

LNG Unlimited

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US Gulf Coast floating LNG project to receive \$1.5Bln in Korean loans

Delfin's plans for 50 miles offshore Louisiana coast are moving forward
Our North America editor in New York

The US Delfin LNG export venture planned for 50 miles offshore Cameron Parish, Louisiana, has signed a \$1.5 billion financing contract with the state-owned Korean Development Bank to help guarantee the construction of three project vessels at South Korean shipyards.

The Delfin FLNG financing contract was signed by KDB Chairman Lee Dong-Geol and Delfin founder Frederick Jones.

Deepwater port

Delfin would be the first US deep-water FLNG project and expects to export about 9.2 million tonnes per annum of LNG with possibilities of expanding to 13 MTPA.

The project developers propose to build an onshore compressor station and use existing pipelines in the Gulf of Mexico to transport natural gas to four moored FLNG vessels.

Delfin FLNG is a wholly-owned subsidiary of Fairwood Peninsula Energy and is proposing to develop a deepwater port, a floating liquefaction facility and an associated pipeline, including some onshore facilities and a mile-long onshore



Delfin will have several floating structures in Gulf of Mexico

section of the pipeline. The company signed a joint development agreement with Hoegh LNG of Norway in February 2015 for the supply of its three FLNG vessels to be built in Korean shipyards.

"The \$1.5 billion loan from KDB would cover more than 70 percent of the estimated total costs of \$2.1 billion," said the bank, in reference to the shipbuilding requirements.

The KDB finances overseas projects by providing industrial capital if that adds to South Korean economic development and guarantees jobs.

"Supporting a new order like the Delfin FLNG is a meaningful project as this provides work for South Korean shipbuilders, which have been experiencing an order shortage, especially where offshore plants are concerned," the KDB said.

Front-end engineering design for the FLNG project was awarded

to San Francisco-headquartered US construction and engineering company Bechtel Inc. in August 2015.

The company has applied to the United States Maritime Administration (MARAD) and the US Coast Guard for authorization to construct and operate the deepwater port.

The Federal Energy Regulatory Commission is also involved because of the permit required for the onshore pipeline section.

Delfin proposes to activate the formerly abandoned U-T offshore system pipeline and construct new connecting pipelines, a compressor station and associated facilities.

Delfin told the FERC that the majority of the onshore facilities would be within the Cameron Meadows Gas Plant and adjacent Transcontinental Gas Pipe Line (Transco) Station 44 in Cameron Parish.

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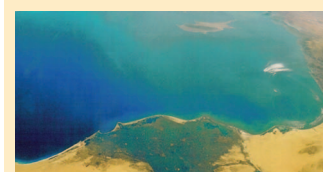
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Technip and GE Oil & Gas sign accord to harness digital technology for LNG projects

Our Europe editor

French liquefied natural gas and energy engineering company Technip, which is currently in the middle of a takeover of FMC Technologies of the US, has signed an LNG accord with the oil and gas division of US conglomerate General Electric to cooperate on exploring digital solutions for LNG projects.

Technip and GE Oil & Gas said the memorandum of understanding would centre on bringing all the advantages of the digital age to the engineering, construction, commissioning and operational phases of LNG ventures.

Phase

The first phase of the cooperation will be to determine which solutions could be applied to LNG projects as well as the operation and maintenance of existing LNG infrastructure.

"All solutions under consideration would encompass Technip and GE Oil & Gas expertise in digital



Technip and GE system to be powered by cloud-based Predix

tools and be powered by Predix, the world's first and only cloud-based operating system built exclusively for the industry by GE," a statement said.

"GE has a strong track record in providing equipment reliability solutions for a number of LNG facilities around the world, through sensors, advanced analytics and diagnostic expertise.

"Technip brings its unique expertise in the engineering, procurement and construction (EPC) phases of LNG and LNG new frontier projects," the statement added.

"Combining our complementary areas of expertise allows us to explore new digital capabilities for LNG that can be applied from the design and build phases all the way through to the operational phases," said Rod Christie, President and Chief Executive of the Turbomachinery Solutions unit of GE Oil & Gas.

"By embedding digital thinking at the very beginning of project development, we are truly building the digital future of oil and gas," Christie added.

Nello Uccelletti, President of

the onshore-offshore division of Technip said the French company was entering this partnership with the "same pioneering spirit" which inspired it 50 years ago when Technip built the world's first LNG plant in Algeria.

"Together with GE Oil & Gas, we aim to develop digital solutions that create value over the entire life of a project.

"As we did 50 years ago, as we are doing it in the Floating LNG era, we are also convinced this partnership will represent another significant step forward in the LNG industry," Uccelletti added.

Technip is a leader in FLNG project engineering. It is responsible for the topsides of the "PFLNG Satu" which will be the first LNG production vessel to enter service in 2016 offshore Malaysia.

It is also involved as a joint venture engineering partner with South Korea's Samsung Heavy Industries in the Australian Prelude FLNG venture of Royal Dutch Shell.

Japanese LNG market report assesses spot price movements during summer months

International oil prices have been rising since early May, but the liquefied natural gas spot price for North East Asian countries such as Japan and South Korea, currently at an all-time low, is not encouraging a surge in demand.

According to the Japanese, contracted LNG spot cargoes can still be had for around \$4.10 per million British thermal units, plus shipping and regasification charges.

A report on the Japanese and Korean LNG markets has just been published by Yoshikazu Kobayashi, Senior Economist and Manager of the Gas Group at the Institute for Energy Economics in Japan.

The outstanding question addressed was how will spot LNG prices change in the Northern Hemisphere summer demand period.

"In short, there is little possibility that the spot LNG price will rise from now to summer's end," the report said.

"Supply is likely to continue to increase, as three-quarters of the over 30 million tonnes of new projects due to be launched this year are expected to start production in the third quarter of 2016," said Kobayashi, in his report.

Added to the supply mix is the fact that Australia's Gorgon LNG project, currently halted due to trouble with a cooling unit, and Angola LNG, shutdown since 2014, are restarting.

"Demand is expected to rise this summer in China and Taiwan but seasonal demand may not be so high in South Korea where economic recession continues. The

high stock level since the beginning of the year remains unresolved and nuclear and coal are given priority as fuels for electricity generation," the Kobayashi report explained.

"LNG for power generation has also been decreasing year-on-year in Japan due to the introduction of coal-fired thermal and renewable power sources, as well as the restarting of nuclear power stations.

"With a significant increase in production capacity expected on the supply side, the spot price is unlikely to rise even after the summer demand period starts," Kobayashi stated.

He referred in his report to Motoo Hayashi, Minister of Economy, Trade and Industry, using the G7 Energy Ministerial Meeting in

Kitakyushu, Japan, in May to announce Japan's "Strategy for LNG Market Development."

The strategy aims to achieve "inexpensive" and "stable" LNG procurement for Japan and is based on the three basic principles of (1) ease of trading, (2) a price index that reflects supply and demand, and (3) an open and well-developed infrastructure.

Specific actions include abolishing the destination clause and holding discussions with price information firms and financial institutions on establishing a new price index.

Abolishing the destination clause in particular requires government involvement, as can be seen in Europe.

Shell Asian trading unit to buy FOB LNG cargoes in Japan

Royal Dutch Shell's Asian trading subsidiary has signed an agreement to purchase the first LNG cargoes from Japan's newest bi-directional terminal that imports and regasifies shipments and also offers re-loads.

Japanese importer Shizuoka Gas Co. said it signed a sale and purchase agreement with Shell Eastern Trading for cargoes re-loaded at its Sodeshi import terminal, located at the port of Shimizu, just south of Tokyo.

"This is our first binding contract to supply LNG through our LNG terminal," the Japanese company said.

"Shizuoka Gas is continuously committed to pursuing the possibilities for the reduction of LNG cost by increasing transaction volumes at Shimizu LNG Terminal and taking advantage of liquidity in the expanding global LNG market," it added.

Shizuoka said it was looking for other ways to maximize its facilities and achieve the reduction of LNG costs in the newly deregulated natural gas and energy markets.

"As one of our initiatives, we converted Shimizu LNG terminal into a bi-directional terminal by adding reloading facilities in April of this year," it explained.

Shizuoka Gas has operated the Sodeshi import terminal in Japan since 1996. The facility has three storage tanks with capacity of 337,200 cubic metres.

The re-loading concept is not new in Japan as large import terminals have often re-loaded cargoes onto small-scale carriers to be shipped to satellite regasification facilities elsewhere along the coast.

Japanese LNG engineer Chiyoda joins up with NYK Line in subsea sector

Our Asia-Pacific editor

Japanese shipping and offshore project company Nippon Yusen Kabushiki Kaisha (NYK Line) has taken a stake in the subsea joint venture launched by Japanese liquefied natural gas and energy company Chiyoda Corp. amid consolidation in the sector.

Chiyoda, based in Yokohama, said NYK Line would take a 25 percent interest in Emas Chiyoda Subsea.

Access

The Japanese engineering company said taking NYK Line on "will provide valuable access to NYK's experience in the offshore oil and gas industry."

Chiyoda is one of the world's leading LNG engineering companies, working on projects in Australia, Mozambique, Russia and the US and it is responding to consolidation in the industry that saw France's Technip initiate the takeover of Houston, Texas-based FMC Technologies.

Chiyoda's backlog of LNG and



NYK Line deal adds to earlier Ezra-Chiyoda subsea tie-up

natural gas work at the start of 2016 amounted to \$8.5 billion.

Emas Chiyoda Subsea is a global engineering, procurement and construction service provider and was only created in March 2016 as a 50-50 joint venture between Singapore-based Ezra Holdings, the offshore contractor, and Chiyoda.

As part of this earlier Emas Chiyoda transaction, Chiyoda paid Ezra a cash consideration and injected additional capital into the joint venture company.

The venture, marrying Ezra's and Chiyoda's complementary areas of expertise, was created to

allow the undertaking of larger and more complex offshore subsea construction projects.

After completion of the NYK Line transaction, Ezra, Chiyoda and NYK will respectively hold 40 percent, 35 percent and 25 percent of Emas Chiyoda Subsea.

"Under our medium-term management plan, Chiyoda has been focusing on expanding its business into the offshore and upstream fields," said Shogo Shibuya, President and Chief Executive of Chiyoda, which itself is almost 40 percent owned by Mitsubishi Corp.

Japan's expanding Ishikari LNG import terminal in Hokkaido is taking shape

The Japanese Ishikari liquefied natural gas import terminal, located on the northern main island of Hokkaido, has begun construction of a fourth storage tank as part of the nation's main LNG expansion plans.

Ishikari, which takes its name from the Ishikari River on which it stands, is one of Japan's newest regasification facilities and began commercial operations in 2012.

It is the only large-scale LNG import base in Hokkaido, whose capital is Sapporo, and imports cargoes from Sakhalin Island in the Russian Far East and from Australia.

Of the four tanks planned for the terminal only one is operational and three others are still to be completed.

Two of the storage tanks belong to Hokkaido Gas Co., including the

one in operation of 180,000 cubic metres capacity, while two others will be owned when completed by Hokkaido Electric Power Co.

The Ishikari terminal has been operating as an import and regasification facility for more than three years and also has a berth for coastal LNG vessels and a truck-loading facility.

A second tank with storage capacity of 180,000 cubic metres is being built as is tank three with capacity of 230,000 cubic metres.

The fourth tank will also be the largest version with 230,000 cubic metres of storage.

The tank on which work has just started is scheduled for completion in October 2020.

Ishikari LNG terminal is being built to support future demand

from the Ishikari Bay New Port gas-fired power plant currently under construction.

The power plant comprises three 569-megawatt gas-fired power units.

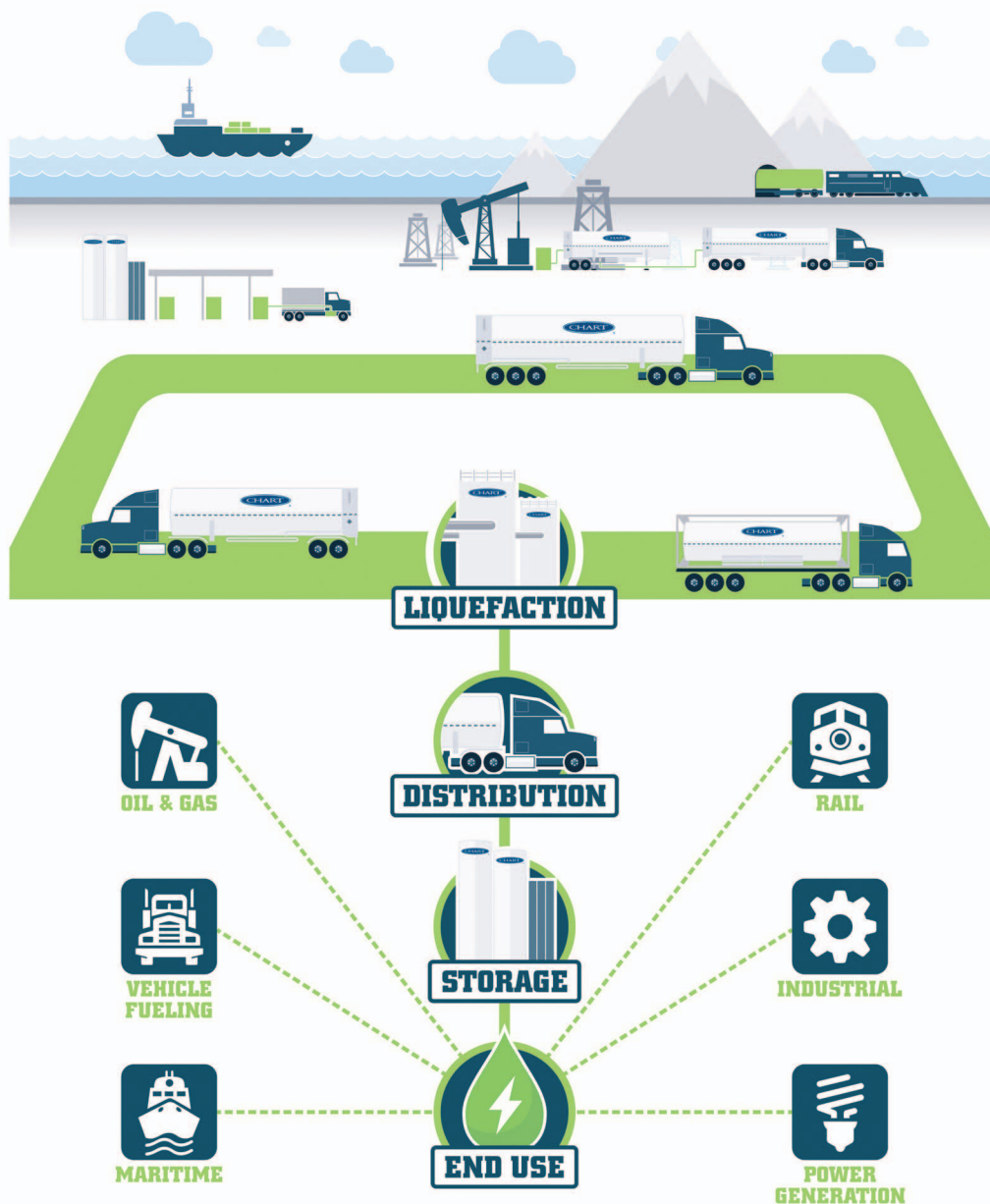
The start of commercial operations for the Ishikari Bay generating plant is scheduled for February 2019 and will boost gas-fired power capacity in the continued absence of most nuclear power.

Japan currently has only two nuclear plants in full service out of 50 while a third N-plant that was previously in operation has shut for maintenance.

The country imported 85.04 million tonnes of LNG last year compared with the record 88.51MT in 2014, a fall of 3.9 percent.



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NEWS NUDGES

Novatek and Linde in deal

Yamal LNG project developer and natural gas and energy company Novatek of Russia and German liquefaction and processing equipment maker Linde AG have signed a partnership and cooperation agreement. The accord aims to facilitate cooperation in the construction of process modules and the sourcing of equipment in Russia. "The signed agreement will create a favourable environment for consolidating cutting-edge LNG technologies in Russia, give impetus to setting up new industrial capacities and help optimize capital expenditure on LNG projects," said Novatek Chairman Leonid V. Mikhelson.

ABS is given Japan role

The American Bureau of Shipping, the US maritime classification society, has been elevated to a more important role in Japan to include labor inspections for all commercial shipping, including liquefied natural gas carriers. ABS was selected by the Japanese Ministry of Land, Infrastructure, Transport and Tourism (MLIT) as a "Recognized Organization" for crew inspections to ensure minimum requirements for seafarers working on ships, including conditions of employment, accommodation, food, health protection and security.

Quebec trucks LNG north

Gaz Metro, the natural gas distribution company in the Canadian province of Quebec, announced the start of LNG supplies delivered by truck to the Stornoway Renard diamond mine, located in the Otish Mountains, more than 1,000 kilometres from Montreal.

Europe's newest LNG import terminal at French Dunkirk port outlines plans

Our Europe editor

The newest European import terminal at the French Channel port of Dunkirk has scheduled its first cargo delivery for July 8 to start the facility's commissioning process.

The Dunkirk facility was developed by Electricite de France (EdF). Other shareholders in the project include French energy major Total and Belgian LNG terminal owner and network operator Fluxys, owner of the Belgian Zeebrugge LNG terminal.

Budget

The Dunkirk terminal itself cost 1 billion euros (\$1.13Bln) to build and is managed by the subsidiary company Dunkerque LNG. The facilities were connected to the natural gas transmission network by France's GRTgaz at the end of 2015.

"Over a year ago, we contacted the terminal's two clients, EDF and Total, to find out which of them was willing to have an LNG carrier come to the terminal," said Dunkerque LNG Commercial Director Christophe Liaud.



EdF will deliver cargo to new Channel terminal on July 8

"The commissioning cargo will ensure that everything is in place for the commercial start-up of the terminal, which is scheduled for September 2016," Liaud explained. He added that EdF would import the first cargo.

During the cool-down process all the systems have to be made ready to safely receive and handle regular cargoes and regasified LNG.

For this purpose, a volume of inert gas in the form of nitrogen will be used to get the storage tanks close to working order. The storage tanks will then have to be cooled with LNG vapour once the first cargo arrives.

"The ship will call at the LNG terminal jetty for seven days

(rather than the normal 24 hours). As the equipment will still be at ambient temperature, the LNG will need to be unloaded much more slowly than normal so the process gradually enters its cool state," Liaud explained.

"EdF has managed to find an LNG supplier while guaranteeing a competitive price," stated Liaud of the first commissioning cargo.

"We will also check that the LNG quality is compatible with the terminal. Everything will be in place to receive the first methane tanker and continue with tests throughout the time it is docked.

"A second ship will follow in August to complete testing," he added.

German marine propulsion systems maker MAN secures two LNG orders

German marine propulsion systems maker MAN Diesel and Turbo has secured another order from South Korean shipbuilder Daewoo Shipbuilding and Marine Engineering (DSME) under its latest contract with Greek shipping operator Maran Gas for the construction of two LNG carriers with dual-fuel options, including gas power.

Maran already has four of MAN's M-type, electronically-controlled, gas-injection (MEGI)-powered LNG vessels on order at DSME.

MAN has its headquarters in Augsburg, southern Germany, and is part of the Volkswagen Group.

Maran Gas is the LNG shipping company of Angelicoussis Ship-

ping, Greece's largest shipowner.

The MEGI dual-fuel engine represents many years of development work for MAN. "Depending on relative price and availability, as well as environmental considerations, the ME-GI engine gives shipowners and operators the option of using either heavy fuel oil or predominantly natural gas," MAN explained.

MAN said that in the latest order Maran vessels will have the systems installed in two LNG carriers and two Very Large Crude Carriers (VLCCs) and both ship-types have a number of options at the Korean DSME yard.

The LNG carriers are scheduled for delivery in 2019 and the VLCCs

are due to be completed in the first half of 2018.

The newbuilds are described as the next generation of ecologically-friendly vessels meeting International Maritime Organization Tier III standards.

The two 173,400 cubic metres capacity LNG carriers to be built with a length of 295 metres and a breadth of 46 metres will each be fitted with MAN B&W 2 x 5G70ME-C9.5-GI gas and fuel engines.

"This engine type is expected to raise fuel efficiency significantly compared to a standard LNG carrier, while at the same time lowering emissions," MAN said.

Russia's Gazprom says new LNG and pipeline supplies for Asia-Pacific still top of agenda

Our Europe editor

Russian natural gas producer Gazprom said it planned to boost liquefied natural gas supplies to the Asia-Pacific region as part of its large-scale project plans for Siberia and areas such as Sakhalin Island where the nation's only LNG export plant is located.

Gazprom's Sakhalin Island oil output is called the Sakhalin I project, while the existing LNG plant is known as Sakhalin II.

Stated

A press conference at Gazprom headquarters in Moscow was attended by senior executives, including the Deputy Chairmen of the Gazprom management committee, Vitaly Markelov and Alexander Medvedev, and they focused on the priority eastern projects, including pipeline supplies to



Sakhalin LNG plant will have a third processing Train

China and more LNG for Japan and other nations.

Gazprom stated that it was still on course to add more than 5 million tonnes of capacity to the Sakhalin Island LNG plant with a third Train to take output to over 15 MTPA.

"Design documentation is being developed for the construction of the third production Train of the LNG plant within the Sakhalin II project," Gazprom said.

Gazprom also explained its new strategy in the region called Sakhalin III and including new natural gas supply and infrastructure for Russia's Eastern Siberia and Sakhalin Island region, "taking into account integrated production, transportation and supply system including potential gas exports to China and other Asia-Pacific countries."

The company said it was committed to expanding its resource

base with exploration at the Chayandinskoye field and full development of the Yuzhno-Kirinskoye fields as part of Sakhalin III.

The mainstay production for Sakhalin III is the Kirinskoye field, located 28 kilometres offshore the north-east coast of the Sakhalin Island in the Sea of Okhotsk.

Gazprom said the reserves of the field amount to 162.5 billion cubic metres of natural gas and 19.1 million tons of gas condensate.

"The first gas was extracted from Kirinskoye in October 2013; commercial production started in 2014. At present, the construction of production wells continues," Gazprom explained.

"For the first time in Russia, gas is extracted by a subsea production facility," it said.

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Tilbury LNG expansion near Vancouver provides boost

FortisBC, the power and natural gas distribution company in the Canadian province of British Columbia, said its Tilbury LNG plant expansion project was leading to \$400 million of investments to benefit businesses and provide jobs.

Tilbury plant at Delta, part of metropolitan Vancouver, has already signed an agreement with Hawaiian Electric Co. to supply 800,000 tonnes per annum from the expanded peak-shaving LNG production plant.

The supplies will start in 2021, depending on government and regulatory approvals in both BC and Hawaii.

The \$400-million Tilbury LNG expansion includes construction of a new LNG storage tank, additional liquefaction and LNG truck loading equipment.

FortisBC expects the expanded facility will be operational by late 2016 or early 2017.

FortisBC has operated Tilbury LNG since 1971 and the Mount Hayes LNG peak-shaving plant on Vancouver Island was commissioned in 2011.

"At FortisBC, we're committed to providing job and business opportunities for local and Aboriginal workers and companies on our major projects," said Michael Mulcahy, President and Chief Executive of FortisBC.

"The expansion of the Tilbury LNG facility will result in increased LNG supply for our industrial users and remote communities, while bringing economic development and new jobs to BC," Mulcahy said.

The company pointed out that it has a contract with the Tsawwassen First Nation (TFN) Construction/Matcon Civil Joint Venture (TMJV) for civil construction and environmental services.

Alaska names Ex-Cheniere President to oversee state's LNG project stake

Our North America editor in New York

The Alaska state shareholding company in the huge liquefied natural gas export project being developed with three energy majors has named former Cheniere Energy President Keith Meyer as its new head.

Meyer is taking up his role as President of Alaska Gasline Development Corp. (AGDC), owner of a 25 percent interest in the Alaska LNG joint venture with ExxonMobil, ConocoPhillips and BP of the UK, from June 15, 2016.

Search

AGDC appointed Meyer after a board meeting in Anchorage following a five-month national search initiated in December 2015 following the resignation of incumbent Dan Fauske.

Meyer left Cheniere in November 2007 while it was still an import terminal operator in Louisiana and before the project began to construct the Sabine Pass liquefaction plant that became the first US



AGDC appointed Meyer after a board meeting in Anchorage

commercial exporter from the Gulf Coast in February 2016.

He joins AGDC from LNG America, an energy logistics company he founded in 2008 to provide LNG distribution as a fuel source within the marine, transportation and other industries.

Under current plans for Alaska LNG, the three oil companies and AGDC are aiming to construct three liquefaction Trains at Nikiski

in south-central Alaska to process up to 20 million tonnes per annum of LNG and with three 160,000 cubic metres capacity storage tanks alongside.

The proposals include delivering the gas from the North Slope region using an 800-mile, 42-inches diameter pipeline with up to eight compressor stations along the way.

US LNG player Sempra wins 500-mile gas pipeline contract to link Texas-Veracruz

Sempra Energy of California and TransCanada Corp. have been awarded a US\$2.1-billion contract to build, own and operate the pipeline from South Texas into Mexico where the US company has liquefied natural gas interests and ambitions.

Sempra's Mexican subsidiary, Infraestructura Energetica Nova (IEnova) and TransCanada have concluded their agreement with Mexico's Federal Electricity Commission (CFE) for the 497-mile (800 kilometres) pipeline.

The pipeline will run from South Texas to Tuxpan in the Mexico coastal state of Veracruz and will have a capacity of 2.6 billion cubic feet per day. The project is scheduled to be completed and in service by late 2018.

It will transport natural gas from a point near Brownsville, Texas, to Tuxpan in the state bordering the Gulf of Mexico.

Principally, the Texas-Tuxpan pipeline will provide natural gas to new and existing combined-cycle gas-fired power plants that currently use fuel oil.

"The project is contracted by CFE under a 25-year capacity contract denominated in US dollars," Sempra said.

The Sempra-TransCanada joint venture will be responsible for implementing the project, including permitting, acquiring land and rights of way, engineering, procurement, construction, financing, operation and maintenance.

TransCanada will own 60 percent of the project with IEnova

having 40 percent. "We are pleased with the results of the tender and look forward to continue to grow our presence in Mexico while helping the country meet its energy demand with new safe and reliable services," said Mark Snell, President of Sempra Energy.

IEnova already develops, builds and operates energy infrastructure in Mexico and is studying an LNG production plant proposal for its Costa Azul import terminal on the Pacific Coast.

IEnova and Sempra LNG in February 2015 signed a memorandum of understanding with Petroleos Mexicanos (Pemex), for cooperation and coordination in developing an LNG project at Costa Azul or elsewhere.

Italian energy company gives Egypt LNG hope with significant gas find in Nile Delta

Our Europe editor

Italian energy company Eni is contemplating the impact of its new “significant” natural gas discovery in the Baltim South West exploration prospect in the waters of the Nile Delta offshore Egypt.

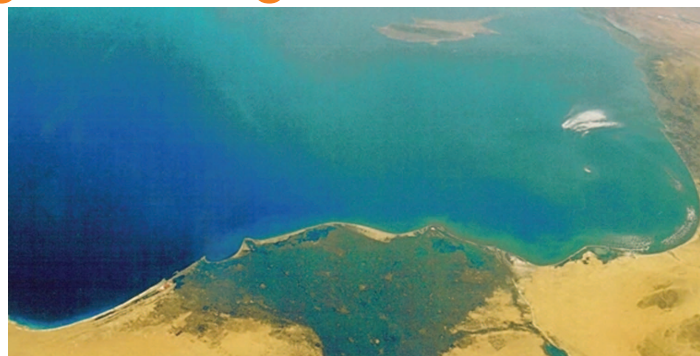
This latest discovery comes as Eni moves forward with initial engineering to open up the largest natural gas discovery in the East Mediterranean, called Zohr 1X and located in the Shorouk block in 4,750 feet of water offshore the city of Alexandria.

Double

The world-class Zohr find was announced in August 2015 by the energy company and the Egyptian government.

The new Baltim South West 1X well is 12 kilometres from the coast in 25 metres of water depth and 10 kilometres north of the Nooros field, discovered in July 2015.

Egypt had previously been an LNG producer from two liquefaction plants on its Mediterranean



Eni joins UK's BP with its latest Nile Delta success story

coast but the facilities were shut because of a shortage of feed-gas.

Existing Egyptian natural gas supplies have been diverted by the state energy companies since 2013 to satisfy high demand in the domestic market and the nation has even been importing LNG to meet requirements.

“The Baltim South West discovery, further confirms the significant potential of the so called ‘Great Nooros Area’, which is now estimated to hold 70-80 billion cubic metres of gas in place,” Eni stated.

The Italian company said the Nooros field already reached in May 2016 a production rate of

65,000 barrels of oil equivalent per day and is targeting 120,000 boe/d by year-end 2016.

“The Baltim South West 1X well penetrated approximately 120 metres of gross gas column and 62 metres of net pay sandstones of Messinian age with excellent reservoir properties,” the Italians said.

“Eni is already assessing the options for the fast track development of this new find, which like that of Nooros, will exploit solutions able to accelerate the production start-up, through the maximum synergy with the existing infrastructures already present in the area,” Eni explained.

The latest find comes as Aker Solutions of Norway was awarded a supply order for key equipment for the development of the massive Zohr discovery from which Eni plans to create a gas hub in the East Med.

Aker said the Egyptian contract would see the delivery of its longest-ever umbilicals system for the Zohr gas field project.

The Aker contract involves the delivery of 180 kilometres of steel tube umbilicals that will connect the Zohr subsea development to an offshore control platform.

Aker said the agreement with Petrobel in Egypt was worth more than 1 billion Norwegian crowns (\$122 million).

Eni was given the go-ahead in February 2016 by the Egyptian Ministry of Petroleum and Mineral Resources to develop the Zohr field.

The Aker work will be led by its subsea division in Oslo and manufacturing will start immediately at the umbilicals plant in Moss, Norway.

Enagas of Spain increases Chile LNG stake as part of expansion strategy in South America

Spanish LNG import terminal and natural gas network operator Enagas has reached an agreement with Endesa Chile to purchase a controlling stake in the Chilean Quintero LNG terminal company as it furthers its commitment to invest in South American energy infrastructure.

Enagas already controls 40 percent of the Chilean terminal company GNL Quintero through a separate joint venture and has bought a further 20 percent from Endesa for \$200 million.

“This acquisition is subject to possible pre-emptive acquisition rights held by other shareholders,” the Spanish company said.

Enagas is one of the most experienced LNG operators in Europe and overseas.

The company has Spanish im-

port and regasification facilities at Barcelona, Cartagena, Huelva, Bilbao and El Musel.

Enagas said that once its Chilean transaction was complete it would own 40 percent of GNL Quintero in its joint venture with Oman Oil Company and a further 20 percent on its own through Enagas Chile.

The remaining 40 percent of the shares in the terminal is held by Chile's ENAP and Metrogas with each owning 20 percent.

The regasification facility is located in the Bay of Quintero and has been in operation since 2009. Enagas has held a stake since 2012.

The facility is one of two import terminals currently operating in Chile while two others are planned as natural gas increases in the

country and throughout the region.

Quintero has three LNG storage tanks with overall storage capacity of 334,000 cubic metres. It can also handle the largest LNG carriers up to 265,000 cubic metres capacity.

The terminal is also planning to expand with the construction of a third LNG storage tank with 160,000 cubic metres of capacity and to increase its send-out capacity to 833,000 cubic metres (n)/h.

Enagas said the additional investment in the GNL Quintero import company demonstrated its “commitment to Chile and Latin America.”

“For Enagas, the future development and growth of the GNL Quintero terminal is a priority, as it is a fundamental infrastructure for the security of energy supply in Chile.

“This deal enables Enagas to

consolidate its position and reinforces its long-term commitment to the country,” it added.

The Spanish company is also present in Mexico and Peru. In Mexico, Enagas holds a stake in the Altamira regasification and import terminal in the Gulf of Mexico.

It has also set up as part of the contractor consortium, two strategic infrastructure projects, the Morelos gas pipeline and the compression station at Soto La Marina.

In Peru, Enagas holds a 26 percent stake in Transportadora de Gas del Peru (TGP), the national transmission network, and 30 percent of Compañía Operadora de Gas del Amazonas (Coga), the company which operates and maintains TGP's transmission system.