LNG Unlimited

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CEO of Freeport LNG gives positive long-term outlook for Texas plant

Michael Smith Is a firm believer in role of natural gas in energy transition

LNG News Editor

Smith says move to low-carbon world will take a long time

US Freeport liquefied natural gas plant owner and Chief Executive Michael Smith said he expected his company to be shipping cargoes for decades from the Texas facility at Quintana Island.

In a wide-ranging interview with the leading US business magazine "Forbes" , Smith explained the background to Freeport LNG and also its future prospects.

Investment

Smith has spent $14 billion and now owns a controlling interest in Freeport LNG, which currently exports 2 billion cubic feet of US natural gas per day, "most of it so-called shale gas, horizontally drilled, hydraulically fracked", explained "Forbes".

The article pointed out that at current market prices that daily LNG output is worth some $14 million, on which Freeport collects about $5M a day in tolling revenue.

"We are taking clean American natural gas, adding tremendous value and exporting it to countries that do not have enough energy and would otherwise be burning dirty coal," Smith told Forbes.

"Since becoming operational in September 2019, Freeport LNG has loaded 200 cargoes destined for Japan, South Korea and Croatia, where a single shipment can meet the annual energy needs of tens of thousands," the profile noted.

Freeport will export about 15 million tonnes of LNG this year, the energy equivalent of 130 million barrels of oil, and is on track to book nearly $2.5Bln in revenue. Smith's 63 percent ownership in the limited partnership is worth in excess of $1Bln.

Smith had also planned to import LNG from the Freeport facility before reversing his strategy, like many others, to being an exporter, once the US shale-gas boom took hold.

"Smith is a large man, who at age 66 is still skiing and scuba diving despite some replacement joints. He has a lopsided nose and plenty of 'da Bronx' still in his voice," explained the "Forbes" piece.

To earn a living after college, Smith got his real estate license in Colorado in 1978 before eventually moving into oil and gas.

Smith eventually took his own company, Basin Exploration, public in 1992.

In 2000, he sold Basin for $410M to Stone Energy, pocketing about $60M.

"The just 45, Smith had a fortune, but he wasn't ready to hit the slopes full time. In 2001, at the Brown Palace Hotel in Denver, he met Charif Souki, a former investment banker and restaurateur with a small gas company called Cheniere Energy," the article said.

"They both believed the United States would soon need to import gas. Souki had scoured the Gulf Coast for prime LNG locations and had options on three sites, including Freeport," said the report.

"Smith could have thrown in his lot with Souki, but he wanted to run his own show. He put up $14 million for 60 percent of the Freeport site," it said.

Smith again raised money by selling 20-year contracts for services to liquefy natural gas to BP and Japanese giants such as Osaka Gas and Jera Co Inc. He also sold equity stakes in specific aspects of the project.

"Today Freeport LNG carries $13Bln in debt. That's manageable. With customers locked in to paying $2.5Bln a year for the next two decades, there will be enough to pay off debt, keep the machines running and make distributions to Smith and partners," said the article.

Smith already has approvals to add a fourth Train and might use it to market premium, lower-carbon-footprint LNG.

"Sounds gimmicky, but customers want it. And because Freeport LNG gets all its electricity off the Texas power grid - which has benefited from a decade-long boom in wind power - he can sell his product as greener than LNG generated with gas-fired turbines," he told "Forbes". ■

UNLIMITED AGENDA

European Dutch TTF natural gas and LNG price hits record as ICE extends forward curve to 2031

LNG News Editor

The popularity of the Dutch Title Transfer Facility (TTF) price for European natural gas and LNG values in the week that saw the price hit a 2021 high of $10.22 per million British thermal units has also led the Intercontinental Exchange to extend the forward curve for TTF futures to December 2031.

ICE, the leading global provider of trading platforms and clearing, which also recently posted record activity on the TTF and the Japan-Korea Marker for North Asian spot cargoes in the year to the start of June, said the curve would be extended on the 21st of June 2021.

Futures

The futures and options trading platform said the TTF Gas Futures curve currently goes out to May 2029, and it currently has open interest out to December 2028.

Dutch TTF pricing defies Groningen gas switch off

"Following demand from customers to extend the TTF curve further out, we are extending the curve of the TTF Gas Futures contract up to and including December 2031," explained Gordon Bennett, Managing Director of Utility Markets at ICE.

"In addition to TTF monthly futures contracts, we will also make additional quarterly, seasonal, calendar contracts and time spreads available up to December 2031," stated Bennett. The length of the curve is an important component particularly for commercial hedgers who use TTF futures to manage their risk.

The extension of the futures curve aligns the TTF gas futures contract close to the typical lengths of medium-term to long-term deals between LNG buyers and sellers.

This in turn allows market participants to manage long-term risk related to these deals through the futures market.

TTF futures hit record open interest of 1.96 million contracts on 10 June, up 20 percent year-on-year.

Open interest in JKM futures and options, which work closely with the TTF to offer the market the means to hedge global gas price risk, is at 111,800, up 9 percent year-on-year.

"Natural gas has become a global market and the record levels of open interest and strong trading activity in TTF reflect how it is at the forefront of global natural gas price formation," said Bennett.

"The requests from customers to increase the forward curve for TTF futures to 2031 has been driven by their need to be able to hedge global gas price risk and further optimize their LNG portfolios," added Bennett.

Louisiana federal judge in LNG heartland blocks Biden Administration suspension of oil-gas leases

A US federal judge in Louisiana, one of the centres with Texas of the LNG industry, has blocked the Biden Administration's planned suspension of oil and gas leases on public lands and waters in a legal setback for unilateral actions by Biden against the hydrocarbons industry.

The order granted a preliminary injunction to Louisiana and 12 other US states that sued Democratic Party President Joe Biden and the US Department of the Interior over the freezing of new drilling auctions.

In Alaska, where the state's Alaska Gasline Development Corp. is still tasked with pursuing a natural gas pipeline and its affiliated LNG export project was one of the first to welcome the federal court's ruling.

The judge's decision, which applies to onshore and offshore leasing nationwide, will remain in effect pending the final resolution of other pending cases and orders.

In the ruling handed down by Judge Terry Doughty of the US District Court for the Western District of Louisiana, he declared that the states that were parties to the writ had met the requirements to establish that they would suffer damages from the suspension of new oil and gas leases.

"Millions and possibly billions of dollars are at stake," Doughty ruled.

He also said the states had a "substantial likelihood of success" with their lawsuits.

Louisiana is the home of leading LNG export plants such as Sabina Pass LNG and Cameron LNG as well as multiple current projects under development.

Biden issued a decree within days of taking office in January 2021 suspending oil and gas auctions for leases pending a review.

The move was part of a campaign against the oil and gas industry in the US, where it is solely blamed by the left-wing Democratic Party for climate change and the industry's supply of cleaner gas to replace the massive coal use in Asia is ignored.

Alaska Governor Mike Dunleavy issued a statement applauding the halting of the implementation of the Biden Administration's "unlawful moratorium" placed on oil and gas leasing.

"This is excellent news for Alaska. As we have seen in less than five months, the threat of federal overreach on major economic projects within Alaska is very real," stated Dunleavy.

"It is stunning that a Federal Judge has to tell the President of the United States to stop trying to illegally shut down environmentally sound oil and gas development and good paying jobs for Americans and Alaskans - which support the indigenous tribes and residents of Alaska's North Slope - while the President works to promote carbon-emitting Russian gas production overseas," stated the Alaska Governor.

"Alaska is consistently a top producer of oil and gas in the US and we are proud of our state's responsible development and transportation of oil to meet American demand," added the Governor.

The Alaska LNG project involves a gas treatment plant on the North Slope and an 800-mile pipeline down to the Kenai Peninsula where the gas would be liquefied and exported. Other gas volumes would be used domestically by Alaskans.

The attorneys general of both Louisiana and West Virginia praised the Judge Doughty's decision.

South Korea overtakes Chinese ship orders

South Korean shipbuilders have managed to overtake Chinese shipyards in the May index of orders, led by more liquefied natural gas carrier newbuild placements, while more LNG tanker orders continued to be received in June.

South Korea had lost its No. 1 ranking to China in April 2021, nine months after retaking the leading position in global shipbuilding in July 2020.

The Korean shipbuilder, Hyundai Heavy Industries, obtained new orders in May for 40 ships, or 1.42 million compensated gross tons (CGTs) compared with 37 newbuilds destined for Chinese shipyards, or 880,000 CGTs, according to the order book data provided by market analysts, Clarkson Research Service.

The Chinese shipyards were followed by Japan's shipbuilders, which won orders for five ships, or 110,000 CGTs.

Of the 89 ships, or 2.42 million CGTs, ordered across the globe in May, South Korean shipbuilders took up 59 percent and Chinese shipbuilders accounted for 36 percent.

The Korean Samsung Heavy Industries yard also entered June with two more LNG carrier orders with capacity of 174,000 cubic metres. Deliveries of the latest vessels are scheduled between the second and third quarters of 2024.

During the first five months of 2021, Korean shipbuilders also won orders for 31 ships to be propelled by LNG, taking up 46 percent of 67 LNG-powered ships ordered in the year to date.

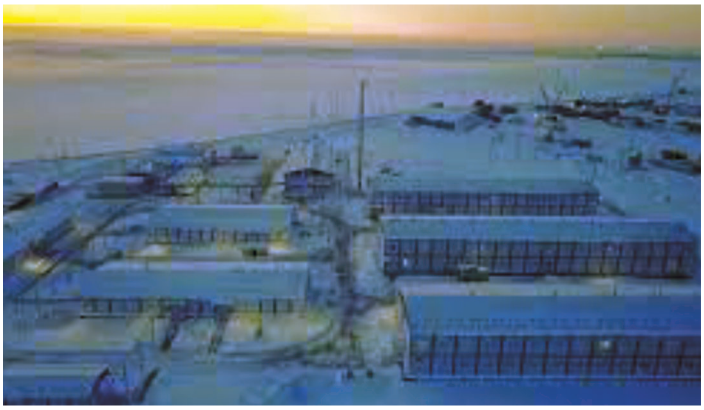
However, China remained in the lead in the January-to-May period combined.

Arctic LNG schedule to be helped by new airport for Gydan Peninsula

LNG News Editor

The Arctic LNG export project under construction on the Gydan Peninsula in northern Siberia will benefit from a new airport that as just come into service to speed-up the transportation of material and engineering personnel to the work sites.

The flights will operate from the city of Tyumen in Siberia to the new Utrenneye airport built specifically for Arctic LNG in the Yamal-Nenets Autonomous Region and where the first flight landed on June 17.



Airport has 1,550-metre runway for year-round service

Rotations

The Utrenneye Airport has a 1,550 metres-long runway built for year-round transportation of rotational personnel to the Utrenneye natural gas field and the LNG project and is designed to receive medium-sized aircraft.

All three liquefaction Trains at the LNG plant are scheduled to come on stream in a two-year time span from 2023.

The launch of the first Train is planned for 2023, the second in 2024 and the third Train in 2025.

The airline service will replace helicopters previously used for ferrying services to the Gydan Peninsula project, led by Russian natural gas company Novatek.

"The use of airplanes instead of helicopters will significantly reduce the air transportation dependence on weather conditions, increase the flight safety levels as well as optimizing the schedules for mobilizing personnel at the project," said the Arctic LNG project company.

The main engineering, procurement and construction company on the site is TechnipEnergies, formerly part of the TechnipFMC group before the completion of this year's spin-off.

The Arctic joint venture is constructing three LNG liquefaction Trains of 6.6 million tonnes per annum each of capacity for a total of 19.8 MTPA as well as cumulative gas condensate production capacity of 1.6 MTPA.

US LNG equipment-maker Chart given helium liquefaction contract

US LNG and industrial gases equipment-maker Chart Industries, has booked an order for a helium liquefaction large-scale plant for one of the largest independent oil and gas producers in Russia.

"The scope of our supply for the helium plant includes equipment supply for the plant, commissioning and start-up," said Atlanta, Georgia-based Chart.

"Keeping with our strategy, we do not have construction responsibility for the project," stated Chart without disclosing the name of the customer.

"This project reflects the combination of Cryo Technologies (which Chart acquired in February 2021) and Chart capabilities, bringing the best of both of our liquefaction engineering expertise together and Chart's capabilities in pre-cooling, brazed aluminum heat-exchangers and cold-box fabrication," explained Chart.

This plant will be the second of its kind and Cryo Technologies provided this customer's first helium plant.

Cryo Technologies provided Irkutsk Oil Company with helium purification and liquefaction facilities with a nominal capacity of 10 million litres per year (266 million standard cubic feet per year).

The plant was for resources from the Yaraktinsky field, located about 200 kilometres north of the city of Ust-Kut, in Irkutsk Region of southeast Siberia.

Chart said its new contract would have equipment delivered by the end of 2022, with expected completion of commissioning and start-up 12 months later.

The company added that the payments would be invoiced in 2021 as Chart had received a Letter of Intent in mid-April 2021 for this project.

"This significant helium liquefaction win is our third hydrogen-helium liquefier order year-to-date 2021 and demonstrates the leading market position of our and Cryo Technologies' combined liquefaction technologies and capabilities," stated Jill Evanko, Chart's Chief Executive and President.

"Our hydrogen-helium commercial liquefaction bidding pipeline remains very active and we expect this trend to increase throughout the second half of 2021," she stated.

NEWS NUDGES

Capital LNG delivery

Capital Gas Ship Management Corp. has taken delivery of a new LNG carrier, the "Aristarchos", built by Hyundai Heavy Industries in South Korea. "With cargo capacity of 174,000 cubic metres, the vessel is highly efficient, propelled with XDF engines and equipped with the latest available technologies, including an air lubrication system and increased filling limits of more than 99 percent," said Capital Gas.

GasLog deals on charters

LNG fleet owner GasLog Partners LP has signed two new time-charter agreements with major oil and gas companies Royal Dutch Shell and TotalEnergies. The deals include a one-year charter for the 155,000 cubic metres capacity "GasLog Sydney" with a subsidiary of TotalEnergies, beginning this week, as well as an approximately eight-month charter with Shell for the "Solaris", also a vessel with 155,000 cubic metres of capacity and beginning immediately. "I am very pleased to announce these new charters with global energy majors," said Paul Wogan, Chief Executive of GasLog Partners.

Charter rates up again

Shipping charter rates for LNG carriers in the spot market rose again in the past week by around $10,000 per day in the West of Suez market to between $74,000 per day and $68,000 per day for vessels of 155,000-165,000 cubic metres capacity. For vessels East of Suez spot charter levels were up $6,000 per day to between $60,000 per day and $56,000 per day, according to London brokers. One-year charter rates for the most modern vessels also edged higher to around $79,000 per day.

Second terminal with mega-storage in China advances at Yancheng-Binhai

LNG News Editor

Chinese major CNOOC to maintain high LNG profile

The leading Chinese LNG importer, China National Offshore Oil Corp., has expanded the planned storage capacity from six tanks to 10 tanks for the Yancheng-Binhai Port import terminal now under construction in the eastern province of Jiangsu.

CNOOC said that the cost of the first six tanks would be around 6.1 billion yuan ($953 million) and the Binhai venture would have two gas-fired power plants adjacent.

Capacity

Phase one will have an annual receiving capacity of 3 million tonnes per annum and will be completed by 2022, including the first four 220,000 cubic metres full containment LNG tanks.

The Binhai facility includes one jetty to accommodate the largest carriers such as the Qatari Q-Max vessels at 266,000 cubic metres capacity.

Four more 220,000 cubic metres LNG tanks will then be built followed by the final two. The Binhai terminal will transfer natural gas to Jiangsu to increase gas availability for refining, industry and gas-fired power.

The full project is scheduled to come on line by the end of 2023 with the 10 tanks operating, including six ultra-large tanks, each with a total volume of 270,000 cubic metres.

"The Binhai LNG terminal in Jiangsu will have an annual LNG regasification capacity of 6 million tonnes a year, though will also have the largest LNG storage base in China with the 10 tanks," explained Beijing-based CNOOC.

"The terminal's construction will play a key role in the country's natural gas supply, storage and gas marketing system," stated CNOOC.

The company added that the Binhai LNG terminal project would also be an important asset in the industrial upgrade of the Yangtze River Economic Zone.

CNOOC has the largest regasification capacity of the Chinese majors with a presence in eight of the existing 22 terminals, even after state-backed PipeChina bought and opened up several CNOOC-owned terminals to third-party access.

Burckhardt makes use of factory in China to supply Swiss project

Burckhardt Compression, the Swiss manufacturer of compressor systems and a service provider for LNG and other markets, is making use of its wholly-owned Chinese company, Shenyang Yuanda Compressor, to supply an energy project in Switzerland.

Burckhardt said a diaphragm compressor was being manufactured at the company's Shenyang, plant and being shipped as a container-installed compression unit to Switzerland.

The compressor system is designed for hydrogen mobility applications and capable of discharging hydrogen at a high pressure and high purity, suitable for fuel-cells.

"The new 2MW green hydrogen production plant being built by the Swiss company H2 Energy represents an important step towards the development of green hydrogen infrastructure in Switzerland," said Burckhardt.

The Winterthur-based company said that using the diaphragm Compressor system manufactured by Burckhardt Compression, the hydrogen that is processed in a PEM electrolyzer will be filled into Hydrospider swap trailers, 450 bar hydrogen vessels that will supply hydrogen fueling stations across Switzerland.

The main end-users of the produced hydrogen are heavy-duty vehicles such as the first 46 Hyundai trucks already operating in Switzerland. "H2 Energy is a fast-growing Swiss company working together with various partner companies towards its vision of reducing CO2 emissions by using hydrogen as alternative fuel," said Burckhardt.

Burckhardt recently closed its fiscal year with higher sales and profits as it forecast a brighter 2021.

The company reported higher order intake of 676.6 million Swiss francs ($751.5M), a year-on-year increase of 11.4 percent.

There was also a significant 36 percent increase in earnings per share to 13 Swiss francs, up from 9.56 Swiss francs.

US June LNG data shows Chinese are overtaking Mexicans in number of cargo deliveries

LNG News Editor

The US Department of Energy has just published its latest liquefied natural gas export data with the average overall price for the six plants declining to under $6.00 per million British thermal units and as China started to overtake Mexico in overall deliveries while more supplies reached South America and smaller nations like Malta and Lithuania.

The DoE data showed 92 cargoes were delivered in April 2021 versus 96 in March 2021and 62 in April 2020.

Mexico's Manzanillo outpaced by big China network

Decline

US cargo prices in April declined to an average of $5.70 per MMBtu, down from $6.01 per MMBtu in March 2021 and with a year-to-date average of $5.70 per MMBtu, at the export points, according to the DoE June 2021 LNG report.

The Sabine Pass plant remained the volume leader in April 2021 with its five Trains on stream and supplying 32 cargoes, followed by Freeport with 19, Corpus Christi 18, Cameron LNG 15, Cove Point five and Elba Island three.

Shipments from the Cove Point plant in Maryland cost the most for April 2021 at $6.88 per MMBtu versus $7.09 in March 2021 and for the year-to-date the shipments fetched $6.62 per MMBtu. The year-to-date total average for all six plants was $5.85 per MMBtu.

The average prices for each of the five other plants (from the export point) from highest to lowest in April 2021 were: Freeport LNG (Texas) $6.00 per MMBtu ($6.28, March) Cameron LNG (Louisiana) $5.86 per MMBtu ($6.25, March), Elba Island in Georgia $5.84 per MMBtu ($5.90, March), Corpus Christi (Texas) $5.58 per MMBtu ($5.60, March) and Sabine Pass (Louisiana) $5.32 ($5.77, March).

Notable cargoes shipped from the facilities on the Gulf Coast, particularly Sabine Pass, included one to the Mediterranean island of Malta on the 138,000 cubic metres capacity "Madrid Spirit", one to Kuwait on the 173,400 cubic metres capacity "Maran Gas Chios" and one to Thailand on the 174,000 cubic metres capacity "Amberjack LNG".

Sempra Energy's Cameron LNG dispatched two shipments to Chile in South America on the 151,383 cubic metres capacity "LNG Alliance" and the 164,000 cubic metres capacity "Maran Gas Posidonia".

Freeport LNG also supplied South America with two cargoes delivered to Argentina on the 155,000 cubic metres capacity "British Sapphire" and 174,000 cubic metres capacity "Flex Volunteer".

The three cargoes from Elba Island supplied Lithuania, Spain and Pakistan.

The total number of cargoes dispatched since February 2016 now amounts to 2,239 shipments, or 7,317.9 billion cubic feet of natural gas.

The top five countries of destination, representing 51 percent of total US LNG exports in April 2021, were China (46.8 Bcf-13 cargoes), France (36.1 Bcf - 11), Japan (28.8 Bcf - eight), Spain (23.0 Bcf seven) and South Korea (21.7 Bcf - six cargoes).

The list of the Top 10 countries of destination overall since 2016 through April 2021 showed two Asian nations, South Korea and Japan, still leading, ahead of Mexico and with China just one behind the Mexicans in overall cargoes.

The Top 10 recipients of US LNG by numbers of cargoes at the end of April 2021 were: 1) South Korea 317 cargoes. 2) Japan 235. 3) Mexico 160. 4) China 159. 5) Spain 143. 6) UK 126. 7) India 110. 8) Brazil 102 9. Chile 99 and 10) France 93.

US LNG had been received in vessels by 39 different countries through April 2021.

The US also sends regular ISO containers by cargo ship to the Caribbean nations of Barbados, the Bahamas and Haiti.

In April 2021, a total of 23 containers were delivered, the same as in March 2021. The recipients were Bahamas 17, Barbados five and Haiti one. ■

Sovcomflot holds keel ceremony for ARC7 ships

Sovcomflot said a keel-laying ceremony was held at the Zvezda Shipbuilding yard in Russia's Far East for a new Arctic liquefied natural gas vessel ordered by the Russian tanker and LNG carrier fleet owner.

This is the lead vessel in a series of 15 carriers, ordered from Zvezda, for servicing the Arctic LNG II project being constructed for a consortium including Novatek, Europe's TotalEnergies and Chinese and Japanese companies.

"She is the first-ever vessel of such dimensions, cargo capacity and ice-breaking capabilities to be constructed at a Russian shipyard," said Sovcomflot.

This lead vessel of the series is owned by Sovcomflot, while the remaining 14 ships are owned by Smart LNG, a Sovcomflot-Novatek venture.

"All vessels in the series will operate under long-term time-charter contracts with Arctic LNG II," explained Sovcomflot.

"Their construction is being financed by Russian bank VEB.RF and 15 carriers will operate under the Russian flag," added the fleet owner.

The shipbuilding process at the yard in Bolshoi Kamen on the coast of the Sea of Japan, about 12 miles northeast of Vladivostok, is supervised by the Russian Maritime Register of Shipping and France's Bureau Veritas.

All 15 vessels are scheduled for delivery in 2023-2025. The keel for the lead vessel has been laid in line with the contractual schedule.

Each LNG carrier will be 300 metres long, 48.8 metres wide and will have a cargo capacity of 172,600 cubic metres. The propulsion system includes three azimuth propulsion units and with a total power capacity of 45 megawatts.

Japan's ClassNK approves Tsuneishi Shipbuilding design for LNG bulker

LNG News Editor

Keiichiro Sho of shipbuilder and ClassNK's Masanori Akagi

Nippon Kaiji Kyokai, the Japanese maritime classification society, has approved a project run by Tsuneishi Shipbuilding for their concept design of an LNG-powered bulk carrier.

Nippon Kaiji Kyokai, known as ClassNK, granted an Approval in Principle based on its Rule Part GF regulation for ships using low-flashpoint fuels and incorporating the international code for the "Kamsarmax GF" series of vessels.

Storage

The GF in "Kamsarmax GF" stands for Gas Fuel and the vessel has an installed dual-fuel engine using LNG as the main fuel and an IMO Type C Fuel tank.

The main features of the system being incorporated by the Tsuneishi shipyard into the Kamsarmax is aimed at having a high environmental performance.

Designed to use LNG as its primary fuel, it has achieved a reduction of carbon-dioxide emissions by 40 percent or more compared with traditional fuels.

In addition, the emissions of sulfur oxides (SOx) and nitrogen oxides (NOx) have also been greatly reduced.

"As more environmental technologies have been developed to realize a low-carbon and decarbonized society in the maritime industry, developments of LNG-fueled ships are progressed in a variety of ship types and sizes," explained ClassNK.

The class society earlier in 2021 issued its latest survey guidelines for facilities and equipment on LNG bunkering vessels supplying fuel to LNG-powered ships at sea.

ClassNK noted that there were no established international conventions for the facilities or equipment of ships that transfer LNG to other ships at sea, and additional safety equipment has been considered individually.

Based on the examinations conducted so far, ClassNK has developed guidelines complying with the requirements for additional equipment for the safe transfer of LNG.

NYK Line makes order for 12 pure car carriers powered by LNG-powered

Nippon Yusen Kabushiki Kaisha, the Japanese shipping company known as NYK Line, plans to order 12 new LNG-powered vehicle carriers for $100 billion yen ($911 million) from two shipyards in Japan.

NYK Line will order six car-carriers, called Pure Car Carriers, each from Nilaijima Shipyard and Nippon Shipyard, a joint venture between Imabari Shipyard and Japan Ocean Union.

The carriers will each have a loading capacity of around 7,000 vehicles.This is the biggest LNG fuel ship order in Japan, according to Japan's Nikkei news.

A statement given to Japan's Nikkei said there were only about 10 vehicle carriers powered by LNG, out of about 700 globally.

NYK's order is the biggest received by Japan shipyards for LNG-powered vessels.

The use of LNG for the ships delivering cars is part of an effort by the auto industry to try to reduce emissions in their supply chains.

Such ships are expected to produce 25 percent fewer carbon-dioxide emissions compared with current transporters fuelled by heavy fuel oil or diesel.

Pure Car Carriers, as they are known, are already required to be powered by LNG as a bidding requirement for firms wishing to work with Volkswagen.

The Japanese report said Japan's Toyota Motor began to demand Co2 emission reductions from major suppliers that it has direct transactions with, and is expected to make similar requests of its maritime transportation companies in the future.

NYK is the biggest owner of such PCC vessels and is making a large shipbuilding investment to guard its market share.

Canadian firm Tourmaline seals takeover in Montney Shale and sees more LNG prospects

LNG News Editor

Tourmaline Oil Corp., the Canadian oil and gas company, has agreed a C$1.1 billion (US$904.4 million) deal to purchase Black Swan Energy and boost its assets in the Montney Shale basin, where producers in northeast British Columbia have been heartened by two LNG export projects advancing to ship cargoes to Asia from the Kitimat area.

Tourmaline has entered into a definitive agreement to acquire privately-held Black Swan in a shares and debt deal consisting of 26 million Tourmaline common shares and the assumption of net debt up to a maximum of C$350M (US$288M), including all transaction costs.

Closure

"The transaction is expected to close in the second half of July 2021, subject to regulatory approvals," said Tourmaline.

"The acquisition represents a further important component of the company's ongoing North Montney consolidation strategy," explained Calgary, Alberta-based

Company has gas facilities in North Montney and Alberta

Tourmaline. "Tourmaline envisions the North Montney as the key sub-basin for supplying Canadian LNG, as the company expects the North Montney to be the primary growth driver in the entire Western Canadian Sedimentary Basin for the next decade," stated the company.

The Black Swan acquisition complements Tourmaline's core Gundy development and along with the more recent Polar Star, Chinook, and Saguaro transactions, will establish Tourmaline as the largest current North Montney producer with the most extensive future drilling and project inventory.

As a leading Canadian producer, Tourmaline said it now expected to have average output of around 500,000 barrels of oil equivalent per day by mid-2022.

Another Canadian company, Pembina Pipeline Corp., said on June 8 that it was teaming up with the Haisla First Nation of native North Americans to pursue the 50-50 Cedar floating LNG export venture from the Douglas Channel close to the much larger Royal Dutch Shell-led LNG Canada project.

Pembina stated that the Cedar LNG venture was strategically positioned to leverage Canada's abundant natural gas supply and BC's growing natural gas infrastructure to produce industry-leading, low-carbon, low-cost Canadian LNG for overseas markets.

The prolific Montney formation covers 130,000 square kilometres at various depths in BC and the neighbouring province of Alberta.

It could become an even larger supplier of clean LNG for Asian nations to wean themselves off of coal use for power and industry.

The British Columbia Oil and Gas Commission it's a recent report said massive volumes of shale gas reserves could underpin LNG export projects for decades as the Montney Shale alone has 1,965 trillion cubic feet of gas-in-place.

The provinces split the geology evenly by area, but BC has about 60 percent of the gas estimated to figure in the Montney marketable reserve forecast.

The Tourmaline deal follows its April 2021 acquisition of 50 percent Saguaro Resources Ltd.'s assets in the Laprise-Conroy North Montney play for C$205M (US$169M) and entered into a joint-venture agreement to develop these assets. ■

Pembina follows up Canadian Cedar LNG plan with Canada-based alternative to Keystone XL

Pembina Pipeline Corp. has issued a mid-year business update on its "extensive runway" of development plans, including the floating LNG facility in partnership with the Haisla First Nation in British Columbia and the Chinook Indigenous-led partnership for First Nations to pursue ownership of Canada's Trans Mountain Pipeline.

Pembina also proposes to revive and expand other pipeline and terminal projects, including the Prince Rupert Terminal Expansion for its propane exports from the BC port as it aims to be one of the largest midstream energy companies in North America.

Over C$7Bln (US$5.7Bln) of accretive projects have been identified and in various stages of development to be pursued by Pembina alone, or in a combination with Inter Pipeline Ltd, another Canada-based company.

In addition to signing up for Cedar LNG, Pembina has also helped form the Chinook Pathways Partnership to support Western Indigenous Pipeline Group (WIPG) to pursue obtaining ownership of the Trans Mountain Pipeline.

The Trans Mountain is a pipeline that carries crude and efined oil from Edmonton in the province of Alberta to the Pacific Coast at the Westridge Marine Terminal in Burnaby in BC.

The expansion of Canada's government-owned Trans Mountain Pipeline assumes greater importance for the oil sector after the cancellation of the rival Keystone XL into the US, which reduced future Canadian options for carrying crude.

Canada's government bought the 68-year-old pipeline in 2018 when previous owner, US company Kinder Morgan, faced legal hurdles to expand the 1,150-kilometre (715-mile) line running from Alberta to the BC coast.

The government in Ottawa has always said it would find new owners.

In its Cedar LNG investment, Pembina has partnered with the Haisla Nation, whose traditional lands are around the town of Kitimat.

"Cedar LNG is strategically positioned to leverage Canada's abundant natural gas supply and BC's growing LNG infrastructure to produce industry-leading low-carbon, low-cost Canadian LNG for overseas markets," said Pembina.

Cedar LNG is expected have a liquefaction capacity of around 3 million tonnes per annum of LNG and will source natural gas from the prolific Montney resource play in northeast BC. ■