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LNG DEVELOPMENT

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City gas licences: BPCL, IOC, Adani Gas and GAIL emerge as top bidders

The current round seeks to give licences for 86 GAs to sell compressed natural gas (CNG) and piped cooking gas. Bharat Petroleum (BPCL) has emerged the top individual bidder in the 9th round of bidding for city gas distribution (CGD) licences with bids for 53 geographical areas (GAs), followed by Indian Oil (37), GAIL Gas (34), Adani Gas (32) and Torrent Gas (31). While HPCL put in bids for 21 GAs, a consortium of Adani and Indian Oil has bid for 17 GAs. The other notable bidders are Gujarat Gas (21 GAs), Think Gas Investments (21 GAs) and Unison Enviro (20 GAs). The PNGRB will now go through bid details, and is likely to announce the winners by September. Bidders have been asked to quote the number of CNG stations they will set up and domestic cooking gas connections they plan to provide in the first eight years of operation. While 407 bids have been submitted in the current round, 12 GAs have received single bids. The highest number of bids have been submitted for the GA comprising Srikakulam, Visakhapatnam and Vizianagaram districts in Andhra Pradesh, which has 15 takers. This is followed by Jhajjar in Haryana (14), Alwar (other than

Bhiwadi) and Jaipur in Rajasthan (14), Dakshina Kannada in Karnataka (13) and Coimbatore in Tamil Nadu (13). While more than Rs 18,000 crore has so far been invested in the CGD business in the country, the latest round is expected to result in investments of Rs 70,000 crore. The existing CGD operators include IGL and GAIL Gas, which serve a population of 24 crore through 42 lakh domestic connections and 31 lakh CNG vehicles.

<https://indianexpress.com/article/business/commodities/city-gas-licences-bpcl-ioc-adani-gas-and-gail-emerge-as-top-bidders-5266653/>

Bhagyanagar Gas Limited to supply piped gas in city

Commercial and domestic gas will be supplied through pipeline by Bhagyanagar Gas Limited (BGL) in the city, said BGL managing director SV Prasad. Inaugurating the commercial gas connection service here on Thursday, Prasad said the gas supply through pipeline would be safe and cost-effective for the consumers. He said 36-km of steel network was completed and 125-km Medium Density Poly Ethylene (MDPE) line work was also completed and added there were 13 gas stations in the city. He said that a plan was ready to give 14,000 residential

and 60 commercial connections and inaugurate six more CNG stations and 150 MDIE network. He said the connections will be given at Andhra Patrika Colony, Paipula Road, Payakapuram, Ajitsingh Nagar, Devi Nagar, Satyanarayanapuram, Madhura Nagar and Gandhi Nagar immediately. With Rs 500 registration fee, the customers can get the connection, he added. BGL marketing chief manager Mukharji, project chief manager GV Venkatesh, marketing manager S Battacharji and Iylapuram Raju were present.

<http://www.thehansindia.com/posts/index/Andhra-Pradesh/2018-07-20/Bhagyanagar-Gas-Limited-to-supply-piped-gas-in-city/399704>

PM dedicates Varanasi CGD project to nation

Prime Minister Narendra Modi dedicated to the Nation the Varanasi City Gas Distribution (CGD) network which will supply environment friendly natural gas to households, transport sector and industries in the city through the 'Pradhan Mantri Urja Ganga'. The project was dedicated in a function in Varanasi in the presence of Governor of Uttar Pradesh Ram Naik, Chief Minister of Uttar Pradesh Yogi Adityanath and a host of other dignitaries. The foundation stone of the Varanasi CGD project had been laid by the Prime Minister on October 24, 2016. The Varanasi CGD network, which is being implemented by GAIL (India) Limited at a cost of Rs 755 crore, will cover 1,535 sqkm and cater to a population of 36.76 lakh. Two CNG stations have started commercial operations while another 18 will be set up in the coming years. Overall, 20,000 vehicles are expected to use CNG in the city. Besides, Piped Natural Gas (PNG) connection work for 8,000 houses has been completed which are expected to be connected by March 2019. About 1 lakh households are likely to be covered in the project. Steel pipeline has already been laid for 28 km and medium density polyethylene (MDPE) pipe laying for 102 km completed. About 800 km of steel and MDPE pipelines will be laid in the city as part of the project. The CGD network will also cover four industrial areas and can cater to 150 industries and 500 commercial enterprises. It is expected to give direct employment to 1,000 people and indirect employment to many more.

<http://www.freepressjournal.in/india/pm-dedicates-varanasi-cgd-project-to-nation/1316532>

Gujarat firms bet big on gas, place 99 out of 406 bids for 86 cities

About half a dozen Gujarat-based companies have submitted 99 bids for city gas licences, which accounts for almost 25% of the total 406 offers received by Petroleum and Natural Gas Regulatory Board (PNGRB) to sell piped natural gas (PNG) as well as compressed natural gas (CNG) in 86 Indian cities. If one adds the joint bids by Adani Gas Limited (AGL) and Indian Oil Corporation (IOC), the number stands at 118. Among Gujarat firms, AGL has bid for 32 cities on its own and another 20 in collaboration with IOC taking the total tally to 52. Torrent group company Torrent Gas Ltd and Gujarat Gas Limited (GGL) have bid for 31 and 21 cities, respectively. While IRM Energy Private Ltd, a group company of Cadila Pharmaceuticals Ltd, has placed 9 bids, Sabarmati Gas, a company promoted by GSPC and BPCL, has thrown its hat for 6 geographical areas. Industry experts say that Gujarat-based companies such as GGL, AGL and Sabarmati Gas are established players in city gas distribution business and have experience in handling natural gas consumers. All these firms already supply natural gas to various cities and towns in Gujarat and other states. These companies are also looking beyond Gujarat as the state is going to be fully covered under CGD network after the completion of ongoing bidding process. A total of eight cities and towns across 14 districts in Gujarat are being auctioned under the ninth round of bidding. The remaining districts in the state are already covered under the existing 23 authorised CGD networks. GGL has bid for all the eight cities in Gujarat and AGL is vying for seven areas. Nationally, IOC has bid for 34 cities in addition to joint bids with AGL. Bharat Petroleum Corp Ltd (BPCL) through Bharat Gas Resources Ltd has made offers for 53 cities while state-owned gas utility GAIL India Ltd's retailing arm, GAIL Gas Ltd, has bid for 34 cities.

<https://timesofindia.indiatimes.com/city/ahmedabad/gujarat-firms-bet-big-on-gas-place-99-out-of-406-bids-for-86-cities/articleshow/65062038.cms>

Oil companies soon to set up 20 LNG stations on various national highways

Petronet LNG, IndianOil and BPCL among other oil companies will soon put up close to 20 LNG stations on various national highways. Speaking at a Conference on City Gas Distribution in India organised by the PHD Chamber of Commerce and Industry, Director (Finance) at Petronet LNG, V K Mishra said that tenders for these stations would be issued in the next 15 days. He said that this association of oil companies has also fructified on a pilot project base to feed roughly 5,000 trucks with LNG on leading five national highways, beginning 2019. "Following its successful experiment, this exercise would have a repeat in subsequent year of 2020 for another estimated 5,000 trucks that can run on national highways on LNG with a fuel cost saving of nearly 25 per cent as well effectively addressing the issue of fuel pollution", Mishra said. The required permission to put up such LNG distribution centre on national highways has been given. In order to broad base the exercise of running trucks initially on LNG fuel and subsequently passenger buses also on the national highways, the oil companies have already asked the truck manufacturers such as TATAs and Mahendras to manufacture trucks that can be fuelled with cheaper and cleaner fuel such as LNG.

<https://www.thehindubusinessline.com/news/oil-companies-to-set-up-20-lng-stations-soon/article24399838.ece>

CNG filling stations in south Gujarat end strike

The CNG filling stations in Surat and south Gujarat ended their on-going strike after the Gujarat Gas Limited (GGL) is learnt to have partially accepted their demands during a meeting in Gandhinagar on Friday, July 27. The CNG Franchisee Association (CFA) had started indefinite strike from July 23 to press for their long-pending demands including an increase in the commission and reducing the exit period from the business from 18 months to three months. Noteworthy, that last year during the same period, the CNG fuelling stations had threatened a day-long strike for their demands. But, it was called off due to some unknown reasons. Surat district alone has about 60 CNG stations while there are about 291 stations across the state operated by GGL. The CNG filling station owners protested against the state-run GGL for not increasing the commission on CNG and allotment offill-

ing points at the petrol pumps. The CNG station owners have demanded that the service charge on CNG sales must be raised by 0.57 paise per kilogram with retrospective effect from June 1, 2018 and the franchises should be allowed to exit the business within three months of the notice period. President of SGCF, Neeraj Modi said, "We met the GGL authorities in Gandhinagar today and our demands were reasonably satisfied. Hence, we are bringing the operations to normalcy with immediate effect.

<https://timesofindia.indiatimes.com/city/surat/cng-filling-stations-in-south-gujarat-end-strike/articleshow/65167910.cms>

BHEL residents in Hyderabad likely to get piped natural gas by 2019

The LPG woes of thousands of families residing at Bharat Heavy Electrical Limited (BHEL) townships in the city may well end by 2019 with Bhagyanagar Gas Limited (BGL) mooted a proposal to provide 'piped natural gas' (PNG), which is considered to be safer than LPG cylinders, to every household in BHEL townships. "We want to provide safe, convenient and reliable gas supply to our domestic customers in the city and also townships of various reputed CPSEs (Central Public Sector Enterprises) in Hyderabad. We have al-

ready concluded discussions with BHEL, HAL and NRSC for the PNG project. We are waiting the final decision of the senior officers concerned at these CPSEs," a BGL source told TOI. "We have already laid a 25-km pipeline network between Qutubullapur and Balanagar. Once we get the nod from these CPSEs for PNG implementation in their residential colonies/townships, we will start the work of connecting them to the main pipeline," the source said. According to BGL sources, it will take at least six to eight months to complete laying the pipeline to connect every household to the network. "If all goes well, we will provide them piped gas by January or February of 2019," said a BGL official, adding that the pipeline laying work will be taken up without inconveniencing commuters. On PNG supply to the Secunderabad Cantonment and residential quarters of army personnel, the BGL official said the proposal has been submitted to the 'local military authority' (LMA) and is awaiting clearance. Getting permission for laying pipeline in cantonment and defence areas is a lengthy process and LMA has to seek clearance from the defence ministry, he added.

<https://timesofindia.indiatimes.com/city/hyderabad/bhel-residents-likely-to-get-piped-natural-gas-by-2019/articleshow-print/65018214.cms>

Indian Oil Adani Gas Private Limited roped in Kudumbashree

To expedite city gas project, Indian Oil Adani Gas Private Ltd (IOAGPL) has roped in the services of Kudumbashree, which will carry out the survey as well as registration prior to implementation of city gas project in all the local bodies in Ernakulam district. They will also conduct the meeting of piped natural gas (PNG) connections in Kalamassery municipality, where the city gas project has already started. According to the IOAGPL authorities, they have started registration for giving PNG connections in Kochi corporation and Aluva, Kalamassery, Thrikkakara, Tripunithura, Eloor and Maradu municipalities. The IOAGPL has availed the services of a private firm for introducing different kinds of campaigns for creating awareness among the public on the advantages of PNG. "The private firm will soon design varied modes of campaigns to attract the consumers. The campaign would focus on safety and convenience of using PNG over other types of fuel. When we started giving connections, the major concern the residents raised in many areas was safety. PNG is the safest fuel," a source said. Laying of pipes as part of the distribution networks to many areas have not been started so far. "We would start laying the pipeline after the monsoon weakens. We have already got road cutting sanctions in eight wards each in Kalamassery and Thrikkakara municipalities," an official said. Though IOAGPL rolled out four compressed natural gas (CNG) outlets in Kochi, the quantity of the fuel dispensed from these outlets are much below the expectations of the company. "Only a few vehicles, mostly autorickshaws run on CNG in Kochi. We would increase the number of CNG outlets to 10 by the end of the year. But, the number of CNG vehicles in the city is a matter of concern. Some of the vehicle owners state difficulties in getting specifications of CNG recorded in the certificate of registration (RC) book as the reason for hesitating to opt for CNG vehicles. We expect that the government would soon step in and find a solution to the problem," the official said.

<https://timesofindia.indiatimes.com/city/kochi/indian-oil-adani-gas-private-limited-ropes-in-kudumbashree/articleshow/65003798.cms>

Can CNG fuel change in the tricity?

It has almost been a year and a half since CNG was introduced in the city, but in spite of the over 4,500 cars and taxis running on the green gas there are only four CNG filling stations in the Chandigarh, Panchkula and Mohali. Users complain that they have to wait for more than an hour at the pumps to get gas, the reason why many of them have sold their vehicles. Corroborating this, city based car dealers report higher sales of used CNG cars instead of new ones. Government authorised dealers also say they get around 50 cars for conversion to CNG every month. A few residents such as Panjab University professor Vinod Kumar, however, say the money saved on fuel is worth the trouble. CNG gas is available for Rs 47.8 per kg, petrol for Rs 73.97 and diesel for Rs 66.55 per litre. A round trip from Chandigarh to Delhi in his CNG small segment car just costs Kumar Rs 1,300, including toll money, whereas a petrol version runs up fuel bills of Rs 2,500 to Rs 2,700. Indian Oil-Adani Gas Pvt Ltd, a joint venture of the Indian Oil Corporation Ltd (IOCL) and Adani Gas Ltd, plans to come up with four more CNG stations by November, but is there a real need for them? Santosh Kumar, head of the environment, science and technology department, Chandigarh administration, believes CNG still has the potential to be a game changer in Chandigarh. "Till the time we do not run the entire public transport of Chandigarh on CNG, we cannot improve the air quality, which is being hampered. All autos and buses should run on CNG and air quality will definitely improve," he says.

The Chandigarh administration will want more stations opened because currently the limitations are such that buses and autos will have to go to one of the four existing stations. If the station is available at a certain driveable distance the network of such stations will increase, says Kumar, adding that the administration will make sure that CNG modifications are made in buses and autos. Meanwhile taxis such as CNG-run Ola and Uber run up bills of just Rs.600 for 25 rides per day. Drivers say that CNG costs more in summer because of air conditioner use.

<https://www.hindustantimes.com/punjab/ht-spotlight-can-cng-fuel-change-in-chandigarh-tricity/story-Hw2PN870D04BF2ECyWqigJ.html>

NATIONAL: LNG DEVELOPMENT/SHIPPING

Petronet proposes to set up \$1 billion LNG terminal in Bangladesh

Petronet LNG has submitted a firm proposal to set up an LNG import facility in Bangladesh at an investment of about \$1 billion, its managing director & CEO Prabhat Singh said. Petronet LNG reported 34 per cent jump in net profit to Rs 587 crore in April-June quarter of 2018-19 compared to Rs 438 crore in same period last fiscal, on the back of higher gas processing.

<https://timesofindia.indiatimes.com/business/india-business/petronet-proposes-to-set-up-1-billion-lng-terminal-in-bangladesh/articleshow/65173377.cms>

Wary of high gas prices, Essar to go slow on plan to build LNG terminals

Asian spot prices of imported LNG have risen to their highest since mid-2014 on production cuts in Australia, US and Malaysia. With natural gas prices shooting up globally, Essar Ports is going slow on its plans to build liquefied natural gas terminals at the Hazira port in Gujarat, chief executive officer Rajiv Agarwal told Mint. Last September, the Ruia family-promoted Essar Ports announced its intent to build a cluster of four LNG terminals, with capacities of 2.5-5 MMTPA to cash in on the growing demand for clean fuel. "We are still working on this proposal; we're getting environment approvals for Hazira and studies are being

done," said Agarwal. "But work will take at least 15 more months to start." "Look at the price of LNG," he said. "If the outlook turns positive, we will set up the terminals. Otherwise, we will slow it down. When we first talked about setting up these terminals, LNG prices were at \$5-6 per MMBtu. Now it's \$10-11 MMBtu; so who's going to buy? We're watching what direction crude and LNG prices take." While spot prices for July delivery in North Asia reached a high of \$11.6 MMBtu, at the same time last year, prices had hovered at the \$6 MMBtu mark. India has LNG terminal capacity of 21.25mtpa belonging to Indian Oil Corporation, Petronet LNG and Shell. The three companies are also working on increasing the capacity to 56mtpa by 2020.

<https://www.livemint.com/Companies/iQ7oTey8t8abgluOtTmKol/Wary-of-high-gas-prices-Essar-to-go-slow-on-plan-to-build-L.html>

Renegotiated Gazprom LNG deal to save up to Rs 9,500 crore: Pradhan

India's renegotiated gas import deal with Russia's Gazprom will save between Rs 8,500 crore and Rs 9,500 crore over the contract period ending 2040, Oil Minister Dharmendra Pradhan said on Wednesday. State-owned gas utility GAIL India Ltd had in January taken advantage of the Russian company's inability to deliver liquefied natural gas (LNG) from the previously agreed Schtokman project in the Barents Sea, to renegotiate price agreed

in 2012. In a written reply in the Rajya Sabha, Pradhan said the first cargo of Russian natural gas under the long-term contract between GAIL India Ltd and Gazprom Marketing & Trading Singapore (GMTS) was received on June 4. He said: "GAIL and Gazprom successfully re-negotiated the long-term LNG Sale and Purchase Agreement reflecting the current global gas market dynamics. The renegotiated price, compared to earlier contract price, will result in saving of approximately Rs 8,500 crore (crude oil at \$50 per barrel) or Rs 9,000 crore (crude oil at \$60 per barrel) or Rs 9,500 crore (crude oil at \$70 per barrel) for the years 2018 to 2040." The contracted volume has been lowered from 2.5 MMT to 0.5 MMT in the first year, 2018-19; 0.75 MMT in 2019-20 and 1.5 MMT in the third year 2020-21. The contract period has been extended by three years to accommodate the supplies not taken in initial years as well as getting an additional 2 MMT over-and-above the 50 MMT it had agreed to take in 2012 over the 20 year contract period. India has been making the most of its position as one of the world's biggest energy consumers to strike better bargains for its companies. Pradhan said India currently has four operational LNG import terminals at Dahej and Hazira in Gujarat, Dabhol in Maharashtra and Kochi in Kerala with a total LNG import capacity 27.5 MMTPA.

<http://www.millenniumpost.in/business/renegotiated-gazprom-lng-deal-to-save-up-to-rs-9500-crore-pradhan-310035>

RIL-ONGC dispute: Krishna-Godavari basin order likely in next 10 days

RIL is in an arbitration dispute with the government over a penalty for allegedly drawing gas from ONGC's block in the Krishna-Godavari (K-G) basin. An international arbitration tribunal is likely to come out with its final award in the next 10 days on the dispute relating to production of migrated gas by Reliance Industries (RIL). RIL is in an arbitration dispute with the government over a penalty for allegedly drawing gas from ONGC's block in the Krishna-Godavari (K-G) basin. In March 2018, the government had revised the basic penalty claim to \$1.46 billion based on its estimate of the migrated gas produced and sold by the contractor consortium RIL, BP and Niko Resources. The revised claim after deduction of royalties was already paid and inclusion of a claim of interest up to December 2017 was to the tune of \$245 million, according to Niko Resources. A report by Justice A P Shah had said in August 2016 that royalty or any tax that has to be excluded from such quantification of the unjust enrichment is a matter to be decided by the government. The Union government had earlier sought a penalty of \$1.55 billion. A three-member panel headed by Singapore-based arbitration chambers' head Lawrence Boo, government representative and former Supreme Court Judge G S Singhvi and RIL arbitrator & former English High Court Justice Bernard Eder had concluded its hearing last month. "A final judgment is expected by July 31. Then only will we be able to confirm the compensation part of it," said a person close to the development. The revised claim

is without deduction of any capital and operating expenditures incurred by the contractor group.

https://www.business-standard.com/article/companies/ril-ongc-dispute-krishna-godavari-basin-order-likely-in-next-10-days-118072200684_1.html

Search takes off at ONGC's offshore asset

Natural gas exploration at the S1-Vasishta offshore project site of the Oil and Natural Gas Corporation's (ONGC) Eastern Offshore Asset (EOA) at Odalarevu near Amalapuram has begun as a low-key affair. Full-fledged exploration will be taken up once GAIL lays pipeline from the project site to its grid located at Bodasakurru village. The 13.6-km-long pipeline project is scheduled to be completed by month-end. The estimated reserves of natural gas at S1-Vasishta are 15.95 BCM and the site is part of the investment to the tune of ₹40,000 crore put in by ONGC here to explore natural gas of 21.95 Million Metric Standard Cubic Metres per Day and oil of 75,000 barrels per day (BPD). "The firms that come forward to lay the pipeline from the project site could procure the natural gas directly from the ONGC," says Arvind J. Murbale, the newly joined Executive Director and Asset Manager of the ONGC's EOA. S1-Vasishta has the capacity of exploring natural gas to the tune of 6 MMSCMD and the realisation of the project is expected to give a boost to the industrial units in the region. "With the completion of S1-Vasishta, we have shifted our focus to the second offshore project 98/2. The idea is to commence natural gas exploration by the end of next year and oil exploration from March 2021," says Mr. Murbale.

<https://www.thehindu.com/news/national/teLANGANA/search-takes-off-at-ongcs-off-shore-asset/article24430597.ece>

Heartburn for ONGC: For HPCL, majority owner is still the President of India with 0% stake

Though oil refiner-retailer HPCL was taken over by ONGC in January this year, the former is yet to recognise the upstream major as its promoter in the mandatory quarterly filings with the stock exchanges. Though oil refiner-retailer Hindustan Petroleum Corporation (HPCL) was taken over by Oil and Natural Gas Corporation (ONGC) in January this year, the former is yet to recognise the upstream major as its promoter in the mandatory quarterly filings with the stock exchanges. In the filings for Q4FY18 and Q1FY19 on both the BSE and NSE, HPCL clubbed ONGC which owns its 51.11% share among "public shareholders" while still mentioning the President of India (read the Union government) as its promoter with 0% stake. According to government sources, HPCL's reluctance to identify ONGC as a promoter could be the outcome of a battle of egos at the helms of the two state-run entities. Prior to acquisition, HPCL was on the Fortune Global 500 list ranked 384 (2016) while ONGC was not on the list. Thanks to its majority stake in HPCL, ONGC is now ranked 197 (2017) on the list. The Fortune Global 500 is an annual ranking of the top 500 corporations worldwide as measured by revenue and the list is compiled and published annually by Fortune magazine.

<https://www.financialexpress.com/industry/exchange-filings-for-hpcl-majority-owner-ongc-is-not-promoter/1264076/>

Northeast to have Rs 6000cr pipeline grid connecting state capitals

Five public sector oil and natural gas companies signed a joint venture agreement here on Friday, July 20, to implement a Rs 6000-crore gas pipeline grid project in the northeast. The five companies which signed the agreement are Indian Oil Corporation Limited (IOCL), ONGC, GAIL, Oil India Limited and Numaligarh Refinery Limited (NRL). The joint venture company will now develop, build, operate and maintain the natural gas pipeline grid - spanning a distance of over 1,500km - connecting Guwahati with major cities in the northeast and also with major load centers like NRL. The pipeline will also integrate feasible gas producing fields in the region. All the five companies will contribute equally to the equity required for the development of the project which has a four year-window for commissioning, that includes a year for pre-project activities. The pipeline grid in the northeast region, which is being implemented under Prime Minister Narendra Modi's ambitious Urja Ganga Gas Pipeline Project. Besides connecting all the state capitals in the region, the pipeline will also establish connections with the National Gas Grid through the Barauni-Guwahati Gas Pipeline, which is being laid by GAIL. From Guwahati, the pipeline will extend to Numaligarh, Dimapur, Kohima and Imphal in one direction, and Shillong, Silchar, Aizawl and Agartala in a second direction. It will also be extended to connect Itanagar. Gangtok will be connected with Siliguri via the GAIL pipeline from Barauni to Guwahati. Officials also said the gas pipeline from Barauni in Bihar to Guwahati is expected to be laid by 2022. It will subsequently connect all the eight northeast state capitals. The project is a part of the Jagdishpur-Haldia gas pipeline. The 1500 km-long natural gas pipeline will link the northeast to the national grid and help propel industrial growth in the region.

<https://timesofindia.indiatimes.com/city/guwahati/northeast-to-have-rs-6000cr-pipeline-grid-connecting-state-capitals/articleshow-print/65078211.cms>

Essar Oil may sell 30% stake in Raniganj CBM block

Essar Oil and Gas Exploration and Production Ltd is planning to sell as much as 30% in its flagship coal-bed methane (CBM) block in Raniganj, West Bengal, said two people familiar with the development. Essar Oil, which completed the \$12.9 billion sale of its refining and distribution business to a consortium led by Russia's Rosneft PJSC last August, operates the coal-based methane business and a refinery in the UK. The Raniganj CBM field could be valued at \$2 billion according to energy consultants, and selling a 30% stake could rake in \$ 600 million for the company. In an emailed response, a spokesperson for Essar Oil said: "We categorically deny the assertions made." Essar is currently producing close to 1 MMSCMD of gas from about 350 wells in Raniganj.

It aims to double the output by the end of this year and sustain the level for the next few years. The second person cited above said Essar Oil may use proceeds from the potential stake sale to expand its CBM operations. The Raniganj (East) block has sizeable CBM reserves with 25-30 years of field life. For the offtake of the increased gas production, Essar said it already has the required partnerships with customers. The company has so far invested Rs.4,000 crore in the Raniganj project. Essar owns CBM mining rights in five coalfields - Raniganj is one of five blocks, the others are Rajmahal in Jharkhand, Talcher and Ib valley in Odisha and Sohagpur in Madhya Pradesh which are in the exploration stage. Essar plans to begin on ground physical activity in two other blocks in this financial year. Other than Essar, Great Eastern Energy

Corp. Ltd (GEECL) and Reliance Industries Ltd are the two existing players selling CBM gas in the market.

<https://www.livemint.com/Companies/xVdl-Gr1eZq2ys1mSjllrtN/Essar-Oil-may-sell-30-stake-in-Raniganj-CBM-block.html>

GSPL net drops 5%

Gujarat State Petronet Ltd (GSPL) today reported 5.2 per cent drop in June quarter net profit after rise in interest outgo on loans negated the increase in revenue. Net profit in April-June at Rs.1444.5 million was lower than Rs.1525.1 million in the same period of the previous fiscal, the company said in a regulatory filing. Revenue from operations soared 32 per cent to Rs.3912.4 million. But interest and financial charges jumped from Rs. 105.7 million to Rs.579.3 million in the quarter.

[Source: Indian Oil & Gas/PTI](#)

NATIONAL: POLICY MATTERS/GAS PRICING/OTHERS

Shell, BP for splitting GAIL's gas transmission and marketing business

Amid talk of splitting state-owned gas utility GAIL India, global energy majors Royal Dutch Shell and BP have sought separation of natural gas marketing and transportation business before moving to a unified tariff for pipelines. At an Open House called by the sector regulator Petroleum and Natural Gas Regulatory Board (PNGRB) on July 17 to discuss 'unified or pooling' method for computing gas transmission tariffs instead of current postal or distance based transportation rates, GAIL was pitched against formidable combination of Shell and BP on the issue of unbundling. While Shell sought "legal unbundling of gas trading and transmission business, so that benefit goes to all shippers, BP felt unified tariff "should be done after unbundling of transmission and marketing functions of an entity," according to minutes of the meeting made available by PNGRB. GAIL, on the other hand, said: "Unbundling is not related to the unification of tariff. Unification of tariff is a separate exercise and should be implemented on a standalone basis." Shell Energy Marketing & Trading India Pvt Ltd, at the Open House, said it supported the idea of the unified tariff as it will enable development of the market and consequently lead to matured market. It suggested that if it was not possible to include all pipelines at the initial stage, then all future pipelines should be included. This, however, has to be done subject to "legal unbundling of gas trading and transmission business" and setting up of independent system operator (TSO) as well as online booking of capacity to ensure transparent allocation of capacity, according to the minutes. BP India supported unified tariff for all cross country interconnected pipelines of all entities and not of a single entity as otherwise, it would create distortion in the transition from entity wise unified tariff. "Unified tariff would lead to an increase in the share of gas in energy basket and development of the market," it said. GAIL, according to the minutes of the meeting, said its proposal is for unified tariff for all its interconnected pipelines and all other lines can be integrated in phases. Unified tariff, it said, would help reach gas to far-flung areas and development of gas market to increase the share of gas from current 6.5 per cent to 15 per cent. It would also avoid the cascading impact of tariff and eliminate the differential tariff between the customers nearer to source and away from the source. Hazira LNG Pvt Ltd, which is owned by Shell and Total of France, supported the option of unification of all the inter-connected cross-country natural gas pipelines of all the entities but excluding bid out pipelines as changing tariff for bid out pipelines have certain other (contractual) implications. Reliance Industries said unification of tariff should be for all cross country interconnected pipelines (including bid out pipelines) of all entities and not of a single entity.

[Source: ET Energyworld](#)

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.

Indian Oil opposes GAIL's unified tariff pitch for gas transmission: Report

Indian Oil Corporation (IOC) has opposed natural gas firm GAIL's pitch for a unified tariff for its pipelines, according to a report by The Economic Times. The state-run refiner said that such a move would raise input cost for its three refineries at Koyali, Mathura and Panipat by Rs 1,000 crore, and will only help operators of old LNG terminals and pipelines. BP and Shell, however, supported the idea of a unified tariff, saying it will help develop the market and raise the share of gas in India's energy basket. They, however, prescribed a few conditions, including a separation of GAIL's natural gas transportation and marketing business before shifting to a unified tariff. Last year, the Petroleum and Natural Gas Regulatory Board (PNGRB) had put up a consultation document on unified pipeline tariff, proposing a 60 percent hike in tariff by the company. The regulatory body, however, is reportedly debating moving to a unified method for computing gas transmission tariffs that would end the current distance-based tariff. On July 17, the PNGRB had called an open house on the matter, where several gas suppliers and consumers submitted their views. The proposed unified tariff is aimed at increasing penetration of gas in far-flung areas. According to the report, this method would raise tariff for customers closer to the source of gas and lower the cost for far-off customers. GAIL has argued that unified tariff will encourage those located in distant locations to consume gas and lead to the development of a local gas market. This would also help in raising the utilisation of GAIL's pipelines and expanding infrastructure.

<https://www.moneycontrol.com/news/business/indian-oil-opposes-gails-unified-tariff-pitch-for-gas-transmission-report-2769311.html>

NITI Aayog proposes nodal energy ministry to streamline governance

The NITI Aayog has proposed a common nodal energy ministry on the lines of the model followed in various other countries to streamline governance among different ministries and departments pertaining to the crucial sector and speed up decision-making. The Aayog, the government's premier think tank, has included the proposal in its second draft of the

National Energy Policy following suggestions from its vice chairman Rajiv Kumar. If implemented, the proposal would help sort out governance issues among the ministries of petroleum and natural gas, power, coal, new and renewable energy, and the Department of Atomic Energy. The Narendra Modi-led government made a start in this direction when Piyush Goyal was given charge of three ministries, namely power, coal, and new and renewable energy in 2016. However, the petroleum and natural gas ministry continued to be headed by a different minister, with the result that governance issues persisted among the multiple ministries. The Department of Atomic Energy, due to security reasons, continued to be under the control of the Prime Minister. The Aayog has proposed setting up of a single, all-powerful nodal ministry, under which all existing ministries can be subsumed, said a senior government official. He said the government would need strong political will to accept the proposal of a unified ministry since it would have far reaching implications. The National Energy Policy, which has been in the works since 2015, will replace the Integrated Energy Policy of the erstwhile United Progressive Alliance government and lay the road map for the government's push towards clean energy and reducing fuel imports. The broad objectives of the policy are enhanced energy independence, increased

access at affordable prices, greater sustainability and higher economic growth. The policy is expected to focus on aligning energy prices with those in the international market so that prices across sectors are market-driven and subsidies are limited to identified beneficiaries via direct benefit transfer. As per the draft policy, the period 2017-2040 is expected to witness a quantum leap in the use of renewable energy, drastic reduction in energy intensity, doubling of per capita energy consumption and tripling of per capita electricity consumption.

[Source: ET Energyworld](#)

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Now, GAIL to hive off its transportation business

State-run GAIL will not be split but will have to hive off its transportation business into a subsidiary to reduce the conflict of interest that arises with the same entity housing both the functions of marketing and transport of natural gas, according to people familiar with the plans of the oil ministry. The ministry and the Petroleum and Natural Gas Regulatory Board have considered the idea of splitting GAIL for some time now, hoping to 'unbundle' marketing and transportation of natural gas in the country, a necessary condition for the development of a competitive gas market. Now, the understanding between the government and GAIL is that the company will set up a subsidiary to house pipelines, and make its dealings with rival gas marketers more transparent by setting up a web portal to provide them with real-time data on availability of pipeline capacity, they said. It has been alleged that GAIL's dominance in the pipeline business puts other gas suppliers as well as customers at a disadvantage. Planning to enhance their presence in the expanding local gas market, private and foreign companies have been pushing for the unbundling of marketing and transportation functions in the country. Unbundling and the government's plan to set up a gas trading platform by the end of this year are seen as key steps towards developing India's gas market. But without open access to pipelines and liquefied natural gas import terminals, the trading platform may not be fully effective in a country that imports about half of the natural gas it consumes. GAIL has also often reasoned that all its pipelines were self-funded and, therefore, other gas marketers should have only limited access to these assets.

<https://economictimes.indiatimes.com/industry/energy/oil-gas/shell-bp-for-splitting-gails-gas-transmission-marketing-business/articleshow/65121462.cms>

Environment ministry undertaking a study on petcoke ban before banning its import, SC told

The Supreme Court was also informed that the ministry of petroleum and natural gas was in favour of imposition of a ban on the import of petcoke on environmental grounds. The ministry of environment, forest and climate change (MoEF&CC) informed the Supreme Court that it was undertaking a study on the ban on petroleum coke (petcoke) before it decided on imposing a ban of its import. The court was also informed that the ministry of petroleum and natural gas (MoPNG) was in favour of imposition of a ban on the import of petcoke on environmental grounds. A two-judge bench headed by Justice Madan B. Lokur was hearing a plea seeking ban on import of petcoke --an industrial fuel and an alternative to coal-- which causes several times more air pollution than coal. The plea is part of the main public interest litigation by environmentalist M.C Mehta on the decreasing air quality in Delhi. The apex court-appointed Environment Pollution Control Authority (EPCA), in its report "Mandating Acceptable Fuels and recommending ban on sale and use of furnace oil and pet coke in NCR" in April 2017, had recommended that the distribution, sale and use of furnace oil and petcoke be strictly banned in National Capital Region. In October last year, the Supreme Court had upheld the ban on

use of petcoke in New Delhi and neighbouring states of Haryana, Uttar Pradesh and Rajasthan, after the air pollution level in the national capital reached hazardous level due to increased smog. The ban on use of petcoke was relaxed, in December 2017, for cement manufacturing, lime industries and on furnace oil for power generation after the MoEF submitted that the use of petcoke in cement manufacturing plants. Similarly, the use of furnace oil in electricity generation plants was low in cement manufacturing units, MoEF claimed. In April, the MoEF&CC had stated that it was considering a nationwide ban on the use of pet coke by various industries. The matter would be next heard on 23 July.

<https://www.livemint.com/Politics/7YtwC09LCSwBR6TnPhbw4K/Environment-ministry-undertaking-a-study-on-petcoke-ban-befo.html>

Govt okays relaxing production sharing contracts of Pre-Nelp, NELP blocks

Sops will give relief to companies like ONGC and Oil India on sharing of royalty and cess in pre-Nelp exploration blocks. The Union Cabinet eased the policies related to hydrocarbon exploration further by relaxing production sharing contracts (PSC) of Pre-New Exploration Licensing Policy (Nelp) and Nelp blocks. This includes giving relief to companies like ONGC and Oil India (OIL) on sharing royalty and cess in pre-Nelp exploration

blocks. From payment of 100 per cent royalty, these companies will now have to pay an amount depending on their equity in the project and the same has been made cost recoverable with a prospective effect. This will be applicable to 28 exploration blocks awarded to private companies between 1980 and prior to implementation of NELP, where ONGC and OIL have the rights for participation in the blocks after hydrocarbon discoveries. To ramp up the production of hydrocarbon in the North East region, the government has increased the exploration period by two years and appraisal period by one year. Moreover, to stimulate natural gas production in NER, the government has also allowed marketing, including pricing freedom for natural gas to be produced from discoveries which are yet to commence production as on July 1 this year. This move is likely to help OIL the most. The Cabinet also extended tax benefits under Section 42 of the Income Tax Act, 1961 prospectively to operational blocks under Pre-Nelp discovered fields for the extended period of the contract under PSC extension policy dated March 28, 2016. Section 42 of the Income Tax allows companies to claim 100 per cent of expenditure incurred under PSC as tax deductible for computing taxable income in the same year.

https://www.business-standard.com/article/economy-policy/cabinet-meeting-govt-rolls-out-sops-for-producers-in-north-east-118071801083_1.html

TECHNOLOGICAL DEVELOPMENT FOR CLEANER ENVIRONMENT /BIO-METHANE

Nitin Gadkari looks at biofuels to clean up air, save Taj Mahal

Five days after the Supreme Court told the Centre that the Taj Mahal should either be restored or demolished, three Union ministers and the UP chief minister met on July 16 to discuss plans to address pollution sources. In an attempt to address two issues excess sugar production by farmers in western Uttar Pradesh, and the yellowing of the Taj Mahal due to air pollution with one solution, the Centre announced plans to put in place steps to convert Agra into a city that relies only on biofuel. Sugar output in India reached record levels this year. "In UP, there is a lot of sugar. So, instead of sugar, ethanol will be produced," Union Transport Minister Nitin Gadkari said. Ethanol is produced by fermentation of sugar. "This will be cost-effective, pollution-free and indigenous," Gadkari said, estimating that 1,000 industrial units will open in the next five years with 1 lakh crore litres of ethanol being produced. He announced 36 projects worth Rs 4,000 crore of them, detailed projects reports (DPR) will be expedited for 20, he added. Gadkari set a December deadline for putting in place solutions to address water pollution that affects the monument. Dismissing previous reports on the state of pollution in Agra city due to industries in neighbouring areas, Gadkari said that an expert committee will be set up under Union Environment Secretary C K Mishra, and will have experts from IITs and NEERI. "There are several industries (units) in neighbouring Rajasthan, and within UP itself. The completely hazardous ones will be definitely shut down, but those that can set standards and bring down their pollution levels will be considered," he said. The expert committee will look into each unit on a case by case basis, he said.

<https://indianexpress.com/article/india/nitin-gadkari-looks-at-biofuels-to-clean-up-air-save-taj-mahal-5262478/>

Gazprom pipeline to China nearly completed

Russian natural gas company Gazprom said that just over 90% of its Power of Siberia gas pipeline to China is completed. "By now, a total of 1,214 miles, or 90.5% of the linear section running from Chayandinskoye to the Chinese border in the Amur Region, is finished," the company's statement read. Gazprom said construction on the facilities for gas production from fields feeding the pipeline is about halfway completed. Pipeline testing and installation of a power supply is scheduled for 2019. Gazprom has a 30-year sales agreement with China National Petroleum Corp. that calls for 1.3 trillion cubic feet of natural gas per year through the pipeline. The Kremlin described the 2,500-mile Power of Siberia as a way to tie the Russian energy sector to two poles of the economic world. Russia is one of the main energy suppliers to the European market, but has started to focus on the emerging and expanding economies in the Asia-Pacific. Last week, Russian energy company Novatek, the largest private gas company in the country, shipped its first batch of LNG to China using a so-called Northern Sea Route. The northern passageway is a shipping lane in Russia's economic zone that runs along the Arctic coast to the Bering Strait. The shipment took 19 days, compared to 35 days using a traditional shipping lane. The Yamal LNG project has the capacity to produce about 16.5 MMT of natural gas, and exports could target consumers in the Far East. China holds a minority stake in the LNG facility on the Yamal Peninsula in Russia, alongside French energy company Total and Novatek, the largest private natural gas company in Russia.

[Source: LNG Global](#)

Europe still hooked on Russian gas supplies

European demand for Russian gas declined between 2010 and 2014 — when a popular uprising in Kiev ousted a Moscow-backed regime and Russia annexed Crimea and moved to support an insurgency in the ex-Soviet country's east. Since then it has grown on the back of a drop in European production — notably in the Netherlands. The continent's reliance on imported gas has particularly benefited the Russian gas giant Gazprom, which sits on 17% of the world's gas reserves. Gazprom is more than 50% controlled by the Russian state and is often seen as a powerful geopolitical weapon at the Kremlin's disposal. The company

currently accounts for more than a third of European gas consumption. Exports to Europe leapt in 2016 and 2017, thanks largely to a cold winter. Earlier this year Gazprom announced a new record export volume. Russian gas currently reaches Europe through several pipelines — Nord Stream 1 brings gas to Germany, while two pipelines arrive in Poland through Belarus. Four others go through Ukraine, as well as a separate pipeline to Turkey and direct deliveries to Finland and the Baltic states. But Gazprom is seeking to develop new pipelines, with the financial support of major European groups, to maintain its market share and minimise transit through Ukraine. The company hopes to put into operation two new gas pipelines that will bypass Ukraine by the end of 2019: TurkStream, via Turkey, and Nord Stream 2, via the Baltic Sea. The European Commission has reservations about the projects. Without being able to oppose them, it wants to make sure the new pipelines conform to the rules of the European energy market — particularly in terms of competition. Poland and eastern European countries are most opposed to their former Soviet master's new ventures. Despite Europe's desire to diversify its suppliers, alternative sources are struggling to gain ground. The United States, a major producer of natural gas, has recently embarked on a commercial offensive in search of new markets, supported by President Donald Trump. But shipping LNG is still considerably more expensive than transporting Russian gas via pipelines. British oil major BP in July began exploiting a giant gas field in Azerbaijan, which is to be the first link in the "Southern Gas Corridor" that will bring supplies to Europe via Turkey, Greece, Albania and the Adriatic Sea. It is set to be completed in 2020. But experts say that the project, launched in the early 2000s, is already outdated and will ultimately cover just 2% of European demand.

<https://timesofindia.indiatimes.com/world/europe/europe-still-hooked-on-russian-gas-supplies/articleshowprint/65018009.cms>

Azerbaijan's H1 gas exports from Shah Deniz I fall 3.9 pct yr/yr

Exports from the first stage of Azerbaijan's giant Shah Deniz gas field stood at 3.654 BCM in the first half of this year, down 3.9 percent from a year earlier, the State Statistics Committee said on Monday, July 16. 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 11.588 BCM in January-June 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 16 BCM of gas a year to Europe by 2020. 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.

<https://www.hellenicshippingnews.com/azerbajians-h1-gas-exports-from-shah-deniz-i-fall-3-9-pct-yr-yr/>

Egyptian natural gas prospects improving SDX

Energy said testing at a site where production could begin in late 2018 went off without a hitch. Africa-focused SDX Energy said it achieved success at an emerging natural gas reservoir that could be in production by the fourth quarter. The company in June announced the discovery of natural gas at a site in the South Disouq license dubbed SD-4X. SDX said flow tests were carried out with few interruptions or complications.

"We intend to connect this well to infrastructure located adjacent to our SD-1X discovery over the coming months," Paul Welch, President and CEO of SDX, said in a statement. "We are targeting a late fourth quarter 2018 start-up of production in South Disouq and this well test result provides us with additional confidence to deliver on our planned plateau rate of 50 MMSCFD of conventional natural gas." Natural gas accounts for the bulk of the Egyptian energy mix and the country's emerging prospects are important for arresting declines that began at the early part of the decade. Egypt's GDP in September, the last full month for which it published data, grew by about 5.7 percent. Natural gas contributed 0.6 percent to that. The bank said improvements in the industrial sector were led primarily by natural gas extraction.

Welch said his company was well funded with zero debt and on pace to double its production from its North African portfolio by the end of the year. SDX posted revenue on March 31 of \$11 million, up 35 percent from the same period last year. The company in 2017 paid \$28.1 million to take over the Egyptian and Moroccan businesses of Circle Oil.

[Source: LNG Global](#)

Japan's LNG imports fall to lowest since May 2016 as nuclear units come online

Japanese imports of LNG in June fell to the lowest in more than two years as the country's utilities switched on more nuclear reactors that had been shut in the wake of the Fukushima atomic disaster in 2011. Japan has six reactors operating and three others have passed safety inspections and could be operating by October, allowing utilities to switch away from LNG. Spot prices for the fuel LNG-AS rose to three-and-a-half-year high in June. Japan, the world's biggest importer of LNG, brought in 5.55 MMT of the fuel in June, down more than 10% from a year earlier, official data showed on Wednesday, July 18. That was the lowest monthly import number since May 2016. Imports of thermal coal also fell in June, down 18.3% from a year earlier, and the lowest since May 2017, the data showed. The Fukushima disaster in March 2011 sparked the country's worst energy crisis in the post-war period, forcing it to import huge amounts of LNG and driving prices to record highs. They also turned to cheaper coal imports. All of the country's reactors were eventually shut down to be relicensed under new safety rules after the disaster highlighted regulatory and operator failings. Nine out of 40 commercially operable units have been relicensed under the new rules. One of the three not operating has been shut down by a court order that expires in September, while the other two are under regular maintenance and refuelling and due to start operating within weeks. Still, nuclear power remains unpopular in the country and many hurdles remain to getting more units operating beyond the nine approved, analysts have said.

[Source: LNG Global/Reuters](#)

U.S. LNG exports to China decline as trade war escalates

As the trade war between China and the United States escalates, fewer vessels carrying U.S. liquefied natural gas have gone to China over the past two months. China, which purchased 14% of all U.S. LNG shipped between February 2016-April 2018, has taken delivery from just one vessel that left the United States in May and none in June compared with 14 during the first four months of the year. However, there are a number of reasons for the slowdown, including seasonal factors and rising Australian LNG

production. An LNG official, who could not be named, with a Chinese state-run energy giant said the decline was seasonal. To be sure, one vessel that left the United States in July is on its way to China. There are three other tankers in the Pacific that left the United States in June or July without a destination listed; they could still end up in China. As the trade war between the two nations heated up, China threatened in June to put levies on U.S. energy exports, though it did not include LNG in that mix. China, which became the world's second biggest LNG importer in 2017, is buying more gas as the government tries to wean the country off dirty coal as part of its push to reduce pollution. The United States is expected to become the world's third biggest LNG exporter by capacity in 2019.

[Source: LNG Global/Reuters](#)

ExxonMobil-led JV submits Rovuma LNG plan to Mozambique

The Exxon Mobil-led Mozambique Rovuma Venture SPA submitted its development plan to Mozambique's government for the first phase of the Rovuma LNG

project, which will produce, liquefy, and market natural gas from Mamba fields in Area 4 block offshore Mozambique. The plan details the proposed design and construction of two 7.6 MMTPA LNG trains. ExxonMobil will lead construction and operation of natural gas liquefaction and related infrastructure on behalf of the joint venture, and Eni SPA will lead upstream construction and operation. A final investment decision by the Area 4 joint venture parties is scheduled in 2019, with LNG production expected to start in 2024. Marketing activities are progressing, with negotiations on sales and purchase agreements underway, targeting completion in parallel with the development plan approval process. Rovuma LNG is operated by Mozambique Rovuma Venture, an incorporated joint venture owned by ExxonMobil, Eni, and China National Petroleum Corp., which holds a 70% interest in the Area 4 concession alongside partners Galp Energia, Korea Gas Corp., and Mozambique's state-owned Empresa Nacional de Hidrocarbonetos EP, each of which hold 10%.

<https://www.ogj.com/articles/2018/07/exxonmobil-led-jv-submits-rovuma-lng-plan-to-mozambique.html>

Global LNG-Prices slide as demand retreats in Japan, China, South Korea

Asian spot liquefied natural gas (LNG) prices softened for another week as the focus of purchasing activity switched to September, encountering weak demand, new supply and a falling yuan potentially sapping Chinese demand. Spot prices for September LNG-AS delivery in Asia were assessed at \$9.50 per MMBtu, down 50 cents from the previous week. Traders Vitol, Trafigura and Diamond Gas International offered five cargoes in total via the Platts Market on Close process but there were no takers even as offers on some of the cargoes slipped to around \$9.05 per MMBtu, traders said. In the world's three-biggest LNG importers Japan, China and South Korea demand weakened or was set to drop later in the year. With temperatures in Japan set to fall back in line with average levels over the next week, demand for gas should also be tempered as cooling demand dips. Chinese demand could be reduced by the yuan's sharp slide against the U.S. dollar to a one-year low as the trade dispute between Beijing and Washington unnerves markets, making U.S. dollar-denominated LNG more costly for Chinese buyers. The pace of spot purchasing has slackened in China although one deal was heard done this week at an estimated \$9.50 per MMBtu, sources said. In South Korea, imports are set to ease from record levels racked up in the first half of the year, with appetite for the fuel from utilities seen fading as a raft of nuclear power stations come back online. With an average of only six reactors expected to be offline over the rest of the year, analysts say shipments of LNG into the world's No.3 importer of the fuel are likely to decline. Russia's Sakhalin II LNG project added to supply this week after offering a cargo loading on Sept. 5. In the Atlantic, Trinidad's Point Fortin LNG Exports also offered a cargo loading at the end of August. Japan's Inpex expects its Ichthys plant in Australia to start up in September, along with the second production train at Yamal in Russia, boosting shipments to world markets. European spot prices so far remain uncompetitive with Asia in drawing away Qatari cargoes, as storage inventories recover across the continent.

[Source: LNG Global](#)

US bill aims to boost LNG exports to Europe as politics over Russia swirl

New legislation seeks to promote the expansion of US LNG exports to Europe at the expense of Russian pipeline gas to the region. A bill introduced Wednesday, July 18, by US Senator John Barrasso, a Wyoming Republican, would impose mandatory sanctions on Russia's Nord Stream II gas pipeline and expedite the export of US natural gas to NATO allies. Demand for gas in European Union countries has increased as the bloc aggressively pursues clean air policies, which means less use of coal for power production. Russia has been a major source of gas supply to the region for decades, though in recent years some countries have expressed a desire for alternatives. "With an abundance of natural gas in the United States, it's time we use American energy resources to give our allies lasting and dependable energy security," Barrasso said in a statement.

Gazprom's Nord Stream II gas pipeline would run across the Baltic Sea to connect Russia and Germany. Some countries in the region, including Ukraine, are lobbying hard against the project because it would allow an additional 5.3 BCFD of gas flows to bypass them, and they currently rely on lucrative transit fees to move Russian gas across their borders. Also, import prices would likely go up for these countries, as the marginal source of gas would have to come from Western European spot markets at higher prices given the greater Russian flexibility to go around them, S&P Global Platts Analytics data shows. Recently, during his trip through Europe, President Donald Trump criticized Nord Stream II and Germany's involvement. Because of market realities, how much US pressure, through legislation, could benefit US LNG exports to Europe and hurt Russian interests remains unclear. How the sanctions element of Barrasso's bill would be implemented also was unclear, since the US isn't involved in the Nord Stream II project. Energy officials from Poland and Lithuania said at a conference in Houston in March that their countries are interested in more US supplies, though they also acknowledged Russia's grip on the market in the region. Considerations such as price and cost of delivery are key drivers of decisions by buyers and sellers. And because the LNG market is becoming much more flexible and dynamic, the long-term outcome is likely to be commercially, rather than politically, driven.

<https://www.hellenicshippingnews.com/us-bill-aims-to-boost-lng-exports-to-europe-as-politics-over-russia-swirl/>

ABS to class FSRU for Turkey's oil and gas distributor

American Bureau of Shipping (ABS) was selected to class a floating storage and regasification unit (FSRU) for BOTAS, Turkey's oil and gas pipeline operator. "As demand for gas has increased over the last decade, the supply chain has had to adapt and figure out new ways of getting gas to expanding markets," said ABS Senior Vice President and Chief Business Development Officer, Jamie Smith. "FSRUs, like this one for Turkey, are providing gas distributors and suppliers an efficient and effective solution for getting their product to consumers." Planned to be built at Korea's Hyundai Heavy Industries shipyard, the FSRU will have a 170,000 cubic meter storage capacity and a 1,000 MMSCFD LNG discharge capacity. The FSRU will be jetty moored off the coast of Turkey and operated by Mitsui O.S.K. Lines (MOL). The unit will be classed using the ABS Guide for Building and Classing LNG Regasification Vessels. "We are excited to work with all of the stakeholders in advancing safety throughout the development of this project," said ABS Manager for Turkey, Seyfettin Tatli. "This FSRU will help BOTAS expand Turkey's energy infrastructure and reduce dependency on pipeline gas, allowing them to deliver LNG more efficiently and cost-effectively." Recognizing the changing landscape and increased industry focus on gas, ABS launched its Global Gas Solutions team in 2013 to support industry in developing gas-related projects. The ABS Global Gas Solutions team provides industry leadership, offering guidance in

liquefied natural gas (LNG) floating structures and systems, gas fuel systems and equipment, gas carriers, and regulatory and statutory requirements. ABS has extensive experience with the full scope of gas-related assets and has been the classification society of choice for some of the most advanced gas carriers in service. <https://www.hellenicshippingnews.com/abs-to-class-fsr-ru-for-turkeys-oil-and-gas-distributor/>

Australian LNG exports surge to nearly 60MMT in 2017-18

Australian liquefied natural gas (LNG) exports have surged by 18.5% to 59.7 MMT in the 2017-18 financial year, a year-over-year (YoY) gain of 9.3MMT. Energy export revenues were, meanwhile, up 38% to \$30.8 billion, reflecting improved performance and a higher oil price. The surge has been driven in part by the ramp up of Chevron's Western Australian LNG projects over the last year, such as Wheatstone, which has produced 2.1Mt since first shipping last November, and Gorgon, which has seen considerable production growth of 6.9Mt to 12.7Mt over the past year, close to its 15.6Mt/y nameplate capacity. Chevron has become extensively involved in the Western Australian region over the past year. The company purchased three exploration interests in the Carnarvon Basin offshore Western Australia last October by acquiring a 50 per cent interest in 50 trillion cubic feet of gas resources to be shared with partner Woodside Energy. Deliveries to Australia's biggest international LNG buyer Japan were up by 2.1MMT to 27.5MMT, ac-

counting for 46% of deliveries. China was in second place at 34% with 20.3MMT. Growth in deliveries to China was another factor in the surge, with the country purchasing 6.5MMT more LNG than in 2016-2017.

<https://www.hellenicshippingnews.com/australian-lng-exports-surge-to-nearly-60mt-in-2017-18/>

Australian LNG export revenue reaches \$3.2b in June

DESPITE fewer liquefied natural gas exports leaving Gladstone's port last month, Australia's revenue from the commodity is estimated to have reached \$3.2 billion. According to EnergyQuest's June report, Australian LNG shipments increased to 5.5million tonnes last month, or 81 cargoes. While Shell's QCLNG shipped three more cargoes than the previous month, Santos' GLNG shipped two less and Origin Energy's APLNG shipped one less.

EnergyQuest chief executive Graeme Bethune estimated last month's export revenue rose to \$3.2billion, up from \$2.8billion in May. The report said exports for 2017-18 surged by 9.3million tonnes off the back of increased deliveries to China of 6.5Mt from Gladstone's three plants. Exports to China accounted for 34per cent of all deliveries in the past year, but Japan remained the biggest customer, accounting for 46per cent of deliveries. Mr Bethune estimated LNG export revenue reached \$30.8billion in 2017-18, up 38per cent on the previous year.

<https://www.gladstoneobserver.com.au/news/australian-lng-export-revenue-reaches-32b-in-june/3470513/>

Inpex's Ichthys LNG produces first gas off Australia

Inpex Corp said on Monday, July 30, it has begun producing gas at its giant Ichthys field off northern Australia, putting it a big step closer toward shipping its first LNG cargo from the long-delayed \$40 billion project. Start-up of gas production is a major milestone for the project, Japan's biggest overseas investment and first major energy development to be operated by the country's top oil and gas producer. Inpex said it now expects to start exporting products by the end of September, with condensate to be shipped first, then LNG and LPG, nearly two years later than its initial target. "The project expects to begin the shipment of products towards the end of the first half of the current fiscal year," Inpex said in a statement. The first half ends in September.

The project is expected to take two or three years to reach its full capacity of 8.9 MMTPA, along with about 1.7 MMTPA of LPG and around 100,000 barrels per day of condensate, an ultra-light form of crude oil. Inpex said it was reviewing expected revenue contributions from the Ichthys project for the year to March 2019, taking into account the oil price outlook and other factors, and would inform the market if its forecasts are revised. Inpex owns just over 62 percent of Ichthys LNG, with France's Total SA holding 30 percent. The remainder is owned by Taiwan's CPC Corp and Japanese utilities.

[Source: LNG Global/Reuters](#)

PNG LNG partners strike three-year deal with PetroChina

The ExxonMobil-operated PNG LNG project has secured a three-year deal to supply LNG to Hong Kong-based PetroChina, according to Australian partners Santos and Oil Search. The agreement will see around 0.45 MMTPA of LNG from the Papua New Guinean operation supplied to PetroChina for 1.35 MMTPA overall. ExxonMobil is also negotiating further mid-term LNG supply agreements that are expected to increase sales to 1.3MMTPA. The agreement with PetroChina brings the total project volume to 7 MMTPA, with 6.6 MMT committed to major Asian customers Sinopec, CPC, JERA and Osaka Gas. Oil Search managing director Peter Botten said the company was delighted to enter into the agreement with PetroChina, already an active buyer of spot cargoes from the project.

"This is the first mid-term sale to be finalised for the supply of up to 1.3MMTPA (in aggregate) from PNG LNG for a period of up to five years," he explained. "ExxonMobil, on behalf of the PNG LNG project participants, is in negotiations with a number of other parties for potential LNG supply agreements, which are expected to be finalised in the near-term." The first sale under the SPA is expected to take place this week. The PNG LNG project is part of a joint venture that includes owner-operator ExxonMobil (32.2%), Oil Search (29%), PNG state-owned Kumul Petroleum (16.8%), Santos (13.5%), JX Nippon (4.7%) and Mineral Resources Development Company (2.8%).

<https://www.australianmining.com.au/oil-gas/news-oil-gas/santos-petrochina-oil-search-enter-sales-agreement-png-lng/>

Woodside pulls out of Sempra LNG project in the USA

Woodside Petroleum Ltd, Australia's biggest independent oil and natural gas company, is to pull out of Sempra Energy's Port Arthur liquefied natural gas (LNG) export project in Texas, Sempra said Friday, July 20. "Woodside has been evaluating whether to invest equity in the project, but has recently decided not to pursue that investment further as it wishes to focus on integrated E&P, rather than U.S. Gulf Coast LNG infrastructure investments like Port Arthur LNG," California-based Sempra said, in a statement. Woodside CEO Peter Coleman said last month the project's ability to provide it with an adequate return is "very challenged," Reuters reported. Sempra and Woodside had agreed to share the cost of developing Port Arthur 29 months ago. The project, which Sempra said could cost \$8 billion to \$9 billion, includes two liquefaction trains capable of producing roughly 11 million tonnes per annum (MTPA) of LNG, up to three storage tanks and facilities to load LNG onto ships. Sempra will continue the development of the liquefaction project, the U.S. energy company said adding, it is "in discussions with many other LNG buyers from Europe and Asia about the project, including LNG purchase and a potential equity investment."

<http://www.kallanishenergy.com/2018/07/23/woodside-pulls-out-of-lng-project/>

Russia's Yamal LNG ships 3 million tonnes of LNG

Russian Arctic liquefied natural gas (LNG) plant, Yamal LNG, has hit a new milestone since its commissioning last December, shipping more than 3 million tonnes of LNG from its first train. According to operator NOVATEK, that milestone tonnage was shipped on the 41st cargo loaded at the facility. The boost to shipments came as the project this month started its summer-navigation period on the Northern Sea Route, Kallanish Energy learns. The route via the Arctic Sea at this time, without ice-breaking support, has been enabled thanks to the so-called Arc7 ice-class LNG tankers NOVATEK has ordered. These ice-breaker vessels travel in an eastern direction to Asian-Pacific countries cutting the delivery time, compared to the Southern Sea Route. Yamal LNG is building a 16.5 million tonne per annum plant processing gas from the South-Tambeyskoye field on the Yamal peninsula, in the Arctic territory of the Russian Federation. The joint-venture is owned by NOVATEK (50.1%), Total (20%), CNPC (20%) and the Silk Road Fund (9.9%).

<http://www.kallanishenergy.com/2018/07/25/russias-yamal-lng-ships-3-million-tonnes-of-lng/>

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

Hyundai Heavy Confirms Marinakis' Newbuildings As It Wins 836.5 Bln Won LNG ship order

Hyundai Heavy Industries Co. said it has received a 836.5 billion won (US\$744 million) order to build four liquefied natural gas carriers for a European company. The world's biggest shipbuilder by sales obtained the order to build four LNG ships for Capital Gas Carrier Corp. by June 30, 2021, the company said in a regulatory filing. In the January-June period, Hyundai Heavy bagged \$2.87 billion worth of orders as offshore facility contracts plunged 99 percent on-year to \$200 million.

<https://www.hellenicshippingnews.com/hyundai-heavy-confirms-marinakis-new-buildings-as-it-wins-836-5-bln-won-lng-ship-order/>

Argentine government promotes importation of natural gas vehicles

The Argentine government decided to authorize the importation of vehicles powered by compressed natural gas, but as a preliminary step it asked business entities to “express opinions and proposals” on this measure. Through a resolution of the National Regulatory Entity of Gas (Enargas), published in the Official Gazette, the Executive Power invited the licensees of the Distribution Service, the Certification Bodies, the Association of Automotive Manufacturers (ADEFA), the Chamber of Importers and the companies Scania and Iveco to “express opinions and proposals” on the “Procedure for the qualification of imported vehicles,” powered by CNG. The norm has as background a disposition of the Undersecretariat of Traffic and Transport of the Autonomous City of Buenos Aires, which ordered the creation of the “Pilot Test Program of Alternative Fuel Buses,” to be implemented with the promotion of policies, plans and projects of ordering and improvement of the passenger and cargo transportation system. In addition, the Enargas established that the participation of the general public in the consultation of the project, “will contribute to providing greater transparency and efficiency to the system.”

<http://www.ngvjournal.com/s1-news/c1-markets/argentine-government-promotes-the-arrival-of-natural-gas-vehicles/>

Superpolo launches ‘Superior’ NGV microbus in Colombia

Brazilian bus manufacturer Marcopolo, through its Colombian company Superpolo, recently launched a new compressed natural gas (CNG) bus under its ‘Superior’ brand. Presented in mid-May, the urban passenger service vehicles are



built on an IVECO chassis and have capacity for 19 passengers. Manizales, a city in the mountainous region of western Colombia, is one of the pioneering cities in the use of clean energy. The integration of eight new buses into its fleet increas-

es the natural gas fleet to a total of 25 vehicles, bringing important benefits for the quality of life and the progress of the city. These new vehicles of public transport with NGV contribute to significantly reduce CO2 emissions in the city, achieve significant reductions in noise, which positively impacts the health of the manizaleños, and reduce operational costs. The acquisition of these 8 vehicles by the company Serviturismo was supported by the natural gas chain in Colombia, integrated by Ecopetrol, the International Gas Transporter (TGI), Grupo Energía Bogotá company (GEB), Terpel, Equión and Efigas. The joint contribution was COP 30 million (USD 10,500) for each vehicle. The 25 gas vehicles in Manizales generate a reduction in CO2 emissions equivalent to 1,100 tons per year. This is equivalent to the reduction of emissions of four days of Car Free Day in the city.

[Source: NGV Global](#)

Lidl moving to LNG-fuelled logistics in Switzerland

Together with international transport and logistics service provider Krummen Kerzers AG, Lidl Switzerland, a Swiss logistics company, is taking steps to ban diesel combustion engines in Swiss logistics by enabling the introduction of the first liquefied natural gas (LNG) vehicles in Switzerland. The companies will jointly finance and operate the necessary infrastructure. Lidl says LNG vehicles are a useful bridge solution for a more sustainable future. They emit 10-15% less CO2, 35% less nitrogen oxides, 50% less noise and 95% less particulate matter compared to diesel vehicles. Yet despite market readiness and deployment in the surrounding European countries, there is still no LNG infrastructure in Switzerland and therefore no LNG vehicles. Lidl Switzerland, together with Krummen Kerzers, are acting to change that situation, demonstrating their commitment to sustainability which is a central component of the corporate strategy for both companies. They will commission both the first filling station infrastructure in Switzerland and the first LNG vehicles. The station will also be open to the public. “Thanks to the active support of Lidl Switzerland, we can already put our vision into practice in the first half of 2019. We will commission Switzerland’s first LNG vehicles and thereby significantly reduce CO2 emissions and air pollutants,” said Peter Krummen, CEO of Krummen Kerzers, about the cooperation with Lidl Switzerland. In cooperation with

its partners, Lidl Switzerland will hold its first project presentation in Weinfelden on August 15, 2018. Among other things, an Iveco demo LNG vehicle will be presented on site, whereby interested logistics companies, shippers or even dealers are welcome to inspect.

<http://www.ngvglobal.com/blog/lidl-moving-to-lng-fuelled-logistics-in-switzerland-0720>
[Edited]

ENGIE enters emerging Romanian CNG market with new station

ENGIE Romania SA, a subsidiary of French multinational energy conglomerate ENGIE, has launched its first CNG refuelling station in Romania. The station was inaugurated by company representatives and local authorities on July 13 and will serve natural gas vehicles operating in the administrative region of Bucharest. Mr. Eric Stab, Chairman & CEO at ENGIE Romania, stated in his opening speech that “ENGIE supports, both at global and local level, the European policy to reduce the carbon emissions and promotion of ecological transportation by using alternative fuels able to reduce the emissions of greenhouse gases.” He also underlined that “the best proof of our trust in this solution is that for the beginning we converted to this technology 25 vehicles of ENGIE fleet.” The vice-mayor of Bucharest, Mr. Aurelian Bădulescu spoke of the importance of the direct support given to the investment by local administrations, which are working to cut GHG emissions. He addressed his gratitude for “this initiative that we have to call historical, since (...) it is the first [compressed natural] gas station, it is the first step in a direction expected for a long time.” Mr. Gabriel Mutu, the Mayor of Sector 6, one of the capital city’s administrative districts, expressed his hope that ENGIE will “in the future open as many CNG refueling stations as possible, so that public transport in the first place, but also the transport for other types of activities can be based on this type of fuel.” ENGIE also expressed interest in building further stations as demand increases from fleets and the private sector.

[Source: NGV Global](#) [Edited]

MAN to supply 110 Lion's City CNG uses to Warsaw in 2019

From the spring of 2019, a further 110 natural gas-powered MAN Lion's City low-floor buses will be driving around the streets of the Polish capital of Warsaw. MAN Truck & Bus Polska was able to win the order of 80 natural gas buses from Warsaw bus operator MZA at the end of June. The order involves the purchase of 50 articulated buses and 30 solobuses from the MAN Lion's City CNG range. Another 30 gas buses are to follow a short while later, meaning that a total of 110 new Lion's City CNG buses will be starting their service in the Polish capital at the start of 2019. "The acceptance of our offer demonstrates the excellent collaboration that unites us. It also confirms that the MAN buses in the fleet of MZA, the city's bus company, have proven themselves to be a reliable means of transport in the local public transport system," added Jean-Sylvain Delepaut, member of the executive board at MAN Truck & Bus Polska. All of the ordered buses will be built in the MAN plant in Starachowice, the MAN competence centre for city buses. In line with the standards of the Warsaw transport association, the buses will have ticket machines, air conditioning, video surveillance and electronic displays on the inside and outside. The most important distinguishing feature, however, is the environmentally friendly and economical gas-powered drive. Such buses can also be driven with refined biogas (renewable natural gas / RNG/ biomethane) without any technical modifications, meaning that they are almost CO2 neutral. MAN's current gas-powered bus range includes 12-m-long solo buses and articulated buses 18.75 m in length with a low-floor chassis and lowered entrance. Lion's City GL CNG won the "Bus of the Year 2015" award and recently had an average market share of 39 percent. Over one fifth of the city buses sold by MAN in the past year run on natural gas.

<http://www.ngvglobal.com/blog/man-to-supply-110-lions-city-cng-buses-to-warsaw-in-2019-0720>

IVECO Daily celebrates 40 Years, 20 Years with CNG

The IVECO Daily, now in its third generation, has evolved over 40 years to become today's champion of sustainability. First launched in 1978, the Daily revolutionised light commercial transport with its truck-derived chassis with rear trac-

tion and independent front suspension. Today's 'C' shaped chassis is unique, versatile and available powered by Compressed Natural Gas (CNG). Throughout the 40 years since its launch, the Daily has introduced numerous industry firsts and received recognition from industry experts, resulting in an impressive collection of international awards. As one of the choices in the Blue Power family, the Daily Hi-Matic Natural Power became the first CNG vehicle with an 8-speed automatic gearbox in the LCV industry, introduced in 2017. It was voted in Italy as the Sustainable Truck of the Year 2018. The Daily CNG was the first light commercial vehicle featuring a CNG engine, introduced in 1998. The sale of more than 4,000 CNG powered light commercial vehicles, vans and chassis cabs, in Western Europe allowed Iveco to establish itself as European leader in the field of low environmental impact engines. Since 2009, the ECODaily Natural Power has continued the tradition of the Daily CNG, awarded the "Green Van of the Year 2009" award at the Fleet Van Awards in October 2009. The Iveco light commercial vehicle established itself in the category reserved for alternative fuel vehicles, beating numerous other electric, hybrid and natural gas vehicles.

<http://www.ngvglobal.com/blog/iveco-daily-celebrates-40-years-20-years-with-cng-0719>

Volvo VNL 300 now with CWI "Near Zero" Natural Gas Engine

In North America, the new Volvo VNL 300 day cab is now available with the latest version of the Cummins Westport Inc. (CWI) ISX12N "Near Zero" natural gas engine, providing an alternative fuel solution for pick-up and delivery and regional-haul operations. The natural gas power plant can be operated on compressed natural gas, liquefied natural gas, or renewable natural gas. "The Cummins ISX12N represents best-in-class gas engine technology for local pick-up and delivery and regional haul operations," said John Moore, Volvo Trucks North America product marketing manager – powertrain. "The low carbon footprint, expanded delivery and distribution, abundant supply and stable pricing of natural gas offer substantial benefits to fleet operators looking to utilize the fuel as a clean, quiet and cost effective alternative to diesel without the need for a DPF or SCR system." Volvo Trucks provides complete transport solutions for professional and

demanding customers, offering a full range of medium to heavy duty trucks. Customer support is secured via a global network of 2,100 dealers and workshops in more than 130 countries. Volvo trucks are assembled in 16 countries across the globe. Volvo Trucks is part of Volvo Group, one of the world's leading manufacturers of trucks, buses and construction equipment and marine and industrial engines. <http://www.ngvglobal.com/blog/volvo-vnl-300-now-with-cwi-near-zero-natural-gas-engine-0723>

TECHNOLOGICAL DEVELOPMENT FOR CLEANER ENVIRONMENT / BIO-METHANE

World's first hydrogen-powered taxi fleet reaches 100 cars in Paris

The hydrogen-powered taxi fleet called "Hype", launched at the end of 2015 by French start-up STEP (Société du Taxi Electrique Parisien) in partnership with Air Liquide, has reached the 100-taxi landmark thanks to a new delivery of cars by Toyota. Hype's founder, Mathieu Gardies, received the keys to 25 new hydrogen-powered Toyota Mirai cars from the CEO of Toyota France, Didier Gambart. This delivery is a new stage in the deployment of the world's first hydrogen-powered taxi fleet, which will boast 600 vehicles by the end of 2020. Air Liquide continues to support the growth of the "Hype" fleet by building up the necessary network of hydrogen refueling stations. These deliveries are part of the ZEFER project, thanks to which Hype is accelerating its development in Paris and which has received funding from the Public Private Partnership on Fuel Cells and Hydrogen 2 Joint Undertaking (FCH JU). Hydrogen brings a concrete response to the challenges of sustainable mobility and local pollution in urban areas. It takes less than five minutes to recharge hydrogen-powered vehicles like 'Hype taxis' for a driving range of around 500 kilometers.

<http://www.ngvjjournal.com/s1-news/c7-lng-h2-blends/worlds-first-hydrogen-powered-taxi-fleet-reaches-100-vehicles-in-paris/>

Port of Busan to bunker LNG with KOGAS

Korea Gas Corporation (KOGAS) and Busan Port Corporation (BPC) signed a “Business Agreement for Establishment and Activation of the Busan Port LNG Bunkering System” on July 5 at the BPC headquarters. By doing so, KOGAS hopes to establish more concrete measures to build and revitalize the LNG bunkering infrastructure of Busan Port by establishing a cooperative relationship with BPC and LNG bunkering. The event was attended by Chung Seung-il, president of Korea Gas Corporation, and Woo Yong-jong, president of Busan Port Corporation. Through this agreement, the two companies will jointly conduct a feasibility study on the LNG bunkering business, which will supply LNG as a ship fuel to vessels entering Busan port, and complete the project in the first half of next year. The study will include a comprehensive review of the LNG bunkering system and business methods for Busan Port, including a Floating LNG Bunkering Terminal. A research project by Korea Maritime Institute (KMI) in 2017 declared: “The air pollutants from ships are not managed in a systematic and efficient manner in Korea. As a result, major port cities show a high percentage of air pollutants emissions from non-road mobile sources in emissions of SO_x, NO_x, and PM₁₀ which are produced highly by ships. This has led to the problems that cause a serious impact on the public health.” An article published by The Korea Herald and citing KMI research, confirms the impact of vessel emissions: “the pollutants emitted from vessels are in the critical level. One container vessel is estimated to emit the same amount of sulfur oxide as 50 million diesel cars and as much fine particulate matter as 500,000 trucks. Out of the total sulfur oxide and fine particulate matter emitted in Busan, the nation’s largest port city, the pollutants emitted from vessels account for around 73 percent and 51 percent respectively, according to the government agency.” In addition, KOGAS has been promoting the conversion of port yard tractors to LNG fuel with the Busan Port Corporation and the Ministry of Maritime Affairs. Two LNG-powered ships are known to be operating in domestic waters at present. The MAN ME-GI powered 50,000 dwt bulk carrier Green Iris, operated by Ilshin Logistics, undertook its first commercial voyage in January, transporting bulk limestone from Donghae. Incheon Port Authority

runs the 200-ton Econuri. Launched in 2013, the vessel can accommodate up to 57 passengers with a cruising speed of speed of 27.7 kilometers per hour.

<http://www.ngvglobal.com/blog/port-of-busan-to-bunker-lng-with-kogas-0714>

Green certificate a christening gift for LNG-powered Fure Vinga

When Fure Vinga, the new Liquefied Natural Gas (LNG), was christened last month, CEO of Furetank, Lars Hoglund was presented with the Bio50 LNG gift by Michael Schaap, Commercial Director Marine at Titan LNG B.V. Titan LNG uses biogas certificates from European waste streams for 50% of its contents, creating a fuel that complies to the IMO 2050 carbon reduction target today. Ronald van Selm, COO of Titan LNG, commented: “On top of LNGs excellent performance on SO_x, NO_x, and particulate emissions, these carbon emission improvements make LNG the genuine maritime fuel of the future. For now we add biogas certificates from waste streams and in the near future, physical BioLNG will be available on a larger scale.” Titan LNG, a leading full service supplier of LNG to the marine and industrial markets in North West Europe, believes the use of biogas certificates is an affordable, available, and scalable option for the LNG powered fleet to further reduce CO₂ emissions. In the marine segment, Titan LNG specializes in providing shipping customers with flexible LNG solutions like the T-piece for combined Truck-to-ship bunkering and the FlexFueler LNG Bunkering pontoons for Ship-to Ship supply. Furetank, an integrated shipping company that provide technical, safety, crewing and commercial management services to external partners, has three LNG powered low emission 16,000 dwt new buildings on order from Avic Dingheng Shipyard in China. Together with partners Älvtank and Thun Tankers, the order comprises a total of six sister vessels. Furetank is a founding partner of commercial joint venture Gothia Tankers Alliance, covering 32 vessels in sizes of 6,000-37,000 dwt.

<http://www.ngvglobal.com/blog/green-certificate-a-christening-gift-for-lng-powered-fure-vinga-0724>

TECHNOLOGICAL DEVELOPMENT FOR CLEANER ENVIRONMENT / BIO-METHANE

Green body bats for Hydrogen-CNG in buses, says 70% less polluting

EPCA said the transition to H-CNG, which is 18 per cent Hydrogen, can be seamless as the existing infrastructure comprising buses, piping network and dispensing stations runs on CNG. Green panel EPCA has recommended to the Supreme Court that the entire bus fleet of Delhi be run on Hydrogen-CNG fuel by 2020-21, adding that doing so could cut carbon monoxide (CO) emissions as opposed to conventional CNG. EPCA (Environment Pollution Prevention and Control Authority) said the transition to H-CNG, which is 18 per cent Hydrogen, can be seamless as the existing infrastructure comprising buses, piping network and dispensing stations runs on CNG. The EPCA report, which was submitted, noted that using H-CNG can lead to up to 70 per cent reduction in CO emissions and 15 per cent reduction in total hydrocarbon emissions. The apex court had recently directed the Delhi government to explore the feasibility of introducing Hydrogen-fuel cell buses. The EPCA has, however, observed that instead of going for Hydrogen-fuel cell buses, H-CNG can be an intermediate solution. The MoPNG and IOCL have now been asked to respond to the recommendations by the Supreme Court. “This technology (H-CNG) is gaining popularity worldwide. Worldwide hydrogen is being blended with natural gas and then compressed to dispense into vehicles. US, Brazil, Canada, South Korea have all conducted trials and found that there are reduction in emissions from buses,” the report said.

<https://indianexpress.com/article/cities/delhi/green-body-bats-for-hydrogen-cng-in-buses-says-70-less-polluting/>

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.