LNG Unlimited

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LNG growth outlined by Total from acquisition and stakes

French major buoyed by Occidental Petroleum African assets and growing equity LNG

LNG Journal editor

French energy major Total is strengthening its global position in the liquefied natural gas markets with expected profit growth from new joint venture stakes from Southern Africa to Northern Siberia.

The company said it would make a final investment decision on the Nigeria LNG expansion project to build a seventh Train by the end of the year and said that its acquisition of Mozambique LNG assets fits well into its growth strategy.

Market changes

Total said it expects first LNG by 2023 from the expansion in Nigeria at a time of changing energy markets when the fastest growth is seen in the LNG and renewables sectors.

Speaking in New York during the company's Investor Day, the company's head of production Arnaud Breuillac said the expansion in Nigeria would add 7 million tonnes per annum to an existing liquefaction capacity at the plant of 22 MTPA.

Breuillac said the group aimed to grow its share of natural gas output to 22 percent of its portfolio by 2025 from 14 percent in 2018.

Nigeria LNG Ltd., the operator of the world's fifth-largest LNG export plant at Bonny Island, is in talks with major banks for the $10 billion in project financing.

The West African nation has produced LNG since 1999 and the main shareholders in the existing six Trains along with Total are Royal Dutch Shell and Eni of Italy and Nigeria National Petroleum Corp., which owns 49 percent of the venture.

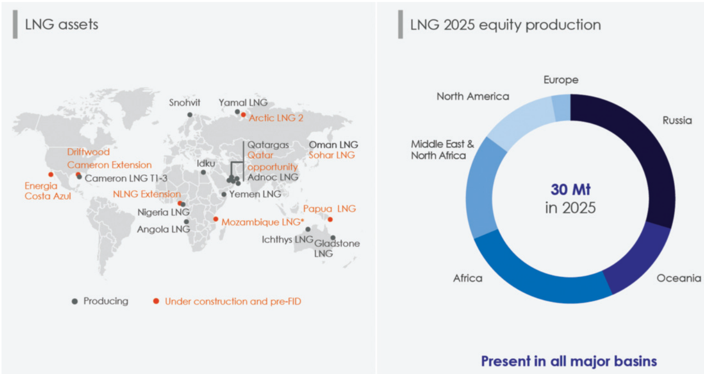
The French company also confirmed progress after its acquisition of Mozambique LNG assets from Occidental Petroleum of the US, which completed its takeover of US peer Anadarko Petroleum for $38 billion on August 8.

Anadarko was operator of the Mozambique project as part of its 26.5 percent stake and operatorship of the Area 1 Rovuma Basin reserves that underpin the onshore LNG venture at Pemba in the African nation's Cabo Delgado province.

Total said that that its signing of an agreement with Occidental to acquire Anadarko's assets in Africa for $8.8Bln, including its LNG stake in Mozambique, capitalizes on its strengths.

"The acquisition of Anadarko's African assets fits perfectly into the strategy and improves visibility on the Group's future," Total told its investors in New York.

Other speakers at the event included Patrick Pouyanné, Chairman and Chief Executive, Jean-Pierre Sbraire, Chief Financial Officer and Helle Kristoffersen, President of Strategy and Innovation and Philippe Sauget, President of Gas, Renewables and Power.



Mozambican licence stake alone would give Total 13 MTPA

Sauget said in his presentation that the first LNG from the Mozambican Pemba plant was expected in 2024 and Total's share would be 13 MTPA.

He said that currently two LNG Trains were being developed in the southeast African nation and two more would be the subject of front-end engineering and design studies in 2020.

Sauget stated that the company's equity production would rise to 30 MTPA in 2025 from its worldwide portfolio (see graphic).

Apart from its Mozambique and Nigerian LNG ventures, Total is also a shareholder in Yamal LNG and Arctic LNG II in Russia as well as the Papua New Guinea expansion and Ichthys LNG in Australia. It additionally has a long-standing portfolio of LNG volumes from the Middle East and Asia.

In North America, the French company is cooperating with Sempra Energy on the Cameron plant at Hackberry in Louisiana and the Costa Azul liquefaction project in Mexico.

"The energy transition leads to a growing role for both natural gas (mainly LNG) and electricity in the energy mix," said Patrick Pouyanné in his speech. ■

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French containership giant CMA CGM sees launch of first ultra-large LNG-powered vessel

LNG Journal editor

The French CMA CGM shipping group, one of the world's largest container vessel operators with over 500 ships, has attended the launching of the first of its series of nine 23,000 twenty-foot equivalent unit (TEU) vessels powered by liquefied natural gas to meet new emission requirements and with technology additions on the bridge and elsewhere.

The first of the ultra-large containerships took to the water at the Shanghai Jiangnan-Changxing Shipyard at an event attended by Rodolphe Saadé, Chairman and Chief Executive of CMA CGM, French and Chinese officials and some of the company's customers.

Commemoration

The first of the new class of 23,000-TEU LNG-powered containerships was named "CMA CGM Jacques Saade" after the shipping line's Beirut-born founder who died in June 2018.

The Marseilles-based company said that to further improve the environmental performance of the "CMA CGM Jacques Saade" and the other ships in the series the hull form has been hydrodynamically optimized.

'CMA CGM Jacques Saade' named after company founder

"The exceptionally large vessels are 400 metres in length and 61 metres wide and will be distinguished from the rest of the fleet by a special livery proudly displaying an "LNG POWERED" logo, attesting to the major worldwide innovation that LNG propulsion represents on ships of this size," said CMA CGM. "The bulb has also been seamlessly integrated into the hull profile and the bow is straight," said the company.

"The propeller and rudder blade have also been improved, along with the Becker Twisted Fin," it added.

These new vessels will join the Group's fleet in 2020 on the French-Asia route sailing between Asian and Northern European ports and will be registered in the French International Register, confirming the Group's commitment to operating under the French flag.

CMA CGM added that the first vessel features a state-of-the-art bridge design, the world's first ship to deliver four major innovations to assist the Captain and crew and these will be installed in the eight sister ships.

They bridge design includes: a tactical display offering enhanced map views for more dynamic navigation briefings; a path prediction system optimized to display the ship's predicted position in the next three minutes; a smart eye system projecting a bird's-eye view of the ship's surrounding area and augmented reality screens offering the crew precise information on the ship's rate of rotation, distance from the wharf and transverse speeds.

"Through this strategic choice, the CMA CGM Group reaffirmed its assertive commitment to safeguarding the environment and leading the industry's energy transition," said CEO Saadé at the ceremony. ■

Japan to cooperate on trans-shipment stations for Russian LNG at Kamchatka and Murmansk

Novatek, operator of the Yamal LNG plant and lead developer of the Arctic II LNG project, has signed an agreement with Japanese shipping company Mitsui OSK Lines to cooperate on the construction of LNG trans-shipment stations on the Kamchatka Peninsula in the Russian Far East and near the Barents Sea port of Murmansk.

The proposed trans-shipment projects would be partly financed by the Japan Bank for International Cooperation (JBIC) as they help in securing LNG cargoes for Asia via the Northern Sea Route from the Yamal facility and the Arctic project planned for the Gydan Peninsula.

"We have already started successful cooperation with Japanese companies in large LNG projects, including Yamal LNG and Arctic LNG II, and accordingly we see great potential in expanding further this mutually beneficial cooperation," said Leonid Mikhelson, Novatek Chairman.

"The construction of the Kamchatka and Murmansk trans-shipment complexes will help to optimize logistics and maximize the efficiency of LNG deliveries from Yamal and Gydan to key LNG markets in the Asia-Pacific region, including Japan," he added.

"We think we will reach final arrangements for these projects by year-end," stated Mikhelson.

The Arctic LNG project, matching Novatek's Yamal plant in Northern Siberia, will cost around $20 billion and includes Russian, French, Japanese and Chinese investors.

The Japanese investors in Arctic LNG are the state body, Japan Oil, Gas and Metals National Corp. and the trading house Mitsui & Co.

As with Yamal LNG the Arctic project will require year-round shipments, even when the NSR to the Far East is closed to LNG carriers.

Arctic output will continue to be delivered to international markets by a fleet of ice-class LNG carriers.

The vessels will be able to use the NSR and the trans-shipment terminals in Kamchatka for cargoes destined for Asia and the Murmansk station for those cargoes destined for Europe and beyond.

During 2018 and early 2019 Novatek and its partners used an area offshore the Norwegian port of Honningsvag as a trans-shipment point for several million tonnes of LNG transferred from ice-class carriers to conventional vessels and shipped south and west.

The last LNG tanker left Honningsvag at the start of July 2019 and when the NSR is closed at the start of the next winter season, reports suggest that a temporary Russian re-loading site will open near Kildin Island in Kola Bay, though this has yet to be confirmed.

The Norwegian privately-held logistical and ship management company, Tschudi Shipping, had handled the reloading operations for Russian LNG off Norway after it signed an agreement with Novatek in September 2018. ■

Chart order for LNG fuel tanks placed by Swedes

Chart Industries, the maker of equipment for the liquefied natural gas and industrial gas industries, said it was awarded the contract to supply four LNG fuel tanks for the marine fuel-gas systems of two LNG-powered chemical tankers being built at the Wuhu Shipyard on the banks of the Yangtze River in China.

Chart said the contract was awarded on behalf of the owners of the two 22,000 deadweight-ton vessels, Rederi AB Donsotank from Sweden through project company LGM Engineering.

"Each of the 300 cubic metres capacity cryogenic tanks comprise double stainless steel shells with vacuum and perlite insulation," said Chart.

The US company explained that the tanks would be designed and manufactured at Chart's Changzhou facility in China and approved by the European maritime classification society, DNV GL.

"Chart's technology is integral to the increased number of LNG-powered ships on international waters and the bunkering infrastructure required to fuel them," said Robert Chen, President of Chart's distribution and storage division for Asia.

Chart, whose headquarters are in the suburbs of Atlanta, has said it continued to see revenue and orders strengthen in particular in the liquefaction, storage and transport markets for global LNG, industrial gas infrastructure and small-scale ventures.

The company is a supplier of equipment to US LNG export projects on the Gulf Coast being developed by Cheniere Energy, Tellurian Inc. and Venture Global. ■

McDermott to sell Lummus unit for around $2.5Bln to start overhaul

LNG Journal editor

CEO David Dickson taking cash-raising measures in crisis

McDermott International, said it had received unsolicited approaches to sell all or part of its Lummus Technology business with a valuation exceeding $2.5 billion and analysts said this could be the starting point for a corporate overhaul.

"Based on the receipt of these approaches, McDermott is exploring strategic alternatives to unlock the value of Lummus Technology while maintaining the strategic rationale of engineering, procurement and construction (EPC)," said McDermott in a statement.

Licensor

McDermott's Lummus Technology is a leading licensor of proprietary petrochemicals, refining, gasification and gas-processing technologies and a supplier of proprietary catalysts and related engineering.

It was noted that the Lummus company has a heritage encompassing around 3,100 patents and patent applications.

After the news McDermott shares continued their recovery to jump by 22 percent to $2.64 per share on the New York Stock Exchange from a recent low of $2.16 per share on September 18 amid the speculation about its future after it appointed an advisory firm to seek new direction.

"Lummus is an excellent business, with incredibly impressive employees, that has earned a reputation for expertise, innovation and reliability in the refining and petrochemical industries," said David Dickson, President and Chief Executive of McDermott.

"The process of exploring strategic alternatives is part of our ongoing efforts intended to improve McDermott's capital structure, and we plan to use the proceeds from any transaction involving Lummus Technology to strengthen our balance sheet," stated Dickson.

"While Lummus is an important business within McDermott, we have decided to undertake a process to fully realize its strategic and financial value," he added.

Separately, McDermott's previously announced processes to sell the remaining portion of its pipe fabrication business and its industrial storage tank business are ongoing. ■

Malaysian shipping line signs deal for LNG Canada vessels

MISC Berhad, the Malaysian shipping line with an LNG fleet of more than 30 vessels, said it signed an agreement with Japanese shipping company Nippon Yusen Kabushiki Kaisha (NYK) and trading house Mitsubishi Corp. to co-own two newbuild LNG carriers to mainly serve the LNG Canada export project in British Columbia.

MISC said both LNG carriers would have a capacity of 174,000 cubic metres and are currently being built by the Hyundai Samho Heavy Industries shipyard in South Korea.

The vessels will feature XDF propulsion pioneered by Wintertur Gas and Diesel and a partial re-liquefaction facility for higher efficiencies. Both LNG carriers will serve Diamond Gas International, an LNG marketing arm of Mitsubishi, under 18-year charter contracts.

MISC's main client for charters is the Malaysian energy company and prominent LNG market participant Petronas, a shareholder in LNG Canada along with Mitsubishi.

The LNG Canada project, led by Royal Dutch Shell, has an estimated cost of C$40 billion (US$31.2Bln), making it the biggest ever energy investment in Canada.

The project engineering contractors are Fluor Corp. of the US and JGC Corp. of Japan.

The first phase of the project will be built on a 400 hectares site in the industrial area of Kitimat, located about 650 kilometres north of Vancouver.

It will comprise two LNG liquefaction Trains, each with 7 million tonnes per annum of output and two LNG storage tanks, each of 225,000 cubic metres capacity in addition to other facilities. The plant would then be expanded in a second phase of building.

Shell and its four joint venture partners, Mitsubishi, Petronas, Chinese major PetroChina and Korea Gas Corp., agreed in October 2018 to start construction at the brownfield site near Kitimat that had been an energy products terminal before being acquired by Shell in 2011. ■

NEWS NUDGES

PNG terms on expansion

Papua New Guinea said at the annual LNG Producer-Consumer Conference in Tokyo that the nation was hoping for a good deal from ExxonMobil for the P'nyang Gas Agreement, one of the two feed-gas ventures that will underpin the PNG LNG expansion to take output to almost 20 million tonnes per annum from around 9 MTPA currently. A consortium led by French major Total and called Papua LNG, holders of the Elk-Antelope gas field licence, have already agreed to improved terms for the government.

Petronet deal with Tellurian

US company Tellurian Inc., the Houston-based developer of the Driftwood LNG export project in Louisiana, has signed an initial agreement with Petronet of India under which the company and its affiliates would negotiate to buy up to 5 million tonnes per annum of US volumes. The deal was signed during a visit to Texas by Indian Prime Minister Narendra Modi. "Petronet will take an equity investment in Tellurian's Driftwood project in Louisiana," said Tellurian without giving financial details. Both companies said they would try to finalize the deal by March 31, 2020.

Santos gas optimism

Santos, the Adelaide-based Australian energy company and LNG stakeholder and operator, said that flow testing of the Dorado field in the Bedout Basin, offshore Western Australia, had confirmed excellent productivity and fluid quality from the Baxter gas and condensate reservoir. The now completed Baxter formation flow test was the first of two planned for the Dorado field.

Kosmos drilling success can underpin third Senegal project

LNG Journal editor

CEO Andrew Inglis outlined plans for Yakaar-Teranga fields

Kosmos Energy, a stakeholder in several floating liquefied natural gas projects offshore West Africa, said that the latest drilling in the offshore Yakaar-Teranga fields encountered world-scale resources with the potential to support another LNG project.

Kosmos, based in Dallas, Texas and a partner of BP in the planned FLNG ventures offshore Mauritania and Senegal, said that the Yakaar-2 well encountered around 30 metres of net gas pay in a similar high-quality reservoir to the previously drilled Yakaar-1 exploration well.

Extension

"Yakaar-2 was drilled approximately nine kilometers from Yakaar-1 and proved up the southern extension of the field," explained Kosmos.

"The results of the Yakaar-2 well underpin our view that the Yakaar-Teranga resource base is world-scale and has the potential to support an LNG project that provides significant volumes of natural gas to both domestic and export markets," stated Kosmos.

"Development of Yakaar-Teranga is expected in a phased approach with Phase 1 providing domestic gas and data to optimize the development of future phases," added the US company.

Kosmos Chairman and Chief Executive Andrew G. Inglis said the latest Yakaar-2 drilling underlined the quality of the fields.

The partners in the Yakaar-Teranga gas project are BP, Kosmos and the Senegalese state oil and gas company Petrosen.

"The Yakaar-2 appraisal well demonstrates the scale and quality of the Yakaar resource base," added Inglis.

"Senegal is one of the fastest growing economies in the world and Kosmos is excited to be working alongside BP and Petrosen to support the country's growing energy needs," said the CEO.

Kosmos added that the Yakaar-2 well offshore Senegal was drilled in approximately 2,500 metres of water to a total measured depth of around 4,800 metres.

The company said that the "Valaris DS-12" rig, working on behalf of the operator BP, would now move to the Orca-1 exploration well in Mauritania.

Kosmos, BP and other partners are already developing the Greater Tortue-Ahmeyim field off Mauritania and Senegal and two FLNG projects.

Barossa project to supply Darwin LNG chooses Allseas

Australian LNG and energy company Santos said that the Barossa natural gas field joint venture aiming to supply backfill feed-gas for Darwin LNG has taken another step towards a final investment decision in early 2020 with the award of the gas pipeline contract.

The contract for the engineering, procurement, construction and installation of the 260-kilometre gas pipeline was awarded to Allseas Group, a global company headquartered in Switzerland.

The Barossa project is currently in the front-end engineering design phase and includes a floating production, storage and offloading (FPSO) facility, subsea production system and gas export pipeline.

The gas export pipeline will tie the Barossa gas field, 300 kilometres north of Darwin, into the existing Bayu Undan-to-Darwin Pipeline and extend the lifespan of the ConocoPhillips-operated facility that came on stream in 2006.

Santos Chief Executive Kevin Gallagher said the pipeline contract follows the award of the subsea production system and installation support contract in May.

"Evaluation of tenders for the Floating Production Storage and Offloading (FPSO) platform and development drilling contracts are progressing," added Gallagher.

The Barossa field sits within Santos' northern Australia portfolio, one of the company's core long-life, natural gas asset regions.

The project area encompasses petroleum permit NT-RL5 located in Australian waters offshore Northern Territory.

Santos holds a 25 percent interest in the Barossa joint venture while ConocoPhillips holds 37.5 percent and is the operator and SK E&S of South Korea owns 37.5 percent.

Adelaide-based Santos has an 11.5 percent stake in Darwin LNG in Australia's Northern Territory.

Eagle Partners authorized for small-scale Florida LNG plant and export plans for the Caribbean region

LNG Journal editor

Eagle LNG Partners said the US Federal Energy Regulatory Commission had granted authorization for the siting and construction of its second proposed small-scale LNG export facility at the Port of Jacksonville in Florida.

The LNG plant will have a production capacity of around 1.65 million gallons per day with 12 million gallons of storage and with marine bunkering and truck-loading capabilities.

Facility will have marine bunkering and truck-loading capabilities and add to Eagle's other Florida assets

Equity fund

Eagle LNG is privately held by the US Energy and Minerals Group, an equity fund firm with $14 billion under management.

"The FERC authorization for the Eagle LNG's Jacksonville export facility has been many years and countless hours in the making," said Sean Lalani, President of Eagle LNG.

"As one of only a handful of greenfield LNG project proponents to obtain their FERC order and the only project devoted to provisioning small-scale LNG projects in the Caribbean basin, Eagle LNG is one large step closer to delivering clean-burning, affordable, domestically produced US natural gas." added Lalani.

Eagle said the new plant would add to its portfolio of LNG assets in Florida, namely its existing Maxville LNG facility and its Talleyrand LNG Bunker Station in Jacksonville, whose customers include Crowley Maritime Corp.'s LNG-powered vessels serving Puerto Rico.

"Numerous independent studies have shown that sourcing LNG for power generation allows Caribbean island nations to substantially reduce power costs and simultaneously reduce carbon-dioxide emissions by 30-40 percent as compared to fuel oil and coal," stated Lalani.

Eagle said that it acknowledged its project would not have been possible without the continued support of the people of Jacksonville and key stakeholders in North Florida.

The company estimates that its small-scale plant will cost around $500 million to build and have a continuing positive economic and employment impact for the State of Florida.

"Exports in small volumes from our existing Maxville LNG facility are already providing low cost, domestically produced US natural gas as an early, stable fuel source for the Caribbean," explained CEO Lalani.

"The proposed Jacksonville facility will not only drive and create economic growth in Florida and the US, it is crucial for the expansion of new US-Caribbean LNG trade opportunities," he added.

Australian Indian imports rise with African and US cargoes

Indian liquefied natural gas imports jumped for a fifth month of the current fiscal year as volumes received rose more than 10 percent with supplies coming from Atlantic Basin countries such as the US, Nigeria and Angola and traditional suppliers like Qatar.

LNG imports for the month of August came to 2.02 million tonnes (2.74 billion cubic metres), a rise of 10.3 percent on the August 2018 total of 1.83MT.

The import total for the first five months of the fiscal year was 8.1 percent higher and amounted to 9.98MT compared with 9.24MT in the same period of the previous year according to the Indian Ministry of Petroleum and Natural Gas.

The main operating terminals on India's West Coast are at Dahej, Hazira and Dabhol, near Mumbai, and there is one East Coast terminal at Kamarajar, 25 kilometres north of Chennai Port in Tamil Nadu.

The Ministry said that the August shipments of around 25 cargoes had cost about $800 million versus $900M in August 2018.

LNG imports in the five-month April to August period cost $3.9 billion for 9.98MT compared with $4.3Bln for 9.24MT in the same period of 2018.

India's July 2019 imports had also come to 2.02MT, which was 9.1 percent higher than the 1.85MT delivered in July 2018.

Production of domestic natural gas for August was 2.68 billion cubic metres versus 2.78Bcm in August 2018, a fall of 3.3 percent.

For the first five months of the fiscal year the output from India's own wells came to 13.43Bcm, which was 1 percent down on the 13.57Bcm posted in the year-ago period.

Construction of LNG carriers for Arctic backed by GTT tank

LNG Journal editor

Gaztransport and Technigaz (GGT), the Paris-based LNG maritime containment tank system designer, has received approval in principle for its Mark III Flex system from French classification society, Bureau Veritas, for LNG carriers operating in Arctic waters.

The approved system is a modified version of the GTT Mark III Flex tanks specifically designed for Arctic operations.

GTT's technology is sold to shipyards to install in new Ice-class LNG carriers and over a dozen vessels have been built to service the existing Yamal LNG plant in northern Siberia, operated by Russian natural gas company Novatek.

A second plant is being constructed called Arctic LNG II with the same shareholders, Novatek, French energy major Total and China National Petroleum Corp., though also now including China National Offshore Oil Corp. and the Japanese state body, Japan Oil, Gas and Metals National Corp. as well as Japanese trading house Mitsu & Co.

The new Arctic LNG project will require additional ice-breaking LNG carriers with Arctic notation to operate in the Northern Sea Route eastwards from Russian waters to Asian ports.

The 172,600 cubic metres capacity carrier 'Christophe de Margerie' has been operating in Arctic since 2017

Bureau Veritas said that the approval in principle covers improved GTT Mark III Flex tanks that may be used in ice-breaking LNG carriers to be ordered for future projects in the Arctic.

"Approval was based on vibration-acceleration calculations performed to simulate the behaviour of the system when an LNG carrier is involved in ice-breaking operations," explained the French class society.

The approval certificate for the GTT Mark III Flex was handed to Philippe Berterottière, GTT's Chairman and Chief Executive by Matthieu de Tugny, the President of the Bureau Veritas Marine and Offshore division.

"It is always a pleasure to hand over such a certificate and with GTT it is a regular occurrence as their systems continue to evolve and develop to meet the performance requirements of today's market," said De Tugny.

"We are proud to continue helping the development of their containment systems and of Arctic-related technologies and their application," he added.

Korean charter deal with H-Line gives Vitol more ship options

Vitol, the global commodities company, has signed a 10-year time charter agreement with South Korean company H-Line Shipping for a newbuild liquefied natural gas carrier as its portfolio expands with the recent joint venture signed for Mozambique LNG trading.

Vitol said the 174,000 cubic metres capacity vessel is to be built at Korea's Hyundai Samho Heavy Industries and is due for delivery in late 2021.

Vitol also holds extension options and the ability to secure additional LNG carriers to support its further growth in the industry.

The commodities firm has set up a joint venture with the National Hydrocarbons Company of Mozambique (ENH) to help market its LNG volumes.

The venture called ENH Energy Trading will initially be owned 51 percent by ENH and 49 percent by Vitol.

Vitol had around 7.8 million tonnes per annum of LNG delivered in 2018 and this is expected to rise this year to 10 MTPA from its portfolio, including supply deals with Angola LNG in southwest Africa and Cheniere Energy of the US. Pablo Galante Escobar, Vitol's head of LNG said he was excited by the South Korean shipping deal.

"We have concluded this contract with H-Line, a top class Korean shipowner, which represents Vitol's second long-term charter of a modern 174,000 cubic metres capacity carrier," added Escobar.

"This allows us to optimize our LNG portfolio that includes increasing FOB volumes from different areas that we are actively marketing to our global clients," he explained.

Fluxys of Belgium doubles Zeebrugge traffic while Qatar deal secures future income

LNG Journal editor

Belgian terminal is welcoming carriers large and small

Fluxys Belgium reported record activity levels at the Zeebrugge liquefied natural gas import terminal in its first-half earnings for its regulated business and pointed out that the recent signing of a new capacity agreement with Qatar guarantees long-term stability in LNG carrier traffic.

Fluxys said regulated turnover for the six months rose 3.9 percent to 260.0 million euros ($285M) compared with 250.1M euros in the same period of 2018.

Profits rise

Net profit increased by more than 29 percent to 31.4M euros versus 24.3M euros in the first half of 2018 as investment in LNG terminal capacity was reflected in higher returns.

"The number of ships docking at the Zeebrugge LNG terminal was more than double the number that did so in the first half of 2018," said Fluxys.

"A total of 36 ships came to the terminal to unload their LNG and 10 for trans-shipment services, while 12 small vessels docked to be loaded with LNG," it added.

Zeebrugge activities have been boosted by Russian LNG volumes from the Yamal plant in northern Siberia being transferred to other vessels from the Belgian facility.

Most other large carriers unloaded at Zeebrugge and Fluxys stated that the volume of natural gas sent out into the transmission system from the terminal was more than three times the level than the gas send-out in the same six months of 2018.

"The commissioning of a second LNG-truck loading station also had a positive impact, with 1,081 trucks being loaded compared with 650 in the first half last year," said Fluxys.

The company noted that the month of May 2019 was an all-time record month with 13 ships docking at the terminal and 194 trucks loading LNG.

Fluxys said its most recent spending on terminal infrastructure amounted to 45.2M euros, mainly on the fifth storage tank at Zeebrugge.

"By managing its operating costs and continuing its efficiency drive, the Fluxys Belgium group achieved its regulatory objectives and benefitted from incentives," said the company in reference to the regulated tariffs regime.

Fluxys said that the agreement signed with Qatar in early September for all the unloading slots for the existing capacity at the Zeebrugge terminal as current agreements expire will give long-term security through to 2039 and can be extended until 2044.

"This new contract makes a major contribution to securing the long-term future of the Zeebrugge terminal and further strengthens its position as a versatile LNG gateway into Europe offering customers optimum destination flexibility," said Fluxys.

Natural gas transmission for the Belgian market increased by 4 percent, led by Belgian market consumption in the first half of 2018 of 101.5 terawatt hours, up from 98TWh in the same six months of 2018.

"There was also a 17 percent increase in transmission volumes for natural gas-fired power plants, taking these volumes to 23.5 TWh," added the company. ■

Italian network SNAM and equity fund acquire control of LNG FSRU offshore Tuscany coast

Italian natural gas network company Societa Nazionale Metanodotti (SNAM) has agreed to acquire a controlling stake in the OLT Offshore LNG Toscana company which operates the floating regasification terminal off the West Coast of Italy.

SNAM said it signed an accord to acquire 49.07 percent of the share capital of OLT from Italian utility company, the Iren Group, and take joint control of the terminal with the global equity fund First State Investments.

The equity fund First State also bought German utility Uniper's 48.24 percent stake in the facility in May 2019.

The only remaining original shareholders from the start-up of the LNG import project offshore Tuscany in 2013 appears to be vessel owner Golar LNG with 2.69 percent.

Since operations began, the FSRU has handled LNG cargoes from 10 different countries, Algeria, Cameroon, Egypt, Equatorial Guinea, Nigeria, Norway, Peru, Qatar, Trinidad & Tobago and the United States.

SNAM will now be in charge of the "FSRU Toscana", moored 22 kilometres off the Italian coast between the cities of Livorno and Pisa and connected to the Italian national gas transmission grid through a 36.5-kilomtre pipeline from the shore to the regasification vessel already operated by the new owner's subsidiary, SNAM Rete Gas.

The OLT Offshore facility is providing national peak-shaving services for the sixth consecutive year to Italy with LNG cargoes.

"SNAM's acquiring of OLT will guarantee industrial expertise in management and in future investments into vital infrastructure for the Italian energy system's security and flexibility and will consolidate our position in the Mediterranean LNG market," said SNAM Chief Executive Marco Alvera.

"This acquisition is in line with our growth strategy in infrastructure for LNG, a sector that is fundamental to enabling energy transition and promoting sustainable mobility, as global demand is destined to double between now and 2035," added Alvera.

The "FSRU Toscana" is expected to work at 100 percent of its capacity with 41 slots being used for the Gas Year 2019-2020 and total allocated capacity amounting to 6.3 million cubic metres.

The operations offshore the port of Livorno will also be increasing the small-scale services available once modifications are completed. ■

American Gas Association praises natural gas pipeline rules for domestic gas and LNG

LNG Journal editor

The American Gas Association has welcomed the new natural gas transmission pipeline safety rules from the Pipeline and Hazardous Materials Safety Administration (PHMSA) as representing a consensus approach to enhancing the safe transportation of America's abundance of natural gas to domestic customers and LNG plants.

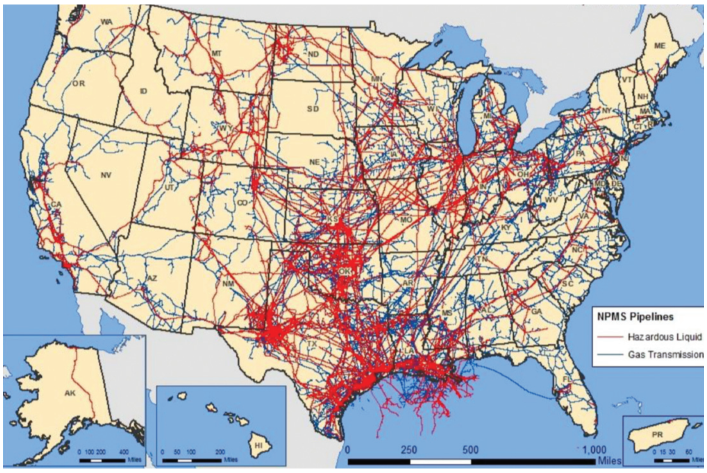
The PHMSA released three rules intended to continue to improve the safety and resilience of the vast US energy delivery infrastructure to keep pace with increased supply and demand.

Significant

"This significant update to pipeline safety regulations is the culmination of years of work by government, industry and pipeline safety advocates," said AGA President and Chief Executive Karen Harbert.

"We applaud PHMSA and everyone who participated in the process for a final rule that brings certainty to our industry and everyone that works to deliver natural gas to customers throughout the country that want it," stated Harbert.

The AGA pointed out that the Gas Pipeline Advisory Committee provided PHMSA with recommendations on the technical feasibility, reasonableness, cost-effectiveness and practicability of the proposed rule and recommendations to support finalizing the rule.



US natural gas pipeline network is most dense in LNG states of Louisiana and Texas along the Gulf Coast

The PHMSA said the three significant final rules published in the Federal Register will strengthen the safety of more than 500,000 miles of onshore gas transmission and hazardous liquid pipelines throughout the US.

The rules will also enhance the PHMSA's authority to issue an emergency order to address unsafe safety conditions or hazards that pose an imminent threat to pipeline safety.

"These are significant revisions to federal pipeline safety laws and will improve the safety of our nation's energy infrastructure," said US Transportation Secretary Elaine L. Chao.

The US pipelines deliver trillions of cubic feet of natural gas and hundreds of billions of ton-miles of liquid petroleum products each year.

The pipeline regulator said the gas transmission and hazardous liquid pipeline safety rules would modernize federal pipeline safety standards by expanding risk-based integrity management requirements, enhancing procedures to protect infrastructure from extreme weather events, and requiring greater oversight of pipelines beyond current safety requirements.

The regulator said that final rules address significant Congressional mandates from the Pipeline Safety Act of 2011 and recommendations from the National Transportation Safety Board.

"The tremendous growth in US energy production will require greater anticipation and preparation for emerging risks to public safety," said PHMSA Administrator Skip Elliott.

"These forward-looking rules will help ensure pipeline operators invest in continuous improvements to pipeline safety and integrity management," Elliot added.

The gas transmission rule requires operators of gas transmission pipelines constructed before 1970 to determine the material strength of their lines by reconfirming the Maximum Allowable Operating Pressure (MAOP).

In addition, the rule updates reporting and records retention standards for gas transmission pipelines. ■

Gazprom will try to resolve issue of ownerless gas networks and pipelines around Russia Federation

Gazprom of Russia, the world's largest natural gas company and a main pipeline supplier to Western and Central Europe, is facing a phenomenon dating from the collapse of the Soviet Union 28 years ago and economic upheavals and difficulties that followed. That is what can be done with "ownerless" gas facilities and networks around the Russian Federation.

Gazprom said its board has just reviewed the information on the measures undertaken to make an inventory of "ownerless gas facilities in the Russian regions" as well as to "optimize the procedure of their transfer to specialized organizations" for further operation in line with Russian law.

It was noted by Gazprom that proper operation and timely technical maintenance of the gas networks is the responsibility of their lawful owner but when no such entity can be traced what can be done?

"Technical works at the facilities of this kind are to be performed by specialized organizations in order to ensure reliability and safety," said Gazprom.

"At the same time, the length of gas networks with no known owner (ownerless networks) and no proper maintenance within the area of operation of the Gazprom Group's gas distribution organizations totaled 6,651 kilometres as of March 1, 2019," explained the company.

"The issue being especially acute in the North Caucasus Federal District, which accounts for 48 percent of said ownerless networks," stated Gazprom in reference to areas wedged between the Black Sea and the Caspian Sea.

"Gazprom actively participates in the efforts carried out to identify ownerless networks," it stated.

"In particular, Gazprom's gas distribution organizations are inventorying gas distribution networks within the areas of their responsibility and informing local authorities of any ownerless property detected," Gazprom added.

Gazprom said that jointly with the federal authorities, it was preparing proposals for updating the existing legislation to settle the issue of ownerless gas pipelines. ■