LNG Unlimited

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Malaysian FLNG joint venture in steady advance backed by US firm

Arkansas company to make key LNG investment with state-run Petronas

LNG Journal editor

Liquefaction hull similar to 'PFLNG Satu' planned

US energy exploration and production company Murphy Oil said it was progressing with plans to invest in a floating liquefaction project offshore Malaysia led by state-run Petronas and set to come on stream in 2020.

Murphy, based in the city of El Dorado in the southern US state of Arkansas, gave more details of its Malaysian FLNG plans as it recorded a net loss from continuing operations of $311 million in its full-year earnings.

Rotan field

The company is investing in the FLNG venture with Petronas, which successfully started up the world's first production hull, the "PFLNG Satu". The vessel is deployed over the stranded Kanowit gas field offshore Sarawak.

Murphy is involved in the second Malaysian FLNG venture for the deepwater Rotan gas field, about 80 miles offshore of Sabah, the Malaysian state occupying the northern part of the island of Borneo.

The Rotan gas well was discovered by Murphy in 2007 in the Block H licence in Malaysian waters of the South China Sea. The FLNG vessel will be designed to produce 1.5 million tonnes per annum.

Murphy Chief Executive Roger W. Jenkins said the company had a long-term relationship with Petronas and had been doing business in Malaysia since 1999.

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

In its fourth-quarter earnings statement, Murphy said it had allocated $260M of capital to its global offshore assets.

The capital is primarily related to three major offshore field development projects, including a subsea gas lift project for the Kikeh field in Malaysia, and the capital required in preparation to deliver gas into the second Petronas FLNG hull to be deployed over the Rotan field.

"In addition, investment is required for subsea equipment and drilling over the next two years in conjunction with the Petronas floating LNG project which remains on track to produce in 2020.," said Murphy's CEO Jenkins.

"Our 2018 capital program supports our strategy of investing in our growing onshore assets while supporting our long-lived, free cash flow providing offshore assets," said Jenkins.

"Our increase in capital in 2018 is related to investments in subsea projects along with our Block H FLNG project in Malaysia.

"Our investment program is based on our strong desire to spend within our means and provide free cash flow in addition to our current dividend level. Our program is also strongly supported by our diversified portfolio that provides high netback prices," commented Jenkins.

"Over the course of the year, we stabilized our production. We achieved higher fourth quarter 2017 production year-over-year, which was primarily driven by a 16 percent increase from our onshore business, when adjusted for asset sales," stated the CEO.

"Our constant focus on cost reductions, consistent cash balance, premium price-advantaged portfolio, and the ongoing financial strategy of spending within cash flow places our company in an excellent position moving forward," he said.

Murphy said its Malaysian natural gas production in the quarter in Sarawak averaged over 99 million cubic feet per day.

The company's ownership of the Kakap Gumusut field, operated by Shell, was slightly lowered due to a recent unitization agreement between the countries of Malaysia and Brunei that has impacted various production sharing contracts across both borders.

UNLIMITED AGENDA

Mississippi River LNG export project south of New Orleans makes regulatory progress

LNG Journal editor

US energy company Venture Global is making progress with the Plaquemines liquefied natural gas export project planned for the banks of the Mississippi River in Louisiana and for its interconnected Gator Express Pipeline.

The Federal Energy Regulatory Commission said it reviewing data submitted with the project applications and is preparing a draft environmental impact statement, which will be released for public comment.

Plaquemines LNG plant location and pipeline connections

West bank

Venture Global's Plaquemines project is planned for 630 acres of land near river mile-marker 55 on the west side of the Mississippi, 30 miles south of New Orleans.

The Mississippi River project will produce 20 million tonnes per annum of LNG and will also include small-scale liquefaction Trains, four LNG storage tanks and three marine loading berths.

Venture Global is currently in the US regulatory process to construct two liquefaction plants in Louisiana.

The second is the Calcasieu Pass facility to be located on a 1,000-acre site at the intersection of the Calcasieu Ship Channel and the waters of the Gulf of Mexico. Calcasieu Pass will produce 10 MTPA of LNG.

The FERC said it was "analysing data and preparing the Environmental Impact Statement" on the Mississippi River venture at Plaquemines.

"The applicants are currently responding to environmental and engineering data requests that the FERC staff issued after review of the applications," said the regulator.

"We are evaluating the supplemental information the applicants are providing. With receipt of all of the necessary information, we will prepare and issue a draft EIS for public review and comment.

"The draft EIS will disclose the results of our review and describe the potential environmental effects of the Project and alternatives.

"It will also describe Plaquemines LNG and Gator Express Pipeline's proposed construction procedures and mitigation measures, and make recommendations for additional mitigation and/or conservation measures to avoid or further reduce effects on the environment," said the FERC

Its Gator Express Pipeline project involves two natural gas supply pipelines in Plaquemines Parish that would connect the LNG plant to the existing interstate natural gas grid.

The two pipelines would be mostly parallel and adjacent to one another. These co-located pipelines are identified as the Southwest Lateral Texas Eastern Transmission Company (TETCO) and Southwest Lateral Tennessee Gas Pipeline (TGP).

"Each of these pipelines would have a gas supply capability of approximately 1.97 standard billion cubic feet per year of natural gas," the regulator added. ■

Corpus Christi LNG project in Texas takes shape with first Train to be completed by March 2019

The US Corpus Christi LNG export project in Texas, owned by Cheniere Energy, has told regulators that the first liquefaction Train would achieve substantial completion in March 2019 and the second processing Train would be finished by September 2019.

Cheniere has already brought four Trains on stream at its Sabine Pass plant in Louisiana with 18 million tonnes per annum of output and two more to complete.

The latest Corpus Christi progress report was filed to the Federal Energy Regulatory Commission under the name of Cheniere's subsidiary Corpus Christi Liquefaction.

The Texas liquefaction plant is being built on the shore of Corpus Christi Bay, at the north end of the La Quinta Channel.

The report covers construction activity through December 2017 and the Corpus Christi facility's building activities for January 2018 were said to be on track.

US engineering company Bechtel Inc., the world's leading liquefaction plant builder, has been leading the construction at Corpus Christi as well as at Sabine Pass and will construct all three Trains currently planned at the Texas facility.

The Phase 1 engineering procurement and construction contract for Corpus Christi includes building two LNG Trains, each with 4.5 million tonnes per annum of capacity, two storage tanks, one complete berth and a second partial berth.

The contract for Phase 2 includes one LNG Train, one additional tank, and completion of the second berth. The total capacity will be 13.5 MTPA.

The Texas plant's current cargo sales agreements amount to more than 9 MTPA, or two whole Trains of production.

Foundation customers include Indonesian energy company Pertamina, Australian LNG producer Woodside and the European-based utilities Endesa, Iberdrola, Gas Natural Fenosa and Electricite de France.

"Stage 1 construction continued progressing permanent plant concrete, structural steel, aboveground pipe, electrical, instruments, insulation, equipment installation, East Jetty activities and LNG Tank A and C activities," said the report.

It noted major highlights for last month's building work included setting Train 2 filter houses and air coolers, the commencement of riser erection on Flare Derrick structure, the energization of the Operations & Maintenance-Control Room building and progress on Train 1 LNG compressor substation.

The venture has potential pipeline supply points on five pipelines, namely Natural Gas Pipeline Company of America, Tennessee Gas, Houston Pipe Line, Kinder Morgan Tejas and Transco. ■

Tennessee Gas and Gulf South pipeline upgrades will help LNG

Kinder Morgan's Tennessee Gas Pipeline Co., one of the main suppliers of US domestic natural gas, shale gas and feed-gas for future LNG exports from the US Gulf Coast, has received regulatory approval for the first of its upgrades for the Broad Run expansion project.

TGP is a 11,800-mile pipeline system that connects Louisiana, the Gulf of Mexico and south Texas to the northeast section of the US, including New York City and Boston.

The Broad Run upgrade is costing $406.4 million and has already passed a field inspection from engineers from the Federal Energy Regulatory Commission. Broad Run, with Antero Resources Corp. as its sole shipper, is scheduled to go into service in June 2018.

Broad Run would increase the capacity of TGP's pipeline system through adding incremental compression and associated facilities, allowing Antero to have its sole-shipper capacity from Broad Run's lateral in West Virginia to delivery points along the Gulf Coast.

Several companies are developing large-scale LNG export plants on the Gulf Coast, including Venture Global in Louisiana, and have inter-connections to the TGP, including with its Gator Express Pipeline.

At the same time, the FERC has given Gulf South Pipeline Co. permission to build a compressor station in a separate project in Texas for its proposed Coastal Bend Header venture. This would create expansion capacity to deliver feed-gas for the Freeport LNG export plant being constructed at Quintana Island in Texas.

US Cove Point LNG plant begins one-month countdown to exports

LNG Journal editor

Pre-treatment area of latest liquefaction plant

Dominion Energy said its Cove Point liquefied natural gas export plant at Chesapeake Bay has begun producing LNG with the newly constructed facility undergoing full commissioning along with a comprehensive round of testing and quality assurance activities before commercial operations begin in just over one month's time.

Dominion reiterated that Shell North America is currently providing the natural gas needed for liquefaction during the commissioning process and will off-take by ship the LNG that is produced.

When commissioning and testing is complete, Dominion will produce LNG for the Japanese joint venture comprising Sumitomo Corp. and the utility Tokyo Gas, as well as for Gas Authority of India (GAIL) under 20-year, take-or-pay contracts.

Cove Point has a nameplate capacity of 5.25 million tonnes per annum of LNG compared with 18 MTPA being produced at the only US export plant operating on the US Gulf Coast, Cheniere Energy's Sabine Pass plant.

Construction of the Cove Point liquefaction facility began in October 2014, following more than three years of federal, state and local permit reviews and approvals.

With a cost of $4 billion, it is the largest construction project ever for Maryland and for Dominion.

The company added that construction involved more than 10,000 workers and a payroll of more than $565 million.

Two other LNG export plants are scheduled to come on stream before the end of 2018. The Elba Island facility in Georgia will start up six of the 10 small modular Trains being constructed, each with a capacity of 0.25 tonnes per annum.

The first liquefaction Train at Freeport LNG in Texas with 5.1 MTPA of capacity is also expected to come online by the end of 2018.

In 2019, the fifth and sixth Trains at Sabine Pass are scheduled to be on stream and two Trains at Cheniere's Corpus Christ plant in Texas with around 9 MTPA of output will also start.

North American plant developer still seeking firm buyers and Canada gas

LNG Ltd, the Australian-listed developer of two liquefied natural gas export projects in North America, said in its latest quarterly report that it was concentrating on securing volume buyers from its planned Magnolia liquefaction and export plant in Louisiana and was making progress on Bear Head LNG in the East Coast Canadian province of Nova Scotia.

The company noted that during the final three months of 2017 it had extended the validity period of its current binding engineering and construction contract for Magnolia, as well as its offtake agreement with Meridian LNG and its proposed UK import facility until the end of March.

LNG Ltd had also appointed Joe B'Oris as Chief Development Officer with overall responsibility for commercial development and marketing, including offtake agreements.

"Over the last quarter, our discussions with potential offtakers have gained momentum," the company said.

"With the record-breaking winter temperatures, a sharp increase in global spot LNG prices, and a gas shortage in parts of Asia, the window is closing to secure long-term LNG supply having first delivery in 2022 or early 2023.

"We continue to have productive and serious discussions with offtakers and remain confident in our ability to sign offtake agreements with credit-worthy buyers," added LNG Ltd.

At its Bear Head LNG venture, the company was working to receive the final permits for construction while Canadian natural gas producers were considering supplying the plant with feed-gas.

"We are attracting increasing attention from Western Canadian basin gas producers as a viable alternative outlet for their production," said LNG Ltd.

"Discussions on agreements with producers and pipeline partners in support of advancing Bear Head LNG toward an eventual final investment decision (FID) continues," stated LNG Ltd.

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NEWS NUDGES

Wärtsilä posts mixed results

Wärtsilä, the Finnish ship-propulsion and gas systems company, said profits before taxes declined by 5 percent in the fourth quarter to 215 million euros ($268M) compared with 226M euros in the same three months of 2016. On an annual basis, pre-tax profits were up 6 percent at 506M euros versus 479M euros the previous year. Fourth-quarter order intake rose 14 percent to 1.51 billion euros and on a yearly basis orders were up 15 percent at 5.64Bln euros. “The favourable order trends seen throughout the year continued in the fourth quarter, providing us with a solid basis from which we can develop our business,” said President and Chief Executive Jaakko Eskola.

Japanese fuel talks

Four Japanese companies have begun joint discussions on the commercialization of a new business to supply LNG as a marine fuel for ships in the Chubu region of Japan. The companies are Japanese shipping line Kawasaki Kisen Kaisha, known as K-Line, the utility Chubu Electric Power, trading company Toyota Tsusho Corp. and Japanese shipbuilder Nippon Yusen Kabushiki Kaisha.

Ice-breaker’s LNG start

Arctia, the shipping company in Finland with a fleet of eight ice-breakers, said the world’s first LNG-powered ice-breaker “Polaris” had entered 2018 operations. The “Polaris” runs on both marine diesel and LNG. “The crew is very excited to begin ice-breaking duty,” said Pasi Jarvelin, the master of “Polaris”.

Shell LNG sales jump to 66MT with higher prices and Australian volumes

LNG Journal editor

Shell carrier, the 140,645 cubic metres capacity ‘Granatina’

Royal Dutch Shell's annual LNG sales jumped 16 percent to more than 66 million tonnes as Australian production increased along with global prices, boosting annual earnings along with cash generated from assets sales to almost $16 billion.

The Anglo-Dutch company said LNG sales in 2017 were 66.04MT compared with 57.11MT in 2016.

Shell's LNG sales were up 12 percent in the fourth quarter to 17.15MT compared with 15.34MT in the same three months of 2016.

Integrated Gas

In the Integrated Gas division, including LNG, the fourth quarter saw Shell complete the sale of its shares in Austrainan LNG producer Woodside Petroleum for $2.63Bln.

Shell also completed the sale of its 16.8 percent interest in Brazil's Companhia de Gas de Sao Paulo (Comgás) to Cosan Ltd for $363 million, including shares and cash.

Shell's overall earnings for the fourth quarter more than doubled to $4.3 billion compared with $1.79Bln.

Its earnings for the full year were $15.8Bln versus $7.18Bln in 2016, up 119 percent and reflecting increased contributions from all businesses.

"Full-year earnings benefited mainly from higher realised oil, gas and LNG prices, improved refining performance and higher production from new fields, which offset the impact of field declines and divestments," said Shell.

"Compared with the fourth quarter 2016, Integrated Gas earnings, excluding identified items, benefited from higher realised oil, gas and LNG prices, as well as lower taxation and depreciation, partly offset by lower contributions from trading," said Shell.

"LNG liquefaction volumes were lower due to higher maintenance, partly offset by increased liquefaction volumes from Gorgon (Australia).

"LNG sales volumes increased, compared with the fourth quarter 2016, reflecting increased sales of third-party volumes," the company added.

US LNG and gas equipment-marker Air Products boosts orders in Asia

US LNG and industrial gases equipment-marker Air Products posted its 15th consecutive quarter of rising earnings per share as it continued to win new contracts in countries with growing natural gas and feed-gas needs, including China and India.

Air Products said sales in what is the Lehigh Valley, Pennsylvania-based company’s fiscal first quarter amounted to $2.2 billion, an increase of 18 percent from the prior year on 13 percent higher volumes, 2 percent higher pricing and 3 percent favorable currency.

“Volumes were higher in all three Industrial Gas regions, driven by new plants, a contract termination resulting in a plant sale in China, and base business growth,” added the company.

Air Products has supplied the main liquefaction equipment and technology for many of the world’s leading LNG exporting nations and for new projects in the US, Australia and elsewhere.

“We continue to be optimistic about the future of Air Products,” stated Seifi Ghasemi, Chairman, President and Chief Executive.

“We cannot predict, and do not have control, over worldwide political or economic developments. But we do have control over the operational and growth performance of Air Products, and we feel confident we can deliver on our goals.

“We have a strong balance sheet - the best in the industry. We will continue to focus on safety, controlling our costs, and investing in the many strategic growth opportunities we see,” explained Ghasemi.

It recently won three major equipment orders for industrial gas ventures in China and India.

Air Products gasification project contract successes included the Lu'An coal-to-syngas project in China, a $1.3 billion joint venture, a $3.5 billion syngas joint venture with Yankuang Group in China.

The US company additionally signed an agreement to acquire Royal Dutch Shell’s coal gasification technology business and announced a syngas supply agreement for a new petrochemicals project owned by Bharat Petroleum Corp. in the southwest Indian port of Kochi in Kerala state.

LNG carrier went on 185-mile diversion to rescue stricken American yacht crew in Pacific storm

LNG Journal editor

The LNG carrier “Stena Crystal Sky”, which has recently transported shipments from the US Sabine Pas export plant in Louisiana, has been thanked by two American citizens and the US Coast Guard for rescuing the pair from their damaged vessel in heavy seas off the Pacific Coast of Mexico.

After receiving a distress call via the US Coast Guard on 18th January, the ship’s crew set off on a 185-mile rescue mission through stormy conditions to the stranded yacht.

Northern Marine Management for the LNG carrier owners said the challenging conditions and resulting violent motion of the yacht had caused damage to the rudder and destroyed its autopilot mechanism.

The US Coast Guard was alerted by the two Americans on board when the boat’s bilge pump capability failed and they were unable to limit water coming on board.

“Arriving at the scene, the ‘Stena Crystal Sky’ deployed a rescue boat, commanded by Second Officer John Giffin, and ably assisted by Third Officer James Hamilton, Third Engineer Shaun Reid and AB Seaman Alejandro Flores,” said Northern Marine, based in Clydebank, Scotland.

Northern Marine said the LNG carrier crew took the occupants of the yacht, US citizens Don Spitler and Elizabeth Anderson, back to the LNG carrier.

‘Stena Crystal Sky’ with its colourful livery has delivered LNG from the US Gulf Coast to Asia

The pair had been on the 17th day of a planned voyage from Cabo San Lucas in Mexico bound for the Cook Islands via the Marquesas and found themselves in unexpectedly heavy seas and an estimated 3-metres swell.

“To sum up the event, we knew that we were in a difficult rescue situation and had no expectation, only hope,” said Mr Spitler, according to a statement from Northern Management.

“We knew that this was a commercial vessel, not the Coast Guard, but the skill of the Captain and Crew proved them capable of just such a rescue as well. It’s clear that the company provides and trains their captains, officers and crew to the highest level of excellence,” he added. Captain Andrew Whiteley praised the crew for their efforts in bringing Mr Spitler and Ms Anderson to safety.

The Swedish-owned 171,800 cubic metres capacity “Stena Crystal Sky” has previously delivered LNG from Sabine Pass to Japan and has striking livery painted on the light-blue hull of sea dragons spouting fire.

“Once settled onboard and after a shower, change of clothes and a hearty meal, the couple told of the moment when they were packing up their belongings in their yacht and they looked up to see the bow-Dragons of ‘Stena Crystal Sky’ approaching to pass close by as dawn broke,’ said Captain Whiteley.

“They saw the other livery features along the ship’s hull as the vessel began to turn around them to create a lee. The vessel's entire livery and appearance made quite an impression on them,” added the captain.

The yacht of the American couple was abandoned at sea while they remained on board the LNG carrier to be cared for until it arrived in Panama.

Andrew Salt, Fleet Manager of Northern Marine Management, said: “On behalf of Northern Marine Management, I would like thank Captain Whiteley and the crew for their professionalism and exceptional effort in rescuing Mr Spitler and Ms Anderson. Fulfilling their obligations to aid those in danger at sea, the crew displayed exceptional seamanship and their actions are a credit to themselves and to the company.”

The carrier's owner Stena Bulk, based in Gothenburg, Sweden, has just three LNG carriers in its fleet of over 100 commercial vessels.

In Autumn 2017, the crew of sister LNG vessel “Stena Blue Sky” was commended for the rescue of a North Korean fisherman stranded in the Sea of Japan.

Article 98 of the UN Convention on the Law of the Sea states that a ship’s master must aid any person found at sea in danger of being lost, providing it does not pose serious danger to their own crew or passengers.

Mitsui bid boosts value of gas assets in Australian

Japanese trading house Mitsui & Co. has entered the bidding battle for Australian natural gas exploration and production company AWE with an offer that trumps two other bids from China and Australia and raises the value of Australian natural gas where the domestic market is competing with LNG for the resource base.

Mitsui, a major LNG player in shipping and investment in addition to its other multiple activities, has offered A$0.97 per share for AWE whose most valuable asset is its 50-percent joint venture stake in the Waitsia natural gas field, one of the largest onshore gas discoveries in Western Australia. The other Waitsia field shareholder is Australian firm Beach Energy.

The Mitsui bid values the Australian company at over A$600 million (US$485M) and betters that of Australia's Mineral Resources Ltd, based in Perth, who had offered A$.0.831 per share.

Chinese company China Energy Reserve and Chemical Group (CERCG) was the first bidder with an offer of A$0.73 per share and had LNG plans for the target's Western Australia natural gas assets.

"AWE advises that it has received an unsolicited, non-binding and conditional proposal from Mitsui & Co to acquire 100 percent of the shares in AWE for cash consideration of $0.95 per share (Mitsui Proposal)," said the Australian company in its latest statement.

"If the Mitsui proposal proceeds, it would be implemented by way of an off-market takeover bid for AWE," explained AWE.

Qatar wins Gulf of Mexico exploration rights in Mexico City auction and adds to LNG activities on US Coast

LNG Journal editor

Qatar Petroleum, the largest LNG exporter and the main stakeholder in the US Golden Pass LNG export project on the Gulf Coast, has won exploration rights for five offshore blocks in the Gulf of Mexico in the Mexican government's bidding round.

The winning bids for mainly oil exploration were announced by the National Hydrocarbon Commission of Mexico at the conclusion of a public bidding session in Mexico City.

Qataris already have foothold on Gulf Coast with LNG plant

Partners

Qatar Petroleum, whose Ras Laffan plant in the Middle East produces around 77 million tonnes per annum of LNG for its subsidiary Qatargas and partners, said it won the exploration rights for blocks 3, 4, 6, and 7 in the Perdido basin as part of a consortium comprising Royal Dutch Shell, the operator with a 60 percent stake to Qatar Petroleum's 40 percent interests.

Qatar Petroleum also won the exploration rights for block 24 in the Campeche basin as part of a consortium with Italian energy company Eni as operator.

The Qatari company's President and Chief Executive Saad Sherida Al-Kaabi said the winning bids continued the important role Qatar Petroleum plays in the global oil and gas industry.

"Winning these offshore exploration blocks in Mexico, which contain some of the most promising hydrocarbon prospects in the world, is an important achievement," said Al-Kaabi. "It represents another step in implementing our strategy to expand our international footprint and to pursue Latin America as an important core area for Qatar Petroleum," he added.

"I would like to take this opportunity to thank the Mexican authorities for the transparent and efficient process, and our partners Shell and ENI for their excellent collaboration on this opportunity," stated Al-Kaabi.

Qatar already has a solid stake on the American side of the Gulf of Mexico through the Golden Pass LNG export project.

The US Department of Energy has granted the Golden Pass LNG joint venture in Texas a permit to export cargoes to all countries.

Golden Pass LNG already exists as an import terminal and will add three liquefaction Trains with a total production capacity of 15.6 million tonnes per annum, with each Train producing 5.2 MTPA.

The export project, located on the Sabine-Neches Waterway in Texas, is 70 percent-owned by Qatar Petroleum while US majors ExxonMobil and ConocoPhillips share the remaining 30 percent stake.

> "Winning these offshore exploration blocks in Mexico, which contain some of the most promising hydrocarbon prospects in the world, is an important achievement"
>
> *- Saad Sherida Al-Kaabi, President and Chief Executive , Qatar Petroleum*

Other winners

Mexico auctioned a total of 29 deepwater blocks and among the winners were other LNG players such as Petronas of Malaysia and Ophir Energy of the UK.

While the Mexican sale included nine blocks in the Perdido Fold in the north of the Gulf of Mexico, the government also auctioned 10 each in the Cordilleras Mexicanas and Salina Basins. Prequalified companies included all the oil majors.

Three Perdido blocks were not awarded. Of the remainder, Petroleos Mexicanos (Pemex), Mexico's national oil company, took one on its own and the other in partnership with Shell.

Spain's Repsol, Malaysia's Petronas, and London Stock Exchange-listed Ophir, a stakeholder in the Equatorial Guinea floating LNG project offshore West Africa, were among the winners in the tenders of the 10 Cordilleras blocks.

The three companies won one block together, another was won by the Petronas subsidiary Carigali, Ophir and Thailand's PTTEP and a third by Spain's Repsol and Petronas together. The remaining blocks were not awarded.

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LNG exporting region of Western Australia broadens fuel use by supplying Murchison gold mining project

LNG Journal editor

Evol LNG, a company involved with liquefaction and export plant owner Woodside Petroleum in developing LNG fuel use in Western Australia, has entered into a long-term agreement to supply a large gold mining operation for processing and power.

Evol's agreement is with Gascoyne Resources for the supply of LNG to the Dalgaranga Gold Project, located in Western Australia's Murchison region.

Evol LNG delivery trucks in the remote Pilbara region

Gas-fired power

The LNG will be used to fuel both Zenith Energy's 15-megawatts gas-fired power station and the 2.5 million tonnes per annum gold-processing facility.

Evol LNG is managed by Kleenheat, part of Wesfarmers Chemicals, Energy & Fertilisers group. Its supply agreement for the mine starts in the second quarter of 2018.

The LNG fuel company distributes the fuel in its fleet of tanker trucks and was involved in the first LNG ship bunkering operations in Australia.

Truck-to-ship bunkering operations began in Australia on the 23rd of January 2017 when the first re-fueling took place of the platform supply vessel, "Siem Thiima", at the King's Bay Supply Base near the port of Dampier.

Woodside is the operator of the North West Shelf and Pluto LNG export plants in Western Australia and Dampier is one of the country's main ports for LNG shipments to Asia.

A second quay-side LNG bunkering operation was carried out by Evol at the port of Fremantle on the 19th of February 2017.

Woodside and other companies are aiming to build up LNG fuel use in Western Australia where the mining industry uses large volumes of diesel for heavy-horsepower machinery.

Evol business manager Nick Re, said the gold mine agreement emphasises that trucked LNG can support a gas-powered micro-grid at a remote mine site without the need for full diesel redundancy.

"Zenith Energy has developed a gas-fired solution with a fuel efficiency better than diesel generation that also delivers the required load-acceptance capability," he added.

Evol will also build, own and operate a large on-site LNG storage and vaporisation facility at the mine.

"The facility will store more than one million litres of LNG which will keep the mine operating for up to two weeks if road access to the remote site is interrupted due to factors such as seasonal rainfall," Evol explained.

More LNG fuel use is forecast globally as a cleaner alternative to meet stricter pollution regulations on land, regulated by governments, and in the shipping industry.

The International Maritime Organization will put a cap on sulphur use in fuel from 2020 and Emission Control Areas (ECAs) have been introduced in the port areas of Northwest Europe and North America, while countries such as China have introduced emission controls for shipping in their main ports.

As emission reduction efforts continued to become more important globally, including in Australia, the adoption of LNG as a low emission marine and industrial fuel was expected to increase.

As part of its efforts, Woodside also signed an agreement with the oil and gas unit of US equipment maker General Electric to work together to support the use of LNG in Western Australia.

Carnival Corp. orders second LNG-powered cruise liner from German yard for UK market

Carnival Corp. the world's largest cruise line company, has ordered a second new ship from German shipbuilder Meyer Werft for its P&O Cruises brand and with LNG fuel capability as part of its dual-fuel propulsion.

Carnival said the latest vessel would have dual-fuel engines using LNG for power in port and at sea, resulting in cleaner air emissions and improved air quality and with delivery in 2022.

Similar to a P&O Cruises sister ship due for delivery in 2020, this second vessel will be the largest cruise liner to be built specifically for the British market.

"It will be 180,000 gross tons and will accommodate approximately 5,200 guests (lower berths). Both new ships will be registered in the UK," said Carnival.

The ship will be built by Meyer Werft at its shipyard in Papenburg located inland on Germany's River Ems.

In total, Carnival has agreements in place with leading German and Finnish shipbuilders Meyer Werft and Meyer Turku to build eight LNG-powered cruise ships across four of its 10 global cruise brands with delivery dates between 2018 and 2022.

European maritime classification society, DNV GL, estimates that the adoption of LNG as a fuel for shipping will lead to between 400 and 600 vessels powered by LNG in service by 2020.

Emission control areas (ECAs) are also in place for shipping in Northwest Europe and North America and the Caribbean.

LNG fuel is also regarded as the best alternative for ship-owners to meet the International Maritime Organization's 2020 introduction of a global cap on fuel sulphur content.

"These two next-generation ships for delivery in the next four years are real and tangible evidence of our absolute optimism for future growth," said Carnival UK President Josh Weinstein.

Carnival said the new ship is part of its ongoing fleet enhancement strategy with 19 new ships scheduled for delivery between 2018 and 2022.

"We have a bold and ambitious vision for P&O Cruises to become Britain's number one holiday choice and we can only do that by increasing our fleet. The build for our 2020 ship begins this spring," said P&O Cruises Senior Vice President Paul Ludlow.

Thomas Weigend, managing director of Meyer Werft, added: "We are very happy to continue our excellent partnership with Carnival Corporation and P&O Cruises."

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