPAs) with a term of over two years were done

through the tender route, Petronet LNG Ltd highlighted in its annual report. Traditionally, tenders are used for spot trades or for fulfilling seasonal demand. Citing a study by leading global consultancy firm Poten and Partners, Petronet points out that of all the SPAs having a term of over two years executed by buyers in 2017, approximately eight were done through the tender route. This method of LNG contracting accounted for 10% of the total volume of LNG sold under new contracts in 2017. Out of the eight SPAs, six had a term between three and five years and two were of 15 years each. All these tenders were issued by buyers only. Interestingly, India and Pakistan are said to be driving the trend. Though the average term for contracts executed via the buy tenders was slightly over six years, they were all delivered ex-ship and had oil price linkages, the report added. An analyst with a leading consulting firm said that it's a buyer's market at present, and therefore, they are trying to have the best price from across the sources available. "This simply means that the supply of LNG is increasing and it's a buyer's market overall."

<https://www.dnaindia.com/business/report-lng-buyers-turn-to-tender-route-for-long-term-purchases-2665696>

SCI eyes stake in Swan's Energy Jafrabad LNG project

Shipping Corporation of India Ltd (SCI) is weighing a plan to buy stake in a 10 MMTPA capacity floating storage and regasification unit (FSRU)-based new LNG port being constructed by Swan LNG Private Ltd off the Jafrabad coast in Gujarat's Amreli district with an investment of ₹40 billion, atleast two officials at the Mumbai-based firm said. "We are evaluating a proposal to invest in the Jafrabad LNG port project," a director level official at the company said, asking not to be named. Japan's Mitsui O.S.K Lines Ltd, the long-standing partner of state-run SCI in four LNG tankers leased to Petronet LNG Ltd, has a 11% stake in Swan LNG Pvt Ltd. Swan Energy Ltd, a textiles and real estate group, has a 63% stake in Swan LNG Pvt Ltd. MOL is one of world's largest LNG carrier operators and Japan's only FSRU owner and operator. The project involves building LNG port facilities utilising a new build FSRU along with a floating storage unit (FSU) for receiving, storing and regasifying LNG with an initial capacity of 5 MMTPA. The FSRU and FSU will be leased on a long-term bare boat charter basis and connected by ship-to-ship transfer equipment. The 180,000 cubic metre storage capacity FSRU serving the project is being constructed at South Korea's Hyundai Heavy Industries Co Ltd. It will be owned by Swan Energy through its subsidiary Triumph Offshore Pvt Ltd and MOL has an option to participate in the FSRU joint ownership. The FSU will have a capacity of as much as 145,000 cubic metres. The terminal is slated to start operation in early 2020. By participating in the Jafrabad LNG project, SCI is looking to strengthen its presence in the LNG shipping business. It is the only Indian shipping company with experience in LNG transportation. The company, in partnership with Japan's Mitsui O.S.K Lines, NYK Line and K Line, has leased four LNG tankers to Petronet LNG Ltd to transport LNG to its facilities located at Dahej in Gujarat and Kochi in Kerala. It holds a 29.08% stake each in two LNG ships and a 26% stake each in the other two LNG carriers. It is also the technical and commercial manager of two of the four LNG ships. "We are definitely going to manage that project (the FSRU and FSU). We are the only ones in India capable of doing that. We are open to picking up a stake in the Jafrabad LNG port project," the SCI official mentioned earlier said without giving details on the quantum of stake and the investment.

[Source: Hindu Business Line/Indian Oil & Gas](#)



Global LNG trade volumes to double in coming years - Vitol

Global trade volumes for LNG could double in the coming years, Vitol's chief executive said after the commodity merchant announced a long-term deal to buy the fuel from U.S. producer Cheniere Energy. "We have 300 MMT of LNG traded this year. That figure could easily double in coming years," Vitol Chief Executive Russell Hardy said during an industry event in Barcelona, Spain. He said demand growth would come from "countries that currently don't import gas, but which will soon." The number of nations buying LNG has risen to 42 from 30 in the past three years, with several more in Asia and Africa expected. Global demand has been rising together with new production facilities, especially in the United States where new liquefaction projects will drive supply growth. Vitol said earlier it had signed a 15-year offtake deal with Cheniere, the country's first major LNG exporter with several facilities under construction alongside its four plants at the Sabine Pass terminal on the U.S. Gulf Coast. Beyond the newcomers, China's surging consumption due to its huge gasification programme will push trading volumes. Chinese LNG imports have risen over 40% so far this year and it became the second largest importer in the world last year. Zou Caineng, Vice President for Petroleum Exploration and Development at PetroChina's Research Institute said China's natural gas demand was 240 BCM last year. "By 2030 it will be 520 bcm," he said at the same event, adding that 40 percent of that demand would be met by imports. Aside from LNG, China imports pipeline gas from Central Asia and Myanmar and these will be boosted by Russian flows next year. With new importers coming to market, U.S. energy giant Exxon Mobile Corp said trade volatility in LNG would rise. "We are seeing the (LNG) world being reordered," said Peter Clarke, President of ExxonMobil Gas and Power Marketing Company, also talking at Gastech in Barcelona. "Spot trading has come in. There are more buyers and sellers than ever before ... For an industry that has relied on stability (of fixed long-term contracts), the watchword is volatility," Clarke said.

[Source: LNG Global \(Reporting by Henning Gloystein; editing by David Evans\)](#)

Global LNG-Asian prices weaken as demand slows during trade conference

Asian spot liquefied natural gas (LNG) prices weakened this week as demand slowed after a flurry of purchases in September and with many players attending a major trade conference in Barcelona. Spot prices for November LNG-AS delivery fell to \$11.50 per MMBtu, down 50 cents from the week before, industry sources said. October cargoes are likely valued at \$11 to \$11.30 per MMBtu, one source said. Rising crude prices and spot demand from Japan, South Korea and China ahead of peak winter demand for heating had pushed LNG prices up to multi-year seasonal highs. However, buying activity slowed this week as many LNG traders are in Barcelona for the Gastech trade show, where delegates said the outlook for the natural gas business was better than at any point since 2014. In the spot market, Malaysia's Petronas may have offered an LNG cargo for late-October delivery from Bintulu, a second industry source said, though this could not immediately be confirmed. Malaysia's LNG exports fell this year as domestic gas pipeline issues have plagued the country since January. Kuwait Foreign Petroleum Exploration Company, a unit of Kuwait's state-run oil group, may have offered an October-loading Wheatstone LNG cargo, though details about the price and buyer could not immediately be confirmed. Vitol offered the cargo at \$10 per MMBtu, but it did not attract buyers, the source said. The fall in spot prices could be temporary as buyers from North Asia are expected to enter the market to procure more cargoes for winter, traders said.

<https://www.hellenicshippingnews.com/global-lng-asian-prices-weaken-as-demand-slows-during-trade-conference/>

South Korea becomes largest importer of American LNG

With U.S. President Donald Trump continuing to push to implement policies to export liquefied natural gas (LNG), South Korea was found to be the largest importer of American LNG this year. According to a recent report released by the U.S. Energy Information Administration (EIA), the total amount of LNG that was exported by the U.S. in the first half of this year was 491.7 BCF, an increase of 58.2% from the same period last year (310.8 BCF). Of this amount, the total LNG exported to South Korea was 110.4 BCF, accounting for 22.5% of all LNG exports from the U.S. South Korea replaced Mexico as America's largest importer of LNG, followed by China (61.9 BCF), Japan (44.2 BCF), and India (31.5 BCF). The volume of American LNG imported by South Korea so far this year is nearly equivalent to the total imported last year. Compared to two years ago, imports of LNG have surged significantly. Considering that the use of LNG traditionally peaks during the winter season, imports of LNG are expected to surpass 200 BCF this year. Local energy experts say that American LNG may become a smarter alternative to oil as the price of American LNG is not dependent on the price of oil, unlike LNG produced in other countries. The price of LNG pro-

duced in Asia has fluctuated around the \$9 mark for the last few years, roughly three times more expensive than LNG produced in the U.S.

<http://koreabizwire.com/south-korea-becomes-largest-importer-of-american-lng/125091>

China imports 4.71 million tonnes of liquefied natural gas in August

China imported 4.71 MMT of LNG in August, up 51.5 percent year on year, the country's customs authority said Sunday. Total LNG imports in the first eight months reached 32.63 MMT, up 47.8% year on year, according to the General Administration of Customs. China surpassed the Republic of Korea to become the world's second-largest importer of LNG in 2017, according to IHS Markit, a global marketing information company. China's imports of natural gas have grown to meet increasing domestic consumption, primarily driven by environmental policies to replace coal-fired electricity generation. An industry report says, the country is likely to surpass Japan to become the world's largest natural gas importer by 2019, with imports expected to reach 171 billion cubic meters by 2023, mostly LNG.

[Source: LNG Global](#)

LNG Canada most likely west coast project to materialize: BNEF

Going ahead with LNG Canada would be a welcome boost for Canada's energy sector. In May, Prime Minister Justin Trudeau agreed to pay C\$4.5 billion to buy the Trans Mountain oil pipeline from Kinder Morgan Inc. after the company balked at proceeding with construction. In August, the Federal Court of Appeal nullified approval of the project. All that follows years of tortured regulatory reviews — 35 percent of Canada's proposed LNG capacity has been canceled and an additional 40 percent is under review, Bloomberg New Energy Finance said in a Sept. 10 note. "The Trans Mountain decision, impactful as it has been in Canada on the regulatory scene, has not in any way stopped the LNG Canada project, which is ongoing," Calitz said. Trudeau is also scrambling to see that Canada remains part of the North American Free Trade Agreement. "It is a really important Canadian-U.S. bilateral issue but does not stand in the way of a final investment decision on this project," Calitz said.

Battered Oil-Sands Servicers Pin Hopes on Shell's LNG Project

One factor in the project's favor is its flexibility, as it doesn't need to lock in a long-term buyer from the outset. In contrast, most of the 15 U.S. projects nearing final investment decisions probably

won't go ahead because there's a "scarcity of offtakers," Bloomberg New Energy Finance said earlier this month. Still, risks remain. LNG Canada has sought an exemption from duties on the roughly 140 steel modules to be made in China for the project. The Federal Court of Appeal — the same one that quashed Trans Mountain's approval — is expected to issue a decision by the end of the month. Calitz cautions that final approval isn't a given, as each LNG Canada partner has at least four or five competing projects to which they could allocate their investment dollars instead.

<https://www.hellenicshippingnews.com/mega-lng-project-unaffected-by-pipeline-debate-its-ceo-says/>

Trump touts US LNG during talks with Poland on increasing European energy security

President Donald Trump pushed US LNG exports Tuesday as crucial to increasing European energy security during talks with Polish President Andrzej Duda while continuing his attacks on the Nord Stream 2 natural gas pipeline from Russia to Germany. "A tremendous amount of LNG will be exported to Poland," Trump said during a joint news conference with Duda. "We're giving them a pretty good price. They're buying a lot of it. That's gonna be great." Poland received its first US LNG cargo in June 2017 from the Sa-

bine Pass LNG terminal in Louisiana. Less than 3% of US LNG exports have flowed to Europe this year as of August, down from 11% in 2017, according to data from S&P Global Platts Analytics. Trump said he and Duda are exploring opportunities to advance European energy security. "The United States and Poland are deeply committed to energy diversity all across Europe," Trump said. "No nation should be dependent upon a single foreign supplier of energy. Poland has worked tirelessly to increase energy independence nationally and across central Europe." Earlier Tuesday, Trump reiterated his opposition to Nord Stream 2, which he called a "very bad thing for the people of Germany." "Its very unfortunate for the people of Germany that Germany is paying billions and billions of dollars for their energy to Russia, I can tell you the German people don't like it," Trump said. <https://www.hellenicshippingnews.com/trump-touts-us-lng-during-talks-with-poland-on-increasing-european-energy-security/>

Cheniere and Vitol Sign 15-Year LNG Sale and Purchase Agreement

Cheniere Energy, Inc. announced that its subsidiary Cheniere Marketing, LLC has entered into a liquefied natural gas ("LNG") sale and purchase agreement ("SPA") with Vitol Inc. ("Vitol"). Under the SPA, Vitol has agreed to purchase approximately 0.7 million tonnes per annum of LNG from Cheniere Marketing on a free on board basis for a term of approximately 15 years beginning in 2018. The purchase price for LNG is indexed to the monthly Henry Hub price, plus a fee. "We are pleased to announce this long-term SPA with Vitol, one of the fastest growing players in the global LNG market," said Jack Fusco, Cheniere's President and CEO. "This agreement continues Cheniere's commercial momentum and supports our growth plans, while demonstrating the value LNG buyers place on Cheniere's unique ability to offer flexible solutions tailored to the needs of LNG customers worldwide." Russell Hardy, Group CEO at Vitol, said, "We are delighted to be working with Cheniere, a pioneer in U.S. liquefaction. Vitol is committed to the long-term development of the LNG market. We believe that LNG has an important role to play in the future energy mix and that its evolution will require a more flexible and tradeable LNG market."

<https://www.hellenicshippingnews.com/cheniere-and-vitol-sign-15-year-lng-sale-and-purchase-agreement/>

Qatar Petroleum makes great strides in its plans to boost LNG output

Qatar is achieving great progress in implementing the plans it had announced last year to increase the country's LNG output by 30 percent from 77 million to 100 million tons per annum. This is a considerable production increase that would help meet future global demand for clean energy, Qatar Petroleum President & CEO Saad Sherida Al Kaabi stated yesterday in Barcelona, Spain. Participating as the "Strategic Partner" of the Gastech 2018 Conference & Exhibition in the Global Leaders' Panel at the conference, Al Kaabi highlighted Qatar's leading position in the global gas and LNG industry. In the Global Leaders' Panel, the QP President & CEO was joined by chief executives from PetroChina, Gazprom, Royal Dutch Shell, Exxon Mobile Gas & Power Marketing Company, Repsol, and Vitol to discuss "the Transitional Impacts of the New Energy Landscape on the Gas Industry". In his address, Al Kaabi said "due to its environmental qualities as the cleanest fossil fuel, natural gas is playing an increasing key role, not as a transition fuel, but rather as a destination fuel. At the same time, many countries around the world are placing greater emphasis on natural gas as a strategic source of energy and an important element of its national energy security." Al Kaabi highlighted the main elements that are helping the increase in demand for LNG, particularly from China and India as well as other Asian and African Countries. He also said that diminishing production in Europe means additional and continued demand for LNG; and added that while some of the gas deals to meet that demand will be short-term, the bulk will be long-term.

<https://thepeninsulaqatar.com/article/19/09/2018/Qatar-Petroleum-makes-great-strides-in-its-plans-to-boost-LNG-output>

Germany to build LNG plant in 'gesture' to U.S. drive to sell more

Germany will choose where to build a liquefied natural gas (LNG) terminal by the end of 2018 as a gesture to the United States which wants to ship more gas to Europe, the economy minister said. In a bid to deter U.S. President Donald Trump from imposing hefty new trade tariffs on European Union goods, the EU said in July it would work to increase imports of U.S. soybeans and LNG. Trump wants U.S. LNG to compete with Russian natural gas exports in Europe. He has accused Germany of being a "captive" to Moscow because of its heavy reliance on Russian gas and has called for Berlin to drop support for the \$11 billion Nord Stream 2 pipeline plan to pump more gas from Russia to

Germany. "This is a gesture to our American friends," Peter Altmaier said of plans to decide on a site for the LNG terminal. "We have three competing cities and we will take a decision before the end of the year," he said after meeting Maros Sefcovic, the European Commission vice president and EU energy chief. But Altmaier said the LNG plan was not related to Germany's support for Nord Stream 2, which he told reporters was "a project that has a long life already and much money has been invested." At talks in Brussels, Altmaier and Sefcovic discussed the future of gas transit via Ukraine, the traditional route for Russian gas supplies that make up more than a third of EU needs. Critics of the Nord Stream 2 pipeline say it will deprive Ukraine of lucrative gas transit fees and increase dominance of Russian gas monopoly Gazprom.

Altmaier repeated Germany's request for Moscow to continue to send "substantial" supplies via Ukraine after their contract expires in 2019 but did not put a figure on volumes. Sefcovic said volumes had to be substantial enough to pay for maintenance of Ukraine's gas pipeline infrastructure. He also said the United States had to do more to make its gas exports competitive on European markets. German firms are considering building an LNG terminal as gas demand rises in Europe and the Netherlands, one of Germany's crucial suppliers which is winding down its giant Groningen field and plans to close it in 2030. German utility Uniper said on Monday it was ready to import LNG and distribute it should a terminal be built at Wilhelmshaven, close to its storage facilities.

[Source: LNG Global](#)

U.S. gas shunned by China as Goldman sees swift end to trade

Even with China's smaller-than-threatened tariff on U.S. natural gas, American cargoes may still be kryptonite for Chinese traders trying to navigate the ongoing trade war. Chinese buyers will seek to avoid purchasing U.S. LNG as long as any tariffs are in place because of the risk that duties may rise further and possibly without warning, according to officials from four importers. While they said they would prioritize cargoes from other suppliers, they couldn't entirely rule out buying U.S. shipments. The officials asked not to be identified discussing procurement strategy.

"The tariff could end direct trade in LNG between the two countries," Goldman Sachs Group Inc. analysts including Christian Lelong said in a Sept. 19 report. "The decline in trade flows will likely be swift because China imports most of its LNG from the U.S. on a spot basis." China announced Tuesday, September 18, a 10% tariff on American goods, including LNG, starting Sept. 24 in retaliation for a similar-sized levy imposed by the U.S. While China struck below the 25% duty it threatened last month, the ongoing trade tensions are seen turning off buyers in China, the world's biggest and fastest-growing natural gas market. That could go for both taking individual, or so-called spot, cargoes, as well as tying themselves to projects with long-term spending and supply commitments in the U.S., where more than a dozen projects are seeking about \$139 billion in investments.

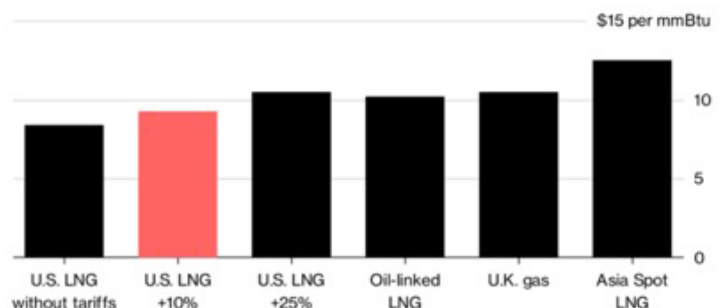
"For a Chinese buyer, the overall risk profile for procuring U.S. LNG remains heightened," Saul Kavonic, Credit Suisse Group AG's director of Asia energy research, said by email. "Even with a smaller tariff, there has likely been some longstanding damage done to the perception of reliability of U.S. LNG supply in the eyes of Chinese buyers who will shape the next wave of global LNG projects."

U.S. LNG sales are linked to the nation's benchmark Henry Hub gas price, which is down about 1% this year, while supply from most other exporters is tied to oil, which has gained 18 percent over that period. That's made American fuel cheaper than other sources, an advantage that's being eroded by tariffs. China may shift its buying from the U.S. to other exporters, including Qatar and Papua New Guinea, according to Bloomberg Intelligence analysts Lu Wang and Kunal Agrawal. There is about 103 million tons a year of aggregate capacity in new LNG plants near final investment decisions in those countries, along with Russia, Nigeria and Mozambique, that benefit from the tariffs, Goldman said. Prospective U.S. projects will likely seek to work out deals with non-Chinese buyers, making it more difficult but not impossible to reach investment decisions, Barclays Plc analyst Samuel Phillips said in a Sept. 19 report. PetroChina Co. signed a deal earlier this month with Qatargas Operating Co. to purchase 3.4 MMT of LNG annually, the Chinese company's biggest supply deal, while inking a mid-term contract with the PNG LNG project earlier this year. PetroChina's parent, China National Petroleum Corp., signed a deal to buy U.S. LNG from Cheniere in February.

[Source: LNG Global/Bloomberg](#)

Gas Costs

China may shun U.S. LNG because of trade war risks even if it's price competitive



Note: All costs based on December futures. U.S. costs incorporate Bloomberg estimates of shipping and liquefaction. Oil-linked based on 13% slope to Brent.
Source: Bloomberg

Bloomberg

Madrid adds 276 Mercedes Benz natural gas buses

EMT, the transport company of the Spanish capital Madrid, is set to receive a total of 276 Mercedes-Benz Citaro NGT urban buses with natural gas drive in the next two years. This will be the fourth major order from Madrid in quick succession. 672 environmentally friendly Citaro NGT buses will soon be in service in Madrid. "We are particularly pleased with the order from Madrid. It clearly shows that our Citaro NGT is proving its worth," explains Till Oberwörder, Head of Daimler Buses. EMT placed its first order two years ago for 82 urban buses of the newly launched Citaro NGT model. The following year, the company ordered another 314 buses. The current order means that there will be a total of 672 environmentally friendly Citaro NGT buses operating in Madrid from 2020. The vehicles now on order are two-door solo buses which are 12 metres in length. They are powered by the Mercedes-Benz OM 936 G natural gas engine which undercuts the Euro VI emissions limit by a significant margin in some situations. Its output and maximum torque of 1200 Nm enable the engine to achieve the same powerful performance as a diesel engine. In natural gas operation, the Citaro NGT (Natural Gas Technology) produces CO₂ emissions up to ten per cent below those of a diesel engine. And when using biogas, an NGT bus is almost completely CO₂-neutral. What's more, noise emissions are also up to 4 dB(A) lower. This corresponds to roughly half the subjectively perceived noise level. As a result, the Citaro NGT is ideally suited for use in busy cities and metropolitan areas where noise pollution is a problem. As Spain's biggest urban bus operator, EMT's fleet comprises 2000 buses. They operate on 209 routes with over 10,000 bus stops, covering around 90 million kilometres and moving 430 million passengers a year. With this new order, EMT is approaching its target of moving its complete fleet to low-emission and emission-free urban buses by the year 2020. <http://www.ngvglobal.com/blog/madrid-adds-276-mercedes-benz-natural-gas-buses-0925>

IAA witnesses a Clean Sweeper (CNG-only) from IVECO and Johnston

The 2018 International Motor Show Germany (IAA) has started and IVECO is grabbing attention with the presentation of a new sustainable zero-Diesel sweep-

er on its Diesel-free/Low Emissions Area stand. The new VS651 CNG truck mounted sweeper is based on a 210 hp IVECO Eurocargo Natural Power truck equipped with a sweeper body engineered by Johnston in collaboration with IVECO. It is powered only by CNG. At the 67th IAA Commercial Vehicles, in Hannover from September 20 to 27, the zero particulate matter sweeper combines the Eurocargo's one CNG engine with a hydrostatic transmission developed by Johnston, so that no diesel is used to operate the sweeping equipment. This results in a dramatic reduction in emissions compared to traditional truck-mounted sweepers. This new vehicle addresses the issue frequently found in the transport industry, where a very clean truck is equipped with a body that has a system operated by an additional engine that is less regulated or even unregulated. The three tanks mounted behind the cab hold 420 litres of CNG, enough to complete a full sweeping shift. Leeds City Council in the UK is one of the first local authorities to introduce the latest Johnston VS651 CNG to its fleet, as part of the council's Clean Air Initiative which aims to have all vehicles on its fleet running on CNG or other alternative fuels by 2020. Urbaser in France has also ordered 26 of the new CNG machines to sweep the City of Paris, in preparation for a ban on diesel vehicles manufactured before 2005 during 2019, with a total ban coming into force in 2024. Johnston Sweepers has been manufacturing road sweepers in Dorking, Surrey for more than 75 years, and today is one of the world market leaders in street cleansing vehicles. Johnston exports over 70% of its sweeper production to more than 80 countries worldwide, helping to keep city streets from all over the world cleaned.

<http://www.ngvglobal.com/blog/iaa-witnesses-a-clean-sweeper-cng-only-from-iveco-and-johnston-0921>[Edited]

California State Legislature OKs bills supporting NGV industry

The Legislature adjourned Aug. 31 after passing all the alternative fuel-friendly bills on the California Natural Gas Vehicle Coalition's watch list. Two bills in particular represent major victories for green transportation and tear down barriers to NGV fleet expansion: AB 2061, the weight exemption bill co-sponsored by the Coalition, and SB 1440, for the creation of an in-state biomethane procurement pro-

gram. The deadline for signing—or vetoing—bills is Sept. 30. Those that become law will take effect Jan. 1. Policymakers have supported alternative-fuel funding mandates before, but in recent years they haven't passed bills that benefit the NGV industry as directly as AB 2061 does. This weight-exemption rule, authored by Sen. Jim Frazier (D-Discovery Bay), allows a near-zero-emission or zero-emission vehicle to exceed California's weight limits for heavy-duty trucks by as much as 2,000 pounds, allowing for the extra weight of natural gas fuel systems. This means fleets no longer have to haul less freight—and take a hit to the bottom line—in order to switch to cleaner fuels. Some policymakers questioned allowing heavier trucks on the road; however, the conflict wasn't enough to stall the bill. With its passage, California will join 27 other states in codifying the federal weight exemption for clean trucks. SB 1440 (author: Assemblymember Ben Hueso, D-San Diego) requires the CPUC (California Public Utilities Commission) to establish a state program for renewable natural gas procurement by July 1, 2019. The goal is for gas corporations to collectively procure 32 billion cubic feet of biomethane across California annually.

<http://www.ngvjournal.com/s1-news/c1-markets/california-state-legislature-ap-proves-bills-supporting-ngv-industry/>

Škoda Octavia G-TEC now with 1.5 Litre TSI engine

The 2019 Škoda Octavia G-TEC, presented at IAA 2018, comes with a new, more powerful 1.5-litre bi-fuel TSI engine (96 kW / 130 PS) and improved CNG range. Running on Compressed Natural Gas (CNG) reduces CO₂ emissions by around 25 percent compared to petrol. In addition, significantly less nitrogen oxide (NO_x) is emitted and there are no soot particles. The Octavia G-TEC is exclusively available as a COMBI and in the Active, Ambition and Style trim levels. Compared to the predecessor model, the power output of the new G-TEC has increased by a substantial 15 kW (20 PS), to 96 kW (130 PS). The vehicle complies with the currently strictest EU6d-TEMP emissions standard and achieves a range of 480 km when travelling purely on environmentally friendly natural gas.

Its three CNG tanks have a combined total capacity of 17.7 kg. An 11.8-litre petrol tank ensures mobility in regions with no natural gas fuelling stations.

<http://www.ngvglobal.com/blog/skoda-octavia-g-tec-now-with-1-5-litre-tsi-engine-0928>

U.S. Energy Department promotes NGV adoption with new research

As the transportation sector continues to grow, diversified affordable solutions will ensure resiliency and affordability, while meeting increasing energy demands. Natural gas is poised to play a key role as a versatile, low-emission fuel and is an increasingly attractive alternative to conventional diesel fuel. To help advance natural gas vehicle technologies, the U.S. Department of Energy, National Renewable Energy Laboratory (NREL), California Energy Commission, and South Coast Air Quality Management District have partnered to launch a research effort to drive past technical barriers to the increased use of natural gas for medium- and heavy-duty engines and vehicles. As part of this effort, NREL issued a Request for Proposals (RFP) to award up to \$11 million for projects that focus on: (1) reducing the cost natural gas vehicles, (2) increasing vehicle efficiency, and (3) advancing new innovative medium- and heavy-duty natural gas engine designs. This RFP builds on the lessons-learned from the partners' broad experiences in natural gas vehicle technologies. Projects selected through this solicitation will complement Vehicle Technologies Office (VTO) research started in FY 2017 to improve the performance, reliability, durability, cost-effectiveness, and efficiency of natural gas vehicles. Cost-effectively achieving diesel-like efficiency in natural gas engines, while meeting emissions standards, will improve the viability of natural gas fueled medium- and heavy-duty vehicles.

<http://www.ngvjournals.com/s1-news/c5-products/u-s-energy-department-promotes-ngv-adoption-with-new-research/>

INTERNATIONAL: LNG AS A MARINE FUEL/BUNKERING/ LNG SHIPPING

LNG shipping rates spike with no respite seen through 2019

The price of shipping LNG has spiked in September and is likely to remain high next year, buoyed by rising production from new plants and concerns that demand for LNG vessels will outpace supply. The rate for vessels shipping LNG from the Atlantic Basin to Asia has jumped to \$90,000 to \$95,000 a day this week from \$75,000 a day at the end of August, brokers and traders said. Rates, which broadly hovered around \$30,000 to \$40,000 a day from 2015 to 2017, have risen due to longer distances covered to transport LNG from new terminals in the United States and Arctic Russia, surging demand in China and a limited number of ships.

Rates have hit "the highest levels since the last bull market of 2012 ... elevating the starting point for another anticipated winter market rally and the next cyclical upturn," said Jonathan Chappell, analyst with Evercore ISI.

Shipping firms see little sign of them slipping soon, predicting high rates for 2019 or longer, during their earnings calls this month. Hoegh LNG Chief Executive Sveinung Stohle told investors and analysts he expected rates to "increase on the levels where they are, certainly, for the next two to three years". Strong LNG demand has helped drive the shipping rate rise. Japanese and South Korean utilities having been stocking up on LNG for winter, driving prices to a seasonal four-year high. Demand was stronger than usual after a summer heatwave meant reserves were drawn down to power extra air-conditioning. Despite this week's

pause, Asian buyers are expected to return as the northern hemisphere winter sets in. This increasing demand for LNG has compounded already rising shipping rates, partly driven by the ramping up of exports at Novatek's Yamal LNG terminal and at U.S. LNG terminals. Deliveries of LNG from the Northern Russian Yamal facilities have created extra demand on ships because Arctic-class vessels lifting cargoes transfer the LNG to conventional carriers in Europe for onward journeys. Deliveries from U.S. terminals to Asia pass through the Panama Canal, taking longer than cargoes from second largest producer in the world, Australia. Wood Mackenzie estimates it takes 1.9 ships to carry 1 MMTPA of LNG from the U.S. Gulf to Japan compared to 0.7 ships from Australia. These factors have prompted many shippers to book ships on multi-month or multi-year charters, locking in rates before they rise but cutting the availability of vessels for others. "If you're at \$85,000 now (for shipping day rates), you could easily see \$115,000 to \$120,000 in the winter," said Jefferies energy shipping analyst Randy Giveans.

[Source: LNG Global](#)

New environmental regulations for 'green shipping' vision

The global shipping industry is under growing pressure to ensure its compliance with looming new environmental regulations, Kitack Lim, secretary-general of the International Maritime Organisation (IMO), has warned. Lim's comments were made at the opening of the Ham-

burg SMM maritime trade fair, one of the world's most important events of its kind for the shipping industry. As of January 1, 2020, the IMO will mandate members to use fuels with a sulphur content of at most 0.5%, compared to a previous 3.5% limit, when travelling the high seas. Alternatively, vessels can install so-called "scrubber" exhaust system cleaning technologies to reduce environmental pollution. "The priority for the IMO and the industry is now to implement the new regulatory limits resolutely," Lim said. Esben Poulsson, the chairman of the International Chamber of Shipping, expressed confidence that the industry would ultimately succeed in becoming more environmentally sustainable. "We will make it, but we will have to work hard," Poulsson said. He noted that fuels in compliance with the new regulations were not yet universally available and that their exact pricing, a key cost factor for shipping firms, was still unknown. Caterpillar product manager Frank Starke, representing one of the engineering firms showcasing their products at the fair, cautioned that the jury was still out on what new technologies would be best suited to help achieve the industry's vision of "green shipping". Whereas motors could already be powered by hydrogen in principle, questions remained surrounding related security and logistics. Further candidates for less polluting propulsion solutions were battery-powered vessels and liquefied natural gas.

<https://www.hellenicshippingnews.com/new-environmental-regulations-for-green-shipping-vision/>

LNG ship deficit in the coming years

Underpinning the rates is a worry there may not be enough ships in coming years to match rising output, including from U.S. terminals, which are expected to add 84 mtpa by 2023, turning the country into the world's second largest exporter. Iain Ross, the chief executive of LNG shipping company Golar LNG, said this month the forecast of a 23 percent rise in LNG production over two years would require 100 extra vessels. But only 66 were scheduled to be delivered in time, he said. "It's no longer possible to go out today and order a vessel for delivery before 2021," he said. "It seems to us (there is) a structural change in the sector that will (be) driving demand." But Wood Mackenzie said shipping firms should be wary of ordering too many more vessels now because of the potential for a glut of LNG at some point between 2020 and 2025, as new projects coming onstream may find there are not enough buyers. "If (ship) ordering activity continues at recent levels there is a high danger that it will be too much too soon," said Andrew Buckland, Wood Mackenzie's LNG and shipping analyst.

[Source: LNG Global](#)

Russian firm Sovcomflot orders next generation LNG-fueled tankers

PAO Sovcomflot (SCF Group) signed a set of agreements with Rosneft, Zvezda Shipbuilding Complex and VEB Group, placing orders with Zvezda for a series of two next generation large-capacity Aframax tankers powered by LNG. VEB-Leasing will finance the construction of the tankers, whilst a subsequent 20-year time-charter for them has been agreed with Rosneft. The signing ceremony was attended by Vladimir Putin, President of the Russian Federation. The vessels will have a deadweight of 114,000 tons and a 1A/1B ice class, which makes them able to operate all year round in areas with difficult ice conditions, including sub-Arctic seas and Russian ports of the Baltic region. The technical specification of the tankers reflects the regulatory limits on sulfur, nitrogen and greenhouse gas emissions, which will come into effect for the Baltic and North Seas in 2020. These next generation tankers, designed to operate on LNG fuel, provide for a low level of human impact on the environment and reduce emissions of harmful substances: SOx by 100%; NOx by 76% and

CO2 by 27%, when compared with similar vessels operating on heavy fuel. The technical specification of the vessels was designed by SCF's specialists, who applied their vast experience of operating large-capacity tankers in adverse ice conditions, with the close involvement of the Far Eastern Shipbuilding and Ship Repair Centre (FESRC) and Hyundai Heavy Industries (Republic of Korea), a technological partner of Zvezda Shipbuilding Complex. <http://www.ngvjournal.com/s1-news/c7-lng-h2-blends/russian-maritime-ship-ping-firm-orders-next-generation-lng-fueled-tankers/>[Edited]

New LNG-powered cruise under construction for Finland & Sweden

On September 3, the production of Viking Line's new passenger cruise ship started at the Xiamen Shipbuilding Industry Co., Ltd. (XSI) shipyard in China. The new vessel will be one of the most climate-smart ships in the world. The collaborative project, involving extensive engineering and development work with the intention to create a unique new-generation passenger ship, has engaged several suppliers in Finland and Europe. The new vessel will run on LNG, just like the M/S Viking Grace, a pioneer in environmental aspects and the first LNG-powered large passenger ship in the world. With a capacity of 2,800 passengers, it will be larger than Viking Grace, and it is calculated to consume up to 10% less fuel. The 218-meter long and 63,000-ton cruise will have 922 cabins and a crew of about 200 people. Optimized energy efficiency and environmentally-friendly solutions have been focal points for the project, and the new Ice class 1 A Super vessel will be among the most energy efficient ships in the world. It will be delivered at the end of 2020 and launched for operation in early 2021 on the Turku-Åland-Stockholm route. The cruise is designed with a focus on providing open and unobstructed views of the unique archipelago. "On the new ship, the views are unobstructed, and one can experience the overall presence of the sea. To protect our unique marine environment, we utilize innovative technologies. Tomorrow's passenger experiences will incorporate an emphasis on environmental factors and comfort," said Jan Hanses, President and CEO of Viking Line. <http://www.ngvjournal.com/s1-news/c7-lng-h2-blends/new-lng-powered-cruise-ship-under-construction-for-sweden-and-finland/>

Rolls-Royce launches new natural gas engine for marine applications

Rolls-Royce has launched its latest in a series of LNG marine engines. The Bergen B36:45 model is designed in accordance with the Rolls-Royce philosophy of a common platform for all fuel options and applications, and can be configured to meet the specific engine requirements of customers. It is available in six, eight and nine-cylinder in-line configurations (a V-12 version is now in development, which will be followed by a 20-cylinder V-engine for very high-power applications). Power output of the LNG-powered B36:45 engine is 600kW per cylinder at 750 rpm. Specific energy consumption is a low 7300kj/kWh mechanical ISO including two engine driven pumps; specific lubricating oil consumption is less than 0.4g/kWh. The proven lean-burn Otto cycle combustion B36:45 technology has been developed during Bergen Engines' extensive experience with LNG engines so that methane slip, which contributes to greenhouse gas (GHG) emissions, has been minimized: the engine is able to achieve up to 22% lower GHG emissions than the equivalent diesel version.

<http://www.ngvjournal.com/s1-news/c7-lng-h2-blends/rolls-royce-launches-new-natural-gas-engine-for-marine-applications/>[Edited]

All news and features carried in this NGS NG/LNG Update are compiled from various sources - print and web editions, and have been duly acknowledged.

Russia, Islamabad sign MoU to build gas pipeline from Iran to Pak and India

Now Russia will have to inform Iran and India about the signing, after which it expects to sign a similar document with India. Russia and Pakistan signed a memorandum of understanding on implementing a project to build an underwater gas pipeline from Iran to Pakistan and India, the Russian Energy Ministry said in a statement. "The memorandum provides for the identification of authorized organisations through which the project will be supported, including during the development of a feasibility study, identification of the resource base, configuration and route of the gas pipeline," the statement said, Xinhua reported. Russian Deputy Energy Minister Anatoly Yanovsky and Pakistan's Ministry of Energy Additional Secretary Sher Afgan Khan signed the document in Moscow. Now Russia will have to inform Iran and India about the signing, after which it expects to sign a similar document with India, Yanovsky said in the statement. The project was frozen in 2013 due to the imposition of sanctions against Iran, but its revival started in 2017. In November 2017, Russia and Iran signed a memorandum that envisaged Russian support for gas supplies from Iran to India. According to Yanovsky, Russia and Pakistan were holding consultations on another project of building the 1,100 kilometer North-South Gas Pipeline (NSGP) between Pakistan's Karachi and Lahore to transport 12.3 BCM of gas per year. The implementation of an agreement signed in October last year between Russia and Pakistan on Russian LNG supplies "can become a promising direction of cooperation," he said. The governments of the two countries were also considering signing an agreement on Russian oil products supplies to Pakistan, Yanovsky said. In addition, Russian electric power industry has shown interest in the Pakistani market, he said.

https://www.business-standard.com/article/international/russia-islamabad-sign-mou-to-build-gas-pipeline-from-iran-to-pak-and-india-118092800044_1.html

Big Oil pledges to slash potent greenhouse gas emission

A group of the world's top oil and gas companies pledged to slash emissions of a potent greenhouse gas by a fifth by 2025 in an effort to battle climate change. The Oil and Gas Climate Initiative

(OGCI), which U.S. giants Exxon Mobil and Chevron joined recently, committed to cutting methane emissions to an intensity of 0.25 percent of the group's total fossil fuel production, it said in a statement. Such a reduction would equate to 350,000 tonnes of methane annually. It compares with a baseline intensity of 0.32 percent in 2017, excluding new members. The pledge, which could be lowered to 0.20 percent intensity, echoes targets set individually by members BP, Royal Dutch Shell and Exxon to reduce methane emissions. "Our aim is to work towards near zero methane emissions from the full gas value chain in support of achieving the goals of the Paris Agreement," the heads of the OGCI members said in a statement, referring to an international agreement aimed at limiting

global warming. "We have worked to make our ambition concrete, actionable and measurable, helping to ensure that natural gas can realize its full potential in a low-emissions future. "The OGCI today represents nearly a third of global oil and gas production. It also includes BP, Royal Dutch Shell, France's Total as well as national oil companies of China, Mexico, Brazil and Saudi Arabia. In a separate announcement, timed to coincide with the start of Climate Week in New York, OGCI announced the creation of a \$100 million China-focused climate investment fund with China National Petroleum Corporation (CNPC).

<https://energy.economictimes.indiatimes.com/news/oil-and-gas/big-oil-pledges-to-slash-potent-greenhouse-gas-emission/65943447>

Chinese gas imports, including LNG, inch above Japan's for the first time

China is set to become the world's largest importer of natural gas for the first time, overtaking long-time front-runner Japan. Over the first eight months of this year China has imported the equivalent of 57.18 MMT of LNG, in the form of LNG and pipeline deliveries. In contrast, Japan has imported 56.45 MMT, all in the form of LNG, over the January-August 2018 period. Natural gas imports are growing much more quickly in China - in the form of both LNG and pipeline deliveries - than in Japan, where LNG import volumes are relatively stable. This trend will reinforce the emergence of China as the world's top natural gas import nation by the end of 2018. China's August 2018 LNG imports were up by 51.5% year-on-year on the same month in 2017, reaching 4.71 MMT. The August results boosted China's total LNG imports for the first eight months of 2018 to 32.63 MMT, a leap of 47.8% over the tally recorded in the first eight months of 2017. At the same time, China's imports of natural gas by pipeline in August 2018 were up by 21.2% over the same month last year, reaching the LNG equivalent of 3.06 MMT. The country's pipeline imports in the first eight months of 2018 were up by 20.7% over the same period a year ago, reaching the LNG equivalent of 24.55 MMT. Japan's LNG imports in August 2018 climbed by 4% on the same month a year earlier, to reach 7.7 MMT. Three months of unusually hot weather had left the country with a considerable level of late summer restocking demand. This year Japan has brought a handful of its nuclear reactors, idled for safety checks following the March 2011 earthquake and tsunami, back onstream. Nevertheless, the country's demand for LNG imports remains steady. If the pace of import volumes for the first eight months was extrapolated over the year as a whole, Japan is set to purchase 84.7m tonnes of LNG in 2018, a marginal 1.4% rise on the 2017 volume. If China maintains its current high rate of LNG import growth, it will be vying with Japan for the top spot among LNG buyers by as soon as the end of 2019. It would then emerge as the clear leader in 2020.

There are a number of potential obstacles to this high-side forecast for China's LNG purchases, not least the availability of both product and sufficient regasification capacity. China's 20 or so receiving terminals are currently working at high utilisation rates and although new capacity, in terms of new facilities and expansions of existing installations, is under construction, it will not be ready by 2020.

https://www.lngworldshipping.com/news/view/chinese-gas-imports-including-lng-inch-above-japans-for-the-first-time_54354.htm [Edited]

IEA says near-term natural gas export growth to be fueled by US, Australia and Russia

The International Energy Agency expects the US to account for 75% of the global growth in natural gas exports over the next five years, a bullish outlook for LNG developers facing challenges at home getting projects off the ground and abroad with tariffs affecting trade flows. During a presentation at Gastech in Spain, IEA senior natural gas analyst Jean-Baptiste Dubreuil said other countries contributing to the exports growth during that period will be Australia and Russia. Australia is a major LNG exporter, while Russia supplies significant amounts of pipeline gas to Europe. Besides its growing LNG exports efforts, the US is also a major exporter of pipeline gas to Mexico, which is heavily reliant on the supplies for power generation. IEA forecasts natural gas growth to persist in the medium and long term, driven by China entering the global gas scene as a major importer, and thus a major source of consumption growth, Dubreuil said. Other drivers include LNG development and the shift in consumption from demand growth fueled by power generation to demand growth fueled by industry, especially in emerging markets. While largely positive about the outlook for gas, Dubreuil said challenges remain, besides the recent trade tensions between the US and China. Access to energy in some parts of the world, such as sub-Saharan Africa, continues to be limited, while market participants also focus increasingly on prices. Dubreuil said natural gas must “remain competitive” on prices but also “prove its contribution to a cleaner, more sustainable energy environment.”

<https://www.hellenicshippingnews.com/iea-says-near-term-natural-gas-export-growth-to-be-fueled-by-us-australia-and-russia/>

Trump relaxes Obama curbs on flaring gas from wells on U.S. land

The Trump administration finalized a rollback of Obama-era limits on methane that is leaked, vented or flared from oil and gas wells on federal lands, part of a one-two punch on regulations designed to curb release of the potent greenhouse gas. The Interior Department’s Bureau of Land Management issued a final rule taking aim at regulations mandating that oil and gas companies drilling on public and tribal lands reduce methane pollu-

tion. It follows a proposal last week from the Environmental Protection Agency to push back on similar rules on private lands. “The Trump Administration is committed to innovative regulatory improvement and environmental stewardship,” said Deputy Secretary David Bernhardt. The move scraps a requirement that energy companies seek out and repair leaks and rescinds requirements for well completion, storage vessels and pneumatic controllers, as well as mandates requiring companies prepare plans for minimizing waste before getting drilling approvals. Erik Milito, the American Petroleum Institute’s, director of upstream and industry operations, praised the move and said the oil and gas industry has been moving on its own to reduce methane emissions. Even as natural gas production has risen 50% since 1990, methane emissions have dropped by 14%, he said.

[https://www.hellenicshippingnews.com/trump-relaxes-obama-curbs-on-flaring-gas-from-wells-on-u-s-land/\[Edited\]](https://www.hellenicshippingnews.com/trump-relaxes-obama-curbs-on-flaring-gas-from-wells-on-u-s-land/[Edited])

Europe’s natural gas market continuing to grow and diversify

Since 2015, Europe’s natural gas market has shown strong demand growth driven by economic recovery, an increasingly gas-reliant power sector and unseasonable weather patterns that have increased the continent’s heating and cooling needs. The big picture Recent trends suggest the market is not only growing but also diversifying its suppliers, routes and delivery forms. There’s considerable push for further liberalization to provide greater transparency and market-based pricing, features that attract competition and increase exporter interest. The growth thus provides a way to both decarbonize Europe’s economy and fortify its energy security. LNG markets and infrastructure are expanding. The French LNG Terminal Montoir has received record-level shipments; the Polish LNG Terminal just celebrated its 40th cargo delivery ; and the prospects of a new LNG terminal opening toward the end of 2022 in northern Germany seem better than ever.2.Pipeline gas is not giving way. Russian company Gazprom is proceeding to lay a controversial pipeline in Finland’s part of the Baltic Sea, and another of its pipelines is roughly 80% ready to begin funneling gas to Turkey. Meanwhile, Poland is pushing for the Baltic Pipe from Norway, where general interest in drilling is surging and where Poland’s PGNiG is

planning to undertake exploratory offshore drilling.3.Turkey continues to position itself as a natural gas hub for Europe. Besides its strong support for new LNG and pipeline infrastructure, including Gazprom’s, Turkey remains committed to gas market liberalization in the hopes of attracting more trade activity by launching spot day-ahead pricing. The combination of growth and diversification is good news for both the new market players, such as the U.S. and Qatari LNG exporters, and for Russia, which has been wary of changing natural gas market dynamics and its loosening hold as Europe’s dominant natural gas provider. European importers, which stand to benefit from an increasingly competitive environment, should also welcome the news.

<https://www.hellenicshippingnews.com/europes-natural-gas-market-continuing-to-grow-and-diversify/>

Azerbaijan’s Jan-Aug gas exports from Shah Deniz I rise 4.4 pct y/y

Exports from the first stage of Azerbaijan’s giant Shah Deniz gas field stood at 4.990 billion cubic metres (bcm) in January-August this year, up 4.4 percent from a year earlier, the State Statistics Committee said on Monday.

Gas from Shah Deniz I is exported through the South Caucasus pipeline. Export volumes from Shah Deniz I, operated by an international consortium led by BP, were 7.314 bcm in 2017. Azerbaijan’s gas exports through all pipelines totalled 15.040 bcm in January-August this year. The European Union is trying to reduce its dependence on Russian gas by developing the so-called Southern Gas Corridor, which is expected to bring about 10 bcm of gas a year to Europe by 2020. Another 6 bcm of gas will be exported to Turkey. The gas would come from the Shah Deniz II field via the 1,850 km (1,150 mile) Trans-Anatolian Natural Gas Pipeline (TANAP) through Turkey, the South Caucasus pipeline extension through Azerbaijan and Georgia and the Trans-Adriatic Pipeline (TAP) to Greece, Albania and Italy. Azeri oil exports through the Baku-Tbilisi-Ceyhan (BTC) pipeline via Georgia and Turkey declined by 0.8 percent to 22.288 million tonnes in the first eight months of this year versus the same period in 2017, the State Statistics Committee also said.

<https://www.hellenicshippingnews.com/azerbaijans-jan-aug-gas-exports-from-shah-deniz-i-rise-4-4-pct-y-y/>

World's first hydrogen fuel cell train enters passenger service in Germany

The world's first hydrogen fuel cell train, the Coradia iLint, has entered passenger service in Bremervörde. The world premiere was celebrated by railway manufacturer Alstom, the Ministry of Economy and Transport of Lower Saxony, the Federal Ministry of Transport and the transport authorities of Landesnahverkehrsgesellschaft Niedersachsen (LNVG) and Eisenbahnen und Verkehrsbetriebe Elbe-Weser (EVB). The train, built by Alstom in Salzgitter, Germany, is equipped with fuel cells which convert hydrogen and oxygen into electricity, thus eliminating pollutant emissions related to propulsion. In the coming days, two such trains will enter commercial service according to a fixed timetable in Lower Saxony. The zero-emission trains reach up to 140 km/h. On behalf of LNVG, the Coradia iLint trains will be operated on nearly 100km of line running between Cuxhaven, Bremerhaven, Bremervörde and Buxtehude, replacing EVB's existing diesel fleet. The new trains will be fueled at a mobile hydrogen filling station. The hydrogen will be pumped into the trains from a 40-foot-high steel container next to the tracks at Bremervörde station. With one tank, they can run throughout the network the whole day, thanks to a total autonomy of 1000 km. A stationary filling station on EVB premises is scheduled to go into operation in 2021, when Alstom will deliver a further 14 Coradia iLint trains to LNVG.



[http://www.ngvjournal.com/s1-news/c7-lng-h2-blends/worlds-first-hydrogen-fuel-cell-train-enters-passenger-service-in-germany/\[Edited\]](http://www.ngvjournal.com/s1-news/c7-lng-h2-blends/worlds-first-hydrogen-fuel-cell-train-enters-passenger-service-in-germany/[Edited])

Toyota, Kenworth, Shell, Port of Los Angeles get fund for new H2 project

The California Air Resources Board (CARB) has preliminarily awarded \$41 million to the Port of Los Angeles for the Zero-Emission and Near Zero-Emission Freight Facilities (ZANZEFF) project. The total cost for this initial phase is \$82,568,872, with partners providing 50.2% in match funding. The project, proposed with support from Toyota, Kenworth, and Shell, provides a large-scale "shore to store" plan and a hydrogen fuel cell technology framework for freight facilities to structure operations for future goods movement. The Port of Los Angeles will develop the project in several phases, ultimately encompassing initiatives in Southern California, the Central Coast Area, and Merced County. The initial phase is designed to kick-start the leap to a new class of goods movement vehicles, while reducing emissions in designated disadvantaged communities. The project phases will include 10 new zero-emissions hydrogen fuel cell Class 8 on-road trucks on the Kenworth T680 platform that will be developed through a collaboration between Kenworth and Toyota to move cargo from the Los Angeles ports (the trucks will be operated by Toyota Logistics Services, United Parcel Services, Total Transportation Services Inc., and Southern Counties Express). The initiative also includes two new large ca-

capacity heavy-duty hydrogen fueling stations that will be developed by Shell in Wilmington and Ontario, California. The stations will join three additional stations located at Toyota facilities around Los Angeles to form an integrated, five-station heavy-duty hydrogen fueling network.

Moreover, the project will promote an expanded use of zero-emissions technology in off-road and warehouse equipment, including the first two zero-emissions yard tractors to be operated at the Port of Hueneme, and two zero-emissions forklifts at Toyota's port warehouse. "The Port of Los Angeles is showing the world that we don't need to choose between environmental stewardship and economic growth — and this funding will help put zero emissions goods movement within our reach," said Los Angeles Mayor Eric Garcetti. "I am grateful to CARB for this investment in America's Port, as we continue to lead the drive toward a more sustainable future." The ZANZEFF project, which will help reduce emissions by 465 metric tons of Greenhouse Gas and 0.72 weighted tons of NOx, ROG and PM10, is part of California Climate Investments.

<http://www.ngvjournal.com/s1-news/c7-lng-h2-blends/port-of-los-angeles-toyota-kenworth-shell-get-fund-for-new-h2-project/>

Surat's Agriculture Produce Market Committee is first co-operative to sell bio-CNG

Surat's Agriculture Produce Market Com-

mittee (APMC) has become the first cooperative society in the country to commercially sell bio-natural gas produced from fruit and vegetable waste to Gujarat Gas Ltd (GGL). The gas purchase agreement was signed between GGL and APMC on Thursday for bio-natural gas. The bio waste to bio energy and food processing plant of the APMC was set-up in June-2017 at the cost of Rs 6.5 crore and the production of natural gas and organic liquid fertilizer started six months ago. Official sources said the APMC's bio-energy plant is producing 2,000kg gas per day and about 1,600 litres of organic liquid fertilizer for the exclusive use in the agriculture sector to attain good quality crops. The bio-natural gas is environment-friendly and generates zero pollution. The GGL has laid a grid pipeline at the APMC's plant from where the gas will be transported to its transfer station for the supply to the end consumers. According to GGL, the state-run company will purchase the gas from APMC in Surat and distribute it to users through its extensive pipeline network. APMC generates about 35 tonne fruit and vegetable waste per day. Earlier, the cooperative was spending Rs 5 lakh monthly to dispose the green waste, but now it is targeting to earn Rs 15 lakh from sale of gas and liquid fertilizer.

<https://timesofindia.indiatimes.com/city/surat/surats-apmc-first-co-op-to-sell-bio-cng/articleshow/65892366.cms>

Indian market prepares for first adsorbent natural gas conversion

Cenergy Solutions has partnered with APPL Industries (a large manufacturing firm that has a reputation of delivering timely and quality products to OEMs and other industries throughout the world) to create a new joint venture, APPL-Cenergy Solutions, in India. The joint venture successfully opened an adsorbent natural gas (ANG) test and demonstration facility in Pune, India, and will also be exploring the storage and transportation of wellhead gas that is stranded from natural gas pipelines. The APPL-Cenergy Solutions facility, which will demonstrate how ANG technology allows for the economic, storage, transport and utilization of biogas, is also converting a 2-wheeler and a rickshaw to ANG and biogas tanks by October 2018. The facility is now actively testing and demonstrating the use of ANG technology to fuel test vehicles and other natural gas appliances. A new digester has been installed and CNG tanks have been converted to ANG tanks to showcase the low pressure and high storage capacity of ANG technology at the facility. The mission of the new facility is to demonstrate that natural gas and biogas captured by ANG can be easily stored, transported and used for many applications. Gary Fanger, CEO of Cenergy Solutions said: "Cenergy Solutions with their new partner APPL Industries will be able to bring safe, inexpensive and in most cases renewable energy to homes and business across India to replace gasoline, diesel, LPG and biomass fuels. Utilizing otherwise wasted renewable biogas that is abundant in India will make life easier for their citizens and help to stimulate jobs and business across the country".

<http://www.ngvjournal.com/s1-news/c1-markets/new-joint-venture-will-perform-first-adsorbent-natural-gas-conversion-in-india/>



INTERNATIONAL: LNG DEVELOPMENT

CNOOC sells access to LNG terminal as China opens up vast energy market

China's CNOOC sold access to its Yuedong LNG terminal to state-owned Zhenhua Oil and private logistics firm Longkou Shengtong Energy, its first such auction as the country pushes to liberalise its vast oil and gas market. In the auction on the Shanghai Petroleum and Gas Exchange, Zhenhua Oil and Longkou agreed to pay CNOOC Gas and Power Group 0.265 yuan (\$0.04) to CNOOC per cubic metre of imported LNG for access to the terminal, Zhenhua Oil, a subsidiary of Chinese defence conglomerate Norinco, said in a statement. The total value of the deal was 26.5 million yuan (\$3.87 million). CNOOC has also sold LNG in auctions on the Shanghai bourse this year but this is the first time it has auctioned space at a receiving terminal.

The sale marks the latest move by China, one of the world's top gas importers, to liberalise natural gas prices, open up access to oil and gas infrastructure and shore up supplies as the peak winter demand season approaches. Other state-owned companies such as PetroChina have leased terminals to third-party users before in private deals. The auction from CNOOC, however, gave third-party players equal opportunity to bid for access. "This is the first time that LNG terminal leasing rights were put up for auction," Zhenhua Oil said in the statement, adding that Zhenhua is looking to meet rising gas demand from China as it expands into LNG trading. The deal comes just months after Zhenhua set up a business to invest in LNG terminals and trade the fuel. Zhenhua Oil plans to import 100 million cubic meters of LNG to Yuedong in between Oct. 24 and 26, it said. The company will pick up its cargo from the terminal by trucks, Zhenhua said.

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