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## IOC to invest Rs 54 billion in City Gas Network for retailing CNG in 7 districts

State-owned Indian Oil Corp (IOC) Thursday said it will invest Rs 54.63 billion in setting up city gas distribution network for retailing CNG to automobiles and piped cooking gas to households in seven districts. IOC had in the recently concluded 9th bid round for city gas licences won permits for seven cities on its own and another nine in a joint venture with Adani Gas. The company, in a regulatory filing, said its board in a meeting Wednesday approved investments in seven cities it has won on its own. The company, however, did not specify the investments to be made in the nine cities it had won in the joint venture with Adani. IOC said its board also approved a Rs 5.20 billion investment for production of ethanol using LanzaTech gas fermentation technology at Panipat refinery in Haryana. The proposed ethanol plant is designed to produce 33.5-kilotonnes per annum of anhydrous ethanol for use in automotive fuel. "The project has the potential of greenhouse gas reduction required to limit global climate change," it said. The board approved "installation of facilities for production of ethanol from PSA Off Gas of Hydrogen Generation Unit (HGU) at Panipat refinery using gas fermentation technology of LanzaTech USA at an estimated cost of Rs 5.20 billion," it said. The board also approved a Rs 13.32 billion investment in laying a pipeline from Paradip in Odisha to Haldia in West Bengal.

[https://wap.business-standard.com/article-amp/companies/ioc-to-invest-rs-54-bn-in-city-gas-network-for-retailing-cng-in-7-districts-118101100844\\_1.html](https://wap.business-standard.com/article-amp/companies/ioc-to-invest-rs-54-bn-in-city-gas-network-for-retailing-cng-in-7-districts-118101100844_1.html)

## 'Focus on piped natural gas project', Andhra Pradesh

Chief Minister N. Chandrababu Naidu has instructed Andhra Pradesh Gas Distribution Corporation Ltd (APDGC) to focus on the implementation of the piped natural gas (PNG) project in Amaravati - Vijayawada - Rajahmundry - Visakhapatnam green corridor by 2020 and to actively pursue the Floating Storage and Re-gasification Unit (FSRU) at Kakinada. The CM said that the CNG available in the State was 35-40% cheaper than petrol and diesel and its price was fairly stable compared to the highly volatile petrol and diesel prices, according to a release. Accordingly, the government had under-

taken the development of natural gas infrastructure in the twin Godavari districts with an investment of Rs. 2,500 crore. Principal Secretary (Energy) Ajay Jain informed Mr. Naidu that the natural gas infrastructure development project in East and West Godavari districts would be completed over the next four years. He also explained that the PNG project would connect 1.20 lakh homes, 300 commercial establishments and various industries like ceramic, sanitary-ware, dairies and sugar factories in the Godavari districts. It was targeted to set up 35 CNG stations by 2020. The officials told the CM that the feasibility report of FSRU was prepared by Worley Parsons and the financial appraisal was recently carried out by SBI Caps.

<https://www.thehindu.com/todays-paper/tp-national/tp-andhrapradesh/energy-dept-told-to-focus-on-piped-gas-project/article25153581.ece>

## MNGL to invest Rs 1,600 crore in Nashik to supply CNG

The Maharashtra Natural Gas Ltd (MNGL) has firmed up its plans to invest Rs 1,600 crore in Nashik to create infrastructure for supply of green fuel. The state-owned PSU has won the bids to supply compressed natural gas (CNG) for vehicles and piped natural gas (PNG) for domestic purpose in Nashik, Dhule and Sindhudurg districts. The firm will lay over 108km un-

derground steel pipeline from Jawhar to Nashik via Trimbakeshwar to draw RLNG from the terminal at Dabhol. The company will also establish its office here and would transfer some of its officials from Pune to liaison with government agencies for creating the infrastructure for which it needs the nod of the agencies. "Initially our focus will be on providing CNG for vehicles in Nashik. In the next one year we will set up at least five CNG stations to make the green fuel available for the transport sector here," the MNGL official said. The MNGL has set a target of setting up 156 CNG stations in Nashik in eight years. "The company will be appealing to even private landholders to give their land on rent for establishing CNG stations," the official added. "We have decided to offer subsidy to app-based cabs to encourage them to convert to CNG from the conventional fuel," added the official. The officials said supply of domestic cooking gas would take more time as pipelines have to be laid to residential societies and gadgets have to be set up at in kitchens. "Later, we will concentrate on Dhule and set the same kind of infrastructure there. The main liquefied natural gas pipeline will be extended to Dhule," the officials said.

<https://timesofindia.indiatimes.com/city/nashik/mn-gl-to-invest-rs-1600-crore-in-nashik-to-supply-cng/articleshowprint/66076033.cms>

## Vehicles to switch to natural gas fuel in Kerala

Kerala is planning to extend the use of natural gas as fuel for vehicles. The sale of natural gas started in four pumps in Kochi in February. 597 more pumps will be set up from Kochi to Kasaragod. The petrol and diesel price hike has increased the popularity of CNG (Compressed Natural Gas) vehicles. First only 20 auto rickshaws were using CNG and now this has risen to 900. Daily consumption increased from 200 kg to 3500 kg. Five more pumps will be inaugurated in Kochi next week. About 20 lakh kitchens in the urban areas of the district will get natural gas once the scheme is complete. The scheme is implemented on a trial basis by Indian Oil and Adani companies. The districts through which the GAIL pipeline is passing will benefit from the scheme. Natural gas to Wayanad will be supplied from Kozhikode. Maruti will introduce 1500 CNG cars to the market this month. Taxi service providers Uber also will introduce 500 CNG cars. The present rate of natural gas is Rs 53 per kg. It gives a mileage of 50 km to auto rickshaws. The representatives of GAIL and Indian Oil-Adani companies will arrive next week to verify the construction of city gas connection in Kochi-Mangalore gas pipeline. The connection centres are located at Annakara in Thrissur, Malampuzha in Palakkad, Kodoor in Malappuram, Puthur in Kozhikode, Kurumathur in Kannur and Chengalam in Kasaragod. GAIL general manager Tony Mathew said that the Kochi-Mangalore gas pipeline project will be commissioned in March. The flood havoc destroyed the construction materials and caused mudslides in the area which resulted in the delay of the project. He also said that the construction works have resumed completely.

<https://english.mathrubhumi.com/news/kerala/vehicles-to-switch-to-natural-gas-fuel-in-kerala-fuel-1.3200877>

### IGL to set up CNG stations in housing complexes and e-vehicle charging facilities

IGL also plans to foray into e-vehicle charging segment by setting up charging facility at its CNG stations.

Indraprastha Gas, India's biggest city gas retailer, is looking at setting up CNG dispensing stations within residential housing complexes to ease queues at CNG pumps, its Managing Director E S Ranganathan said. IGL also plans to foray into e-vehicle charging segment by setting up charging facility at its CNG stations, he said. The company, which retails CNG to automobiles and piped cooking gas to household kitchens in the national capital and its suburbs, is facing pressure to cut queues at CNG stations that have led to traffic snarls in many parts of the city. It has already set up one CNG dispensing pump at a residential housing complex in Noida on pilot basis, he said. All we need is a 10x10 metre area – a space equivalent to one used for parking of four cars. We will set up CNG station and man it as well. Residents of the housing complex will get priority filling," he said adding the company will be responsible for the running and upkeep of the facility. Ranganathan said IGL is also setting up e-vehicle charging facility and has tied up with a Dutch company. IGL, he said, plans to add a record 60 CNG dispensing stations and give piped cooking gas connections to at least 2 lakh households this fiscal. The company has adopted a dealer-franchise model in the push for rapidly expanding the network. The company, with 452 CNG stations in Delhi, Noida, Greater Noida, Ghaziabad and Rewari, has started giving the franchise to dealers who own lands. "We already have two CNG dispensing stations operating on dealer model and have given letters of intent (LoIs) for another 21 which will be commissioned within the current financial year," he said. Ranganathan said the company opened 30 CNG stations last year and in 2018-19 it has a target to open 50. "Though the target is 50, we are confident of putting up 60 stations," he said. Now, it is giving franchises to dealers who own land. In 2018-19, the government is targeting 20 lakh PNG connections all over the country, up from 12 lakh in 2017-18. In 2019-20, the target is 40 lakh.

<https://indianexpress.com/article/business/igl-to-set-up-cng-stations-in-housing-complexes-5382661/>

### NATIONAL: NATURAL GAS/PIPELINES/COMPANY IN THE NEWS

#### Gas pipeline works almost done, Kerala

The gas pipeline-laying works of the GAIL in the district, which is part of the Kochi-Mangaluru pipeline laying project, are nearing completion. The pipeline-laying activities of GAIL under its Kannur office cover 110 kilometres in two spreads from Neeleswaram in the Kasaragod district to Ayancheri in Kozhikode district. Of this stretch, pipeline laying was completed in 83 km stretch in the district from Kadavathur in Thrippangottur village to Puthur in Peralam village, an official press release said. Welding works were completed and pipeline was lowered into the trench for a total stretch of 70 km. As part of the pipeline laying project, the survey works had already been completed. The Right of User (RoU) of 20 metre width of land for the stretch of 83 km was being acquired for the project under the Petroleum and Minerals Pipeline (P&MP) Act, 1962. The release said that after the completion of the pipeline, the acquired width would be restricted to 10 metres and the remaining 10 metres would be handed over to the owners. The release said that total Rs. 45.44 crore had been disbursed under GAIL's Kannur office as compensation of the crops in the land taken over under RoU in the first phase. Of the total 5,042 people whose land was being taken possession under RoU, 4184 people were given compensation, it added. It also informed that the disbursal

of compensation for buildings in the acquired area had begun. Also progressing was the work to pay compensation for the 10-metre wide plots being acquired for pipeline laying. Of the five rivers in the district under which the pipeline passes, pipeline laying was completed under Perumba, Kuppam and Valapattanam rivers. Works to lay pipeline under Anjarakkandy and Eranholi rivers remained, it said. The pipeline laying works in the district would be completed by January, it said.

<https://www.thehindu.com/todays-paper/tp-national/tp-tamilnadu/gas-pipeline-works-almost-done/article25174227.ece>

#### Reiterate 'buy' with raised TP of Rs 440 on GAIL India

PNGRB's tariff hikes for GAIL's 4 pipelines (18% of gas transmission volumes) were much anticipated and will increase blended tariff for its gas transmission business by 15% y-o-y in FY19. We expect tariff hikes for HVJ-DVPL, DVPL II and Mumbai pipelines (65% of gas transmission volumes) to be awarded in H2FY19. GAIL witnessed many positives in the quarter higher crude price helping trading (US LNG benefit), LPG price rise and low risk of outright unbundling. We expect the streak to continue as commodity prices rise further, petchem utilisation improves, gas-based fertiliser plants commission and CGD flourishes. PNGRB hiked tariffs for GAIL's four pipelines mainly DUPL/DPPL pipeline (13% of gas trans-

mission volumes) got a 54% tariff hike, part of Gujarat Pipeline Network (4% of gas transmission volumes) got 235% hike and Agartala pipeline (~1% of gas transmission volumes) got 690% hike. The hikes will be applicable for FY19 in full. Following this, we expect a 20% tariff hike for HVJ-DVPL, DVPL II and Mumbai pipelines (65% of gas transmission volumes) to be awarded in H2FY19, implying a 13% y-o-y further increase in blended tariff for FY20. GAIL earlier pointed that a crude price of >\$60/bl is positive for its HH-linked US LNG imports. We see the positive streak to continue for GAIL, as crude and LPG prices rise further, gas-based fertiliser plants (6 plants are on anvil) start getting commissioned from FY20 and as gas off-take increases from completion of JHDBL (Jagdishpur- Haldia and Dhamra-Bokaro) pipeline in North-East as well as from new Gas created out of the latest CGD bidding round. We switch to SOTP-based valuation from DCF, given the volatility in commodity prices, INR/USD and timing uncertainty of volume growth in the medium-term for natural gas transmission and trading businesses, which make us less confident on long-term forecasts. We use Sept '20 ebitda (average of FY20 and FY21E ebitda) of the segments to get to their respective EVs. Our new TP of Rs 440 (vs Rs 415 earlier) implies a 16% upside. We reiterate Buy.

<https://www.financialexpress.com/market/reiterate-buy-with-raised-tp-of-rs-440-on-gail-india/1337815/>

## GAIL re-starts pipeline work at Chas, Jharkhand

The Gas Authority of India Limited (GAIL) has re-started the work of laying pipeline at Chas in Bokaro in the presence of district administrative officials. Earlier, the work was hindered due to protest of the locals as well as land owners. The work started after 15 days of protest at Kumahri village under the Chas Mufassil police station by the contract company ILFC where Chas SDM Satish Chandra, SDPO Chas Bahaman Tuti, Chas CO VandnaSejwalker along with security personnel was present. The villagers were protesting for their compensation which they are yet to get. CO VandnaSejwalker asked those villagers to submit their application for claim of compensation along with the papers of land in her office earliest. "All eligible persons will get their part soon," the CO said. GAIL is laying the pipelines for the City Gas Distribution Project (CGD), a part of Jamshedpur-Haldia and Bokaro-Dharma Pipeline (JHBDPL) which is also known as PradhanMantriUrja Ganga Project, informed an official. The 2655 km long JHBDPL project with an estimated cost Rs 51,000 crore was inaugurated in July 2015 by the PM Narendra Modi, passed through Uttar Pradesh, Bihar, Jharkhand, West Bengal and Odisha, he said.

<https://www.dailypioneer.com/2018/state-editions/gail-re-starts-pipeline-work-at-chas.html>

## HOEC signs contract with government for Assam oil block

Hindustan Oil Exploration Company Ltd (HOEC) said it has signed a revenue sharing contract with the Government for an oil and gas block in Assam that it had won in the first round of Open Acreage Licensing Policy (OALP). The Block AA-ON-HP-2017/19 extends to an area of 79 square kilometres and is located adjacent to Dirok field operated by HOEC, the company said in a regulatory filing to stock exchanges. Dirok gas being rich, offtake by consumers has been increasing month after month, confirming growing demand for gas in the Assam market. "Taking note of this, operating committee of the Dirok field consisting of Oil India, Indian Oil Corporation and HOEC reviewed and recommended a revised plan of development (RPOD) of AAP-ON-94/1 (Dirok field) for submission to the Directorate General of Hydrocarbon (DGH) during the meeting held at Chennai on September 28,

2018," HOEC said. RPOD considers that the estimated ultimate recovery (EUR) to be 305 billion cubic feet of gas against the EUR of 134.09 BCF in 2015 development plan. "The proposal recommended by the operating committee envisages to drill four new development wells and to explore a new prospect in the North of Dirok field within the existing area.

"Overall, the RPOD targets to increase the gas production by about 55 million standard cubic feet per day from the current level of 35 mmscfd," it said. HOEC said schedule and costs of RPOD will be firmed up post independent review by DGH and on securing the approval of the management committee.

<https://www.thehindubusinessline.com/companies/hoec-signs-contract-with-govt-for-assam-oil-block/article25112732.ece>

## Oil India makes two discoveries in Upper Assam Basin

Oil India Ltd (OIL) has reported making two hydrocarbon discoveries in Dibrugarh & Tinsukia district in the Upper Assam Basin. These discoveries were made during the second quarter of the financial year 2018-19, in the wells West Lohali -1 and Dhakuwal-1. An OIL statement said, "The well West Lohali-1 encountered one sand in Barail formation of Oligocene age. On testing, a 13-metre Barail sand at a depth of 2,357 metres, produced gas at the rate of 1,15,000 standard cubic metres a day (scmd)." "The well Dhakuwal-1 encountered two zones in LK+TH formation of Eocene age. On testing, a 15-metre LK+TH sand at a depth of 3,875 metres, produced gas at the rate of 1,00,000 scmd with 22 cubic metre a day condensate," the statement added.

<https://www.thehindubusinessline.com/companies/oil-india-makes-two-discoveries-in-upper-assam-basin/article25193524.ece>

## Essar begins CBM gas supply to GAIL

Ruia family-owned Essar Group has started supply of gas produced from coal seams to state-owned GAIL India. In a tweet, the group said Essar Oil and Gas Exploration and Production Ltd (EOGEPL) "commenced supply of CBM gas from its Raniganj East block (in West Bengal) to GAIL." EOGEPL had in August signed a 15-year contract to supply the block's entire gas production to GAIL, Essar tweeted. Peak coal bed methane (CBM) production from Raniganj East block is envisaged at 2.3 MMSCMD. Essar had in February this year sold its entire CBM production from the West Bengal block to GAIL using the same formula that Reliance Industries used for pricing of its CBM. The price comes to around \$8 per MMBtu at the current oil price. At the time of the signing of Gas Sale and Purchase Agreement (GPSA) in August, EOGEPL had said it would be focussing on ramping up production from its existing 348 CBM wells and the 150 wells it intends to drill in the future in the block. EOGEPL has already invested more than Rs 4,000 crore in the Raniganj East CBM block in drilling wells, setting up supply infrastructure, and laying customer pipelines to Durgapur and nearby industrial areas.

<http://www.millenniumpost.in/business/essar-begins-cbm-gas-supply-to-gail-321481#>

**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.**

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## Delhi pollution: Situation in national capital is worse than pre-CNG times, claims AIIMS director

The alarming state of Delhi pollution level has become a menace for the citizens of the national capital as well visitors to the city. All India Institute of Medical Sciences (AIIMS) Director RandeepGuleria has claimed that “pollution levels have become worse than in pre-CNG era” and blamed lack of vision for the scenario. Asserting that pollution was a huge problem in the pre-CNG era also, he said, “Because of the noise made by the vehicles previously, CNG was introduced, following which the levels of pollution in the early 2000s came down, but we did not have the vision to sustain that,” he said. The AIIMS director said that after the CNG was introduced diesel vehicles started plying on roads, construction work being carried out at a lot of places. However, these activities were done with no

planning in terms of having a green corridor or encouraging environment-friendly means of travel like cycling, pollution levels have become “worse than in pre-CNG era.”Guleria said these while delivering the ninth P N Srivastava Endowment Lecture on ‘Air Pollution and Health’ at Jawaharlal Nehru University. He also talked about the diseases caused by this alarming level of pollution. “In 1990, almost 60 per cent diseases were communicable, maternal, neo-natal and nutritional diseases. That figure has now come down to around 32 per cent. Non-communicable diseases, on the other hand, have gone from around 30 per cent in 1990 to around 55.4 per cent in 2016. This has meant a huge change in terms of health care providers too,” he said.The AIIMS director said human health was affected by “genetic predisposition and the environment”. “Genetic loads the gun but environment pulls the trigger... I see a lot of individuals who come to Delhi to study or for a job. These are the people who have

never had any problem, but they start complaining of cough or chest congestion after they start living in the capital,” said Guleria.

<https://www.financialexpress.com/india-news/delhi-pollution-situation-in-national-capital-is-worse-than-pre-cng-times-claims-aiims-director/1338131/>

## Country facing ‘economic crisis’ due to crude imports, says Nitin Gadkari

Union minister NitinGadkari said the country is facing lot of “economic crisis” due to crude oil imports and need to reduce imports and increase exports.India is the third largest importer of crude oil and rising international oil prices are inflating domestic transport fuel costs in a strong demand environment. Brent, the benchmark for more than half the world’s oil, is trading at a four-year high of over \$84 per barrel.”It is time for the country to find out import substitute products and we have great potential for the use of ethanol, methanol, CNG and electric transportation system as solutions, Gadkari said after inaugurating the ‘IndiaChem - 2018’ conference organised by FICCI.”India is presently ahead in innovation, entrepreneurship, technology, research and development. There is a huge potential in Indian petrochemical sector, but we need import substitutes, pollution-free, cost-effective and indigenous ways to go ahead,” he added.While blaming OPEC countries for the current increase in oil prices, he said, “One day they will find there is no market for crude oil.”The minister added that the government had taken a decision to increase production of ethanol, which is important for the country. “As this is the time for India to find solutions for import substitutes, the chemical industry must work towards finding the solutions to curb imports of crude oil at rising prices,” he said.The minister also announced the government’s plans to start a pilot project in Mumbai, Navi Mumbai, Pune and Guwahati to run electric buses on methanol derived from coal.

<https://www.firstpost.com/business/country-facing-economic-crisis-due-to-crude-imports-says-nitin-gadkari-blames-ope-countries-for-oil-price-hike-5319661.html> [Edited]

## Hike in gas pipeline tariffs likely to boost FY19 earnings of GAIL, GSPL

The steep increase in pipeline tariffs for GAIL and GSPL, India’s two leading gas transmission companies, could lift their FY19 earnings growth by 5-20 per cent. Gas regulator Petroleum and Natural Gas Regulatory Board (PNGRB) sets tariffs once in five years based on parameters such as utilisation, capital expenditure, and operating expenses incurred on pipelines. Thanks to an upward revision in the assumption of average tariff compared with Street estimates for the next five years due to the recent pipeline tariff, the net present value summation of the current value of earnings of future earnings--of pipelines is expected to increase. This could result in the higher target prices for GAIL and GSPL. CLSA has raised the target price of GAIL and GSPL to Rs 450 and Rs 270, from an earlier target of Rs 435 and Rs 240, respectively. PNGRB increased the transportation tariff of some pipelines of GAIL in the range of 54%-691%, while GSPL’s was increased by 28-119%. For instance, the tariff of the Dabhol-Bangalore pipeline, having a transmission capacity of 20 MMSCMD, was increased to Rs 37.8 per MMBtu, a gain of 54%. GAIL pipelines, for which tariffs have been raised, transport about 18% of total transmission volumes. Higher tariff is applicable for the entire pipeline network of GSPL which has transmission capacity of 42 MMSCMD. The new tariff will be applicable from April 2018. This means revision in tariff could add nearly Rs 500 crore and Rs 325 crore, respectively, to the revenue of GAIL and GSPL for the current fiscal. Three main pipelines slated for tariff revision accounts for nearly 58% of the total gas transmission of GAIL. Also, GAIL’s main pipelines, Hazira-Vijaipur-Jagishpur (old and new), are operating at less than normative rate 75% considered by the regulator to fix tariffs. Hence, any benefit from an increase in volumes until 75%utilisation will entirely be retained by GAIL. The average tariff of GAIL could see a continuous rise in the next three years, while tariff of GSPL will have no upside trigger after the recent revision. The Street is pricing in average tariff for GAIL at Rs 1,428 and Rs 1,578 per MSCM for FY19 and FY20, respectively, for the recent hike in tariff compared with Rs 1,294 in FY18. GSPL’s average tariff is expected to remain at Rs 1,357 per mscm for FY19 and FY20 each. GSPL’s average tariff stood at Rs 1,118 per mscm.

<https://economictimes.indiatimes.com/markets/stocks/news/hike-in-gas-pipeline-tariffs-likely-to-boost-fy19-earnings-of-gail-gspl/printarticle/66037967.cms>

### India can set up 20 Gigafactories for energy storage: Amitabh Kant

Secondly, the future lies in electric mobility. This is going to happen worldwide and if India is able to take the lead in these two things it will take lead globally. In every other sector, we have got in too late in the game but in these two sectors we are exactly where the world is. People may say whatever but we are exactly where the world is. In a public speech, NitiAayog Chief Executive Officer (CEO) Amitabh Kant shared a perspective on the future of India's energy sector and prescribed a few radical reforms for the country to leapfrog to a 9-10 per cent growth rate.

Renewable Energy, India's biggest asset

India's biggest asset is its sun and its renewable energy but this renewable energy cannot be tapped fully without storage and without a huge and massive break-through in our ability to link it with transmission and distribution and make massive improvements. We need to make the cost of production, transmission and distribution of renewable energy fall radically to a level which the world has not seen and deliver it to customers at a price much lower than fossil fuels.

Electric Mobility, different facets

India is a different economy because in India unlike the rest of the world 70% of our vehicles are two-wheelers, 67% of the energy consumed are by two-wheelers, 30% of the emissions are by two-wheelers and therefore the first and foremost challenge is to link batteries with two-wheelers. We currently do not have adequate research in this regard. The challenge is not electric mobility in four-wheelers. It is two-wheelers and we need to find a solution to providing batteries to two-wheelers. If we are able to do retro-fitting in our two-wheelers it will be a massive break-through. The future will be not about purchase of vehicles but about per kilometre usage of vehicles and this transformation will happen much quicker. We recently did a study with Rocky mountain institute which said that irrespective of the fact that we import lithium, nickel and cobalt, almost 85 to 86 per cent of value addition can be done in India. There is a huge potential among young people and oil companies to foray into batteries.

The second key challenge is in three-wheelers. Around 10% of total vehicles are three-wheelers and they contribute a very substantial amount of pollution in India, about 30%. In this segment, there is a huge possibility today in storage batteries as well as swapping batteries. Work is being done in this segment but we need to push the limit on this. Focus needs to be on public transportation, inter-city as well as from city-to-city. Almost 78% of the goods are moved by lorries and railways transports only 22% of the goods. Buses and lorries within the city require CNG and for city-to-city needs we need LNG. Work needs to be done for using CNG within the city and LNG for travelling city-to-city, which is not being done. We need to completely re-frame our oil policy to look at this. If we need to clean up India and provide better life for our citizens, we need to focus on these areas. On electric-mobility for four-wheelers, the latest Morgan Stanley study shows that between 2030 and 2050 every second car that will be sold will be in India and the country will be the biggest driver of electric mobility between 2030-2050. The Rocky Mountain study show that India has the potential to set-up 20 Gigafactories in India. Why are none of our oil companies thinking along these lines -- 20 Gigafactories for batteries and energy storage? The future belongs to storage and batteries and both the world of energy and transportation converge at the point of storage. That is where the future of India lies.

<https://energy.economicstimes.indiatimes.com/news/renewable/india-can-set-up-20-gigafactories-for-energy-storage-amitabh-kant/66128624>

### India will continue to import oil from Iran next month despite US sanctions, says petroleum minister

Union Petroleum Minister Dharmendra Pradhan said Indian companies will continue to import crude oil from Iran next month despite United States' sanctions on Tehran coming into force from November 4. "We do not know if we will get waiver [from US sanctions] or not," Pradhan said while speaking at The Energy Forum in New Delhi. He said that India has its own energy requirements to fulfil. "We will be guided by our national interest," he added. Pradhan said two state refineries have made nominations to purchase Iranian oil in November. The Indian Oil Corporation and Mangalore Refinery and Petrochemicals have ordered a total 1.25 million tonnes of crude. In August, Trump re-imposed economic sanctions against Tehran and said that anyone doing business with Iran would not be doing business with the US. The US expects all countries, including India, to reduce their Iranian oil imports to zero. However, the sanctions are not authorized by the United Nations and India traditionally only enforces sanctions endorsed by the world body. Sanctions against Iran will block payment routes for India through the US dollar. Indian Oil Corp Chairman Sanjiv Singh said options for paying Iran are under discussions. "Even without sanctions also, Iran had been accepting payments in rupee," Singh said, according to PTI. "So let us see how it evolves." Pradhan said he had urged Saudi Arabia's oil minister to keep in mind the interests of oil consuming countries when it came to higher prices. He added that state-run oil companies must also look at taking measures to ease the burden of consumers. "The basic point is that they are all government companies," Pradhan said, according to The Hindu. "Profitability is their motto, but public interest is also their responsibility."

<https://scroll.in/latest/897538/india-will-continue-to-import-oil-from-iran-next-month-despite-us-sanctions-says-petroleum-minister>

### LNG in India – in with the new

India is poised to add a new tranche of LNG import terminals to its established quartet of facilities. The newcomers will start slow but grow big. India is the world's fourth-largest LNG importer. While the 19.22 MMT purchased in 2017 was only 1.3% ahead of the previous year's total, import volumes in 2018 are once again growing strongly. Imports for April-July 2018 reached 7.46 MMT, a 20.3% jump on the same period a year earlier. Utilisation rates at Dahej, the largest of the country's four import terminals with a capacity of 15MMTPA of LNG, have been running at over 100% throughout this year. India's four receiving terminals, which are all located on the country's west coast, are established facilities. The newest of the quartet, Kochi, was commissioned in August 2013. The existing network is about to be joined by at least half a dozen new import terminals over the next few years, three of which are set to be operational before the end of 2018.

The 5-mta Mundra terminal, Gujarat's third LNG receiving facility, is expected to receive its first cargo within the next few weeks. While IOC weighs up its options regarding involvement with Mundra LNG, the opening of its own new 5 MMTPA LNG receiving facility at Ennore in Tamil Nadu state is imminent. As is the case with Mundra LNG, up to 50% of the shareholding in the project is on offer to one or more strategic partners, such as an LNG supplier. Like Mundra, Ennore does not yet have any long-term LNG purchase contracts in place to ensure steady employment for Ennore's regasification capacity. The terminal will depend on spot cargoes initially. IOC is also involved with another Indian east coast LNG scheme at Dhamra and, as is the case with Mundra, Adani Group is the project leader. Like the Adani Group, H-Energy has also set out to develop west and east coast LNG receiving terminals for India. And, as is the case with the Adani initiatives, the start-up of H-Energy's west coast terminal, at the port of Jaigarh in Maharashtra state, is imminent while the east coast project is a few years away from the start of commercial operations. H-Energy expects to process around 2 MMTPA of LNG at Jaigarh in the initial stages. H-Energy's planned east coast terminal, for an offshore location near Digha in West Bengal, would also use an FSRU, although the final arrangement for the facility is still under review. A Q3 2020 start date has been targeted for the Digha terminal. H-Energy has agreed to form a joint venture with K-Line of Japan to provide the required re-gas vessel. H-Energy has made progress with securing an anchor customer for its Digha LNG venture, signing a heads of agreement with North West Power Generation Co Ltd (NWPGL), a Bangladesh Power Development Board-owned utility, for 1 MMTPA of LNG offtake. LNG throughputs at Digha of about 3 MMTPA by 2025 are envisaged. Another supporter of the FSRU approach is Swan LNG. The company is having a 5 MMTPA, 180,000-m<sup>3</sup> FSRU built at Hyundai Heavy Industries and on completion it will be stationed at a purpose-built jetty at Jafrabad to become Gujarat's fourth LNG terminal. Commercial operations are expected to start early in 2020. Mitsui OSK Lines has acquired an 11% stake in the Swan LNG scheme and will operate not only the FSRU but also an existing LNG carrier that has been modified for use at the terminal as a floating storage unit. Swan LNG has already booked 60% of the FSRU's regas capacity. IOC and two other state-owned oil companies – Oil and Natural Gas Corp and Bharat Petroleum Corp – each plan to import 1 mta of their own LNG and pay Swan a tolling fee for processing it.

[https://www.lngworldshipping.com/news/view,lng-in-india-in-with-the-new\\_54423.htm](https://www.lngworldshipping.com/news/view,lng-in-india-in-with-the-new_54423.htm)

### French energy giant Total in talks to buy stake In Adani's LNG, city gas projects

The French firm is keen on investing in fast growing gas market in India and finds Adani a suitable vehicle as it owns the crucial downstream infrastructure, sources said. French energy giant Total SA is in talks to buy up to half of Adani Group's stake in LNG projects in Gujarat and Odisha, an under-construction LPG import facility and in its city gas projects, sources privy to the development said. The French firm is keen on investing in fast growing gas market in India and finds Adani a suitable vehicle as it owns the crucial downstream infrastructure, they said. Adani holds 25 per cent stake in just-completed 5 MMTPA liquefied natural gas (LNG) import terminal at Mundra. It is also building a similar capacity LNG import terminal at Dhamra in Odisha at a cost of Rs 51 billion. Sources said Total is in talks to buy half of Adani's stake in the two terminals. It is also looking at buying a 50 per cent stake in under-construction

LPG import terminal that Adani is building at Mundra in Gujarat as well as a stake in Adani's flourishing city gas distribution projects, the sources said, adding that a preliminary pact may be signed this week during the visit of Total CEO Patrick Pouyanne to India. While the Mundra LNG terminal has Gujarat State Petroleum Corp (GSPC) as the lead partner, Adani is building a new LPG import facility at the same port with a total capacity to 3.56 million tonnes per annum. The LPG terminal is to be completed by next month. Sources said Total is looking at buying half of Adani's stake all the CGD networks. The development comes weeks after Total announced its exit from Royal Dutch Shell-operated Hazira LNG terminal in Gujarat. It sold its 26 per cent stake in the project to Shell. Total had in March 2004 picked up 26 per cent stake in the 2.5 million tonnes a year Hazira liquefied natural gas import terminal in Gujarat. The terminal capacity was later doubled to 5 million tonne. Hazira LNG terminal was commissioned in 2005 and expanded to 5 million tonnes in 2013. Shell held

the remaining 74 per cent stake in the company. Total has signed an agreement to sell 0.5 million tonne LNG per year to Shell over five years, on a delivery basis to supply the Indian and neighbouring markets. The deliveries will be sourced from Total's global LNG portfolio and are expected to begin in 2019.

<https://www.indiatvnews.com/amp/business/news-french-energy-giant-total-in-talks-to-buy-stake-in-adani-s-lng-city-gas-projects-471916>

**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.**

### Modi clinches deal with Putin for joint Arctic LNG development

Indian Prime Minister Narendra Modi announced an agreement with Russian President Vladimir Putin to jointly develop a LNG project on the Arctic shelf, in a statement following a summit between the two leaders.

The joint statement said, "The two sides acknowledged the interest of Russian and Indian companies in cooperation in the field of LNG and welcomed the commencement of supply of LNG under the long-term contract between Gazprom Group and GAIL India Ltd." The two governments also expressed support to companies from both sides "for development of cooperation and exploring opportunities for joint development" of oil fields in Russian territory, including on the Arctic shelf, and projects on the shelf of the Pechora and Okhotsk Seas. Securing energy sources is a critical issue for India, which will need more power to support future economic growth. Calling the civil nuclear cooperation an important component of their strategic partnership, the joint statement said India and Russia had also decided to further explore the possibilities of closer cooperation on hydro-electric and renewable energy sources. The annual bilateral summits, which started in 2001, have given a "new energy" to the "special and privileged strategic" ties between the two countries, Modi said.

[Source: LNG Global \[Edited\]](#)

## NATURAL GAS/ TRANSNATIONAL PIPELINES/ COMPANIES/ OTHERS

### China's top gas field to produce record amount of gas this year

China's Changqing oil and gas field, operated by state energy giant PetroChina, is expected to produce record amount of natural gas this year exceeding 38 BCM, as more wells were brought online, its parent company CNPC said on Monday, October 1. Changqing, in northern China, the largest gas producer in the country, has nearly 11,000 wells in production by late September, after over 100 new wells started pumping, CNPC said on its news website. At 38 BCM, the output at Changqing makes up about a quarter of China's total gas production. State oil and gas firms have been stepping up domestic production as well as imports to be prepared for another winter of strong demand growth of the cleaner burning fuel. The higher domestic production comes after a call by Chinese President Xi Jinping to boost national energy security.

<https://www.hellenicshippingnews.com/chinas-top-gas-field-to-produce-record-amount-of-gas-this-year/>

### The buy Canada trade is on with USMCA deal clinched, LNG on way

Canadian assets may finally begin to feel some love. A new trade deal between U.S., Mexico and Canada, news that a group led by Royal Dutch Shell Plc are set to move ahead with a liquefied natural gas project on the country's west coast, and a takeover offer for a Canadian energy company are giving the coun-

try's stock market and currency the best outlook they've had in months. "This is very upbeat news, there was a lot of NAFTA uncertainty weighing on economy, stocks, with equities underperforming," Michael Gregory, deputy chief economist at Bank of Montreal, said in a phone interview. Economic activity will probably pick up and the Bank of Canada is likely to tighten more than it otherwise would have, Gregory said. The new U.S.-Mexico-Canada Agreement, or USMCA, covering a region that trades more than \$1 trillion annually, gives the U.S. improved access to Canada's dairy market, stronger intellectual property provisions, and includes tighter rules of origin for auto production, according to two senior Trump administration officials who spoke to reporters on condition of anonymity. Auto company suppliers were among the biggest gainers on the Canadian stock index with Martinrea International Inc. up as much as 18%, Linamar Corp. advancing 13% and Magna International Inc. jumping 10 percent in early trading. Bank of Canada Governor Stephen Poloz had already been expected to boost the central bank's key lending rate by a quarter point to 1.75% at the next meeting on Oct. 24. Beyond that, the trade deal also raises the possibility the economic could handle more than the two rate increases that had been expected next year, according to economists at some of the country's largest banks.

<https://www.hellenicshippingnews.com/the-buy-canada-trade-is-on-with-nafta-deal-clinched-lng-on-way/> [Edited]

### Egypt halts gas imports after final shipments arrived - minister

Egypt will stop importing natural gas after its final liquefied shipments arrived last week, Petroleum Minister Tarek El Molla said on Saturday, September 29. Earlier this year El Molla said Egypt would stop importing LNG by the end of the 2017/18 fiscal year as it speeds up production at recently discovered gas fields. "With the last LNG shipments to Egypt last week, we announce a halt on gas imports," El Molla said. He did not provide details on the number of shipments Egypt had received this year. Egypt aims to be a regional hub for the trade of LNG after a string of major discoveries in recent years, including the giant Zohr offshore gas field which holds an estimated 30 trillion cubic feet of gas. The country's production of natural gas this month reached 6.6 billion cubic feet per day, compared with 6 billion cubic feet per day in July. Production has been growing steadily since the field began operating in December. El Molla said in January the country would save \$250 million per month by no longer importing LNG.

<https://www.hellenicshippingnews.com/egypt-halts-gas-imports-after-final-shipments-arrived-minister/>

## The next cycle of LNG investments is set to start in Canada

The next LNG investment cycle may be primed for a liftoff. Royal Dutch Shell Plc and its partners are set to announce a final investment decision on their C\$40 billion (\$31 billion) LNG terminal in western Canada as early as next week, Bloomberg reported. This would be the first FID for a greenfield, onshore project since Corpus Christi LNG in May 2015, according to Fauziah Marzuki, an analyst at Bloomberg NEF. "We think 2019 could be the biggest year of LNG FIDs ever," Nicholas Browne, an analyst with Wood Mackenzie Ltd., said by email. The decision may be the start of a wave of investments for major gas export projects after a supply glut and a price collapse forced the three-year hiatus. Booming demand growth means that 11 projects, including LNG Canada, are likely to receive FID by the end of 2019, according to BNEF. "The sanctioning of LNG Canada would mark a potential turning point in the LNG market, signaling the industry's appetite to invest has returned," Saul Kavonic, Credit Suisse Group AG's director of Asia energy research, said by email. "Even new large scale greenfield projects are back on the agenda, after a dearth of project FIDs over the last few years." LNG Canada's decision was put off twice in 2016, but the outlook for LNG has brightened. Demand is expected to grow rapidly due to an uptick in consumption from Asian nations, led by China. The market, which had been oversupplied for the last few years, is seen flipping to a deficit as soon as 2022 absent new projects, according to Sanford C. Bernstein & Co. The LNG Canada investors — Shell, Mitsubishi Corp., Malaysia's Petrolia Nasional Bhd., PetroChina Co. and Korea Gas Corp. — are set to make a final decision soon, and preparations are underway for an Oct. 5 announcement and event in Kitimat, British Columbia, the site of the proposed project, said people with direct knowledge of the activities, who asked not to be identified. The situation is fluid and timing could change, the people said. With the capacity to eventually export as much as 26 million tons per year, primarily to Asia, it would also be one of the world's largest LNG terminals. The progress in Canada contrasts with potential speed bumps in the U.S., as a burgeoning trade war with China is seen potentially choking off investments from the Asian nation, the world's fastest-growing gas consumer. Beijing earlier this month slapped a 10 percent tariff on American LNG imports, which is seen shifting Chinese investments to projects in other countries including Canada, Australia, Qatar and Russia. Several projects are poised to take FIDs over the next two years, including Russia's Arctic LNG, Golden Pass and Calcasieu Pass in the U.S., as well as four units in Qatar and at least one plant in Mozambique, according to Wood Mackenzie's Browne. While LNG Canada hasn't signed any major offtake agreements yet which is uncommon for a plant nearing FID it isn't seen impeding investment.

<https://www.hellenicshippingnews.com/the-next-cycle-of-lng-investments-is-set-to-start-in-canada/>

## Global LNG-Prices ease further on tepid demand, healthy supply

Asian spot liquefied natural gas (LNG) prices have further receded this week from multi-year seasonal highs due to lacklustre demand from well-stocked Asian utilities and healthy supply. Spot prices for November LNG-AS delivery in Asia have fallen to as low as \$11.10 per MMBtu, down 40 cents from the week before, industry sources said. Cargoes for the second half of October are likely valued at \$10.70 to \$11.00 per MMBtu. Traders said demand had declined in the period between summer and winter and that Asian utilities were not yet ready to buy for the winter. More cargoes are heading to Europe, another indicator of low demand from Asia, and supply is healthy. Rising crude oil prices and spot demand from Japan, South Korea and China ahead of the peak winter heating season had pushed LNG prices to seasonal highs at the start of this month. However, Asian utilities seem well-stocked going into October and November. Japan is expected to experience warmer-than-average temperatures from October to December, forecasts show. Nuclear availability in Japan could also improve as utility Shikoku Electric Power Co moves closer to restarting its only operable nuclear reactor, after a court rejected a lawsuit that would

have prevented operation of the nuclear unit. However, parts of South Korea and China are expected to have temperatures below the seasonal norm, which could help lift demand in coming weeks.

Britain, Belgium and the Netherlands expect at least seven LNG tankers over the next two weeks or so, more than in previous weeks and a sign that Asian buyers are well-stocked. The UK gas price for November is at 76.10 pence per therm but could go up again due to a colder-than-expected week ahead. Further gains could result in the Asian spot price having to rise to keep a premium to northwest Europe to attract volumes from the Atlantic basin, Thomson Reuters analysts said. Supply is quite robust even though some maintenance is going on at LNG plants. U.S. Dominion Energy Inc started a scheduled three-week maintenance outage on Sept. 21 at the Cove Point LNG export terminal in Maryland.

Asian spot LNG prices eased slightly over the past week as healthy supplies going into the northern hemisphere's autumn season countered upward pressure from a bullish oil market. Spot prices for November delivery LNG-AS dipped by 10 cents to \$11 per MMBtu, industry sources said.

<https://www.hellenicshippingnews.com/global-lng-prices-ease-further-on-tepid-demand-healthy-supply/>

## Adriatic LNG offers peak shaving service: a tender has been issued to identify parties available to supply LNG

Adriatic LNG, the company that operates the regasification terminal located off the Veneto coastline, in the northern Adriatic Sea, has published on its website, a tender for next winter's Peak Shaving service to supply one LNG cargo with quantities between a minimum of 60,000 and a maximum of 70,000 cubic meters. The LNG will have to be unloaded at the Terminal in the second half of October 2018. This year too, the Italian Ministry of Economic Development has selected the terminal managed by Adriatic LNG for the Peak Shaving service as a measure that is part of the "Emergency Plan" aimed at facing possible emergencies during the thermal year 2018-19 and therefore guaranteeing the security of supplies to the national gas system. Emergencies that can significantly affect supplies include a reduction or interruption of one or more supply sources or an exceptional peak of gas demand. Peak Shaving is aimed at making available to SNAM Rete Gas, in the first quarter of 2019, previously stored gas, in the form of LNG, in order to meet possible peaks in demand during wintertime.

<https://www.hellenicshippingnews.com/adriatic-lng-offers-peak-shaving-service-a-tender-has-been-issued-to-identify-parties-available-to-supply-lng-2/>

### **Qatar Petroleum adds train to LNG expansion**

Qatar Petroleum (QP) is adding a fourth liquefaction train to the LNG expansion project it announced in 2017. When the expansion is complete, Qatar's LNG production capacity will be 110 MMTPA, a roughly 43% increase from the current 77 MMTPA. With the addition of the fourth train, the expansion will produce about 32 MMTPA of LNG, 4,000 tonnes/day of ethane, 260,000 b/d of condensate, 11,000 tonnes/day of LPG, and about 20 tonnes/day of pure helium. The fourth train will be included in ongoing front-end engineering and design on Trains 1-3. QP based the decision to add a fourth liquefaction train on positive results of recent North Field appraisals. Chiyoda Corp. is conducting FEED work for Qatar's North Field Expansion Project. QP expects to award the engineering, procurement, construction, and installation contract for the project's offshore wellhead jackets by yearend and begin development drilling soon. "Having already taken the decision to compete for LNG market share, Qatar is doubling down, making sure that it will be fully able to benefit from LNG market upside," he said. "Further, one of Qatar's major competitors for new supply development—US LNG—is currently engaged in a tariff war with China, the world's largest growth market for LNG. Qatar could

see this as an opportunity. It has recently signed a contract doubling the volumes that it will sell to PetroChina and is likely to be looking at further opportunities to supply the Chinese market."

<https://www.ogj.com/articles/print/volume-116/issue-10a/general-interest/qatar-petroleum-adds-train-to-lng-expansion.html> [Edited]

### **LNG Canada to relaunch its \$40 mn project**

"The single largest private sector investment in Canadian history" will create \$22 billion in revenues over the next 40 years. Royal Dutch Shell, Mitsubishi, Petronas, PetroChina and Korean Gas took the decision on last Tuesday to build the LNG export facility in Kitimat, British Columbia. The project was initially planned for 2016 but the joint venture decided to postpone it indefinitely due to the instability of the natural gas market. The recent drop in the price of natural gas encouraged the five companies to bring the project back to life. Each partner will be responsible for providing its own natural gas supply as well as for marketing its own share of LNG. The export facility is expected to be fully running within 5 years, reports CBC News. A new 600 kms pipeline will deliver the gas natural from North (Dawson Creek) down to South (Kitimat), where the gas will be liquefied, will also be set up. British Columbia is projecting about

\$23 billion in public revenue over the next 40 years. "It is a vote of confidence in a country that recognizes the need to develop our energy in a way that takes the environment into account, and that works in meaningful partnership with Indigenous people", Prime Minister Justin Trudeau said.

<https://www.petrolplaza.com/news/9416>

### **Russia's Putin says U.S. LNG uncompetitive in Europe**

Russia's President Vladimir Putin said on Wednesday that liquefied natural gas (LNG) from the United States was uncompetitive in Europe. Putin said at the Russian Energy Week in Moscow that U.S. LNG was 30 percent more expensive compared to Russian gas that Moscow supplies to Europe via its pipelines.

<https://www.hellenicshippingnews.com/russia-putin-says-u-s-lng-uncompetitive-in-europe/>

### **Shell gives green light to invest in LNG Canada**

Shell (40%), PETRONAS (25%), PetroChina (15%), Mitsubishi Corporation (15%) and KOGAS (5%) have taken a Final Investment Decision (FID) to build the LNG Canada export facility in Kitimat, British Columbia. Each joint venture participant will be responsible for providing its own natural gas supply and will individually offtake and market its own LNG. The FID is for two trains with the first LNG expected before the middle of the next decade. The project will initially have an estimated capacity of 14 MMTPA, with the potential to expand to four trains in the future.

Shell's 40% share of the project's capital cost is within the company's current overall capital investment guidance of US\$25-\$30 billion per year. "We believe LNG Canada is the right project, in the right place, at the right time," said Ben van Beurden, Chief Executive Officer, Royal Dutch Shell. "Supplying natural gas over the coming decades will be critical as the world transitions to a lower carbon energy system. Global LNG demand is expected to double by 2035 compared with today, with much of this growth coming from Asia where gas displaces coal. LNG Canada is well positioned to help Shell meet the growing needs of customers at a time when we see an LNG supply shortage in our outlook. With significant integration advantages from the upstream through to trading, LNG Canada is expected to deliver Shell an integrated internal rate of return of some 13%, while the cash flow it generates is expected to be significant, long life and resilient." LNG Canada is a long life asset that will initially export LNG from two processing units or "trains" totaling 14 MMTPA, with the potential to expand to four trains in the future. It is advantaged by access to abundant, low-cost natural gas from British Columbia's vast resources and the relatively short shipping distance to North Asia, which is about 50% shorter than from the US Gulf of Mexico and avoids the Panama Canal. The LNG export facility will be constructed using proven industry technology on a large, partially developed industrial site with an existing deep-water port, roads, rail and power supplies. The project was planned and designed by working closely with local communities, First Nations and governments to ensure sustainable development was considered in every aspect of the project. For example, the project has been designed to achieve the lowest carbon intensity of any LNG project in operation today, aided by the partial use of hydropower.

Source: LNGGlobal/

<https://www.hellenicshippingnews.com/shell-gives-green-light-to-invest-in-lng-canada/> [Edited]

### Qatar, Japan companies in talks to boost energy ties

Qatar Petroleum president and chief executive Saad Sherida al-Kaabi began a short working visit to Japan, and held talks with senior executives of major Japanese companies on enhancing relations and co-operation in the energy field. The two-day talks focus on a number of issues related to developing bilateral relations and co-operation with various Japanese customers and partner companies, particularly in the liquefied natural gas (LNG) trade. They include high-level discussions with chairmen, presidents, and senior executives of several Japanese energy, power generation, and shipping corporations and companies as well as financial institutions such as Mitsubishi Corporation, JGC Corporation, JERA, Cosmo Energy Holdings, Cosmo Oil, Mitsui, Itochu, Mizuho Bank, Idemitsu, Mitsubishi UFJ Financial Group, Iwatani Corporation, Tohoku Electric, Kansai Electric, Chubu Electric, Chiyoda, LNG Japan, Sumitomo Mit-

sui Banking Corporation, and Marubeni, in addition to a number of shipping companies. Al-Kaabi hosted Tuesday the annual Qatargas reception held in honour of its Japanese partners and customers. He highlighted Qatar's commitment to its Japanese partners in ensuring a reliable and safe supply of their energy needs, particularly LNG. He also expressed hope for more future co-operation and fruitful partnerships. "Our special relationship with Japan runs deep in every aspect of our business and our co-operation. We are pleased and honoured to hear that the satisfaction of our Japanese partners has always been driven by our reliability and our commitment," al-Kaabi said. The reception was attended by the ambassador of Qatar to Japan, members of the Arab and international diplomatic corps, the mayor of Tokyo, government officials, and senior executives from the energy and banking sectors, a number of Qatari students in Japan, and about 500 invited guests.

[Source: LNG Global](#)

### LNG supply glut 'is still coming'

Several new LNG export plants are getting close to start-up.

The glut in global LNG supply feared for this year has been delayed rather than



eliminated and is still likely to hit the market by late 2019 or early 2020, bringing with it a softening of prices that may hit export revenues but would be welcomed in the east coast domestic market.

[Source: LNG Global](#)

## INTERNATIONAL: NG/LNG UTILISATION- ROADWAYS

### EU allocates nearly €700M to build clean fuel mobility infrastructure

The European Commission has proposed to invest €695.1 million, through the Connecting Europe Facility (CEF), in 49 key projects to develop sustainable and innovative transport infrastructure in Europe across all transport modes. Selected projects will provide infrastructure enabling greater use of alternative fuels and vehicles, modernize Europe's air traffic management, and further develop waterborne and rail transport.

EU Commissioner for Transport Violeta Bulc said: "These projects are concentrated on the strategic sections of Europe's transport network to ensure the highest EU added-value and impact. This will allow us to further accelerate our transition to low-emission mobility across Europe, and firmly deliver on the EU's agenda for jobs and growth. We expect it to unlock a total of €2.4 billion of public and private co-financing." Over €250 million of CEF funding will be invested in 26 projects dedicated to developing new technologies in transport notably promoting alternative fuels, such as: greening the maritime transport link between Swinoujscie port in Poland and Ystad port in Sweden; deploying hydrogen public transport infrastructure in Denmark, the UK and Latvia; building a network of bio-LNG stations on roads connecting southern Spain and eastern Poland, via France, Belgium, the Netherlands and Germany; developing zero-emission public transport services for Amsterdam airport. An additional €450 million is made available to finance alternative fuel infrastructure through the InnovFin Energy Demo Projects (EDP) and CEF Debt Instrument. They are managed by the European Investment Bank.

<http://www.ngvjournals.com/s1-news/c1-markets/eu-allocates-nearly-e700m-to-develop-low-emission-mobility-infrastructure/>

### Repsol advocates natural gas a key energy source for decarbonization

Repsol Chairman Antonio Brufau opened the fourth edition of the company's Energy for Europe Conferences in Brussels, attended by European Commissioner for Internal Market, Industry, Entrepreneurship and SMEs, Elżbieta Bieńkowska and other members of the European Parliament. During his address, Brufau emphasized the need for regulation that facilitates the energy transition while maintaining the competitiveness of Europe's energy industry. Brufau reiterated his advocacy of natural gas as the cornerstone of achieving global CO2 emission reduction goals in the short term, making it a key energy source, along with renewables, for replacing coal in electricity generation. Brufau also stressed that it is essential to continue innovating and developing new technologies through sustainable funding, to achieve an energy transition that will lead to a more efficient, dynamic, and environmentally-sustainable model. "We want in Europe a smart, clean and competitive industry, which can deliver sustainable growth and quality jobs", said Elżbieta Bieńkowska. "Innovation is crucially important in all sectors, also to turn the challenges of reducing emissions into opportunities."

<http://www.ngvjournals.com/s1-news/c1-markets/repsol-chairman-advocates-natural-gas-a-key-energy-source-for-decarbonization/>

## Spanish energy company expands NGV refueling network in Madrid

AliaraEnergía, an energy services company owned by the same shareholder as Madrileña Red de Gas, consolidates its commitment to CNG by opening three new refueling stations in the districts of Latina, Fuencarral-El Pardo and Usera in Madrid. These openings are part of the company's strategy aimed at the optimization of resources, savings, efficiency and the improvement and reduction of emissions, fundamentally supported by the use of natural gas as a vehicle fuel. "Environmental responsibility is everyone's commitment. Madrid is an exemplary and leading city in the use of CNG in its public service vehicles, specifically in the EMT buses and the trucks that collect urban waste. The opening of these three new filling stations facilitates the use of environmentally-friendly alternatives to citizens and private companies," said the General Director of Sustainability and Environmental Control of the City of Madrid José Amador Fernández Viejo. The inauguration of these three new stations reinforces AliaraEnergía's commitment to environmental responsibility. Continuing with its growth interests, AliaraEnergía plans to build another four CNG refueling stations within the Community of Madrid throughout 2019, an initiative aligned with Madrileña Red de Gas' commitment to the supply of natural gas as a vehicle fuel. In this extremely encouraging scenario for natural gas vehicles and sustainable mobility, AltFuels Iberia 2019 will take place on 11-14 June at IFEMA Trade Center, Madrid. It will be an event consisting of first level conferences and exhibition of vehicles of all kinds, refueling stations, components, plants, road and marine engines, as well as the entire universe of the alternative fuels industry with the latest technological developments, multiple options for networking, business and new advances. For more information, please contact [info@altfuelsiberia.com](mailto:info@altfuelsiberia.com).

<http://www.ngvjournal.com/s1-news/c4-stations/spanish-energy-company-expands-natural-gas-refueling-network-in-madrid/>

## Pilot test with heavy duty CNG trucks successfully completed in Colombia

The Colombian Association of Natural Gas (Naturgas) celebrated the technical and environmental results obtained in the pilot project that put into operation natural gas trucks on the country's highways. Thanks to an alliance signed by Surtigas and the cargo operator OPL, tests were conducted on the most demanding mountain roads in Colombia,



covering more than 50,000 kilometers with consumption of 28,000 cubic meters of CNG. The tractors managed to reduce CO2 emissions by 30% and fuel costs by more than 35%, supporting the environmental and economic benefits of using natural gas. "In addition, it is proven that the vehicles that run on this fuel have an adequate performance even in the rocky areas of Colombia," explained the president of Naturgas Orlando Cabrales Segovia. Promigas, Surtigas and OPL also expressed that the use of CNG helps fulfill the commitment to reduce greenhouse gas emissions and gives assistance to Colombian transporters who need greater competitiveness and achieve savings in operational costs. In addition to the more than 700 NGVs that circulate in the country, more than 10 heavy-duty trucks and 10 medium-duty trucks powered by natural gas are expected to hit Colombian roads in the first quarter of next year.

<http://www.ngvjournal.com/s1-news/c3-vehicles/pilot-test-with-heavy-duty-cng-trucks-successfully-completed-in-colombia/>

## U.S. Department of Transportation awards \$366.2M to renew bus fleets

U.S. Transportation Secretary Elaine L. Chao announced that the Federal Transit Administration (FTA) will award \$366.2 million in grants to improve the safety and reliability of America's bus systems and enhance mobility for transit riders. A total of 107 projects in 50 states and territories will receive funding from FTA's Buses and Bus Facilities Infrastructure

Investment Program. "These grants will help rebuild and modernize bus systems across the country for greater safety," said Chao. The funding supports projects to replace, rehabilitate, and purchase buses and related equipment, as well as projects to purchase, rehabilitate, and construct bus-related facilities. The projects selected include:

- In California, the city of Visalia will receive \$569,595 in funding to purchase new CNG replacement buses, which will allow the city to continue to provide shuttle service from Visalia to Fresno, and Los Angeles County Metropolitan Transportation Authority (LACMTA) will get \$5,457,098 to replace diesel buses with CNG buses in Los Angeles County. The new buses will help the agency replace aging buses that have exceeded their useful life.
- Moreover, Miami Dade County will receive \$11,000,000 to replace diesel buses with CNG buses throughout Metrobus' fleet. The new buses will replace older model diesel buses that have met or exceeded their useful life. Metrobus provides the primary form of public transportation for riders throughout Florida's most populous area.
- The Transit Authority of the City of Omaha (Metro) will receive \$6,685,000 to purchase associated infrastructure for CNG and electric buses. This will help Metro improve environmental efficiency with its alternative fuel fleet and enhance employee safety and productivity throughout its facilities. Finally, the Utah Transit Authority will obtain \$11,000,000 for the construction of maintenance and operations buildings for the Depot District Clean Fuel Technology Center (DDTC) in Salt Lake City. The project will allow the service and maintenance of natural gas buses to be centralized.

<http://www.ngvjournal.com/s1-news/c3-vehicles/u-s-department-of-transportation-awards-366-2m-to-renew-transit-system/>

## The EU calls Baleària's project of switching to LNG engines in five ships in its fleet "excellent"

The European Union has classified the project submitted by Baleària for the call for CEF (Connecting Europe Facility) funds as "excellent". Its aim is to switch to liquid natural gas (LNG)-powered engines in five of its ferries. The European Commission has granted the shipping company a subsidy of a maximum of €11,797,424 (of the 15 million requested) which accounts for 20% of the investment Baleària will make for these five retrofits, which will be undertaken starting at the end of this year and through 2021. The Chairman of Baleària, Adolfo Utor, reflected his satisfaction with this award, which supports the shipping company's main challenge: to implement the use of liquified natural gas in its fleet over the next few years as it's the most environmentally-friendly fossil fuel. The evaluating commission also considered that the project is ready for implementation as "it is technically very developed and the funding is guaranteed". Besides emphasizing the support of three banks ready to grant the necessary loan, it indicates that "the cost-benefit analysis is based on a solid methodology and is exhaustive". Finally, it mentions that it already has practically all the necessary national, regional and

local approvals. It is worth remembering that as of 2020, shipping companies operating within the European Union and the exclusive economic area will have to use low-sulphur fuels. The use of LNG in the five ships to be fitted with new engines (Nápoles, Abel Matutes, Sicilia, Bahama Mama and Martín i Soler) is expected to reduce more than 45,000 tons of CO<sub>2</sub> annually as well as 4,400 tons of nitrogen oxide (NO<sub>x</sub>) in addition to fully eliminating sulphur and particle emissions. The first of the ships to be fitted with a new engine will be the Nápoles as of mid-November.

<https://www.hellenicshippingnews.com/the-eu-calls-balearias-project-of-switching-to-lng-engines-in-five-ships-in-its-fleet-excellent/>

## Shipping costs for liquefied natural gas expected to rise

Liquefied natural gas shipping costs will increase, driven by rising charter rates, higher fuel costs and the growth in inter-basin trade flows, according to estimations by Fitch Solutions Macro Research. "From 2019, the increase in tanker capacity looks set to lag the growth in demand. Industry projections show a mounting capacity deficit over the next five years, with a global deficit in LNG carriers in the range of 50 to 60 vessels forecast for 2022," the report obtained by Trend said. The shipping sector is highly cyclical, and a structural deficit

and accompanying rise in charter rates will incentivize investment in new-build capacity, according to the company. "Due to the relatively long lead times involved [typically ranging from two to five years], this capacity will not hit the market until the early to mid-2020s. In the interim, charter rates will roam higher as demand increasingly outstrips supply," the report said. Fitch Solutions says that besides rising charter rates, higher fuel prices and inter-basin trade growth will combine to drive shipping costs higher over the coming years. LNG tankers which rely on high-sulphur fuel oil will have to switch to low-sulphur fuel oil or gas oil to comply with the new regulations, Fitch Solutions says. Another factor influencing shipping costs will be the change in trade flows, according to the report. "With demand growth heavily concentrated in Asia-Pacific and supply growth shifting to North America, we forecast growing regional imbalances in the global LNG market. Our data indicate that Asia-Pacific will contribute over two thirds of global demand growth over the next five years, but provide little more than 10% of the growth in supply. An increasing number of cargoes will have to be pulled from the Atlantic-to-Pacific basin, in order to offset this imbalance," the company said.

<https://www.ttnews.com/articles/shipping-costs-liquefied-natural-gas-expected-rise>

## Shell and Sovcomflot achieve several LNG bunkering 'Firsts' in Rotterdam

Shell recently delivered its first ship-to-ship bunkering of cleaner burning LNG fuel from its specialised LNG bunker vessel, Cardissa, paving the way for many other operations from the vessel. This operation marked a number of other firsts, as it fuelled the Sovcomflot vessel Gagarin Prospect, the world's first LNG-powered Aframax tanker. It was also the first ship-to-ship LNG bunkering to take place in the Port of Rotterdam. The fuelling of the Gagarin Prospect with LNG is the first operation under the LNG fuel supply agreement between Shell and Sovcomflot signed in 2017. This pioneered the expansion of LNG fuel into the tanker industry and, in general, for vessels not tied to fixed routes or set timetables. Grahaeme Henderson, Vice President, Shell Shipping and Maritime, said: "This exciting first for the Cardissa is a tangible example of Shell driving LNG as a cleaner burning and viable fuel for the shipping industry. It is highly appropriate that we celebrate this first with Sovcomflot and their first LNG powered tanker, which we also happen to charter." Sergey Frank, President & CEO of Sovcomflot, said: "Together with Shell, SCF Group shares a determination to reduce the environmental impact of energy shipping. This was the genesis of our 'Green Funnel' project, and since April 2015 we have been working very closely with Shell on every aspect of it to bring the project to successful fruition. The first tangible result was the introduction into service of the world's first Aframax tanker to use LNG as her primary fuel – Gagarin Prospect. Her arrival and inaugural LNG bunkering, by Shell's tanker Cardissa heralds a new age of more sustainable and environmentally responsible shipping – especially in the high traffic areas of the Baltic and North Seas, where this new class of 'Green Aframax' will operate. We are proud to partner with Shell and look forward to a bright and cleaner future, as more and more vessels opt for LNG as their primary fuel, and the associated LNG bunkering infrastructure is established in key ports worldwide." Allard Castelein, CEO Port of Rotterdam, said: "The Port of Rotterdam Authority highly values and actively supports a more sustainable transport sector. As a result of cooperation with many parties like Shell and Sovcomflot we are leading the way in this transition. Compared to other fuels, LNG offers significant benefits to local air quality and contributes to the reduction of greenhouse gasses. We welcome the Gagarin Prospect and her sister vessels to our port and look forward to many more secure and efficient LNG bunker operations." Shell continues to build a robust marine LNG supply chain across the world's main shipping lanes. Sovcomflot and other industry leading ship owners and operators are increasingly choosing LNG fuel over traditional marine fuels to respond to sulphur and nitrogen oxide emissions regulations, including the IMO's recent decision to implement a global 0.5% sulphur cap in 2020.

<http://www.ngvglobal.com/blog/shell-and-sovcomflot-achieve-several-lng-bunkering-firsts-in-rotterdam-1005>

## Australian Maritime Industry plans integration of LNG bunkering standards

In order to meet the new International Maritime Organisation (IMO) environmental regulations including reductions in sulphur emissions in 2020 the maritime industry in Australia is planning to adopt a greenhouse gas reduction (GHG) strategy which calls for a 50% cut to shipping GHG emissions by 2050. The initiative arose out of a Gas Energy Australia (GEA) workshop and aims to establish LNG bunkering infrastructure at major ports. Australia is highly dependent on an efficient and compliant maritime industry: a ship berths in Australia every 17 minutes and over 2,500 tonnes of goods and product either are imported or exported every minute from an Australian port. LNG offers a solution to meeting the new IMO regulations with lower emissions, better economy and improved public health. With significant domestic LNG production available and commercial LNG bunkering now taking place in Fremantle and Pilbara Ports, Australia is well placed to use LNG as a maritime fuel to comply with these regulations. "Australia needs to facilitate LNG bunkering" was the message from GEA CEO Mr John Griffiths when GEA hosted a workshop in Perth on 17 September attended by representatives of GEA members BOC, EVOL LNG, APA Group and NGV Group. "Adopting a recognised international standard and recognising the interfaces with existing Australian LNG operational standards is important to allow industry to step up and provide infrastructure effectively and efficiently to bunker Australian and international shipping in Australian ports" said Mr. Griffiths. GEA's next port of call will be reviewing the project proposal in light of workshop feedback and discussing the proposal with the Australian Maritime Safety Authority (AMSA).

<http://www.ngvglobal.com/blog/australian-maritime-industry-plans-integration-of-lng-bunkering-standards-1002> [Edited]

## Panama Canal transits four LNG vessels in oneday

The Panama Canal reaches a new milestone today after the successful transit of four liquefied natural gas (LNG) ships with beams of up to 160 feet (49 meters) in a single day through the Neopanamax Locks. With this milestone, the Panama Canal breaks the record set on April 17,

2018, when three LNG vessels transited through the waterway on the same day. Today, Ribera del Duero Knutsen with a cargo capacity of 173,000 m3 and Maran Gas Pericles with cargo capacity of 174,000 m3 transited northbound, while Torben Spirit with a cargo capacity of 174,000 m3 and Oceanic Breeze with a cargo capacity of 155,300 m3 transited southbound, facilitating international trade between customers in South Korea, Japan, Chile and the US Gulf Coast. As a result of experience acquired with the transit of more than 4,200 Neopanamax vessels, the Panama Canal introduced changes to its Transit Reservation System to offer two slots per day to LNG vessels. These modifications have allowed to optimize the Expanded Canal's capacity, in order to in order to meet specific demands such as the transit of four

LNG vessels today. The modifications announced in August 2018 and that came into effect today also allow lifting certain daylight restrictions for LNG vessels, as well as meetings between LNG vessels in opposite directions in Gatun Lake. "The transit of these four LNG ships in just one day demonstrates the Panama Canal's commitment to maximizing the efficiency, flexibility and reliability of its service to all customers," said Panama Canal Administrator Jorge L. Quijano. With these modifications effective today, the Panama Canal reinforces its capacity to handle the growing LNG transit demand coming from the United States once the different export terminals begin operation.

<https://www.hellenicshippingnews.com/panama-canal-transits-four-lng-vessels-in-one-day/>

## South Korea: Shipbuilders are starting to sign some big orders

Korean shipbuilders are starting to get orders for big ticket ships like liquefied natural gas tankers. Hyundai Heavy Industries (HHI) inked a \$210 million order from Norwegian shipper Knutsen NYK Offshore Tankers (KNOT) to build two shuttle tankers for delivery after June 2020, the company said Monday. Shuttle tankers transport oil from offshore oil fields. The Korean company will start building the tankers from next year at its headquarters in Ulsan. With that deal, the three shipbuilders under the HHI Group – HHI, Hyundai Mipo Dockyard and Hyundai Samho Heavy Industries – achieved 79% of the \$13.2 billion sales target they set for this year. In the first nine months of this year, the three affiliates signed orders to build 129 ships worth \$10.4 billion, a 60% increase year on year. According to HHI, it is the highest sales record since 2013, when they inked orders for 200 ships worth \$13.9 billion in the first nine months. "The shipbuilding market is gradually improving," a spokesperson from HHI said. "Our focus on high-value added ships like LNG tankers resulted in a good outcome." This year, some 31 gas carriers were ordered, including 16 LNG carriers and 12 liquefied petroleum gas carriers, according to the shipbuilder. The spokesperson added that global shipping lines are asking a lot about LNG carriers, and the company expects to surpass its overall sales target this year. On Monday, October 1, Samsung Heavy Industries announced it won an order to build a 174,000-cubic-meter (227,583-cubic-yard) LNG carrier for an Asian shipping line for roughly 200.1 billion won (\$180 million). Including that order, the company has signed orders to build 40 ships worth \$4.7 billion, achieving roughly 57 percent of its yearly sales target of \$8.2 billion. Hyundai Merchant Marine announced on Friday, September 28, that it inked deals with all three shipbuilders to build 20 container vessels. It ordered seven ships capable of carrying 23,000 twenty-foot equivalent units (TEU) each from Daewoo Shipbuilding & Marine Engineering (DSME) and five of the same ships from Samsung Heavy Industries. From HHI, the shipping line ordered eight 15,000 TEU ships. DSME and Samsung Heavy are planning to deliver the ships by the second quarter of 2020 and HHI by the second quarter of 2021. The ships cost a total of 3.15 trillion won. State-run Korea Development Bank, Korea Trade Insurance Corporation and other institutions will help financing Hyundai Merchant Marine under the government's five-year plan to restore the country's shipping industry by 2022.

<https://www.hellenicshippingnews.com/s-korea-shipbuilders-are-starting-to-sign-some-big-orders/> [Edited]

### One of the dirtiest industries cleans up

Durban - The sleek cruise-ferry idling at the harbour in western Norway while picking up passengers spews none of the dirty black smoke typical of ships at busy ports elsewhere. With a capacity of 1500 passengers and 600 cars, the MS Bergensfjord is one of the growing number of vessels running on liquefied natural gas, which emits a fraction of the pollutants of the heavy oil and diesel typically used in ships. It's an example of how one of the dirtiest industries is responding to demands for cleaner air and pristine coastlines. "We are seeing cruise ships use LNG fuel," said Paul Wogan, the chief executive of GasLog, an LNG tanker owner and operator whose whole fleet can run on the fuel it carries. "You don't want see the big black plumes of smoke at the beautiful locations they go to. LNG as a bunker fuel will continue to grow in demand." Diesel and ship oil are blamed for harming human health and the environment, creating sooty black carbon when they burn. The tiny particles settle in the lungs and on land and ice, where they speed melting by absorbing rather than reflecting the sun's rays. Norway, determined to protect its pristine coastal scenery and chalky-white glaciers, has become the biggest operating area of ships using LNG as an alternative. It has become an early mover on international rules starting in 2020 that are designed to combat shipping pollution. That's key to reducing emissions from the 90000-strong global shipping fleet, which consumes about 5% of the world's oil demand every day, says Bloomberg NEF. Hurdles remain. LNG bunkering, or refuelling, facilities aren't widespread, and the lack of them is a big obstacle for shipowners to commit to converting to the fuel, says Jeff Miers, a managing director in Accenture's Energy practice.

<https://www.iol.co.za/mercury/network/one-of-the-dirtiest-industries-cleans-up-17337119>

## TECHNOLOGICAL DEVELOPMENT FOR CLEANER ENVIRONMENT/BIO-METHANE

### Hyundai NEXO is the first hydrogen fuel cell car registered in Spain

Hyundai became the first brand to register a vehicle powered by hydrogen in Spain. After the success of the acclaimed Hyundai ix35 fuel cell, the first vehicle manufactured in series worldwide and a pioneer in Spain in 2015, the NEXO has improved features such as acceleration, power, performance and fuel economy. It began to be marketed in the Spanish market at the end of September. This unique-looking SUV combines innovative technology with a futuristic design, incredible range and the latest driving assistance assistants. The NEXO is equipped with a revolutionary hydrogen fuel cell system. This zero-emission vehicle runs on hydrogen and demonstrates that a vehicle that respects the environment can also meet the city's daily energy demands and travel long distances. The NEXO has the highest fuel cell efficiency in the world and a refueling time of only 5 minutes, in addition to an estimated maximum range of 666 kilometers. It was designed specifically with a clear performance goal, a unique architecture that provides an improvement in the power-to-weight ratio, faster acceleration and greater space in the passenger compartment. The brand has always aimed to protect the environment and lead the regenerative environmental technology industry. In the 1990s, Hyundai began to investigate to find an effective way to reduce environmental pollution caused by traffic, to finally develop fuel cell vehicles powered by hydrogen whose only emission is water.

<http://www.ngvjournal.com/s1-news/c3-vehicles/hyundai-nexo-is-the-first-hydrogen-fuel-cell-car-registered-in-spain/>

### Switzerland: Hyundai will roll out world's first H2 fuel cell truck fleet

Hyundai Motor Company affirmed at the 'IAA Commercial Vehicles 2018' in Hanover that it has entered into a Memorandum of Understanding (MOU) with Swiss hydrogen company H2 Energy (H2E). Beginning in 2019 and over a five year period Hyundai Motor and H2 Energy will provide 1,000 heavy-duty fuel cell trucks and an adequate supply chain for renewable hydrogen. This agreement marks Hyundai Motor's first expansion of its fuel cell vehicle leadership into the eco-friendly commercial vehicle sector. The fuel cell truck is being developed according to European regulations. It features a new 190kW hydrogen fuel cell system with two fuel cell systems connected in parallel. It is expected to deliver a single-fueling travel range of approximately 400km, and in order to secure sufficient range, eight large hydrogen tanks are being compactly installed, utilizing areas such as between the cabin and the rigid body. The fuel cell truck boasts a distinctive design. It is presented in a simple and clean design which is also aerodynamically efficient, and features a spoiler and side protector. The front grille symbolizes hydrogen through geometric shapes, giving the vehicle a unique and powerful look. The vehicle emanates an eco-friendly look with a blue color application and a bold side body graphic on the container, which also visualizes its dynamic character. H2 Energy, a company specialized in the production and supply of renewable hydrogen in Switzerland, plans to make Hyundai's fuel cell trucks available to its Swiss customers starting with the dedicated members of the Swiss H2 Association, which includes several refueling station operators, retailers and other customers focusing on eco-friendly innovative solutions for logistics and goods distribution.

[http://www.ngvjournal.com/s1-news/c7-lng-h2-blends/hyundai-will-roll-out-worlds-first-hydrogen-fuel-cell-truck-fleet-in-switzerland/\[Edited\]](http://www.ngvjournal.com/s1-news/c7-lng-h2-blends/hyundai-will-roll-out-worlds-first-hydrogen-fuel-cell-truck-fleet-in-switzerland/[Edited])

### Hermes first UK carrier to order 100% renewable fuel HGVs

Hermes have placed the largest ever initial order of Compressed Natural Gas (CNG) vehicles in 2018 in the UK, and is the first parcel carrier to have ordered the fleet of HGV tractor units running on 100% renewable fuel in the form of bio methane. Hermes is also introducing 32 100% electric vans to service the central London area, inside the low emission zone. The new electric fleet will be housed at Gemini Park in Beckton, as Hermes has insourced its central London operation to deliver industry-leading service levels in the capital. The Gemini site will serve more than 100 delivery rounds inside the low emission zone. Hermes delivers on average 6,500 parcels per day in London, rising to 11,000 per day during peak. The CNG for 30 new Iveco HGV tractor units provided by Cartwright Group will be supplied by CNG Fuels, the only UK supplier of Renewable Transport Fuel Obligation (RTFO) approved bio methane. Each of these vehicles is expected to reduce the Hermes renewable fuel fleet's Green House Gas emissions by more than 80% vs. a comparable Diesel vehicle, resulting in a staggering reduction of 4,500 tons of CO<sub>2</sub> across the 30 CNG vehicle fleet per year. The tractor units were introduced following a 6 month trial and will be based at the Hermes Super hub in Rugby, which is near to the CNG refuelling station. Hermes is working towards reducing CO<sub>2</sub> emissions by 50% by 2020. The addition of CNG and electric vehicles to the fleet will move Hermes closer to this target.

<https://tamebay.com/2018/10/hermes-first-uk-carrier-order-100-renewable-fuel-hgvs.html>



### Clean transport, energy from waste among India's nine scientific priorities

The Prime Minister's Science, Technology and Innovation Advisory Council (PM-STIAC), a 21-member panel appointed at August-end under the chairmanship of the PM's principal scientific advisor K VijayRaghavan, chose nine priority projects for India to pursue at its first meeting. The projects include generating energy from waste, developing economical and energy-efficient electric vehicles, decoding human genome of Indians and exploring the deep sea like the Indian Space Research Organisation (ISRO) explores outer space. Other key studies will include use of artificial intelligence in supercomputing, integration of research in training programmes, and bridging the gap between successful technologies and start-ups. It will also look to teach science and technology in Indian languages, use science for developing scalable waste to energy technologies and monitoring biodiversity. "There is now a stated direction and efficiency in the system due to the increased government, industry and philanthropy investment along with quality leadership. India's scientific enterprise can be made strong, collaborative, daring, purposeful and effective," said VijayRaghavan. All the discussions at Tuesday's meeting would be translated into action points, according to the committee. "The nine missions and projects have been developed keeping in mind the national needs and priorities. Different ministries will come together under the committee for implementing the missions," said Ashutosh Sharma, secretary of the department of science and an ex-officio member of the committee. The committee was formed after dissolving bodies that had been defunct since 2014—the Scientific Advisory Committee to the Prime Minister and to the Cabinet—which had been formed during the Atal Bihari Vajpayee government.

<http://paper.hindustantimes.com/epaper/showlink.aspx?bookmarkid=OPK5Z12CS865&preview=magnifier&linkid=46a998ec-b4db-4439-b0a1-6cdfc44b6e21&pdaffid=uByrDciaEx%2b%2bWxh5AXvAIA%3d%3d>

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