LNG Unlimited

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Air Products increases equipment offering and plans China gas plant

US LNG player acquires Rotoflow turboexpander business from services company Baker Hughes-GE

LNG Journal editor

CEO Ghasemi is broadening company's gas portfolio

Air Products, the US industrial gases company and LNG equipment-maker, said it had agreed to acquire the Rotoflow turboexpander business from US energy services company Baker Hughes-GE and is also expanding its interests in China as part of the Asian nation's switch to gas to reduce pollution.

This acquisition extends the Air Products industrial gas and LNG turboexpander capabilities into the growing hydrocarbon, petrochemical and energy segments. The financial terms of the transaction are not being disclosed.

Proprietary

"Air Products already provides key proprietary equipment, services and industrial gases to many existing Rotoflow customers, and we are looking forward to expanding those relationships," said Air Products' Executive Vice President Samir J. Serhan.

At the same time Air Products is expanding its industrial gases business by taking up a contract to build and own a gas plant in northern China using gasification technology bought from Royal Dutch Shell.

In regard to the Rotoflow acquisition, Air Products has designed and manufactured over 1,600 high-quality turboexpanders as an integral part of large industrial gas and LNG projects executed by the company.

"Recent projects include the world's largest industrial gases facility in Jazan, Saudi Arabia, and the proprietary LNG technology provided for the floating liquefied natural gas projects offshore Malaysia," said Air Products, based in LeHigh Valley, Pennsylvania.

"Both projects utilized Air Products' leading turboexpander technology. The integration of the Rotoflow technology will enhance Air Products' existing capabilities," it added.

The combination of the existing Air Products and Rotoflow turboexpander capabilities will be integrated into a new Air Products business division known as "Rotoflow, an Air Products Business."

Air Products also announced earlier in August it had been awarded a contract to build and own a gas plant in the Inner Mongolia region of northern China.

The US company will also operate the coal-to-syngas plant for local industrial firm Jiutai New Material Co., based near the Chinese city of Hohhot.

The facility will be the first to be built by Air Products that will include the proven gasification technology acquired from Shell.

The Air Products contract is for an air separation, gasification and gas clean-up facility that will include its new gasification processing capability as part of a multi-billion dollar mono-ethylene glycol project.

The gas plant portion of the project is expected to be brought on stream by Air Products in the fourth quarter of its 2021 fiscal year.

"Air Products is very pleased to have been awarded this very important gasification project by Jiutai," said Seifi Ghasemi, the US company's Chairman, President and Chief Executive.

"This facility will be the first plant 100-percent owned by Air Products and is a prime example of our gasification strategy focused on building, owning and operating the facilities and supplying syngas under long-term onsite contracts," explained Ghasemi.

"We continue to build our credibility when it comes to gasification around the world," stated the CEO.

Air Products said it would invest about $650M to build the facility and would receive a fixed monthly fee under the long-term contract. ■

UNLIMITED AGENDA

Australia outlines benefits of coordination of LNG plant maintenance and more energy hubs

LNG Journal editor

Australia, whose LNG output will soon exceed 80 million tonnes per annum, is proposing other nations follow its initiative for industry-wide coordination of plant shutdowns and more sharing of infrastructure.

During presentations on Australia at an energy conference in Stavanger, Norway, the suggestion was made by Australian Petroleum, Production and Exploration Association (APPEA) Chief Operating Officer Stedman Ellis.

Mindsets

"We are seeing signs of a shift in mindset from operators from being individually focused on discrete challenges to working collaboratively across contractors, suppliers, operators, governments, unions and communities," said Ellis.

"It is also being shaped by shared views that we need a vibrant local service centre that can enhance our competitiveness, reliability and productivity as well as deliver new jobs," he added.

"Over the past two years there have also been some tangible results that reinforce this shift in attitude," stated Ellis.

He gave details of an exemption issued by the Australian Competition and Consumer Commission which authorised LNG operators such as US major Chevron, Japanese company Inpex Corp., Royal Dutch Shell and Woodside Petroleum to co-ordinate maintenance activities.

"This recognised, after significant advocacy from the LNG producers, that they all compete for a limited pool of skilled contractors and specialised equipment to conduct their scheduled maintenance," he explained.

Ellis explained that with this ruling, Western Australian and Northern Territory LNG producers such as Gorgon LNG, Wheatstone, Pluto LNG , Darwin LNG and the new Ichthys plant near Darwin can now schedule maintenance together to improve efficiency and maximise LNG production without risking breaching competition laws.

"Under the ruling, the producers will also need to publicly disclose maintenance schedule information meaning a greater degree of transparency for suppliers than has ever been experienced, and therefore greater confidence in upcoming demand," said Ellis.

The APPEA, representing most oil and gas companies operating in Australia, is also backing the benefits of cooperation hubs.

Ellis noted that this kind of thinking was being applied to concepts for further development in areas like the Carnarvon Basin offshore Western Australia where there are a number of fields in difficult locations that could benefit from a shared pipeline.

"Operators like Woodside and Chevron have flagged concepts for a pipeline which could engage multiple resource and infrastructure owners across the basin , something that would represent a step change in development," he added. ■

LNG stakeholder Santos advances with purchase of West Australian supplier Quadrant Energy

Australian energy company Santos, with stakes in three Asia-Pacific LNG export plants, is moving forward to take over the major Western Australian natural gas supplier Quadrant Energy after itself escaping an acquisition raid by US equity fund Harbour Energy.

Santos will acquire 100 percent of Quadrant for an upfront payment of $US2.15 billion in cash and new debt.

Quadrant supplies around 20 percent of all of Western Australia's natural gas.

Santos operates the Gladstone LNG plant in Queensland and is a shareholder in Darwin LNG as well as the Papua New Guinea export plant and expansion project.

The Adelaide-based company rejected a US$10.9Bln takeover bid by Harbour Energy in May 2018, saying the offer did not represent the full value of the company.

Harbour was backed by EIG Global Energy Partners, a private equity group based in Washington DC and had been stalking Santos for a year.

Santos operations include the Gladstone export plant

Santos said its own acquisition of Quadrant would increase Santos's proven and probable reserves by 220 million barrels of oil equivalent, a 26 percent jump, and its annual production levels by around 32 percent, or 19 million barrels of oil equivalent.

"This acquisition delivers increased ownership and operatorship of a high-quality portfolio of low cost, long life conventional Western Australia natural gas assets which are well known to Santos, and importantly significantly strengthens Santos's offshore operating capability," said Santos Chief Executive Kevin Gallagher.

The announcement of the deal came just after Quadrant released new data on its Dorado well offshore Western Australia, which is being called one of the most prospective oil discoveries in Australia in years.

"The transaction lowers our 2018 forecast free cash flow breakeven oil price by a further $4 a barrel, and Quadrant's stable cash flows provide increased certainty during the upcoming period of major growth project delivery," added Gallagher.

The owners of Quadrant, Brookfield Business Partners and Macquarie Capital, said the time to sell was now following the Dorado discovery.

"Brookfield and Macquarie determined it to be the appropriate time to transition Quadrant to a long-term owner that is suitably equipped to take it through the next phase of development activities, including the assessment and development of the Dorado opportunity," said Brookfield.

The acquisition will be funded through Santos's existing $US1.5Bln in cash and with the balance coming from new debt facilities.

"We look forward to welcoming Quadrant's staff to the Santos family and integrating our Western Australian operations," stated Gallagher. ■

Japan's LNG imports stable as costs rise by 16.7 percent

Japanese liquefied natural gas import prices rose by 16.7 percent compared with the year-ago period and more shipments from the Middle East offset lower Asian cargo volumes while US LNG cargo volumes are catching up with those from Russia.

LNG shipments were little changed at 6.813 million tonnes in July versus 6.817MT in the same month of 2017, down 0.01 percent, according to the preliminary trade figures from the Japanese Finance Ministry

Imports had dropped to 5.54MT in June from 6.18MT in the same month of last year.

Deliveries of the main LNG competitor fuel for power generation, thermal coal, dropped 6.7 percent in July to 9.88MT.

The monthly cost of the LNG cargoes rose 16.7 percent in July to 385.39 billion yen ($3.50Bln) compared with 330.19Bln yen ($2.99Bln) in July 2017.

The Ministry data for July 2018 showed that Asian shipments from nations such as Malaysia and Indonesia, Papua New Guinea and Brunei dropped 26.1 percent to 1.45MT.

Imports from the Middle East region jumped 10 percent, with shipments from countries like Qatar, the United Arab Emirates and Oman totalling 1.61MT in July.

Monthly Russian shipments from the Sakhalin Island plant in the Far East declined by 20.1 percent to 465,000 tonnes. Imports from the US amounted to 238,000, up almost 70 percent on the corresponding month of 2017.

The balance of imports from other nations in the preliminary figures for July amounted to 3.05MT versus 1.95MT in June 2018, with most volumes coming from Australia, as well as some shipments from Africa and the spot market.

Rio Grande LNG developer sets up stock deals for early finance needs

LNG Journal editor

NextDecade Corp., developer of the Rio Grande LNG project in Texas and other ventures, has agreed to sell convertible preferred stock to funds managed by US equity firm BlackRock after earlier in August selling $50 million of stock to other funds.

NextDecade, listed on the Nasdaq global exchange, said the investment by BlackRock further strengthened its capital position as it continues development of Rio Grande LNG near the port of Brownsville and associated pipelines in South Texas.

Model of how Rio Grande LNG near Brownsville will look

Investors

"We are honored to welcome funds managed by BlackRock as equity investors in our company," said Matt Schatzman, President and Chief Executive of NextDecade.

"BlackRock is a recognized leader in energy infrastructure development, and brings a world-class perspective on the major role that LNG plays in large and rapidly growing markets across the globe," added the CEO.

Pat Eilers, a Managing Director with BlackRock's Infrastructure team, said the Rio Grande LNG project was well positioned to capitalize on competitive advantages related to its proximity to abundant, associated natural gas reserves in the Permian Basin and Eagle Ford Shale.

"Our clients are increasingly interested in the investment opportunities resulting from the ongoing global energy transition, and we are excited to invest in one of the leading companies in the second wave of US LNG development on their behalf," added Eilers.

NextDecade said it would hold a special meeting of stockholders in September 2018 to consider the issuance of Series B Convertible Preferred Stock pursuant to the purchase agreement with BlackRock. The value of the transaction would then likely be disclosed

NextDecade is planning production of up to 27 million tonnes per annum of LNG at the Rio Grande facility and the Rio Bravo Pipeline with 4.5 billion cubic feet per day of capacity to transport natural gas from the Agua Dulce area to the plant.

Indian LNG imports rise for fifth month along with shipment costs

Indian LNG imports rose for a fifth straight month as volumes increased from new long-term supply contracts in Australia and the US while the costs of the cargoes also surged for the Asian nation.

LNG deliveries to India's three main import terminals at Dahej, Hazira and Dhabol near the West Coast port of Mumbai during July amounted to 1.83 million tonnes versus 1.42MT in July 2017.

The cumulative imports were 20.3 percent higher at 6.98MT for the first four months of the fiscal year to July compared with 5.81MT in the same period of last year, according to figures from the Indian Ministry of Petroleum and Natural Gas.

Imports in June had amounted to 1.85MT, which was 38.9 percent higher than the 1.34MT recorded in June 2017.

The figures show that imports of the fuel have risen for five months of the calendar year since March 2018 after they had declined by 1 percent in February.

The imports increased as India's own natural gas production declined by 5.1 percent year-on-year in July to 2.71 billion cubic metres.

The cumulative production of natural gas for the first four months of the fiscal year amounted to 10.78 Bcm, down 1.2 percent from the same period of last year.

The LNG imports had cost $900 million in July compared with $500M in the same month of 2017 before oil price rises fed into other energy markets.

Cargoes have cost India around 3.2 billion in the April-to-July 2018 period compared with about $2.0Bln in the 2017-2018 fiscal year.

Among the cargo deliveries at the start of the month, the 176,300 cubic metres capacity vessel "Rioja Knutsen" unloaded a Nigerian shipment on July 1 at the Dahej terminal in India, owned by Petronet.

The 159,980 cubic metres capacity vessel "Yari LNG" then unloaded a cargo on July 5 at the Hazira terminal, operated by Shell India, from the Oman LNG plant in the Arabian Peninsula.

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NEWS NUDGES

Shell-Total LNG deals

French energy major Total has signed an agreement to sell 500,000 tonnes per annum of LNG to Royal Dutch Shell over five years on a delivered basis to supply the markets of India and neighbouring countries. “The deliveries will be sourced from Total’s global LNG portfolio and are expected to begin in 2019,” said the French company. The deal is in addition to Total signing an accord with Shell for the sale of its 26 percent minority equity stake in the Hazira import terminal on the West Coast of India, near Mumbai.

LNG plea by senators

Eight US Republican Senators have sent a letter to Kevin J. McIntyre, Chairman of the Federal Energy Regulatory Commission, calling on the FERC to approve pending LNG export project applications in a timely manner. The letter included Senators from the main energy producing states and sought information regarding the agency’s approval process and its available resources. “We are pleased that you and the other Commissioners share our dedication to making sure that the second wave of US LNG export project applications moves forward in a timely manner. We look forward to continuing to work closely with the Commission,” stated the Senators.

US LNG project safety

The US Pipeline and Hazardous Materials Administration (PHMSA) is expected to take a more prominent role in evaluating the suitability of sites for proposed LNG projects under the new process being formulated to speed up applications for facilities while maintaining standards. ■

FERC approves commissioning of first Train at Freeport LNG in Texas

LNG Journal editor

US regulators have approved commissioning of the first Train at the Freeport liquefied natural gas export plant at Quintana Island in Texas, further boosting Gulf Coast production prospects.

The Federal Energy Regulatory Commission has authorized the commissioning of Train 1 and the common area utilities at both the liquefaction and pre-treatment facilities.

Freeport LNG’s CEO Michael Smith is nearing his goal

Four Trains

The Texas project, led by US energy entrepreneur Michael Smith, is constructing three liquefaction Trains and has entered the permit process with the FERC to build a fourth Train.

Freeport’s first three Trains are scheduled to enter service sequentially between 2019 and 2020.

The project, one of four US liquefaction facilities under construction, has moved up the expected in-service date for Train 1 to the second quarter of 2019 from the previously announced in-service date of September 2019.

The first Train should have begun exports in 2018. However, there were a number of delays, including on the engineering schedule that led to compensation being agreed from the main builders, CB&I of the US and Chiyoda Corp. of Japan.

US engineering group McDermott International subsequently completed the takeover of CB&I in May 2018.

There were also delays to the Freeport venture from flooding at a site where equipment was stored during Hurricane Harvey that hit the Houston area in August 2017.

The Freeport plant on Quintana Island is located 67 miles south of Houston. Once the Texas plant starts up its feed-gas requirements will be the equivalent of around 2.2 billion cubic feet per day of natural gas.

The liquefaction technology being used at Freeport is the Air Products propane-precooled mixed-refrigerant process.

About 13.4 MTPA has been contracted under use-or-pay tolling agreements with a group of mostly customers, including BP of the UK, Japanese utility Osaka Gas, Jera Energy of Japan, Toshiba Corp. of Japan and South Korean energy company SK E&S LNG. ■

Sabine Pass progresses on fifth Train as Gulf Coast output set to increase

Cheniere Energy has asked regulators to introduce feed gas and refrigerants to continue its commissioning activities for Train 5 at the Sabine Pass LNG export plant in Louisiana and to take total output to 22.5 MTPA.

The Cheniere plant is the only export facility currently on stream on the US Gulf Coast and has exported cargoes to almost 30 nations since its February 2016 started-up of Train 1.

It is currently exporting around 20 cargoes per month from the four Trains in operation, while a sixth Train is planned.

Cheniere is also examining proposals to possibly boost its number of production Trains at the Sabine Pass plant and at its Corpus Christi facility under construction in Texas.

The Houston-based company is ideally positioned to capitalize on a tightening LNG market by constructing more liquefaction Trains from its brownfield sites.

Cheniere has filed a request with the Federal Energy Regulatory Commission for the commissioning process to continue for Train 5 “at the earliest time possible, but no later than September 6” so that it can remain on schedule.

The FERC in April approved a Cheniere request to introduce feed-gas to commission gas turbine generators at Sabine Pass, activities associated with early phases of the commissioning plan.

The Louisiana facility has already exported more than 80 cargoes to Mexico during its first two years on stream, while the other main recipients have been South Korea with 73 cargoes, China 54 cargoes and Japan 31 shipments delivered since 2016 to the end of June.

Sabine Pass was the first export plant to come on stream in the Lower 48 states, followed in March 2018 by Dominion Energy’s Cove Point facility in Chesapeake Bay ~ in Maryland. ■

US shipbuilder Conrad Industries delivers US LNG bunkering barge for Florida-Puerta Rico shipping

LNG Journal editor

US shipbuilder Conrad Industries said it delivered the first liquefied natural gas bunkering barge built in North America to provide fuel to LNG-powered ships operating from Florida.

The "Clean Jacksonville" was constructed at the Conrad Orange Shipyard in Texas and gas trials were carried out at the Port Fourchon in Louisiana.

Mission

The vessel will enter service for US shipping company TOTE Maritime and will be based at the Port of Jacksonville in Florida.

The bunker vessel will re-fuel two LNG-powered Marlin Class containerships operating between Florida and the US territory of Puerto Rico in the Caribbean.

"The successful completion and delivery of the Clean Jacksonville is both a proud and humbling moment for Conrad," said Brett Wolbrink, Vice President of the Conrad LNG division.

"I am proud of our team's tenacious dedication to the completion of this project and unwavering adherence to our commitments," he added.

LNG bunkering barge 'Clean Jacksonville" delivered

"At the same time, we are humbled and grateful to be a part of an unparalleled international partnership comprised of the owner, our engineering groups, vendors and manufacturers who made this vessel a reality," stated Wolbrink.

Wolbrink explained that close cooperation with the US Coast Guard and the US classification society, the American Bureau of Shipping, helped the project succeed.

"We were fortunate to have such a good working relationship with the USCG and ABS throughout the design, engineering and construction of the LNG bunker barge," said Wolbrink.

Conrad Industries President and Chief Executive Johnny Conrad said the project had several unique aspects in its execution.

"It is the first LNG bunker barge built in North America and the first time the GTT membrane (tank) system has been installed in a non-self-propelled barge in the US," said Conrad.

Tim Nolan, President and CEO of shipping company TOTE, said the use of LNG on the Florida-Puerto Rico route was an advance for green energy.

"The use of LNG as a maritime fuel results in tremendous environmental benefits, including air and water quality improvements, and this barge is the final critical component of our LNG program in Jacksonville," said Nolan.

Philippe Berterottiere, Chairman and CEO of French storage technology firm GTT said his company was delighted to have played its part.

"The broad collaboration between TOTE, Conrad, the myriad project stakeholders and US regulators led to the successful design, construction, and commissioning of this unique and ground-breaking project," said Berterottiere.

Flex LNG posts loss as it looks to build fleet and be key player

Flex LNG Ltd, the growing LNG shipping company listed on the Oslo bourse and based in Bermuda and whose shareholders include trusts connected to Norwegian shipping magnate John Fredriksen, more than doubled first-half revenues compared with the year before, though reported a loss as it awaited more of its own ships to begin charter operations.

Flex posted first-half revenues of $22.1 million compared with $9.7 million for the first half of 2017. Its second-quarter 2018 income was $7.0M versus $8.0M in second quarter 2017.

However, the company reported a quarterly net loss of $2.9M and a net loss for the first half of $4.6M.

In subsequent events after the first half, Flex appointed Oystein M. Kalleklev on August 1 as the new Chief Executive Officer of Flex to replace Jonathan Cook who resigned in May 2018. Kalleklev will also serve as Chief Financial Officer until a suitable candidate has been recruited.

Additionally, Marius Foss joined the company as Head of Commercial and Operations.

Flex said that on July 12, it executed the vessel's sale and lease-back as well as the acquisition of the two LNG carrier newbuilds from the Fredriksen-controlled affiliate Geveran Trading & Co.

New CEO Kalleklev said that during the first half, Flex delivered unsatisfactory financial results "due to disappointing utilization" of the "Flex Enterprise" which has operated in the spot market in this period.

"As we are in the start-up phase, one idle vessel makes a big impact on our financial accounts," said Kalleklev.

LNG charter day rates jump on West-East arbitrage and trade rise

LNG Journal editor

LNG shipping day rates started the second quarter at $55,000 and $38,000 for West and East of Suez respectively before rising through the mid-year on the West-East arbitrage window being opened by higher Asian natural gas prices.

"The rates stayed relatively flat in April and May, until gradually firming in June, ending at $85,000 and $70,000 respectively on the back of counter seasonal strength in Far East gas prices supporting the West to East arbitrage," according to a report by shipbrokers Fearnleys cited in the latest earnings of small Norwegian LNG fleet owner, Awilco LNG.

Volumes

LNG trade is estimated to have increased by 6 percent in the first half of 2018 compared with the previous year.

Awilco gave its shipping market report in the overview of its earnings statement.

The Norwegian operator of two modern carriers, the 156,000 cubic metres capacity "WilPride" and the "WilForce", posted a second-quarter loss of $6.5 million compared with a $1M profit in the first quarter of the year.

Awilco had recorded a loss of $31.8M for all of 2017.

Freight income for the quarter was $6.4M, down from $13.8M in the first quarter due to the seasonal effects impacting activity and rates.

Voyage-related expenses amounted to $1.8M versus $1.4M in the first three months of the year.

Awlico noted that on July 5 the "WilForce" was fixed on a 9-12 month time charter contract to an energy major.

The vessel was scheduled for delivery to the charterer in early September and was expected to contribute an annualised $26M in gross earnings during the charter period.

"The 'WilForce' completed scheduled dry-docking in mid-August 2018 at a total cost of about $3.5M and incurring 21 off-hire days," said Awilco.

The most modern ships are in demand at competitive rates

Sovcomflot posts loss as it pursues LNG plans amid depressed tankers

Sovcomflot, the Russian shipping line with growing interests in LNG projects and LNG-powered vessels, swung to a first-half loss and said the conventional tanker freight market remained challenging, with rates still well below the average levels seen over the last quarter of a century.

The company's first-half loss amounted to US$57.8 million versus a profit of US$15.2M on lower time-charter equivalent revenue of US511.3M, down from US$530.8M in the same six months of 2017.

Sovcomflot noted that it signed a strategic partnership in June 2018 with Russian natural gas and LNG plant operator Novatek, pledging logistical support for the Yamal LNG plant in Siberia and the Arctic LNG-2 venture proposed for the Gydan Peninsula on the coast of the Kara Sea.

The Russian shipping company said in its earnings statement that it was pushing ahead with Royal Dutch Shell in pioneering LNG as primary fuel for Aframax tankers.

An agreement was also signed with Rosnefteflot in May, whereby Sovcomflot would provide technical supervision during the construction of Rosneft's new LNG-powered Aframax tankers.

"This latest step is part of a package of agreements involving the construction of dual-fuelled Aframax tankers for Rosneft, using the latest technology, in partnership with the Zvezda shipbuilding complex in Russia, and their subsequent long-term chartering," said Sovcomflot.

Sovcomflot said a new multi-functional icebreaking platform supply vessel, the "Yevgeny Primakov", entered service supporting offshore oil and gas platforms of Sakhalin Energy, majority owner of the Russian LNG plant on the Far East Russian island of Sakhalin.

"During the first half of 2018, our gas transportation and offshore services returned double digit growth in revenues and operating profits, fully in line with the Group's development strategy," said Sergey Frank, Sovcomflot President and Chief Executive.

Chinese LNG terminal network reaches 19 facilities as two more start their commercial operations

LNG Journal editor

A Stena LNG carrier delivers to the ENN Group-owned Zhoushan terminal

China took its liquefied natural gas terminal network to 19 as two more facilities were formally brought into service in August at Zhoushan in the eastern Zhejiang province and at Dapeng New District in the southern province of Guangdong.

The LNG carrier "Stena Blue Sky" delivered the first cargo to the newest terminal owned by the ENN Group at Zhoushan. That facility is the first to be wholly owned by a company that is not state-controlled.

Distributor

"Chinese gas distributor ENN invited the LNG carrier to become the first vessel to unload at the new terminal in Zhoushan," said Erik Hanell, President and Chief Executive Stena Bulk, the division of the Swedish shipping company that runs a fleet of three LNG carriers.

"Being first in China is a very rare title and we are all proud we participated in such an event," added Hanell.

The Stena carrier had loaded the cargo at Qatar's Ras Laffan LNG export plant on July 22.

There was a welcoming ceremony for the "Stena Blue Sky" in Zhoushan attended by ENN Chairman and founder Yusuo Wang and senior management of the energy company.

The "Stena Blue Sky" captain Marko Skoric was joined at the port by Stena representative Helen Huang as well as local Chinese dignitaries and terminal employees.

ENN has signed long-term supply agreements in Australia with Chevron Corp and Australia's Origin Energy and also has an agreement to buy LNG from Total.

Earlier in August, China National Offshore Oil Corp. started operations at its ninth LNG terminal in the country, located at Dapeng New District at Shenzhen in the southern province of Guangdong.

The terminal has four storage tanks, each of 160,000 cubic metres capacity and has capacity of 4 MTPA.

China overtook South Korea as the world's second-largest LNG importer in 2017 with imports of 38 million tonnes of shipments, a 45 percent rise from 2016.

The imports soared amid a government-backed campaign to reduce pollution in northern china during the winter by switching to natural gas and electric heating from coal.

China's LNG imports boosted by volumes from Australia and nations like Angola and Russia

Chinese LNG imports surged by 33 percent last month with cargoes from nations such as Australia, Angola, Cuba, Russia and Qatar and were also up in the January-July period by 47 percent as the Asian nation maintained its growing levels of natural gas demand amid the commercial start-ups of more import infrastructure.

Imports to China during July amounted to 4.15 million tonnes compared with the 3.12MT received in the same month a year ago, according to data from the General Administration of Customs.

In the seven months from January to July, China imported 27.9MT of LNG versus 19.2MT in January-July 2017.

That's as China took its LNG terminal network to 19 as two more facilities were formally brought into service in August at Zhoushan in the eastern Zhejiang province and at Dapeng New District in the southern province of Guangdong.

China imported 4.00MT of LNG in June 2018, lower than the 4.15MT imported in May.

China also receives comparable quantities of pipeline gas from the countries of the former Soviet Central Asian republics of Turkmenistan, Kazakhstan and Uzbekistan, as well as on the Myanmar-China gas pipeline.

The Chinese are scheduled in 2019 to further boost their pipeline gas supplies by starting imports from Russia under the Power of Siberia project.

The LNG surge in 2018 has been spurred by a government-led campaign over the winter aimed at ending air pollution in 30 northern cities and suppliers are still pointing their cargoes at China because of sustained demand even as China considers cutting US imports because of the trade and tariffs dispute with Washington.

A portion of the LNG deliveries in July centred on the Tangshan terminal operated by PetroChina at Caofeidian Port in northeast Hebei province.

Among the early July cargoes received there, the 266,000 cubic meters capacity Q-Max vessel "Rasheeda" unloaded a shipment from the Ras Laffan plant in Qatar

The 160,400 cubic metres capacity carrier "Cubal" delivered a cargo on July 19 to the Tangshan terminal from the Angola export plant at the port of Soyo in southwest Africa.

The 172,600 cubic metres capacity carrier "Christophe de Margerie" delivered a cargo on July 31 to Tangshan from the Russian Yamal plant in Siberia.