LNG Unlimited

LNG JOURNAL PUBLICATION 4 February 2020

Japanese say LNG has scope for Asia expansion to cut 'massive' coal use

Asia in particular faces various fuel and pollution challenges in future

LNG Journal editor

LNG is competing with coal in China amid abundant supplies, but speed of growth has now slowed

A Japanese report has stated that liquefied natural gas and pipeline gas still account for a relatively small share in the energy mix in Asia and have plenty of room to be expanded to replace the current "massive coal consumption" by Asian nations.

"The expansion of natural gas and LNG can be expected to contribute to cleaning and diversifying energy supply and reducing Asia's dependence on energy imports from the Middle East," said Ken Koyama, Chief Economist and Managing Director of the Institute of Energy Economics in Japan.

Decarbonization

"While natural gas is regarded as one of the fossil fuels subject to decarbonization in Europe where 'net zero' emissions are pursued, how to use natural gas and LNG is important in Asia," he added.

Koyama stated that pipeline gas and LNG were not necessarily the perfect energy source and the biggest challenge remained how to make them more price competitive, more affordable, more attractive and easier to be selected as preferred energy.

"Given these points, the pursuit of the best energy mix adapted to the unique conditions of each country would be the key to energy policy in Asia as well as any other region," said Koyama.

He warned that Asia in particular faced various energy and environmental challenges, which are expected to become more serious and complicated due to increasing demand.

"Those challenges include energy security that has become a major matter of concern because of Asia's growing dependence on energy imports," he explained.

"Substantial energy demand growth makes it important for Asia to tackle environmental problems. A particularly important problem involves Asia's structurally high dependence on fossil fuels including coal," he stated.

Coal accounts for around 48 percent of the primary energy consumption in Asia, far higher than the global average at 27 percent.

"Coal has become a main energy source in Asia including China and India as large energy consumers because coal has been locally abundant and price competitive in Asia," said Koyama.

"However, massive coal consumption has boosted CO2 emissions, becoming the largest factor behind growing calls for Asian countries to enhance climate change counter-measures," he added.

"Massive coal consumption has also directly caused serious air pollution as an urgent, grave environmental challenge in Asia," stated the economist.

"As Asian energy production growth fails to catch up with regional energy demand growth, the region is growing dependent on imports," his report said.

"Asian economies such as China, India and Southeast Asia are expected to boost energy demand and will face a rise in their dependence on energy imports, particularly oil purchases from the Middle East," it explained.

"The Middle East for its part must give priority to the Asian market as its dependence on Asia increases," said Koyama's report.

"In this sense, Asia and the Middle East will grow more interdependent, with their stable development being their common challenge," he added.

"Given future energy demand growth, how best to clean energy use in Asia is also a great future challenge," he said.

"What energy transition Asia should promote is an important issue for Asia plagued with the abovementioned energy challenges," said the report. ■

UNLIMITED AGENDA

Kingdom of Bahrain set to begin LNG imports while seeking to produce more natural gas

LNG Journal editor

The Kingdom of Bahrain is set to start commercial operations at its floating LNG import facility near Khalifa Bin Salman Port with partners including Teekay LNG, while pursuing exploration and production activities to find more gas.

The LNG import facility comprises a floating storage unit (FSU) and a regasification platform.

Bahrain has already taken over the charter of the FSU called "Bahrain Spirit" on a 20-year deal from shipping company Teekay, a shareholder in the project.

Bahrain has chartered the FSU 'Bahrain Spirit' for 20 years

Stakes

The Bahrain LNG ownership consortium comprises four companies, owning between 30 percent and 20 percent of the shares, including the Gulf state's National Oil & Gas Authority, Teekay LNG, South Korea's Samsung C&T and the Gulf Investment Corp.

Until now, Bahrain has not been a natural gas importer but is planning to import fuel at the same time as increasing exploration and production activities.

"The achievement of construction completion for the Bahrain LNG receiving and regasification terminal is a critical milestone for this project which is of strategic importance to the energy sector of the Kingdom of Bahrain," said Mohamed bin Khalifa Al-Khalifa, Minister of Oil for Bahrain.

"We sincerely congratulate all parties involved in this tremendous achievement, and we look forward to the upcoming commencement of commercial operations in order to secure regasification services to the Kingdom of Bahrain," added Al-Khalifa.

Natural gas currently fuels all of Bahrain's power plants. The country's power sector consumes around 50 percent and the industrial sector about 33 percent of total natural gas supplies. It is currently a minor natural gas nation and in consumes all it produces.

At the same time, Bahrain has already made new oil and natural gas discoveries, though these are still being assessed in the Khalij al-Bahrain offshore basin, south of where Italian company Eni will commence exploration and production operations.

Bahrain signed an exploration and production sharing agreement with Eni in May 2019.

The Italian company with a recent record of huge natural gas discoveries offshore Egypt and Mozambique.

Eni has signed its exploration and production sharing agreement with the National Oil and Gas Authority for offshore Block 1.

The Italian company said that under the terms of the agreement, Eni will pursue exploration activities in an offshore area in the Gulf of over 2,800 square kilometres in the northern territorial waters of in water depths ranging from 10 metres up to 70 metres. ■

US LNG export plants along Gulf Coast may consider shut-ins in future as volumes surge

With liquefied natural gas prices hitting historic Northern Hemisphere winter season lows in the Atlantic Basin and the Pacific Basin, it is likely in the year ahead that US exports in particular will be more price sensitive with the possibility of shut-ins along the Gulf Coast of Louisiana and Texas.

With European prices at around $3.50 per million British thermal units, $4 per MMBtu less than in previous years, and the futures price for the Japan-Korea Marker for North Asia at $4.00 per MMBtu or less for March 2020, US liquefaction plant owners will be considering curtailing additions to the over-supplied market.

That is despite the fact that margins are helped by a US Henry Hub benchmark price being below $2.00 per MMBtu for much of January.

The LNG supply glut has been exacerbated by milder than normal winter weather from London to Beijing.

Henry Hub benchmark prices have also been weather-affected in the Lower 48 states.

The Elba Island liquefaction plant in the state of Georgia in December 2019 became the sixth US export facility to start up and loaded its first cargo.

Elba Island is a small-scale facility unlike the four along the Gulf Coast. The fifth at Cove Point in Maryland, owned by Dominion Energy, and like the Georgia plant located on the Atlantic Coast, is the next smallest with 5.2 million tonnes per annum of output compared with 2.5 MTPA at Elba Island.

Apart from these two plants, others in operation and planned have or will have output of over 20 MTPA and will be more price-sensitive as regards contracts and tolling agreements, making shut-ins more likely.

The other four US LNG plants in operation are Sabine Pass in Louisiana and Corpus Christi in Texas, both owned by Cheniere Energy, the Sempra Energy-owned Cameron LNG in Louisiana and the Freeport plant at Quintana Island in Texas.

Elba Island owner Kinder Morgan is also building a second LNG terminal in Mississippi called Gulf LNG with equity fund investors and other developments are making progress in the Gulf Coast states.

The Kinder Morgan project near Pascagoula has received all FERC approvals.

The existing Gulf import terminal has storage and jetty infrastructure and is to be transformed into a liquefaction plant to produce an initial 11.5 MTPA of LNG for export.

The facility is located next to the Bayou Casotte Navigation Channel and includes a five-mile send-out pipeline and two LNG storage tanks, each with a capacity of 160,000 cubic metres.

In addition there are half-a-dozen other large plants under development, including around Brownsville in Texas, led by companies such as NextDecade and Texas LNG, as well as Sempra at Port Arthur and Qatar Petroleum with Golden Pass LNG. ■

Gazoduq in regulatory step to unlock Canada gas

Gazoduq Inc., the Québec natural gas developer of a pipeline from the province of Ontario to the GNL Québec liquefaction and export plant, has taken another step in the regulatory permit process to unlock Western Canadian gas resources.

Gazoduq proposes to transport feed-gas from Western Canada and GNL Québec will export it as LNG from Saguenay, a town located about 200 miles north of Quebec City on a tributary leading to the St Lawrence River.

The company has just submitted its Detailed Project Description to the Impact Assessment Agency of Canada (IAAC) for proposed 780-kilometre pipeline, which will also have other customers.

"This is another important step in the impact assessment process before the IAAC," said Gazoduq.

The filing to the IAAC contains detailed presentation of the project components, which will be subjected to an impact statement and then jointly assessed by the IAAC and the Canada Energy Regulator (CER).

It also includes a description of Gazoduq's information and consultation efforts carried out to date with Indigenous groups and local communities.

Gazoduq additionally answers questions provided by the IAAC following its period of engagement and consultation with the public regarding the initial project description.

"The company is also continuing its consultative activities through regional round tables, and through meetings with private land owners and with stakeholders in civil safety and emergency management," said Gazoduq. ■

US LNG producer Cheniere hits the landmark of 1,000 cargoes

LNG Journal editor

Cheniere Energy, the largest US LNG exporter with two plants in Louisiana and Texas, said it exported its 1,000th cargo within a four-year time period after the start-up Gulf Coast production.

"Reaching 1,000 cargoes of LNG faster than any producer in history is a testament to the performance of our people and the culture of our company," said Jack Fusco, Cheniere's President and Chief Executive.

The 170,000-capacity ship 'Hoegh Galleon' at Corpus Christi

Committed

"Our focus on reliability and safety through the entire LNG production process enabled us to reach this milestone, while fulfilling our commitments to our foundation customers," added the CEO.

"Cheniere will continue to focus on operational excellence to help meet growing demand for reliable, flexible, and cleaner sources of energy around the world," said Fusco.

Cheniere's 1,000th cargo departed on the vessel 170,000 cubic metres capacity "Hoegh Galleon" on January 26 from Cheniere's Corpus plant in Texas.

"This achievement would not be possible without the dedication and diligence of Cheniere's employees, our partners and customers, and we look forward to celebrating cargo 10,000," said Fusco.

The Houston, Texas-based company also celebrated the 100th cargo produced at Corpus Christi, which departed on the 160,000 cubic metres capacity carrier, "Yari LNG".

Cheniere's largest plant is the Sabine Pass facility with five Trains fully operational with 22.5 million tonnes per annum of output and a sixth Train under construction.

At the Corpus Christi facility, Cheniere has completed the second Train and the construction of a third Train is underway.

The US Federal Energy Regulatory Commission also recently approved what Cheniere calls its Stage 3 project, comprising seven mid-scale liquefaction Trains adjacent to the Corpus Christi plant, each with an expected nominal production capacity of around 1.4 MTPA of LNG.

The Corpus Christi Stage 3 plant will be adjacent to the three-Train plant and together the two projects are expected will have a total nameplate production capacity of around 25 MTPA. ■

GasNorth Energy succeeds where many failed by getting plant approval

GasNorth Energy of Canada has been granted permission from the British Columbia Oil and Gas Commission to proceed with construction of a small-scale natural gas liquefaction facility near Fort Nelson in the northeast of the Pacific Coast province.

The facility will use locally produced natural gas and will supply existing and emerging markets in the Yukon and Northwest Territories.

With an initial capacity of 50,000 gallons per day, the facility is designed to expand as the market continues to develop.

"This is a very positive economic opportunity for the Fort Nelson First Nation and the Northern Rockies Regional Municipality," said GasNorth President Bob Fedderly.

"This will help position Fort Nelson as an energy supplier to the North, making use of local resources to create local jobs," added Fedderly.

Major companies such as Petronas of Malaysia and others have met stern regulatory opposition for liquefaction plant permits, though these were on a much larger scale and for exports.

Mitigation measures demanded for larger liquefaction and export facility mostly made them uneconomic to procced with and develop.

GasNorth said its next steps would be to work with partners on equipment procurement and site development.

"It's expected first shipments could happen in early 2021," said the company.

GasNorth explained that local resources would be used as much as possible and the Fort Nelson First Nation will be participating as an equity partner. ■

Powering the Future Through LNG

Chart has a proven track record of maximizing return on investment by delivering safe, robust and reliable LNG solutions across the natural gas value chain that integrate seamlessly with existing infrastructure. Contact Chart to learn how our team can reduce total lifecycle cost, schedule and risk in your LNG project.

- Liquefaction
- IPSMR® process technology
- Modular mid-scale LNG
- Small-scale LNG
- Receiving terminals
- Power generation
- LNG virtual pipeline
- Cryogenic storage and distribution
- Bunkering
- Vehicle fueling stations
- On-board vehicle fuel tanks and fueling systems for road, maritime & rail

www.ChartLNG.com
LNG@ChartIndustries.com

CHART®
Cooler By Design.™

NEWS NUDGES

Novatek share buy-back

Novatek, the largest independent natural gas producer in Russia and operator of the Yamal LNG export plant in northern Siberia, said that its share buy-back programme during the period from January 20-24, 2020, had resulted in 464,900 ordinary shares (including in a form of Global Depositary Receipts) being purchased in the open market. Novatek is a public joint stock company and the shares are listed in Russia on the Moscow Exchange and on the London Stock Exchange in the UK under the ticker symbol "NVTK".

Magnolia LNG permit

The US Federal Energy Regulatory Commission has prepared a final supplemental environmental impact statement for the Magnolia LNG project proposed for Lake Charles in Louisiana, which has a deal to export shipments to Vietnam. The Magnolia project, owned by Australian-listed LNG Ltd, requested authorization to increase capacity at the previously authorized project from 8 million metric tonnes per annum to 8.8 MTPA.

Spot shipping rates fall

Shipping charter rates for LNG carriers in the spot market were down again in the week amid a slowdown in deliveries and market over-capacity. Rates were quoted at an average of between $68,000 per day to $72,000 per day West of Suez and $65,000 per day to $70,000 per day East of Suez for vessels of between 155,000-165,000 cubic metres capacity, according to various brokers. One-year time charters for vessels of between 155,000-160,000 cubic metres capacity were seen at around $72,000 per day.

■

Dampier-to-Bunbury gas link firm AGIG makes pledge amid LNG and gas hub plan

LNG Journal editor

AGIG's CEO Ben Wilson said reliability was key for customers in evolving Australian gas market

Australian Gas Infrastructure Group (AGIG) said its final plan for Western Australia's Dampier-to-Bunbury natural gas pipeline for the 2021 to 2025 period was focused on providing excellent service and low costs.

The high-pressure gas transmission pipeline stretches about 1,600 kilometres to link the gas fields of the Carnarvon Basin offshore Western Australia and the Pilbara coast and some areas of the Perth Basin, directly to customers.

Measures

The AGIG plan also puts in place measures to support the DBP continuing to deliver gas to an evolving Western Australian energy market, which is a main LNG export hub, well into the future.

The Plan was presented to the WA Economic Regulation Authority (ERA) and follows an extensive 18-month consultation period with customers of the pipeline.

"The pipeline is the backbone of the WA energy supply industry, linking the gas fields in the State's northwest directly to electricity generators, gas retailers, mining, and industrial customers," said AGIG.

AGIG owns and operates one of Australia's largest gas infrastructure businesses with operations across every mainland state and the Northern Territory, supplying about 2 million customers.

Operations include 40,000km of gas distribution and transmission pipelines, 57 petajoules of gas storage capacity, gas processing facilities and remote power generation. AGIG's Chief Executive Ben Wilson said the Plan outlines DBP activities and expenditure proposed to be undertaken from 2021 through to 2025.

"Our customers told us that the cost and the reliability of our service are fundamental. AGIG's success in operating the pipeline has not required any curtailments of capacity for more than 10 years," said Wilson.

"This Plan supports the continuation of this strong reliability performance in a rapidly changing energy sector," stated the CEO.

Wilson said that over the five-year period, we will deliver a standalone communications infrastructure for the northern section of the pipeline, and replace 25 control systems on compressor units and gas engines.

"These initiatives will further ensure the reliability of the pipeline and confirm AGIG's ability to meet our customers' needs," he added.

The regulator will now commence its review of the AGIG plan which will provide the community with further opportunity for comment.

"AGIG looks forward to working with the ERA as it examines the proposals. The review is expected to be concluded by the end of the year in time for 1 January 2021," said the company.

Woodside Petroleum, the LNG gas plant operator in Western Australia, has also decided to advance with a pipeline project.

The Pluto-North West Shelf Interconnector will connect the Pluto LNG and the North West Shelf Karratha Gas Plant and has entered into contractual arrangements for the construction.

Woodside signed an agreement with the firm DDG Operation, part of AGIG, for the construction of the pipeline.

The Pluto-NWS Interconnector is a 30-inch diameter pipeline and will run for 3.2 kilometres, connecting the Pluto and NWS plants.

It is part of the components of infrastructure needed to transport gas between the two and to create a wider gas hub build-out in Western Australia.

■

> "AGIG's success in operating the pipeline has not required any curtailments of capacity for more than 10 years"
>
> *- Ben Wilson , Chief Executive, AGIG's*

Papua New Guinea LNG plant posts record output as three-Train expansion talks go on

LNG Journal editor

The Papua New Guinea LNG export plant has achieved record production as talks continued in January on the expansion project to reach an "equitable" solution for both the government and the energy companies.

The two existing LNG Trains at the plant northwest of Port Moresby have a nominal capacity of 6.9 million tonnes per annum and shareholder Oil Search said in its fourth-quarter report that PNG LNG achieved record gross production of 8.5MT from two Trains, 2 percent higher than the previous record reached in 2017.

All parties in PNG are working to reach an equitable outcome. However, marketing plans are affected

Maintenance

"This was despite volumes being impacted by scheduled plant maintenance in the second quarter of 2019 and a short curtailment of production in the third quarter, while repairs were made to the Kumul Marine Terminal offshore liquids loading facility," said Oil Search.

Oil Search, the Australian-listed company whose headquarters are in PNG, noted that the Papua LNG expansion project has seen legislative changes passed while the second required accord, the P'nyang Gas Agreement, is the subject of continuing discussions.

"Ten legislative changes required for the Papua LNG Project Gas Agreement were passed during the quarter, while detailed discussions took place between the PRL 3 (P'nyang) Joint Venture and the PNG Government on terms for the P'nyang field development," explained Oil Search.

"Agreement on these terms was not reached by the end of 2019, which was the targeted timeframe. However, negotiations recommenced in early January and are ongoing, with all parties working to reach an equitable outcome," the company added.

Three other Trains are planned in the expansion and the five Trains when operational would have an actual capacity of nearly 20 MTPA.

The P'nyang field licence, controlled by PNG LNG plant operator ExxonMobil, also includes Australian-listed Santos as well as Oil Search.

The Papua Gas Agreement is with holders of the Elk-Antelope gas field licence, led by Total and also including shareholders in the P'nyang field lease, ExxonMobil and Oil Search.

Elk-Antelope onshore gas fields are covered by petroleum retention licence PRL15 and by the Papua Gas Agreement and the P'nyang onshore gas fields are in the PRL3 licence area of PNG.

All the companies have said finalization of the P'nyang Gas Agreement and the passing of associated legislative changes are pre-requisites for launching the front-end engineering and design phase of the proposed three-Train LNG development.

Oil Search also gave details of its own earnings and activities in the fourth quarter.

Total production net to Oil Search for the fourth quarter of 2019 was 7.0 million barrels of oil equivalent, 3 percent higher than in the previous quarter.

The PNG LNG plant contributed 6.3 mmboe net to Oil Search for the quarter, based on an annualised gross production rate of 8.5 MTPA.

Oil Search said its fourth-quarter revenues came to US$446.7 million, 24 percent higher than in the third quarter, reflecting the recovery in production, timing of shipments and higher realised oil and condensate prices.

The company ended the year with liquidity of US$1.15 billion, comprising US$396.2 million in cash and US$755.7 million in undrawn corporate facilities. ■

Gasum builds bunkering as LNG gathers pace in North

The Nordic LNG supplier, Gasum of Finland, has carried out its 200 ship-to-ship bunkering operation as maritime use of the fuel gathers pace in northwest Europe.

The refueling was carried out by the 5,800 cubic metres of capacity bunkering vessel "Coralius", a supplier of LNG fuel in the North Sea and the Skagerrak areas since 2017.

Gasum said the receiving vessel was the Fjord Line's LNG-powered ferry "Stavangerfjord" as the ship underwent scheduled maintenance at the Fayard shipyard in Odense in Denmark.

"We normally supply LNG to 'Stavangerfjord' by a loading arm on a regular basis directly from our LNG plant in Risavika (Norway)," said Gunnar Helmen, Sales Manager at Gasum.

"It's great to get this opportunity to supply the cruise ferry with LNG in dock in Denmark. Having been fueled with fresh LNG, 'Stavangerfjord' will return to her regular Stavanger-Bergen-Hirtshals route," added Helmen.

The "Stavangerfjord' and her sister ship "Bergensfjord" are the first and largest cruise ferries in the world that are fueled fully on LNG and both started operating in 2013.

"We're very happy with the longstanding relationship with Gasum and the support we've received over the years," said Richard Ternblom, Chief Executive of Fjord Line.

"We're pioneers in LNG-fueled cruise ferries on this scale and, as such, not everything works according to plan in the early start-up years. In this context, a professional partner like Gasum makes this transition to a greener maritime world simpler and safer," added Ternblom. ■

Eastern Pacific Shipping makes progress with LNG-fuel containers

LNG Journal editor

The South Korean company, Hyundai Engine Machinery, has completed the tests for six gas engines for LNG power from MAN Energy Solutions, bound for a series of container ships ordered by Singapore-based Eastern Pacific Shipping.

MAN Energy's speciality power package is the electronically-controlled, gas-injection (MEGI) engine for LNG carriers and other vessels.

MAN Energy's speciality gas power package is the MEGI engine. Testing has already taken place at factory level

Testing

The German company said that during testing for the Eastern Pacific Shipping contract the engine successfully ran at 100 percent load in gas mode.

Marine engine maker MAN Energy is now a supplier of propulsion for many of the world's LNG-powered vessels.

MAN Energy, whose main shipping solutions base is in Denmark, has a market-leading two-stroke, dual-fuel portfolio.

Based in Augsburg, Germany, MAN is a subsidiary of the Volkswagen Group and its Man Energy Solutions unit was formerly known as MAN Diesel & Turbo and was rebranded in mid-2018.

For the latest contract for Eastern Pacific Shipping, the six units are MAN B&W 11G90ME-GI dual-fuel configurations operating on LNG and with delivery dates scheduled between 2020-2022.

Hyundai Samho Heavy Industries will construct each of the neo-Panamax boxships.

"Eastern Pacific Shipping is proud to be working alongside MAN by installing their ME-GI engines in our LNG dual-fuel ultra-large containerships," said Anil Singh, Chief Operating Officer at the Singapore shipping line.

"Instead of taking a wait-and-see approach towards decarbonisation and environmental protection, EPS decided to use LNG as a marine fuel and chose to install the two-stroke ME-GI engine in these newbuilds," added Singh.

"When powered by LNG, the ME-GI will reduce these vessels' carbon footprint by significantly lowering CO2, NOx, and SOx emissions," he explained. ■

Exmar improves ship finances before third FLNG cargo leaves

Exmar, the Belgian shipping company with more than 40 vessels in its fleet now mostly focused mainly on the liquefied petroleum gas business, said the its "Tango FLNG" vessel chartered to Argentina was set to export its third cargo as the company's finances also improved.

Exmar gave an FLNG and financial update as it said that China Export Credit Insurance Corp. had approved the release of around $40 million from the debt service reserve account under the "Tango FLNG" loan facility.

The vessel, chartered by Argentine energy company YPF, formally started its operations in June 2019 and the 10-year charter term began on 14 September.

"In the meantime the TANGO FLNG has exported its second cargo for YPF in December 2019 and the third cargo is being produced," said Exmar.

The "Tango FLNG" production barge is deployed at the port of Bahia Blanca to produce around 500,000 tonnes per annum of LNG for domestic sale or export.

The company continues to manage 10 LNG floating storage and regasification units FSRUs, though is not directly involved in regasification projects with former partner Excelerate Energy of the US.

Exmar added that had two Very Large Gas Carriers under construction at the Jiangnan shipyard, near Shanghai, in China, were due for delivery in the course of 2021.

"The two vessels will each enter a five year time-charter to Equinor (of Norway) upon delivery from the shipyard," said Exmar.

Exmar explained that it had obtained funds under a pre-delivery financing of $20M with Maritime Asset Partners, which partially covers the instalments during the construction of these two vessels.

"With the structural developments and extension of the bridge loans, Exmar is in a stable cash position to cover its current liabilities and address its future cash requirements," stated the Antwerp-based company. ■

For ALL your LNG Transport & Storage needs.

On-site or Factory Built Storage Tanks, Intermodal ISO Tank-Containers, Railroad Tank Wagons, & more..

Corban Energy Group (CEG) has been creating highly engineered products required by the natural gas supply chain, from upstream to downstream. CEG has established natural gas terminals throughout the world, provided quality LNG/CNG equipment for the American market, and built storage tanks as large as 200,000 CM in capacity, with its worldwide network of engineering & manufacturing partners.

Call or e-mail us to find out how your company can benefit from our comprehensive natural gas products and services today.

www.CorbanEnergyGroup.com

CORBAN ENERGY GROUP
Your Solution for LNG/LPG

T. **201.509.8555** info@corbanenergygroup.com
418 Falmouth Avenue, Elmwood Park, NJ 07407, USA

Marcellus operator will use mobile liquefaction units for stranded gas wells in Pennsylvania

LNG Journal editor

Edge LNG, a company using proven mobile liquefaction units delivered by trailer, said it was selected to capture and liquefy shale gas from stranded wells in the Marcellus Basin.

Edge LNG said its customer was a large producer and the wells chosen for LNG output are in Tioga County in Pennsylvania.

Benefits

"For the producer, this represents an opportunity to reap economic benefits on assets unreachable by pipeline," said Edge.

"Initial operations are underway and are set to be ongoing until at least 2022," added the company. The name of the owner of the gas wells was not disclosed.

The agreement sees Edge LNG deploy its fully mobile, truck-delivered LNG equipment clusters to the Marcellus site. Each cluster includes two Cryobox liquefaction units. "This unique process, created by Galileo Global Technologies and deployed exclusively by Edge LNG in North America, can be delivered to any site accessible by road," said the company.

Truck-delivered LNG equipment includes two Cryobox technology units and can monetize stranded gas

"After set-up and safety checks, production can begin within hours, with minimal investment required of the site owner and without the need of pipeline infrastructure," it added.

Edge said it would purchase the LNG it extracts from the producer to deliver in truck-based deliveries to existing customers in the region.

The company has also signed a deal to supply LNG to the City of Norwich, Connecticut, which will be used to provide natural gas to homes and businesses.

"The Marcellus is an important region for us, there is lots of potential here with a large number of stranded wells," said Mark Casaday, Chief Executive of Edge LNG.

"So much gas goes unharnessed, purely because lack of access to a pipeline has meant there is no economic way to take it to market," he added.

"We provide operators with an opportunity to profit from wells that would otherwise not be used and we make it into valuable fuel. It's a win-win solution," stated the CEO.

The announcement follows Edge LNG's US launch and first deal earlier this year, which saw the company successfully monetize a source of previously stranded gas in the Marcellus field and deliver it as LNG to a New England utility.

Edge LNG's stakeholders include specialist international private equity firm Blue Water Energy and Galileo Global Technologies. ■

S&P Global Platts launches another product linked to Japan-Korea Marker LNG spot price

S&P Global Platts, the London-based subsidiary of US ratings agency S&P Global and a provider of energy and commodities pricing information and assessments, has launched a new product linked to the Japan-Korea Marker (JKM) spot LNG price.

The product is called the Platts Analytics Weekly Japan-Korea Marker (JKM) Forecast Report.

Platts JKM is the LNG benchmark price assessment for spot physical cargoes.

The company said the JKM Forecast Report is powered by proprietary data and modeling from Platts Analytics and provides the expected drivers of supply and demand fundamentals and near-term outlook for JKM pricing.

"In the decade since the launch of Platts JKM, Platts' focus has been to help bring increased transparency to the pricing of LNG as the market continues to liberalize and new types of price agreements emerge between buyers and sellers of LNG," said the company.

Platts JKM spot price for Asia was launched in February 2009.

It represents the daily tradeable price of spot LNG cargoes delivered into Northeast Asia and reflects the spot market value of cargoes delivered ex-ship (DES) into Japan, South Korea, China and Taiwan.

Deliveries into these locations equate to the majority of global LNG demand.

LNG is one of the fastest growing commodity markets and the overall market has increased at an average of 9 percent over the past four years and looks to continue its expansion in 2020. A rival product to the Platts JKM was launched in 2015 by the Singapore Exchange and Energy Market Company but was withdrawn in October 2019 because of the difficulties in competing against the entrenched JKM price.

"Against the backdrop of divergence from oil-related pricing, pricing based on LNG fundamentals is increasingly important," said Ira Joseph, Head of Global Gas & Power Analytics at S&P Global Platts.

"Market participants will need to understand what drives market fundamentals and what that means to forecast JKM prices," added Joseph.

"Despite Platts JKM having plunged to less than half the level it was assessed at the beginning of 2019, Platts Analytics expects further declines in 2020," he stated.

"Our analysis shows that this is attributed to a continued supply glut driven by new production from the US, and tepid demand growth in Asia in part driven by milder seasonal weather," said Joseph.

Platts said the main features of its product include price forecasts through the next 10 months, updated weekly.

It additionally offers tables, charts and commentary on the LNG market, as do many other companies.

The report will provide an outlook on the JKM price versus current derivatives, such as the expected spread between JKM and European gas prices. ■