LNG Unlimited

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Lake Charles set to join export fray for LNG led by ET and Shell

Louisiana venture will build three liquefaction Trains and use existing storage and berthing

LNG Journal editor

Three-year wait for final investment decision may be over

Royal Dutch Shell and Energy Transfer, the US pipeline, storage and midstream company, have signed a framework agreement for the development of their large-scale LNG export project at the existing import terminal at Lake Charles in Louisiana.

Energy Transfer and Shell plan to move towards a potential final investment decision on the 50-50 joint venture and have started seeking engineering, procurement and construction (EPC) companies, while intending to issue an invitation for tenders in the weeks ahead.

Resurgence

The Federal Energy Regulatory Commission previously issued a draft environmental impact statement in September 2015 for the Lake Charles export venture to produce 16.5 million tonnes per annum of LNG.

The project has been waiting for a final investment decision for nearly the three years. The project framework agreement and tender documents are looked at as a step forward.

Shell gained its stake in the Lake Charles facility's reserved capacity from its takeover in 2015 of BG Group of the UK.

The export project will include the construction of three liquefaction Trains and will use the existing LNG storage and marine berthing facilities owned by Equity Transfer since its takeover of Southern Union Co. in 2013 for more than $5 billion.

The proposed Lake Charles liquefaction plant was first awarded a permit by the Department of Energy in August 2013 to ship cargoes to countries without a US Free Trade Agreement. Now the volumes for that permit have been increased.

Before the shale-gas boom Lake Charles was one of the centres of US LNG imports, with BG bringing in cargoes from nations such as Trinidad and Equatorial Guinea.

BG and Energy Transfer had previously scheduled a commercial start-up for the plant as an export venture in 2019.

The 440-acre site is located close to the Henry Hub with access to many of the largest natural gas production areas in the US through Energy Transfer's existing and new pipelines like the Trunkline Gas System.

The Trunkline Gas System amounts to a 2,200-mile pipeline that interconnects with more than a dozen inter-state and intra-state pipelines to ship feed-gas to Lake Charles LNG and other projects along the Gulf Coast.

Energy Transfer began in 1995 as a small intra-state natural gas pipeline operator and is now one of the largest energy infrastructure firms in the US.

"We are pleased to be moving forward with Shell in progressing this major LNG export project," said Tom Mason, President of Lake Charles LNG, an Energy Transfer subsidiary.

Platform

"We believe the combination of our assets and Shell's LNG experience will create a platform for exporting natural gas from the US Gulf Coast to the global marketplace that is unmatched," added Mason.

Shell said that together with Energy Transfer it can advance a project that could provide customers in Asia, Europe and the Americas with cleaner, reliable energy for decades to come.

"Lake Charles presents a material, competitive liquefaction project with the potential to provide Shell with an operated LNG export position on the US Gulf Coast by the time global supply is expected to tighten in the mid-2020s," said Frederic Phipps, Shell's Vice President for Lake Charles LNG.

Under the latest Energy transfer-Shell accord, the Anglo-Dutch company would act as the project lead prior to the companies reaching a final investment decision. ■

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British Columbia starts regulatory process to have West Coast LNG bunkering hub in place by 2020

LNG Journal editor

Canada has started the regulatory process for a liquefied natural gas jetty expansion project being undertaken at the existing Tilbury Island plant of utility FortisBC in British Columbia that will lead to small-scale LNG exports to Asia and a West Coast LNG bunkering hub.

The project near Vancouver includes putting a temporary floating bunkering terminal in place by 2020 to meet what is expected to be new demand for LNG from the shipping industry because of the International Maritime Organization's sulfur cap on fuel.

Californian

The US company behind the project, WesPac Midstream, plans to build the temporary bunkering berth until a permanent one is constructed by 2022.

FortisBC's existing liquefaction facility on Tilbury Island

The WesPac project will cost around C$150 million (US$112M) and will supply LNG to both the domestic and international markets.

The proposed jetty will be located at Tilbury Island in the southern part of the Fraser River, where FortisBC's Tilbury Island LNG plant has also undergone an expansion in production capacity.

The Tilbury plant now has an annual capacity of 3 million tonnes of LNG per annum.

"The public is invited to comment on the application for an environmental assessment certificate for the proposed WesPac Tilbury Marine Jetty Project," said the BC Environmental Assessment Office.

The process will include two open house gatherings in the towns of Delta and Richmond on April 9 and April 10 respectively, followed by a 45-day public comment period from April 2 until May 17.

Once completed the jetty would have one berth for a single LNG carrier and a berth for smaller LNG bunkering barges.

In addition to a domestic bunkering market, WesPac said it expected there would also be LNG export opportunities, with Asia being the main market.

WesPac said it expected to see up to 69 bunkering barges and 68 LNG carriers coming to and from the terminal annually.

"This project will help create a hub for LNG fuel in BC," said WesPac, based in Irvine, California.

Canadian shipping and ferry companies Seaspan and BC Ferries have been moving some of their ferries to LNG fuel so there is already an established market. ■

BC proposes tax breaks to revive Pacific Coast sites for international-backed export projects

The Canadian Pacific Coast province of British Columbia, once briefly known as the North American centre of liquefied natural gas export development, plans to introduce new legislation on tax credits for LNG ventures to relaunch BC as a potential provider of clean fuel for Asia.

BC provincial Finance Minister Carole James said the proposed changes would bring thousands of jobs to the region and boost the economic prospects for the population.

"British Columbians are counting on us to attract LNG investment that meets strict conditions: delivering jobs and financial benefits to BC, creating economic partnerships with Indigenous peoples and protecting our clean air, land and water," said James in a statement.

"This legislation completes the process of creating a fiscal framework that invites investment while supporting those conditions," added James.

The province previously had at least a dozen large-scale projects backed by the world's leading energy companies then policies pushed by the federal government in Ottawa since 2015 made projects uneconomic and coincided with an oil price slump.

The one surviving large-scale venture in the province is the Royal Dutch Shell-led LNG Canada, which has become the largest private sector investment in Canada's history with planned spending of C$40 billion (US$30.2Bln).

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

Shell is pressing ahead while recognizing that it was likely not possible to get unanimous support for a major infrastructure venture project in BC.

The project includes a US$5-billion pipeline of 670 kilometres being developed by TransCanada Corp. to bring the feed-gas from the Montney shale basin in north-east BC to the Pacific Coast.

Supporters of LNG projects and the jobs they bring believe the opening up of the abundant shale-gas basins will give scope for other ventures to be developed on the BC coast.

The tax measures could particularly help smaller scale LNG export ventures previously proposed by First Nation groups to give their people jobs and security stretching 30 to 50 years into the future.

The Finance Minister said the BC legislation brings together the final fiscal elements of the policy framework for natural gas development set out by provincial Premier John Horgan a year ago.

The provincial government said it was already offering LNG developers performance payment agreements and industrial electricity rates on par with other industrial users in BC.

The legislation proposes to amend the Income Tax Act to implement a natural gas tax credit for LNG development in BC and to repeal the Liquefied Natural Gas Income Tax Act that created barriers for investment in the energy sector.

The tax credit will be available from 2020 and can be used to reduce BC's corporate income tax rate from 12 percent to 9 percent.

"The legislation will repeal the Liquefied Natural Gas Project Agreements Act that left British Columbians vulnerable to footing the bill for special industry tax and regulatory protections," stated James. ■

Project in Louisiana set to have six partners

Tellurian Inc., developer of the Driftwood LNG export project in Louisiana, is expecting to have about six customer-partners when it takes its final investment decision for the first phase of the joint venture near Lake Charles that will cost a total of $30 billion.

"We will likely move forward with the first phase of the project with about half a dozen customer-partners," said Meg Gentle, Chief Executive of the Nasdaq-listed company, at an energy conference in New York.

She reiterated that Tellurian would take its final investment decision by mid-2019 and would progress to producing the first LNG in 2023 and complete the overall project by 2026.

The final environmental impact statement was issued by the Federal Energy Regulatory Commission in January 2019 to develop the liquefaction plant to produce around 27.6 million tonnes per annum of LNG.

The Driftwood project has signed two recent accords, one with international commodities firm Vitol for the supply of 1.5 MTPA of LNG for 15 years and a second with Petronet LNG of India for equity investment in the Driftwood project.

Three other partners of the company include French energy major Total and a main supplier of turbines and compressors and the engineering, procurement and construction contractor, General Electric and Bechtel Inc. respectively.

Tellurian is offering its customers the opportunity to meet their natural gas needs by investing in a full range of services from production to pipelines and the liquefaction plant.

Bahrain set to start import in May and assesses gas fields

LNG Journal editor

Bahrain said it would receive shipments from a variety of liquefied natural gas suppliers when the Gulf kingdom's first floating import facility comes on line in May.

Bahrain's first LNG terminal is at a location about 5 kilometres from the existing breakwater at the Khalifa Bin Salman Port. It includes a floating storage unit (FSU) set to be deployed soon and a regasification platform.

Countdown

"Bahrain will receive LNG from companies and gas-producing countries from around the world," said National Oil & Gas Authority Chief Executive Jassem al Shirawi.

"The storage unit is expected to arrive at the terminal in May," he added.

"The terminal is more than 98 percent ready and the trial period will last only a few weeks," stated Al Shirawi.

Analysts said the LNG cargo purchases for 2019-2020 were expected to be mostly acquired on a spot basis for seasonal use.

Gulf state is pursuing import and development policy

Bahrain has already taken over the charter of the floating storage unit, the 173,000 cubic metres capacity "Bahrain Spirit", from shipping company Teekay LNG, a shareholder in the project. The FSU is on a 20-year charter to the development company, Bahrain LNG, and will enable the Gulf nation to support its growing domestic natural gas needs.

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 (Noga), Teekay LNG, South Korea's Samsung C&T and the Gulf Investment Corporation.

The facility has the capacity to handle 800 million cubic feet per day of regasified LNG via the FSU and related equipment.

Until now, Bahrain has not been a natural gas importer and has met all its own needs from domestic sources and these are now expected to increase.

Bahrain has made new oil and natural gas discoveries, though these are still being assessed in the Khalij al-Bahrain offshore basin.

The resources are estimated to comprise more than 80 billion barrels of tight oil and between 10 and 20 trillion cubic feet of tight gas.

Nigeria LNG makes progress on expansion with watchdog deal

The countdown to the start of the expansion project for Nigeria's liquefied natural gas plant, with the building of a seventh Train, has started after the signing of the first accord on LNG after the February re-election of President Muhammadu Buhari that ended months of indecision.

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

Nigeria LNG is the operating company at the Bonny Island liquefaction plant in the Niger Delta and it took the first steps in July 2018 towards constructing the seventh Train after years of delay.

It awarded front-end engineering and design contracts for Train 7 on a contest basis to two consortiums.

The first comprises Italy's Saipem, Chiyoda Corp. of Japan and Daewoo Engineering of South Korea and the second groups KBR of the US with the Franco-US firm TechnipFMC and JGC Corp. of Japan.

The national project watchdog agency, the Nigerian Content Development and Monitoring Board (NCDMB), has now just signed a contract with Nigeria LNG enabling the NLNG Train 7 project to proceed.

The Executive Secretary of the Board, Simbi Kesiye Wabote, and the NLNG Managing Director, Tony Attah, signed the agreement in the federal capital Abuja on March 22 at an event attended by executives from the plant shareholders, Shell, Total, Eni and NNPC.

The watchdog agency said that the Train 7 work would have a high proportion of local content, including the fabrication of the condensate stabilization unit, pipe-racks, flare systems and non-cryogenic pipelines and containers.

Civil works would also be carried out by local companies on roads, pilings and the jetties.

NEWS NUDGES

Nakilat-Maran joint venture

Qatar Gas Transport Co., also known as Nakilat, has established a new joint venture called Global Shipping Co. with Greek owner and operator Maran Ventures and involving four vessels, increasing the Nakilat fleet to 74 carriers. "This agreement is a step forward for the company as we expand our fleet with additional capacity to meet the growing international demand for clean energy," said Nakilat's Chief Executive Abdullah Al Sulaiti.

Jera takeover in Japan

Jera Co. Inc. said it would formally take over the existing thermal power generation businesses from Tokyo Electric Power Fuel & Power Co. and from Chubu Electric Power Co., Inc. on April 1. In addition to running the joint Tepco-Chubu power plant assets, Jera will also be responsible for fuel procurement. "Jera will run one of the world's largest LNG transaction volumes and power generation and fuel businesses as well as the Jera Global Markets functions, seamlessly optimizing the massive energy flow of fuel procurement, transportation, reception and sales," stated Jera.

Bangladesh FSRU

Nakilat-Keppel Offshore & Marine (N-Kom) in Qatar has successfully completed its latest floating storage regasification unit (FSRU) project in preparing the 138,000 cubic metres capacity vessel "Excelerate" to be deployed in Bangladesh as an import facility. The FSRU, owned by US project company Excelerate Energy, underwent drydocking and repairs in addition to modifications and retrofitting of several new systems during its stay at the Erhama Bin Jaber Al Jalahma Shipyard.

China LNG cargoes rise again year-on-year with steady flow from Qatar and Australia

LNG Journal editor

An LNG carrier unloads a cargo from the Gorgon plant in Australia at the Enn Group's import terminal at Zhoushan

Chinese liquefied natural gas imports increased last month compared with the same month last year, led by shipments from Australia and Qatar, though the cargo deliveries were lower than the record set in January 2019 when winter demand was at its peak.

China imported 4.35 million tonnes of LNG in February 2019 compared with 3.99MT in February 2018, an increase of 9 percent, according to the General Administration of Customs.

Regulars

While the most cargoes came from plants in eastern and western Australia as well as Qatar, there were also deliveries from regional suppliers such as Indonesia and Papua New Guinea.

The Chinese imports in January 2019 had amounted to 6.58MT compared with 5.18MT in January 2018, an increase of 27.2 percent.

LNG and pipeline imports in China had jumped during the Northern Hemisphere winter, driven by consumption from residential and industrial users in northern China as the government replaced coal with natural gas to reduce pollution.

However, LNG demand was easing off as the warmer Spring weather made an appearance.

In addition to its 19 onshore LNG terminals, China also operates a floating storage and regasification unit at Tianjin port in northeast China to serve Beijing.

Chinese LNG imports rose by 38 percent in 2018 as shipments surged in the final two months of the year.

The LNG imports totaled 53.81MT compared with just over 39MT in 2017.

LNG shipments will also receive more competition from December 2019 when the 4,000-kilometres Power of Siberia gas pipeline from Russia comes on stream.

Chinese pipeline supplies come from the Central Asian countries Turkmenistan, Uzbekistan and Kazakhstan as well as Myanmar.

China receives at least one LNG shipment every day of the month, sometimes more depending on demand.

The country's cargo purchases are benefitting for the growing number of buyers and sellers in the market, which is becoming deeper and more actively traded.

Prices for North Asia in February were between \$6.00 and \$7.00 per million British thermal units for spot cargoes and are even lower now, entering April at under \$4.50 per MMBtu.

Among the February shipments, the 147,000 cubic metres capacity vessel "Min Rong" unloaded a cargo on February 1 at the Fujian terminal from the Tangguh export plant in Indonesia, operated by BP of the UK.

The 174,000 cubic metres capacity carrier "Gaslog Houston" unloaded a shipment on February 2 at the Tangshan terminal in northeast China from the Gorgon plant on Barrow Island in Western Australia.

The 172,000 cubic metres capacity "Kumul" delivered volumes on February 3 to the Qingdao terminal in eastern Shandong province from the plant in Papua New Guinea.

The 174,100 cubic metres capacity vessel "Cesi Behai" unloaded a cargo on February 6 at the Tianjin terminal for Sinopec from the Australia-Pacific plant in Queensland.

The 155,000 cubic metres capacity "Gaslog Savannnah" delivered on February 8 to the Qingdao terminal, operated by Sinopec, from the Australia-Pacific plant, while the 210,185 cubic metres capacity Q-Flex vessel "Al Bahaiya" unloaded a mid-month cargo at the port of Tianjin from Qatargas at Ras Laffan.

Towards the end of the month, the 152,300 cubic meters capacity "Seri Begawan" unloaded a shipment on February 27 at the port of Tianjin in northeast China from the Gladstone LNG plant in Queensland, operated by Santos.

> **"While the most cargoes came from plants in eastern and western Australia as well as Qatar, there were also deliveries from regional suppliers such as Indonesia and Papua New Guinea."**

PetroChina posts jump in profits on higher prices and soaring demand for natural gas

LNG Journal editor

PetroChina, the Hong Kong-listed unit of China National Petroleum Corp. with widespread domestic assets and overseas stakes in oil and gas and LNG projects in Canada, Russia and Mozambique, posted a jump in profits because of higher energy prices and soaring demand for natural gas.

Annual net profits at PetroChina amounted to RMB52.6 billion yuan ($7.86Bln) compared with 22.79 billion yuan ($3.39Bln) in 2017, a rise of 130.7 percent.

Ventures

PetroChina under Chairman Wang Yilin posted a 16.8 percent rise in group revenues to 2.35 trillion Chinese yuan ($350.44 billion) in 2018 compared with 2.01 trillion yuan ($300.3Bln) in 2017.

In addition to holding its share in the Yamal joint Venture in Arctic Russia and LNG Canada, PetroChina has a stake in the Area 4 reserves in the Rovuma Basin offshore Mozambique with Italian company Eni and ExxonMobil of the US that will underpin their Rovuma LNG project.

The plan submitted to the Mozambican government in Maputo gives details of the proposed design and construction of two processing Trains which will each produce 7.6 million tonnes per annum of LNG from the Mamba gas field.

"The Group seized the opportunity arising from the increase of international oil price in the first three quarters and the strong demand for natural gas," stated PetroChina in its earnings statement.

Chairman Wang Yilin has expanded PetroChina overseas stakes as Hong Kong-listed CNPC affiliate

PetroChina explained that the domestic output of natural gas steadily increased and imports of natural gas increased significantly, resulting in China surpassing Japan and becoming the largest importer of natural gas in the world for the first time.

"The overall supply and demand in the market was a bit tight. The country sped up the marketization of the natural gas prices, merged the city-gate prices of natural gas for residential and non-residential stations and further strengthened the regulation on pipeline transportation prices," said PetroChina.

"The Shanghai Oil and Gas Exchange launched LNG terminal open-access transactions and the Chongqing Oil and Gas Exchange started international LNG transactions," noted PetroChina.

China's overall domestic output of natural gas amounted to 159.4 billion cubic metres in 2018, representing an increase of 7.2 percent compared with 2017.

PetroChina said natural gas imports were 124.2 billion cubic metres, representing an increase of 35 percent compared with 2017, while consumption of natural gas amounted to 280.3 Bcm, a rise of 18.1 percent versus 2017.

"The global economy recovered moderately, though various economies proved uneven in their respective development, resulting in increasing unstable and uncertain factors in international politics and economy," added PetroChina.

"The economy of China remained generally stable with good momentum for growth," it said.

China is also reliant on oil imports as its domestic output of crude oil in 2018 was just 189.28 million tons, representing a decrease of 1.1 percent compared with 2017.

"The group tried to improve the efficiency and profitability of its exploration activities and tried to reinforce the base of resources for keeping oil production stable and increasing gas output," said PetroChina.

"In the Junggar Basin of Xinjiang, another significant discovery of exploration was made after that of the Ma Lake area," it added.

"The oil and natural gas exploration in the Tarim Basin and Sichuan Basin successively made a new breakthrough. A group of reserves were also discovered and confirmed in the Erdos, Qaidam, Bohai Bay and Songliao Basins," stated PetroChina.

"We pushed forward the development of unconventional oil and gas with steady steps and maintained momentum in growth of output of shale gas and coalbed methane," explained PetroChina.

"In 2018, the domestic business achieved crude oil output of 733.7 million barrels, representing a decrease of 1.3 percent compared with 2017, and a marketable natural gas output of 3,324.7 billion cubic feet, representing an increase of 5.4 percent year-on-year," it said.

In its overseas operations, PetroChina said total crude oil output amounted to 890.3 million barrels, representing an increase of 0.4 percent compared 2017.

"Overseas marketable natural gas output reached 3,607.6 billion cubic feet, representing an increase of 5.4 percent," it added.

PetroChina said that at the end of 2018 it had global exploration rights for oil and natural gas amounting to 295.5 million acres.

"The number of net wells in the process of being drilled was 499 and the number of wells with multiple completions during the current reporting period was 9,792," said PetroChina. ■

Brittany ferry group takes third vessel to use LNG

French shipping company Brittany Ferries has signed a deal to charter a liquefied natural gas-powered ferry built in China as it expands its clean-fuel fleet and expects British passengers to remain its top customers even after the UK leaves the European Union.

The ferry company said it had signed a charter deal for its new LNG-powered cruise ferry to be built at the Avic Weihai Shipyard in China.

Brittany Ferries said it had chartered its ferry from Stena of Sweden and it would be built to the Swedish fleet owner's E-Flexer design to serve Brittany's long-haul UK-to-Spain routes.

"The charter will continue our fleet renewal plans, marking the fourth brand new ship in five years," said Brittany Ferries.

"It signals our confidence in the demand for ferry travel post-Brexit and will help us meet the needs of our passenger and freight customers in the decades to come," stated the Breton company.

"It also clearly demonstrates our commitment to LNG as a fuel and, our ambition to operate one of the most modern, green and comfortable ferry fleets in the world," it explained.

Brittany Ferries has established itself as the national leader in French maritime transport and is still a private company owned by a Breton agricultural cooperative.

The ferry company operates 11 large ferries that connect ports in France, the UK, Ireland and Spain. The China-built ferry chartered from Stena will be delivered in 2023.

It said that around 85 percent of the company's passengers are British and it carries around 210,000 freight truck units each year.

Fluxys Belgium posts profit fall amid more Yamal LNG and trucks

LNG Journal editor

Fluxys Belgium, the operator of the Belgian natural gas network and the Zeebrugge LNG import terminal, reported a drop in net profits due to one-off tax items and higher investments as Russian LNG trans-shipments activities rose along with small-scale fuel loadings.

Net profit for the year was 54.46 million euros (61.31M), a fall of 22.5 percent compared with the 70.32M euros posted in 2017.

Operating revenues were also lower at 503.24M euros versus 510.52M euros.

Russian tankers are now a regular presence at Belgian terminal as trans-shipment activities increase

Investment

Net profit from continuing operations dropped 6.5 percent to 120.60M euros compared with 129.31M euros in 2017.

"However, the net profits in 2017 were exceptionally high due to a one-off impact on deferred taxes booked in the past totalling as a result of the Belgian corporate tax reform," said the company.

Investments amounted to 78.1M euros, mainly for the construction of the fifth tank at the Zeebrugge LNG terminal.

Fluxys Belgium noted a sharp increase in terminal activities for large volumes of LNG at Zeebrugge.

"Compared to the previous year, almost twice as many ships came to unload LNG at Zeebrugge in 2018, and more than twice as much LNG was regasified and injected into the grid," said Fluxys.

"Demand for loading large LNG vessels also picked up again," it added.

The ship-to-ship trans-shipment services with Yamal LNG in Russia began in May 2018 and marked the start of a new phase in the terminal's diversification.

"No fewer than nine direct LNG ship-to-ship trans-shipment operations were carried out," said the company.

"Once the fifth storage tank is commissioned in 2019, it will serve as a buffer for trans-shipments between two vessels that are not docked simultaneously," it added.

Fluxys said that a second loading bay for LNG trailers and trucks has also been brought into service.

Anthony Veder small-scale gas fleet gets two Norgas deliveries

Dutch shipping line Anthony Veder has taken delivery from the collapsed Norgas fleet of two combined gas carriers each of 10,000 cubic metres capacity and capable of transporting liquefied natural gas and petrochemical gases, including ethylene.

The two gas carriers were purchased from the previously family-run Norwegian fleet owner IM Skaugen that faced financial failure and struggled after the Teekay group terminated a pooling arrangement in 2017.

A consortium led by Nordea Bank of Denmark agreed to sell the multigas vessels in mid-March 2019 for an undisclosed sum from the collapsed IM Skaugen company Norgas Carriers. "With this transaction Anthony Veder expands its fleet to 33 vessels and reinforces its leading position in small-scale LNG," said the Rotterdam-based company.

"With eight small-scale LNG vessels the company continues its strategy of supporting the potential for LNG as a marine fuel and in the distribution of LNG for power supply," stated Anthony Veder.

The gas carriers were part of the Skaugen fleet, and are renamed "Coral Favia" from the current "Norgas Creation" and the second vessel is renamed "Coral Fungia" from "Norgas Invention".

As an integrated shipping company, Anthony Veder will take over the commercial operation and ship management from the current managers.

"The acquisition is consistent with our focus on providing safe and sustainable shipping solutions to our customers in the petrochemical gas segment and in the small-scale LNG market," said Jan Valkier, Chief Executive of Anthony Veder.

"This fleet expansion marks an important step in our continuous commitment to both segments," he stated.

"After a short yard period to upgrade them to our standards, the vessels are available to our customers from the second quarter of 2019," added the CEO.

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www.cwcbrazilgas.com
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Murphy Oil sells Malaysian assets for more than $2Bln to Thais and includes stake in FLNG project

LNG Journal editor

Murphy Oil, the US exploration and production company whose Rotan natural gas discovery offshore Malaysia is the subject of a floating LNG joint venture, has sold its Malaysian assets for more than $2 billion to Thailand state energy company PTT Exploration and Production.

Murphy, based in the town of El Dorado in the southern US state of Arkansas, was set to contribute its Block H reserves offshore Malaysia to the FLNG venture.

Murphy's offshore Malaysian fields sold to PTTEP of Thailand in all-cash deal for two companies

Subsidiaries

The US company said it agreed to sell its two main Malaysian subsidiaries, Murphy Sabah Oil and Murphy Sarawak Oil, to PTTEP for $2.12 billion in an all-cash transaction, plus up to a $100M bonus payment contingent upon certain future exploratory drilling results.

Murphy's year-end proved reserves were 816 million barrels of oil equivalent of which 16 percent were attributable to Malaysia.

The proved reserves are comprised of 468 billion cubic feet of natural gas and 51 million barrels of liquids.

Total production net to Murphy in 2018 for the properties to be divested was over 48,000 barrel of oil equivalent per day.

One of Murphy's partners in Malaysia, Petronas, successfully started up the world's first LNG production hull, the "PFLNG Satu", over the stranded Kanowit gas field offshore the state of Sarawak in 2017, and has been leading a similar project with Murphy scheduled to come on stream in 2020.

Murphy's FLNG venture is focused on the Rotan gas field, about 80 miles offshore Sabah, the Malaysian state occupying the northern part of the island of Borneo.

The Rotan gas well was discovered by Murphy in 2007. The Rotan field FLNG vessel will be designed to produce 1.5 million tonnes per annum.

Murphy also provides gas to the Malaysia LNG complex at Bintulu via a gas sales contract with Petronas for volumes up to 250 million cubic feet per day.

President and Chief Executive of Thailand's PTTEP, Phongsthorn Thavisin, said the acquisition included five petroleum exploration and production projects.

"These five oil and gas projects are located in shallow and deep water off Sarawak and Sabah," said Phongsthorn.

Projects in the producing phase include the Sabah K and the Sabah H ventures.

"Sabah H is in the development phase with a plan to commence the first gas production in the second half of 2020, supplying 270 million cubic feet per day to Petronas's Floating Liquefied Natural Gas 2 project," stated Phongsthorn.

The US company said it intended to allocate the proceeds from the transaction to advance its strategic priorities.

"After 20 years of successful operations in Malaysia, I am pleased to announce this all-cash transaction benefiting our shareholders by fully monetizing our proved and probable reserves," said Roger W. Jenkins, Murphy's President and Chief Executive.

Anadarko-led Mozambique LNG export project plans to seek 16 long-term carrier charters from market

Anadarko Petroleum of the US said it would seek long-term charters for around 16 liquefied natural gas carriers to ship volumes to customers from its proposed liquefaction and export project in Mozambique in southeast Africa.

The US exploration and production company, whose main assets are in onshore shale and conventional basins in the US states of Arkansas, Texas, Colorado and Pennsylvania, is scheduled to make a final investment decision soon along with its partners on the $20-billion Mozambique joint venture.

The supply contracts signed so far are for shipments delivered on an ex-ship (DES) basis whereby the seller provides the sea transportation to deliver to the buyer's preferred import terminal.

"The project needs approximately 16 LNG vessels to service the DES contracts," said the US company.

The Anadarko-led Mozambique venture will be the African nation's first onshore development, initially consisting of two liquefaction Trains with total nameplate capacity of 12.88 MTPA with feed-gas coming from the Golfinho-Atum gas fields located within offshore Area 1 licence of the Rovuma Basin.

The Mozambique plant is being built near the port of Pemba in the northeast Cabo Delgado Province, about 900 kilometres north of Beira, the Mozambican city badly damaged by a cyclone in early March 2019 that caused many casualties.

Anadarko has supply deals with European utilities Centrica of the UK and French utility EDF, the Japanese utilities Tokyo Gas and Tohoku Electric and energy companies, Royal Dutch Shell, China National Offshore Oil Corp. and Bharat Petroleum of India.

The other stakeholders in the Anadarko-controlled Area 1 licence include Japanese trading house Mitsui and Co. and three Indian companies Bharat Petroleum, ONGC Videsh and Oil India Ltd., as well as Thailand's national energy company PTTEP and the Mozambique state-owned oil and gas firm ENH.

Two other projects are planned in Mozambique from the separate Area 4 licence resources held by Italian energy company Eni and partners.

These include the Coral floating LNG joint venture with capacity of around 3.4 MTPA already under construction and scheduled to come on stream in 2022.

The Area 4 onshore Mamba LNG project is also expected to be sanctioned in 2019 and production is scheduled to start in 2024.

That consortium is formed by Mozambique Rovuma Ventures, comprising Eni 25 percent, ExxonMobil 25 percent and China National Petroleum Corp. (PetroChina) with 20 percent.

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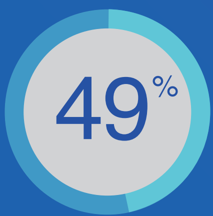

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