

# ANGVA2U Info 05/2020 8<sup>th</sup> April 2020. (for ANGVA members only)

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## 1.0 Selected News / Articles

### 1.1 International

#### Natural Gas Markets Beyond COVID-19

By Anna Mikulska. [www.forbes.com](http://www.forbes.com) 1<sup>st</sup> April 2020



**Baker Institute.** Contributor **Energy**

*We cover global issues in oil, natural gas, energy and policy*



*A man walks past the Shahamah liquefied natural gas (LNG) tanker sitting berthed at Tokyo Electric ... [+]  
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In a less spectacular fashion than **oil**, international natural gas prices have fallen. The explanation goes far beyond low demand related to the COVID-19 pandemic or demand in general. It relies on a much larger and more complicated array of factors that include supply and demand and oil pricing. Disentangling those various considerations can be helpful when trying to assess future developments in natural gas trade.

#### *Now and Then*

In the past, international trade in natural gas was based on mostly pipeline transportation from a limited number of regional, often dominant, suppliers. LNG was expensive and would be shipped only to areas where pipelines were difficult or impossible to build. Given a lack of competitiveness, pricing gas has been a challenge. Thus, even though it is no real alternative to gas, oil and its price has become a reference point (oil-indexing).

This changed in recent years. Thanks to technological advances and lower costs of extraction (unconventional gas and hydrofracturing) and liquefaction, international oil and natural gas pricing has experienced significant decoupling. Natural gas is in the process of transforming to a more global commodity.

We see an increasing portion of trade not indexed to oil but to competitive pricing set by natural gas hubs such as TTF (Title Transfer Facility), NBP (National Balancing), JKM (Japan-Korea Marker), or HH (Henry Hub). In addition, traditional long-term (three or four decades even) contracts are often replaced by short or medium-term contracts or by spot purchases. A steadily increasing number of suppliers draws on different types of gas resources (from traditional ones to unconventional shale or coalbed methane) which adds complexity to cost and price formation.

#### *Demand and Supply*

Prices of natural gas have been extremely low for a while now due to a trend of [slowing global demand](#) that was additionally exacerbated by the recent warm winter. The COVID-19 pandemic additionally impacted demand, starting with China and now moving through Europe and North America. Low industrial activity has been the major driver while residential demand (much lower than industrial) can probably be sustained (or even slightly increased) wherever households are supplied with gas-powered generation and gas heating.

Meanwhile, the world has been experiencing an abundance of natural gas for some time now with [new supplies and suppliers entering the market](#). This includes U.S. LNG companies such as Cheniere, Freeport LNG, or Dominion Energy. New pipeline routes have opened, including Power of Siberia from Russia to China or Nord Stream 1 from Russia to Germany. Russian LNG production is growing too as Novatek expands its Arctic operations. And [Australia has been ramping up its LNG production](#) with the recently commissioned floating LNG units (FLNG). Qatar—the world’s largest LNG producer—is not falling behind either as it plans to develop new supplies in its North Field and expand its production by 64 percent by 2027. In addition, new significant LNG projects are scheduled in Canada, Mozambique, or Nigeria, to name just a few.

Absent a reduction in supply (which could happen, see below on associated gas), lower global demand means lower prices in the competitive hub pricing and, as such, we see an immediate impact on spot prices. For example, future LNG prices as recorded in the Platts Japan-Korea Marker (JKM) are almost \$1/MMBtu lower for March 2024 than they were just a month ago.

That being said, if the COVID-19 economic slowdown edges off, we can envision demand recovering and even increasing—with the support of low prices. The latter would be related to a higher rate of coal to gas switching in power generation (including in China) and, as some argue, a more significant [turn toward hydrogen generation](#) where gas is used as feedstock.

#### *Oil Prices: Oil-Indexing*

Where contract prices are indexed to crude (mostly in Asia and Europe) we also should see natural gas prices fall. However, the fall will experience a lag (per contract formula—up to 12 months). It will also be based on prices of crude oil and not on supply and demand conditions for natural gas. Given the precipitous fall in prices the world is experiencing today, there is a good chance that prices under oil-indexed contracts will be even lower than spot and hub-indexed prices. It makes one wonder whether buyers will try to go back to oil-indexed contracts, which would be opposite of the current trend toward market driven hub-based pricing.

#### *Oil Prices: Associated Gas and Condensate*

In cases where gas is produced together with oil or condensate, oil prices are likely to impact the production of both.

For example, in the case of some U.S. gas production in the Permian, if oil production is profitable then gas production follows (particularly if/when flaring or venting is prohibited/discouraged). This leads to a paradox, where under high oil prices U.S. gas production can grow even when natural gas prices keep falling (even more so if new pipelines are added to resolve the existing pipeline bottlenecks). This means that the local price of gas in some of the fields in the Permian can on occasion be negative, i.e. it costs more to extract and transport the gas than it can be sold for.

But falling crude prices have already resulted in [U.S. oil producers big and small slashing their capital expenditures and cutting back on drilling](#). Interestingly, in this case by lowering gas supply, lower oil prices could actually push U.S. prices of gas up. That being said this mostly relates to local pricing (at the well), since pricing at HH is very liquid and needs a significant signal to be materially influenced by any specific local field conditions.

Internationally, we see a somewhat similar situation in Qatar. There the cost of producing natural gas is offset by both the value of gas and condensate that is produced at the same time.

Lower prices of condensate—while unlikely to discourage production—may result in [delayed expansion](#) and Qatar being [more inclined to bring in external investors](#) to the very costly project.

#### *What About LNG and Future Market Developments?*

Where or when other options are available—domestic production or pipeline imports—LNG is generally a pricier alternative. As such, the onset and persistence of the COVID-19 pandemic means an even more challenging environment. For some, this will be more challenging than it is for others. As mentioned above, Qatar production is based on different fundamentals, but Australian production, for example, will be challenged by low prices in Asia and Europe.

Also, greater flexibility of some contracts will make it easier for some customers to cancel their shipments. This is often the case of U.S. LNG producers. But while it is relatively easy for shale producers to close a stripper well or cease drilling and leave some wells unfinished, it is much more difficult to mothball LNG trains given the high capital cost invested in those trains and their relatively low operating cost. Thus, we may see more maintenance being performed on existing terminals as well as more floating LNG storage. As for LNG investment, it could definitely experience delays and, in extreme cases cancellations. This includes [regasification projects in Asia](#), as well as LNG investment in [Australia](#) and [the U.S.](#)

That being said, the investment is made for the future and not current conditions. As such, it is valuable to step back and look at the large, long-term picture. As per a 2015 [DOE report](#) by researchers at Oxford Economics and the Baker Institute: there has been a prior expectation of rather soft demand until at least the mid-2020s. While the demand will be admittedly much softer than expected due to COVID-19, the effect will be rather short-term and as such should not change the report's expectations about demand growth and a much tighter global gas market starting in the mid-to-late 2020s.

The current situation may, however, slow down recent trend toward more liquid and competitive gas markets if, for example 1) buyers turn back to oil indexing as oil prices continue to fall and 2) as highly flexible, market-based suppliers are discouraged and LNG projects cancelled or significantly delayed.

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**Source:** <https://www.forbes.com/sites/thebakersinstitute/2020/04/01/natural-gas-markets-beyond-covid-19/#22229b1e54c4>

## **1.2 India**

### **IGL cuts CNG, PNG prices**

ETEnergyWorld 2<sup>nd</sup> April 2020

***CNG price has been cut by Rs 3.20 per Kg in Delhi and Rs 3.60 in Noida, Greater Noida and Ghaziabad.***



New Delhi: Indraprastha Gas Ltd ([IGL](#)), the city gas distributor in Delhi and National Capital region (NCR), today announced a cut of Rs 3.20 per Kilogram (Kg) in the consumer prices of Compressed [Natural Gas](#) (CNG) in Delhi and Rs 3.60 cut per kg in Noida, Greater Noida and Ghaziabad.

"The new consumer price of Rs 42.0 per kg in Delhi and Rs 47.75 per kg in Noida, Greater Noida & Ghaziabad would be effective from 6.00 am on 3rd April 2020. The revised [CNG price](#) in Muzaffarnagar would be Rs 56.65 per kg, in Karnal would be Rs 49.85 per kg and in Rewari & Gurugram would be Rs 54.15 per kg," the company said in a statement.

It also announced a cut in Piped Natural Gas ([PNG](#)) prices with effect from 1 April 2020. The consumer price of PNG in Delhi has been cut by Rs 1.55 per standard cubic meter (scm) from Rs 30.10 per scm to Rs 28.55 per scm, while the price of domestic PNG in Noida, Greater Noida and Ghaziabad would be Rs 28.45 per scm, which has been reduced by Rs 1.65 per scm from Rs 30.10 per scm.

In Rewari, the applicable price of domestic PNG would now be Rs 28.60 per scm, which has been decreased by Rs 1.55 per scm. IGL supplies PNG to over 9 lakh households in Delhi and over 4.5 lakh households in Noida, Greater Noida, Ghaziabad and Rewari.

"The revision in retail prices of CNG & PNG have been effected after taking into account the overall impact on the cost as a result of the reduction in prices of domestically produced natural gas notified by the government," the company said.

With the revised price, CNG would offer over 56 per cent savings towards the running cost when compared to petrol driven vehicles at the current level of prices. When compared to diesel driven vehicles, the economics in favour of CNG at revised price would be over 32 per cent, IGL said.

CNG supply services of IGL are currently being rationalized for public fueling. It will continue during the lockdown period to meet the requirement of emergency and essential service vehicles. The company is running 276 CNG stations during this period.

*Source:* <https://energy.economictimes.indiatimes.com/news/oil-and-gas/igl-cuts-cng-png-prices/74955207>

### **1.3 Europe**

#### **ACEA: Massive ramp-up of truck charging and refuelling infrastructure needed, new data reveals**

www.automotiveworld.com 3<sup>rd</sup> April 2020.

#### **ACEA has released new data on the number of charging points and re-fuelling stations required for zero- and low- emission trucks to meet the 2025 and 2030 CO2 targets**

The European Automobile Manufacturers' Association (ACEA) has released new data on the number of charging points and re-fuelling stations required for zero- and low- emission trucks to meet the 2025 and 2030 CO2 targets. In terms of charging points for electric trucks, this means going from close to zero today to some 90,000 public points over the next decade in order to enable the transition to carbon-neutral road transport.

"Obviously our industry is currently grappling with immediate issues related to the COVID-19 crisis," stated Henrik Henriksson, Chairman of ACEA's Commercial Vehicle Board and CEO of Scania. "Despite this, we are keeping the long-term climate objectives in sight. Neither the truck industry nor policy makers can afford to drop the ball on this right now."

Last year, the EU adopted its first-ever CO2 standards for heavy-duty vehicles, which will apply in 2025 (-15%) and 2030 (-30%). Henriksson: "These CO2 targets for trucks set extremely challenging milestones on the road towards carbon neutrality. To deliver these steep reductions, we are committed and ready to bring a growing number of zero-emission trucks to the market."

However, the overwhelming majority of trucks sold in Europe today still runs on diesel, as it is the most convenient and cost-efficient energy carrier available to transport operators. For the first time, statistics now reveal the exact composition of the EU market for new trucks by fuel type. These new ACEA numbers show that 97.9% of all medium and heavy trucks sold in 2019 ran on diesel, 0.1% ran on petrol, 1.7% ran on natural gas, 0.2% were electrically-chargeable and 0.1% were hybrid electric.

If we fast-forward to 2030, a fleet of approximately 200,000 battery-electric trucks should be in operation in the EU to meet the CO<sub>2</sub> target set for that year, according to ACEA estimates. With some 700 medium and heavy battery-electric trucks (over 3.5 tonnes) sold last year, this means that sales of electric trucks will have to grow 28-fold over the next 10 years.

Henriksson: “The rollout of a dense network of infrastructure for alternatively-powered trucks is one of the key prerequisites for achieving carbon-neutral road freight transport. We urgently need Europe to introduce binding commitments for the deployment of at least 37,000 charging points, 50 hydrogen filling stations and 750 LNG-stations suitable for heavy-duty vehicles already by 2025.”

Heavy-duty vehicles simply cannot use passenger car infrastructure because of their much higher power and energy demand, as well as specific space, parking and access requirements. If Europe is to achieve these minimum levels of deployment, binding truck infrastructure targets for member states must be set now by the Alternative Fuels Infrastructure Directive, ACEA urges.

Missing technical standards should also be defined, and the necessary standardisation processes must start immediately. Finally, investments in charging and re-fuelling infrastructure will require significant financial and administrative support from the EU and national governments. Transport operators in particular should be incentivised to invest early in private and semi-publicly accessible depot charging stations.

*Source:* <https://www.automotiveworld.com/news-releases/acea-massive-ramp-up-of-truck-charging-and-re-fuelling-infrastructure-needed-new-data-reveals/>

## 1.4 Germany

### VW Says The Combustion Engine Is Far from Dead

By Adrian Padeanu 6<sup>th</sup> April 2020.



**Synthetic fuels could give the ICE a new lease of life.**

Being such a large automaker with multiple brands under its umbrella, the Volkswagen Group can afford to invest heavily in electrification without having to put the internal combustion engine on the backburner. Their gasoline engines are now more efficient than ever while the much-criticized diesels that generated billions of dollars in fines are now as clean as current technology allows it.

While some have rushed to announce the demise of the ICE is coming, the peeps from Wolfsburg don't see it that way. In an interview with [Autocar](#), technical chief Matthias Rabe explained why VW argues the traditional engine “will have a longer future than some people predict.” While synthetic fuels are still far from being massively produced for the automotive industry, he believes it makes sense to invest in e-fuels since EVs still have limitations in terms of range while their batteries are still large and heavy.

“We will come to e-fuels. “If you look at the aviation industry, e-fuels are in high demand because [planes] won't go electric, otherwise you won't cross the Atlantic. We take our CO<sub>2</sub> targets very seriously and want to be a role model on CO<sub>2</sub>, but that doesn't mean we will exclude the combustion engine.”

Even though EVs will be the number one priority from now on, investments in combustion engines are still planned to update the vast array of gasoline and diesel powertrain VW sell across its many brands. In addition, some of their cars – including key models such as the Golf TGI, [Skoda Octavia G-TEC](#), Audi A3/A4 G-Tron, and SEAT Leon TGI – can run on **compressed natural gas**, although these CNG models are only available in select markets primarily in Europe. Speaking of Audi, it has been developing e-fuels since 2013 and is working on synthetic [e-gasoline](#) and e-diesel to show there's another way to reduce CO<sub>2</sub> emissions other than by rolling out EVs.

*VW Still Sees A Future For The ICE:*



[VW Shows Why Its Diesel Engines Are Now Cleaner Than Ever](#)



[VW Confident There Will Be A Golf 9 Despite Electric Push](#)

BMW is also a strong believer the combustion engine still has a long life ahead as R&D boss, Klaus Froehlich, expressed the company's [commitment to ICEs for at least 30 more years](#). Some of the engines in low demand and/or expensive to produce will be gradually dropped, but BMW has vowed to sell diesels for 20 more years and gasoline engines for about 30.

*Source:* <https://www.motor1.com/news/408134/vw-combustion-engine-not-dead/>

**1.5 Spain**

**HAM Group expands LNG-fueled fleet**

[www.lngworldnews.com](http://www.lngworldnews.com) 2<sup>nd</sup> April 2020

**Spanish LNG services provider HAM Group has expanded the LNG-fueled fleet of its unit Transportes HAM**



*Image courtesy of HAM Group*

Transportes HAM, the company specialized in the road transport of flammable and cryogenic products welcomed 11 new Scania's tractors fueled by LNG.

The company's entire fleet of vehicles is powered by LNG, HAM said in its statement, adding that the new vehicles incorporated into the fleet comply with ADR regulations.

HAM Group noted it was the first European company to use of liquefied natural gas in its vehicles for road transport, with the aim of reducing the greenhouse effect.

In 2000 HAM Group imported 10 tractors from the US that used LNG and since then the company's fleet has continued to grow progressively.

*Source:* [https://www.lngworldnews.com/ham-group-expands-lng-fueled-fleet/?utm\\_source=lngworldnews&utm\\_medium=email&utm\\_campaign=newsletter\\_2020-04-06](https://www.lngworldnews.com/ham-group-expands-lng-fueled-fleet/?utm_source=lngworldnews&utm_medium=email&utm_campaign=newsletter_2020-04-06)

## 1.6 Canada

### Cryopeak breaks ground on new BCLNG production facility

[www.lngworldnews.com](http://www.lngworldnews.com)

3<sup>rd</sup> April 2020



*zoomImage courtesy of Cryopeak*

Cryopeak LNG Solutions is building a new liquefied natural gas production facility located in Fort Nelson, British Columbia.

The facility is expected to be capable of producing up to 90,000 gallons of LNG per day, according to a Cryopeak statement.

The facility will be the closest LNG production point to northern Canada and portions of Alaska, it said.

A key feature of the plant design incorporates a new truck loading system that optimizes loading of Cryopeak's fleet of LNG Super-B tankers.

The plant will be modular in its design with minimal installation requirements at site.

The facility allows communities and remote industries to secure a "lower cost and a more environmentally sustainable fuel source," Cryopeak said.

*Source:* [https://www.lngworldnews.com/cryopeak-breaks-ground-on-new-bc-lng-production-facility/?utm\\_source=lngworldnews&utm\\_medium=email&utm\\_campaign=newsletter\\_2020-04-06](https://www.lngworldnews.com/cryopeak-breaks-ground-on-new-bc-lng-production-facility/?utm_source=lngworldnews&utm_medium=email&utm_campaign=newsletter_2020-04-06)

## 1.7 England

### CNG Fuels Opens Europe's Largest Bio-CNG Refueling Station

by Matthew Mercure [ngtnews.com](http://ngtnews.com) 25<sup>th</sup> March 2020



*Photo: CNG Fuels opens Europe's largest Bio-CNG refueling station*

CNG Fuels has opened two new renewable biomethane compressed natural gas (bio-CNG) refueling stations, offering a low-carbon alternative to diesel for heavy goods vehicles (HGVs).

The new stations in Warrington – Europe's biggest – and Northampton are capable of refueling over 1,000 HGVs a day, more than doubling the 600-a-day capacity of its existing stations at Leyland, Lancashire and Crewe, Cheshire. The company is also planning to open an additional six to eight stations over the next 12 months as it expands its network of HGV refueling stations in line with demand.

"We're at a tipping point. Fleet operators are waking up to the urgency and scale of decarbonization necessary for net-zero emissions by 2050, and we're seeing demand for our fuel increase rapidly as a result," says Philip Fjeld, CEO of CNG Fuels.

"Our customers ordered hundreds of new biomethane-fueled trucks in 2019, and that trend is only set to accelerate over the next decade," he adds.

All of the fuel supplied by CNG Fuels is renewable and sustainable biomethane approved under the Department for Transport's Renewable Transport Fuel Obligation (RTFO) scheme. The gas is currently sourced from waste feedstocks, such as food waste, and is the most environmentally friendly and cost-effective alternative to diesel for HGVs – it cuts vehicle greenhouse gas (GHG) emissions by up to 85% and is 35%-40% cheaper than diesel.

The company is now securing supplies of biomethane from manure to create a fuel that will be net-zero emissions on a well-to-wheel basis. It expects to begin offering carbon-neutral biomethane across all sites next year at the same price as the renewable biomethane fuel it currently supplies.

*Source:* <https://ngtnews.com/cng-fuels-opens-europes-largest-bio-cng-refueling-station>

## **1.8 Germany**

### **Hexagon Purus receives order for hydrogen distribution systems from Everfuel**

*GlobalNewswire. 3<sup>rd</sup> April 2020*

Hexagon Purus has been awarded an order from Everfuel to deliver two new generation X-STORE high-pressure hydrogen distribution modules.

The modules have a nominal payload capacity of 958 kg of compressed hydrogen at 300 bar and will be produced at Hexagon Purus' production and assembly facility in Kassel, Germany. They will be used to transport hydrogen to refueling stations serving hydrogen fuel cell electric taxis and buses in Denmark.

“Everfuel has the clear ambition to make green hydrogen a competitive fuel in Europe. High capacity hydrogen distribution is an essential part of reaching this ambition,” says Jacob Krogsgaard, CEO of Everfuel. “We are very pleased to cooperate with Hexagon Purus to make the hydrogen distribution as efficient as possible”.

“We are proud to support Everfuel in becoming a leading zero emission fuel distributor in Europe,” says Hartmut Fehrenbach, Vice President Hydrogen Distribution of Hexagon Purus. “This order showcases our technology leadership and capability to offer high payload hydrogen storage systems, enabling reduced operating costs for our customers.”

Deliveries of the hydrogen distribution systems are scheduled for the third quarter of 2020.

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*Source:* <https://finance.yahoo.com/news/hexagon-purus-receives-order-hydrogen-084348234.html>

## **2.0 ANGVA related / participated events**

There are no ANGVA related and participated events at least till middle of the year.

## **3.0 End**

Any comments and suggestions on the topics and information covered and to be covered in future are most welcome. Please send your comments and suggestions to Lee Giok Seng at email: [leegs@angva.org](mailto:leegs@angva.org)