

Mexico prepares tender process for floating LNG plant and pipeline

Salina Cruz FLNG project is part of the government's GoM-Pacific Isthmus development master plan
LNG News Editor

The Mexican state-run fuel distribution company CFEnnergía is seeking expressions of interest from companies to build and operate a floating liquefied natural gas export facility at the Pacific port of Salina Cruz and an affiliated gas pipeline.

The LNG export and pipeline projects are part of the Mexican government's economic development plan for the Isthmus of Tehuantepec, the shortest distance between the nation's two coastlines on the Gulf of Mexico and the Pacific Ocean.

State-led plan

CFEnnergía is part of the state-owned utility CFE and trades more than 3.4 billion cubic feet per day of natural gas, almost half of the country's demand.

The subsidiary was created after Mexico's 2013 energy reforms were introduced to improve the supply of gas to CFE power plants.

The pipeline would have capacity of 500 million cubic feet per day and would link Chinameca in the Gulf of Mexico state of Veracruz to Salina Cruz in the state of Oaxaca on the Pacific side, supplying gas to the LNG export facility for exports of around 3 million tonnes per annum.

The project's purpose is to supply the refinery, a cogeneration plant and the liquefaction plant in Salina Cruz, as well exporting natural gas to Central America and delivering natural gas mainly from the US to what is hoped to be a growing industrial base in the



Mexican Inter-Ocean corridor with LNG plant at Salina Cruz

under-developed areas of south-east Mexico.

The Salina Cruz LNG facility would be Mexico's second on the Pacific Coast as US company Semptra Energy is transforming its existing Costa Azul import terminal into an export plant further north in the state of Baja California.

The scope of work for the Costa Azul facility is to add nameplate capacity of 3.25 to the existing regasification terminal using a compact and high efficiency mid-scale LNG design.

This addition will allow for natural gas liquefaction and LNG export capability at the Costa Azul facility, which has been operating as a regasification terminal since 2008.

The Costa Azul plant is one of Semptra LNG's strategically located natural gas liquefaction infrastructure projects, including Cameron LNG in Louisiana, currently in development in North America.

The Salina Cruz plant will be subject to certain sales and contract conditions.

"CFE would sell gas procured via its extensive pipeline network to the FLNG operator under a 25-year take-or-pay contract," explained the tender documents.

"The operator would have ex-

clusive rights to market liquefaction capacity and LNG volumes produced from the project," it added.

The gas infrastructure expansion is part of the government-backed Corredor Interoceánico del Istmo de Tehuantepec (CIIT), or Tehuantepec Isthmus Interoceanic Corridor.

The CIIT operating company would also have a majority stake in a joint venture to provide maritime services to the LNG export facility.

Ownership

CFEnnergía stated that the operator would assume full ownership of the pipeline and FLNG projects and take on all associated risk in exchange for "security and certainty" in the supply of gas from the state company.

"CFE proposes to sell excess pipeline capacity as well as contributing to the economic development of the Tehuantepec Isthmus to strengthen Mexico's energy security and sovereignty," said the company.

The pipeline would also be designed to handle future interconnections with industrial areas along its route with capacities of between 50 and 70 million cubic feet per day.

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Argent Marine explains success of system enabling fast start for New Fortress LNG facility

LNG News Editor

US company Argent Marine said it was the company behind the specially designed ISO containers that enabled the fast-track start-up of the New Fortress Energy import facility on the Pacific Coast of Mexico.

New Fortress has started operations at the port of Pichilingue near La Paz in Mexico's Baja California Sur state.

Contract

The New York-based company's terminal has a contract to supply Mexican power plants in the peninsular state that has regularly suffered energy shortfalls and power cuts.

New Fortress is using what it calls its "ISO Flex System", explained as a large ship offloading ISO containers onto small offshore support vessels (OSVs).

The vessel at the port of Pichilingue has been equipped with NFE's ISO FLEX using a proprietary manifold and LNG cargo containment system under license to New



Operations under way at the port of Pichilingue in Mexico

Fortress by Argent Marine Management under Argent's patents in the United States, Canada and Mexico.

"The manifold and cargo control system facilitates transloading LNG from a floating LNG terminal into multiple ISO containers on board the vessel," explained Argent Marine.

"The filled ISO containers can then be offloaded at container ports and onto trucks for delivery to customers," it added.

NFE anticipates utilizing the manifold equipped vessel to supply LNG filled ISO containers to

local hotels and industrial customers, as well as to power plants in Baja California Sur.

"Argent Marine's patented technology involves the use of a manifold and control system installed on board a marine vessel, under applicable IGC Code regulations, that interconnects multiple ISO containers allowing the filling of all containers on-board in one operation, from a land-based or floating LNG source such as a liquefaction facility or LNG storage tank," explained the Argent Marine, which has its headquarters in the US state of Nevada.

"The manifold also provides control of boil-off in individual ISO containers while on board the vessel, facilitating long-distance delivery," stated Argent Marine.

"Once loaded, individual ISO containers can be transported by vessel to multiple ports and then offloaded onto trucks for further land-based distribution of small scale LNG fuel," it added.

Argent Marine noted that the handling and transport system facilitates the distribution by vessel of small quantities of LNG to multiple consumption locations, minimizing otherwise extensive handling costs and thereby improving overall transportation economics for small-scale LNG distribution.

"NFE has indicated that the commercialization of the technology is a big achievement that will enable the company to deliver critical energy infrastructure and logistics solutions much more quickly and less expensively to locations where natural gas is not readily available," said the company.

Crowley orders LNG bunkering barge from Wisconsin shipyard and Shell signs charter for US service

Crowley Maritime Corp. has ordered a new LNG bunkering barge to operate on the US East Coast and has signed a long-term time charter with Royal Dutch Shell.

On completion the US-built LNG bunker barge will be the largest Jones Act-compliant vessel of its kind, helping to expand current network capacity and meet demands for cleaner energy for ships calling at US ports.

The LNG fuelling barge will be built at Fincantieri Bay Shipbuilding, located at Sturgeon Bay in the US state of Wisconsin.

"The new bunker barge will extend Crowley's commitment to deliver cleaner, innovative solutions to help the shipping industry continue on the path to decarboniza-

tion," said Tucker Gilliam, Vice President of Crowley Shipping.

"Orders for ships fuelled by LNG continue to rise and the vessel will provide Shell with an innovative and reliable service to meet demands for more sustainable energy sources," added Gilliam.

The 416-foot-long barge will feature advanced technologies in cargo-handling capabilities and increased transfer rates, including a bunkering solution from Shell and Crowley Engineering Services for the flexible delivery of LNG to various types of LNG containment systems.

Crowley said the barge design would offer capacity of 12,000 cubic metres of LNG, the equivalent

of 3.17 million gallons, and supply equipment to supply the growing LNG-powered fleet.

The US company noted that the vessel becomes the second Jones Act-compliant bunker barge Shell has under long-term charter in the US.

It is expected to be deployed to serve LNG-fuelled ships that call at ports on the US East Coast starting in 2024.

"Shell is dedicated to growing our LNG bunkering network across key trade routes, and this barge supports our commitment to helping provide our customers with the energy solution they are looking for," said Tahir Faruqui, a general manager for Global LNG at Shell.

"The shipping sector is making progress toward decarbonization, and LNG offers immediate emissions reduction with the potential to become a net zero emission marine fuel given the possible roles of bio-LNG and synthetic LNG," added Faruqui.

Fincantieri Bay Shipbuilding said the northern Midwest yard was delighted to take up the order.

"This additional LNG barge will serve as another demonstration of our commitment to building and servicing sustainable maritime endeavours, both in the United States and globally," said Dario Deste, President and Chief Executive of Fincantieri Marine Group.

Indian LNG imports fall as prices delay buyers

Indian liquefied natural gas imports last month dropped by almost 15 percent amid a surge in cargo prices and a slower resumption of full activity because of the Covid-19 pandemic.

Shipments to India's network of regasification terminals mostly concentrated on the West Coast amounted to 1.87 million tonnes in July, or around 27 cargoes, a drop of 14.9 percent on the 2.19MT imported in July 2020, according to preliminary monthly data from the Indian Ministry of Petroleum and Natural Gas.

Analysts said industrial demand was still recovering as India continued its Covid-19 vaccination programme and the death toll attributed to the virus approached 4.4 million people.

The nation's LNG shipments had dropped by more than 17 percent in June 2021 to 1.71MT, also affected by a 40 percent surge in cargo prices year-on-year.

Increasing domestic natural gas production has more than offset the fall in LNG imports.

The cumulative imports for the first four months of the fiscal year came to 7.52MT, up 2.0 percent on the first third of 2020 when 7.37MT was imported.

However, India is having to pay much more for its LNG cargoes than it did a year ago.

The July imports cost around \$900 million versus \$500M in July 2020 and \$3.1 billion in the four months of the fiscal year so far compared with \$1.9Bln in the previous fiscal year.

LNG deliveries to India come mainly from Qatar, which provides over one-third of volumes, as well as West Africa, the US, Asian nations, Australia and the spot market.

Wison shipyard delivers completed modules for Arctic LNG II Train

LNG News Editor

Chinese shipyard Wison Offshore and Marine has completed four modules to make up the first liquefaction Train at the Arctic LNG II export plant being developed on the Gydan Peninsula in northern Siberia and the equipment was scheduled to be shipped during September.

Shanghai-based Wison said the modules for the first Train weigh a combined 50,000 tons and took two years to build at the Zhoushan yard in the eastern Chinese province of Zhejiang for the Arctic project owned by Russian natural gas company Novatek and investors from Europe and Asia.

Output

Wison noted that each of the three production Trains ordered will have annual nameplate production capacity of 6.6 million tonnes for a combined 19.8 MTPA.

The Chinese company said the equipment within the three Trains includes about 150,000 tons of



Modules leave Wison fabrication yard heading for Russia

pipe rack modules and in total 21 modules will be shipped under the design, procurement, construction and commissioning contract.

"Construction of the Arctic LNG II Trains began at the Zhoushan yard in September 2019 and the company overcame multiple challenges and difficulties posed by the Covid-19 pandemic and extreme weather to execute this project," said Wison.

"Against stringent requirements on material selection and construction quality for polar equipment, Wison has fulfilled its task to the satisfaction of its client and the

smooth delivery of this project is more proof that 'Made in China' is the most reliable part of the global supply chain," stated Wison.

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 project is utilizing the construction concept of gravity-based structure platforms to reduce overall capital cost and reduce the environmental footprint in the Arctic zone of Russia.

Arun LNG Hub to be shared by Indonesia and TotalEnergies

Indonesian oil and gas company Pertamina said its gas and LNG subsidiaries would be cooperating with French major TotalEnergies on using the Arun LNG Hub, a former liquefaction plant on North Sumatra island.

Indonesia was the first country to turn a liquefaction and export plant into a regasification terminal when the Arun plant was converted and came on line in 2014.

It now operates as the Arun Gas Hub and it additionally started truck-loading services in 2020.

The Pertamina-TotalEnergies cooperation at the Arun LNG Hub is through agreements with Pertamina's gas units, PT Perusahaan Gas Negara and PT Perta Arun Gas (PAG), the operator of the

Arun terminal. Pertamina said TotalEnergies would use Arun LNG Hub storage tanks for part of its Asian trading of cargoes from its international portfolio in an expanding global LNG marketing strategy.

The Pertamina-TotalEnergies deal was signed between the President of Arun Gas, Arif Widodo, the President of Pertamina Gas, Wiko Migantoro, the Senior Vice President of Pertamina Downstream, Gas and Power, Arif Azof, and senior executives from TotalEnergies.

Arun is the only bonded Logistics Centre operator for LNG as a commodity in Indonesia.

The Arun terminal currently has four LNG storage tanks, each

of 127,000 cubic metres and totalling 508,000 cubic metres.

"TotalEnergies will use two LNG tanks and we are already set to welcome the first shipment on the LNG carrier 'Cubal' arriving from Angola (southwest Africa) in early September," stated Arun Gas Hub President Widodo.

Nicolas Poulteney, Managing Director of TotalEnergies Gas and Power in Asia, explained his company's participation in the venture with the Arun Gas Hub.

"Focusing on this deal, we plan to bring vessels from our LNG portfolio in Angola for storage at the Arun LNG Hub before delivering cargoes to customers," explained Poulteney.



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NEWS BRIEFS

Trans-shipment stake deal

Mitsui OSK Lines (MOL) of Japan has signed an accord with the Russian state leasing company (GTLK) for the possible acquisition of a 49 percent stake in two LNG floating storage units (FSUs) currently being built and with 100 percent ownership held by GTLK. The FSUs will have the world's largest storage capacity of about 360,000 cubic metres and will be deployed by Russian natural gas company Novatek at Kamchatka and Murmansk for LNG cargo trans-shipments from the existing Yamal plant and Arctic II facility now under construction. The two FSUs are being built by Daewoo Shipbuilding and Marine Engineering of South Korea.

Inpex carbon offsets

Inpex Corp, the Japanese energy company and operator of the Ichthys LNG export plant at Bladin Point, said it signed a firm supply agreement with Iruma Gas, the utility in Iruma City in east-central Honshu, for LNG cargoes with carbon offsets. Inpex has been working closely with city-gas operators in Japan to supply wholesale natural gas at a higher price because of a self-imposed carbon tax. The LNG volumes to be supplied to Iruma Gas were not disclosed.

Charter rates slip

Shipping spot charter rates for LNG carriers declined by \$2,000 per day to between \$70,000 per day and \$66,000 per day in the West of Suez market for vessels of 155,000-165,000 cubic metres capacity. East of Suez spot charter rates fell by the same amount to be quoted at between \$67,000 per day and \$63,000 per day, according to London brokers. One-year charter rates for the most modern vessels were unchanged at about \$93,000 per day. ■

Leading Nordic LNG supply firm Gasum seeks CEO as incumbent Johanna Lamminen steps down

LNG News Editor

Gasum, the Finnish state-owned LNG distribution company and regasification and liquefaction infrastructure owner in the Nordic region, is looking for a new Chief Executive after incumbent Johanna Lamminen resigned with immediate effect after leading the company for over seven years.

The Gasum board said Kai Laitinen, Gasum's current Chief Financial Officer, would take on the role of CEO and a recruitment process for a new CEO has now begun.

Transition

"In recent years, Gasum has made the transition from a traditional natural gas transmission and distribution company to a Nordic gas and energy company aiming towards a cleaner tomorrow," explained Elina Engman, Gasum Chairman.

"The natural gas market in Finland opened for competition in 2020, and Gasum has played a significant role in preparing the market opening. Under Johanna's leadership, the company has made great achievements," added Engman.

Analysts noted that Gasum has struggled to find profitability during Lamminen's tenure amid continued expansion in various parts of the LNG and biogas sectors.

"Johanna has taken Gasum forward with vision and determination. On behalf of the entire Board of Directors, I would like to warmly thank Johanna for her contribution to Gasum and wish her all the best for the future," added Engman.

Lamminen said it was the right



Kai Laitinen, Chief Financial Officer, stands in as CEO

time for her to leave to head towards new challenges.

"Together with the entire staff, we have travelled an amazing journey. We have built a Nordic energy company that provides clean energy to industry, shipping, and transport, not to forget the biogas market," stated the outgoing CEO.

Lamminen has held the position of CEO at Gasum since 2014.

Gasum built its prominent position in the Nordic region under Lamminen with the full acquisition of Norway-based Skangas after previously increasing its shareholding.

The Finnish gas firm increased its stake in Skangas from 70 percent to 100 percent in October 2018 by purchasing the balance of the shares from the Norwegian Lyse Group and its name was changed to Gasum.

Gasum owns LNG import terminals, a small-scale liquefaction plant and an expanding chain of LNG fuel stations for vehicles in the region as well as a maritime bunkering network.

It has recently expanded its LNG bunkering operations to

France and Singapore after already entering the Antwerp, Amsterdam and Rotterdam regional fuel market in Europe.

Its terminals include Sweden's Nynashamn small-scale facility with 20,000 cubic metres capacity of storage and purchased in April 2020 by Gasum from Germany's Linde.

The Finnish company also has a small-scale liquefaction plant in Risavika, near Stavanger in Norway, in addition to owning and operating other small regasification and import terminals in Ora and Alesund in Norway and Lysekil in Sweden.

Terminals

It also partly owns the Pori LNG import terminal in Finland and has a stake in the Finnish Tornio Magna regasification facility.

The Tornio terminal in Northern Finland is the largest in the Nordic region.

It is located on the Swedish border which allows Gasum to serve customers in Finland, Sweden and Norway. ■



The natural gas market in Finland opened for competition in 2020, and Gasum has played a significant role in preparing the market opening.



- Elina Engman, Gasum Chairman.

French storage designer GTT receives first order for LNG carrier tanks from Jiangnan Shipyard

LNG News Editor

French liquefied natural gas storage technology firm Gaztransport and Technigaz (GTT) has expanded business in China by receiving a first storage system order for an LNG carrier from Jiangnan Shipyard in Shanghai.

The order is for the cargo-handling storage system for an LNG carrier being built for Chinese energy company, the Jovo Group.

Membrane system

"This is GTT's first order for a membrane LNG carrier from Jiangnan, making the shipyard the second Chinese yard to construct a vessel with GTT technology," said the Paris-based company.

GTT's orders for storage systems for LNG carriers are normally from Hudong-Zhonghua Shipbuilding, also based in Shanghai.

The order is also for a mid-sized LNG carrier to be added to the global fleet.

GTT said it would design the tanks of the vessel with a cargo capacity 79,800 cubic metres.

The mid-sized carrier would be fitted with the GTT's Mark III Flex membrane containment system and would be the first LNG carrier built in China with the Mark III technology family.



Jiangnan yard to build LNG carrier with GTT tanks

The vessel is scheduled to be delivered to the Jovo Group in the fourth quarter of 2023.

"We are pleased to count Jiangnan among our LNGC new-building partners and to participate in the development of Jovo's marine fleet," said Philippe Bertroutière, Chairman and Chief executive of GTT.

"This mid-scale LNG carrier will be the first vessel built by a Chinese shipyard using our Mark III membrane technology. This agreement with Jiangnan is a significant milestone for the industry and for membrane LNGCs in China," added Bertroutière.

Hu Keyi, Chief of Corporate Technology of the Jiangnan Shipyard said the yard was proud to enter into the medium-size LNG carrier market with this project.

"Thanks to our rich experience on hull-form design of Very Large Gas Carriers, and the great support from GTT especially in pre-contract stage, Jiangnan has successfully combined optimized hull form with GTT's Mark III Flex cargo containment system," stated Hu.

"We are confident we will provide a state of the art and highly flexible LNG carrier to operate between coastal terminals and pan-Pacific energy sources," he added.

"Furthermore, it is really a significant step for Jiangnan shipyard toward the construction of a large LNG carrier," Hu declared.

A statement from the Jovo Group said the order for the customized "China Max" LNG carrier was a key part of its sourcing strategy and paves the way for future developments.

"We are fully confident that GTT will assist Jiangnan shipyard for its first mid-scale LNG carrier, using the cargo-handling system designed by GTT and featuring GTT's Mark III Flex technology, as well as supporting us for the LNG operations," added Jovo.

GTT has previously had orders from Jiangnan Shipyard for LNG-powered vessels rather than LNG carriers.

In June 2021 GTT confirmed an order for the design of fuel tanks for 12 new liquefied natural gas-powered container vessels ordered from China by the global CMA CGM shipping group based in the French port of Marseille.

The LNG fuel tanks will be the GTT Mark III system and will be able to load 14,000 cubic metres of LNG.

The 12 vessels will be delivered between the last quarter of 2023 and the third quarter of 2024.

The construction contracts for the CMA CGM newbuilds were given to traditional partner Hudong-Zhonghua as well as Jiangnan Shipyard.

Each of the Chinese yards will build six vessels able to carry between 13,000 and 15,000 twenty-foot equivalent units of containers.

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UAE looks forward to hosting Gastech

The United Arab Emirates said it was looking forward to hosting the Gastech natural gas and LNG conference and exhibition at the Dubai World Trade Centre in September and is lining up an impressive list of government ministers from around the world for the first major energy event to take place in-person this year.

The UAE said that Gastech had built a world-class speaker list for the first in-person commercial conference event since the Covid-19 pandemic.

The event was switched to Dubai in June 2021 from Singapore over continued concerns about persistent Covid-19 infections in Asia.

The Gastech conference is taking place in Dubai from September 21 to September 23 and is also the world's largest gas and LNG exhibition supporting the industry.

The Official Ministerial Welcome Address will be delivered by Dr Sultan Ahmed Al Jaber, Minister of Industry and Advanced Technology, and Managing Director and Group Chief Executive of Abu Dhabi National Oil Company.

A Ministerial Panel will then address the conference. It includes Suhail Mohamed Al Mazrouei, Minister of Energy of the UAE; Arifin Tasrif, Minister of Energy and Mineral Resources of Indonesia; and Mohammed Barkindo Sanusi, Secretary General at OPEC.

Other Energy Ministers speaking this year in Dubai include Chief Timipre Sylva, Minister of State and Petroleum Resources of Nigeria; João Galamba, State Secretary for Energy, Portugal; German Galushchenko, Minister of Energy, Ukraine; Hala Adel Zawati, Minister of Energy and Mineral Resources of Jordan; and Udaya Gammanpila, the Minister of Energy of Sri Lanka.

Gazprom increases profits from EU gas ahead of Nord Stream II

LNG News Editor

Gazprom, the Russian natural gas company supplying pipeline gas to Europe and China in competition to LNG, posted much higher first-half profits as volume sales of gas increased by 18 percent with the start of the partial global economic recovery.

The company said profits amounted to 995.5 billion Russian roubles (\$13.5Bln) for the first six months to the end of June 2021, a more than 21-fold rise on the 45.4Bln roubles (\$618.1 million) posted in the same period of 2020.

Sales volumes

Gazprom's net sales of natural gas increased to 272.3 billion cubic metres from 230.7 Bcm in the same period of 2020.

First-half volume sales to Europe came to 120.6 Bcm compared with 98.2 Bcm in the first half of 2020.

Income from net sales of gas to Europe and other countries doubled from 702.4 billion roubles (\$9.5Bln) to \$1.4 trillion roubles (\$19.8Bln) for the six months to



Turn-around in Gazprom results will please CEO Miller

the end of June. "The change was mainly due to the increase in average prices (including excise tax and customs duties) denominated in the Russian rouble by 63 percent and the increase in volumes of gas sold by 23 percent, or 22.4 Bcm," explained Gazprom.

"At the same time average prices denominated in US dollar increased by 53 percent," it added.

Gazprom said that for the second quarter of 2021 its profits more than tripled to 529.9Bln roubles (\$7.2Bln) versus 153.5Bln (2.1Bln) in the second quarter of 2020.

The earnings statement also

showed that the average first-half price of gas sold to Europe per million cubic metres, including excise tax and customs duties, amounted to 15,469 roubles (\$210.3M).

Gazprom says its 1 MCM units equates to approximately 360,000 therms.

While competing with LNG in the European Union and China, Gazprom is only a limited player in the LNG market with around 10 million tonnes per annum of sales from the Sakhalin joint venture in the Russian Far East. The cargoes are mostly supplied under contract to Japanese utilities.

Equinor starts up phase three of Norway's largest natural gas field

Norwegian oil and gas company Equinor, the leading producer and exporter of West European pipeline natural gas and LNG, has brought on stream the third stage of the Troll gas field, extending the production lifespan beyond 2050.

Norway is western Europe's largest producer of oil and natural gas, covering around 22 percent of the European Union's annual consumption.

Troll is Norway's largest gas field and supplies around 8 percent of EU gas needs from the Norwegian sector of the North Sea.

The Equinor start-up comes as Gazprom of Russia moves towards the commercial start-up by year-

end of the Nord Stream II pipeline to double the supply of Russian gas to the EU via the Baltic Sea subsea connection from Russia.

Equinor said that recoverable volumes from Troll's phase three, which will produce the Troll West gas cap, are estimated at 347 billion cubic metres of gas, or around 2.2 billion barrels of oil equivalent.

The Troll phase three project consists of eight wells in two templates, a new pipeline and umbilical connecting the templates to Troll A as well as a new gas processing module on the platform.

The Troll field's initial gas output came on stream in 1995, followed soon after by a parallel

oil-production stage.

"By reusing existing infrastructure, notably the Troll A platform and the Kollsnes processing plant, the third-phase development cost just 8 billion Norwegian crowns (\$920 million), well below the equivalent cost per Bcm of both previous stages," explained Equinor.

"Troll phase 3 is one of the most profitable projects in Equinor's entire history," it said.

Annual revenue for the Norwegian government from the latest development is expected to average more than 17Bln crowns (\$1.94Bln).

The Atlas Copco logo is positioned in the top right corner of the advertisement. It consists of the company name "Atlas Copco" in a white, italicized serif font, centered within a blue rectangular box that has white horizontal bars above and below the text.

Atlas Copco

The background of the advertisement is a photograph of a male worker in a dark blue industrial shirt, wearing a white hard hat with the Atlas Copco logo and safety glasses. He is looking down at a piece of machinery. A large, white, circular industrial component is visible in the upper left. A blue triangular graphic overlay is in the bottom left, containing technical drawings of machinery parts.

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US-Qatar forum points to Golden Pass and other LNG projects as helping meet new climate goals

LNG News Editor

The first liquefaction Train at the US Golden Pass LNG export project being constructed in Texas for a joint venture between Qatar Petroleum and ExxonMobil is still on schedule to come on stream by 2024.

The latest US-Qatar Business Council (USQBC) discussed the LNG market at its latest meeting in Doha and the effects of LNG projects like Golden Pass helping nations meet goals to reduce carbon-dioxide emissions by substituting coal for LNG and making natural gas production even cleaner.

Ras Laffan to Texas

It was confirmed by Qatar Petroleum and Qatari officials that the Golden Pass project was making steady progress.

The Federal Energy Regulatory Commission formally approved the transformation of the existing Golden Pass import terminal located on the Sabine-Neches Waterway in Texas into an export plant back in December 2016.

The Qatar-ExxonMobil project has advanced at a slow pace because of doubts several years ago



Main participants in US-Qatar Business Council event held online and covered LNG market developments

over market demand issues that have now been resolved and work is underway to construct three liquefaction Trains with around 16 million tonnes per annum of output.

While the first Train is still scheduled to come on stream in 2024, the second Train is expected to follow six-to-eight months later and Train 3 six-to-eight months after that.

Agenda

The USQBC meeting was on line and participants in Qatar and the US discussed how LNG would drive a sustainable energy world.

It featured a panel discussion involving Abdullah bin Hamad al-

Attiah, Chairman of the Abdullah Bin Hamad Al-Attiah International Foundation for Energy and Sustainable Development and Former Deputy Prime Minister and Minister of Energy and Industry of Qatar.

"Liquefied natural gas is a critical bridge fuel to a green energy economy," said Al-Attiah.

"The task now is to meet global LNG demand and ensure facilities adhere to the highest sustainability standards," he added.

Golden Pass has continued to progress its site development activities since 2019 and in July 2021 submitted another chapter to FERC of the Implementation Plan

to expand work at the site.

The project's engineering, procurement and construction contractor is a joint venture comprising Chiyoda Corp. of Japan and US companies McDermott International and Zachry Group.

The EPC companies have been making sure that local businesses received priority consideration for work and has awarded almost 40 local sub-contracts since actual construction began in May 2020.

Qatar Petroleum owns 70 percent of the project and 30 percent is held by ExxonMobil.

The US major is also Qatar's main partner in the existing Trains in Qatar itself which produce 77 MTPA. The Ras Laffan facility is being expanded to 110 MTPA and then even more Trains will be added for 126 MTPA of output.

ExxonMobil itself gave details in April 2021 of a proposed huge public-private carbon storage project at the centre of the US Gulf Coast LNG industry that would collect CO₂ from petrochemical plants and refineries in the area and bury them under the Gulf of Mexico.

Japan Bank for International Cooperation and Russia's Novatek sign LNG carbon-capture accord

Novatek, the operator of the Russian Yamal LNG plant and developer of the Arctic LNG II project, has signed a strategic agreement with the Japan Bank for International Cooperation (JBIC) on financing projects such as carbon-capture around its liquefaction and plants in northern Siberia.

The agreement was signed in the Russian Far East city of Vladivostok at a regional event called the Eastern Economic Forum.

"We are actively studying options to further reduce our current low carbon footprint from Novatek's LNG production by using renewable energy sources, and carbon capture and storage at our

LNG projects," said Leonid Mikhelson, Novatek's Chairman.

"This agreement provides opportunities for us to work with Japanese companies and financial institutions on developing our low-carbon solutions, attracting investments and expanding the range of suppliers of state-of-the-art equipment and technologies," explained Mikhelson.

"Moreover, it facilitates opportunities for us to market our clean fuel products to a wider range of consumers from Japan to reduce the total carbon emissions," he added.

The Vladivostok Forum also saw the signing of a similar carbon-

capture and clean fuels agreement between the governments of Russia and Japan.

Ministers

That accord was signed by the Minister of Energy of the Russian Federation Nikolai Shulginov and the Minister of Economy, Trade and Industry of Japan, Hiroshi Kajiyama.

Novatek's Mikhelson is currently overseeing the development of the Arctic LNG II project with partners including France's TotalEnergies and Chinese and Japanese companies.

Mikhelson has said he expects that all three liquefaction Trains at the Arctic LNG II plant will come on stream in a two-year

time span from 2023.

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

Arctic LNG II will produce 19.8 million tonnes per annum of LNG from the principal feed-gas resources, the Utrenneye gas fields, adding to the existing Novatek Yamal LNG facility's annual output of over 18 MTPA.

The new Arctic plant is being constructed on the Gydan Peninsula and involves the installation of three gravity-based structures in the Gulf of Ob and related LNG storage facilities of a combined 687,000 cubic metres capacity.