

LNG Unlimited

LNG JOURNAL PUBLICATION

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Dolphinus of Egypt signs up for more supplies of East Med gas

Noble of US and Delek of Israel extend their pipeline deals amid plans for floating LNG
LNG Journal editor

Noble Energy, the US company with stakes in the Leviathan and Tamar natural gas fields in the East Mediterranean offshore Israel, said it had doubled the volumes of its deals for sales to Dolphinus Holdings of Egypt and extended the contract terms.

Noble is based in Houston, Texas and its partner in the operating Tamar field and the Leviathan project, which is set to come on stream by year-end, is the Israel company, the Delek Group.

Leviathan

Noble and Delek have also considered using some Leviathan natural gas volumes from the 22 trillion cubic feet of reserves for a floating LNG production venture offshore Israel as well as supplying customers in Egypt and Jordan.

The amended pipeline gas agreements with Dolphinus now provides for total combined firm contract quantities of 3 Tcf of natural gas, more than double the firm commitments previously agreed.

In addition, each pipeline agreement has been extended by five years to reflect 15-year terms.

Beginning on the 1st of January 2020 and throughout the contract term, Noble and Delek have committed to supply the volumes to Dolphinus in various sizes.

From January to June 2020 the Leviathan field will provide 200 million cubic feet per day (MMcf/d) of natural gas.

This will rise from July 1, 2020 to June 30, 2022 to 350 MMcf/d



Ashkelon-Arish pipeline is part of transaction arrangements

from Leviathan and 100 MMcf/d from the Tamar field.

Then from July 2022 until the end of December 31, 2034, the Leviathan field would supply 450 MMcf/d and Tamar 200 MMcf/d.

These contracts with Dolphinus replace the previous firm commitment of 1.15 Tcf from the Leviathan field and the previous interruptible quantity of 1.15 Tcf from the Tamar field.

Both contracts include take-or-pay commitments. During the two-year period ended June 30, 2022, Leviathan will backstop any volume commitment that Tamar is unable to deliver under the amended agreement.

"This agreement is a major step for Noble's Eastern Mediterranean projects, expanding the long-term export demand in the region," said David L. Stover, Noble's Chairman and Chief Executive.

"The supply flexibility between assets will enable Tamar to continue producing at high rates, while Leviathan grows rapidly toward its initial capacity," added Stover.

"With first gas from Leviathan anticipated by the end of the year, this agreement provides further clarity to our 2020 cash flow profile and beyond," the CEO stated.

Noble added that the amended agreements are subject to certain regulatory approvals.

In addition, Noble and its partners are working to complete the acquisition of an interest in the East Mediterranean Gas (EMG) pipeline from Arish in Egypt's Sinai Peninsula to Ashkelon in Israel. This is expected to occur before the end of 2019.

The pipeline had to cease operations several years ago due to sabotage in Sinai and gas shortages in Egypt.

However, although originally intended for transporting gas from Egypt to Israel it can now be used to operate in the opposite direction from Israel to Egypt.

Payment

The Leviathan and Tamar gas field partners, Noble and Delek, have agreed to pay a total sum of \$250 million for an undertaking from the EMG pipeline owners to allow the transport of their contracted natural gas to Egypt.

As regards the LNG project, Noble and Delek signed agreements in July 2019 with Golar LNG and Belgian shipping company Exmar to carry out engineering studies for a possible export project.

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Plaquemines plant set for 24 MTPA of output on Mississippi River site south of New Orleans

LNG Journal editor

The Plaquemines LNG export plant in Louisiana proposed for river mile-marker 55 on the west side of the Mississippi River, 30 miles south of New Orleans, has been authorized to proceed by the Federal Energy Regulatory Commission.

The Mississippi River plant is one of three being developed by Arlington, Virginia-based Venture Global.

Pipelines

The FERC gave the go-ahead for the construction and operating of the plant at Plaquemines Parish, along with its associated Gator Express pipeline inter-connected with the Tennessee Gas Pipeline and the Texas Eastern Transmission pipeline.

Plaquemines LNG is designed with a total nameplate liquefaction and export capacity of around 20 million tonnes per annum and a total peak achievable capacity of 24 MTPA.

"The project will be constructed in two phases, each phase designed with a nameplate liquefaction and export capacity



Mississippi south of New Orleans where plant will be located with four storage tanks and three berths

of 10 MTPA and a peak capacity of 12 MTPA under optimal operating conditions," said the FERC order.

There will be 18 liquefaction blocks in the plant design with nine blocks constructed during each phase.

"Each phase of construction will take approximately 35 months to complete, with initial operations beginning approximately 24 months after the start of construction, as each liquefaction block will be placed into service after completion," it added.

"Phase II construction would begin 12 months after the start of Phase I construction," stated the regulator.

The Plaquemines project will also include four LNG storage tanks with a capacity of around 200,000 cubic metres and three marine loading berths each designed to accommodate LNG carriers of 120,000 to 185,000 cubic metres capacity.

Other facilities to be constructed are two 710-megawatt electric power generation plants with one built during each phase.

Venture Global's most advanced plant in terms of development is at Calcasieu Pass in Louisiana with current nameplate export volumes of 12 MTPA.

Calcasieu Pass is expected to come on stream in 2022, along with associated facilities, includ-

ing the TransCameron Pipeline.

Venture Global is owned by former investment banker Michael Sabel and lawyer Robert Pender, who act as joint chief executives.

The third project in the company's portfolio is the Delta plant with a site also on the Mississippi River. The Delta project and its associated Delta Express pipeline would have output capacity of 24 MTPA.

The proposed Delta and Plaquemines plants are stand-alone projects with no shared facilities and are under different development schedules.

The Delta export terminal will be on land owned by the Port of Plaquemines and the Delta Express Pipeline would extend northwesterly for 281 miles, crossing private land in 14 parishes.

With Venture Global pursuing three projects in Louisiana, it said in July 2019 that it had already raised a total of \$2.8 billion in financing and much more would be needed as it presses ahead with plans to produce 56 MTPA from its three plants.

Annova LNG project planned for Brownsville wins tax deal from county to build and operate

The US Annova liquefied natural gas export project planned for the south bank of the Brownsville Ship Channel in Texas, and whose owners include Chicago-based power company Exelon Corp., has concluded a tax deal in Texas showing the encouragement being offered to the build-out of the LNG sector along the Gulf Coast.

Commissioners for the Brownsville area where the plant is being built approved a deal for tax-saving of around \$373 million.

Under the agreement, Annova LNG would make a one-off payment of \$5.5M for community projects as well as 10 annual payments of \$500,000 to the county of Cameron

in Texas in lieu of taxes. The deal will run as long as the company employs more than 100 people and ensures that at least 35 of them of them are local hires.

Annova said that the construction of the project would require an average of 700 personnel over the 54-month building period.

"We both have a vision for a better and brighter future for Cameron County," said Annova LNG Chief Executive Omar Khayum.

"We want to provide sustainable, high-paying jobs for Cameron County residents," he added.

"This tax agreement allows us to demonstrate to the community, as well as our investors and cus-

tomers, that we will do everything we can to provide opportunities for Cameron County residents that don't exist today," he explained.

The Annova project is expected to ship around 6.95 million tonnes per annum from its proposed liquefaction and export plant.

The joint venture proposes the construction of six small-scale liquefaction Trains as well as an interconnected pipeline and marine export facilities.

The joint venture's equity owners in addition to Exelon are US engineering, processing and equipment company Black & Veatch of Kansas and construction firm Kiewit Corp., based in Omaha, Nebraska.

Annova is seeking to secure one billion cubic feet per day of firm natural gas pipeline transportation from Agua Dulce Hub in south Texas to the project site.

The Federal Energy Regulatory Commission's permits were issued to build the plant on condition that suitable mitigation measures are taken to reduce environmental impacts.

However, the FERC noted in its permit statement that there was scope for additional short-term environmental impacts from the cumulative noise from several LNG projects being developed at the same time in the area of the Brownsville Ship Channel.

Magnolia gets permit from regulator to expand

The US Magnolia LNG export project in Louisiana, which recently agreed to supply cargoes to a new terminal in Vietnam planned for the Mekong Delta, has received authorization from the regulators to expand production from 8 million tonnes per annum to 8.8 MTPA.

The Federal Energy Regulatory Commission issued the draft supplemental environmental impact statement concluding that the modifications for the capacity increase, with the additional mitigation measures recommended, would continue to avoid or reduce impacts to less than significant levels.

"There would be no substantive change in construction noise or air emissions from that previously analyzed in the Commission's EIS for the Magnolia LNG project and modeling demonstrates there would be no exceedances of the National Ambient Air Quality Standards," said the FERC report.

The FERC set 18 November 2019 as the deadline for receipt of public comments on the capacity increase.

The supplemental final environmental impact statement is then expected to be issued by the FERC on or before 24 January 2020.

The Magnolia LNG project developer is the Australian-listed company LNG Ltd, which in September 2019 signed an agreement to supply the Bac Lieu Province import terminal.

LNG Ltd said it Mangolia LNG, would supply 2 MTPA to Vietnam from its revised 8.8 MTPA of output.

The Louisiana shipments would be on a free-on-board (FOB) basis for a 20-year term with options to extend the term.

Elba Island plant in Georgia comes on stream as sixth export facility

LNG Journal editor

The US Elba Island LNG export plant in the state of Georgia has become the sixth US export facility to come on stream after the US Federal Energy Regulatory Commission gave owner Kinder Morgan permission to place the first liquefaction Train into service.

No cargoes have yet been shipped from the plant near Savannah, though its commissioning process is different because the Elba Island facility is a small-scale plant rather than a large-scale facility like the four along the Gulf Coast and the fifth at Cove Point in Maryland, owned by Dominion Energy, and like the Georgia plant on the Atlantic Coast.

Growing roster

The other four US LNG plants in operation are Sabine Pass in Louisiana and Corpus Christi in Texas, both owned by Cheniere Energy, the Sempra Energy-owned Cameron LNG in Louisiana and the Freeport plant at Quintana Island in Texas.

Commissioning procedures con-



First cargo will be shipped soon from the plant near the city of Savannah on the Atlantic Coast

tinue to advance for Train 2 and Train 3 and in a recent letter to the FERC, Kinder Morgan's LNG affiliate requested approval for the introduction of natural gas to its fourth Train by October 2.

Kinder Morgan was forced to temporarily halt its Elba Island commissioning activities in early September when Hurricane Dorian moved along the East Coast and the plant was evacuated.

The company had initially expected the first Train at Elba Island to come on stream by the end of March 2019 and the remaining Trains following during the year.

However, the project has been hit by construction delays and the original start-up day was gradually pushed back from the end of 2018 to the fourth quarter.

Elba Island is the smallest of the US plants presently under development and will produce a total of 2.5 million tonnes per annum of LNG when the 10 small-scale Trains are ramped up.

The project is using Royal Dutch Shell's Movable Modular Liquefaction System. The small-scale liquefaction trains were largely assembled off-site.

Sempra signs China cooperation accord and sells Peruvian unit

Sempra Energy, operator of the Cameron LNG plant in Louisiana, sold its majority stake in the Peruvian power distribution company Luz del Sur to China Yangtze Power International for \$3.59 billion in cash and also signed a liquefied natural gas supply accord with China Yangtze's parent company.

Sempra said it sold its 83.6 percent stake in the Peru power company whose business includes supplying customers in the capital Lima with electricity.

Sempra added that its LNG unit had entered into a memorandum of understanding with China Three Gorges Corp., China Yangtze's parent, regarding potential cooperation in supplying LNG to support demand growth in China.

"Ultimate participation remains subject to finalization of a definitive agreement, among other factors," said Sempra.

"This initial agreement with China Three Gorges represents an opportunity to support strong growth in natural gas demand in Asia, with future expansions of our LNG projects right here in North America," said Jeffrey W. Martin, Chairman and Chief Executive of Sempra Energy.

Proceeds from the sale of the Luz del Sur utility will be used to strengthen Sempra's balance sheet and meet the growing capital needs of its core utilities in California and Texas.

The Peruvian sale will also include Sempra Energy's interest in

Tecsur SA, which provides electric construction and infrastructure services to Luz del Sur and third parties, and Inland Energy SAC, Luz del Sur's generation business.

"The sale is expected to be completed in the first quarter of 2020, subject to customary closing conditions, including approval by the Peruvian anti-trust authority and the Bermuda Monetary Authority," said Sempra in relation with privately held Luz del Sur with Bermuda links.

The San Diego, California-based company said that an active sales process was continuing for Sempra's electricity businesses in Chile, including the company's 100 percent stake in Chilquinta Energía SA and Tecnores SA.

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NEWS NUDGES

Stolt-Nielsen in update

Niels G. Stolt-Nielsen, Chief Executive of Norwegian shipping and storage company Stolt-Nielsen, has given more details of the explosion and fire that occurred on September 28 on-board the "Stolt Groenland", a chemical and products tanker, while the ship was berthed at Ulsan port in South Korea. "We deeply regret the impact of this incident on the people who were in the vicinity of our vessel and hope for the speedy recovery of those injured," he said of the accident in which at least eight people, including port workers, were reported injured.

Yamal Asia cargoes rise

Novatek said that 15 LNG cargoes from the Yamal plant in northern Siberia were shipped eastwards to the Asia-Pacific market directly from Sabetta port via the Northern Sea Route during the third quarter 2019. "The eastward shipments represented about 25 percent of all LNG sent out from the Yamal plant during the quarter," added Novatek. A current fleet of 13 Arc7 ice-class tankers along with lower ice-class designated carriers transports cargoes from the Yamal facility to customers.

Kitimat LNG Open House

The Kitimat LNG export project in the Canadian province of British Columbia, led by US major Chevron Corp., will be the subject of Open House meetings soon and a period of public comment on amendments to the venture. The meetings are being organized by the BC Environmental Assessment Office and will take place in the towns of Kitimat and Terrace.

Accelerate of US given go-ahead for floating project in Philippines

LNG Journal editor

Accelerate Energy, the US floating liquefied natural gas terminal developer, has received permission to proceed with its Luzon LNG import project in the Bay of Batangas in the Philippines.

Accelerate, based in The Woodlands just outside Houston in Texas, said it received a notice to proceed from the Philippine Department of Energy and will in the future deploy a floating storage and regasification unit (FSRU) as part of a power project for the area of the capital Manila.

Portfolio

Luzon LNG is the latest of the US company's projects using FSRUs to bring in long-term LNG supplies on a fast-track basis. Other Accelerate projects have introduced LNG to nations such as Argentina, Brazil, Kuwait, the United Arab Emirates, Pakistan and Bangladesh as well as several others.

The Luzon FSRU will supply natural gas to existing and new gas-fired power plants in the region. Accelerate said it would develop, design, construct, finance



Luzon LNG facility will help meet Malampaya gas fields deficit when deployed to supply parts of Manila

and operate the terminal. "Luzon LNG will combine all necessary elements to meet the region's natural gas requirements including a fully-integrated, turn-key floating LNG terminal, arrangement of the necessary supply of LNG and distribution links for natural gas supplies for end-users across Luzon," said the US company.

Accelerate said that the Luzon venture was a secure source of gas supply to augment the existing gas production from the domestic Malampaya gas fields as reserves from these fields begin to deplete.

"We are pleased to have received this significant approval from the Government of the Philippines in supporting the coun-

try's long-term energy objectives," stated Accelerate Energy Chief Commercial Officer Daniel Bustos.

"We look forward to working with the government and private sector for the successful completion of the project that will enable Accelerate to invest in critical infrastructure allowing the country to continue on its current path of tremendous economic growth," added Bustos.

Accelerate said the FSRU and associated infrastructure would be deployed offshore the city of Batangas to minimize the impact to the existing shipping traffic in the area.

Tellurian hopes Saudi Aramco will sign up as US LNG investor-buyers

Tellurian Inc., the developer of the US Driftwood LNG export plant planning to supply nations such as India and with Indian company Petronet investing in the venture, said it was still in talks with Saudi Arabian energy company Saudi Aramco about taking an equity stake.

The Driftwood plant planned for the west bank of the Calcasieu River, south of Lake Charles, will have output of just over 26 MTPA when completed in 2023. This comprises five liquefaction trains built in two phases and with each having output of 5.25 MTPA.

The liquefaction plant and its associated pipelines, Haynesville

Global Access and Permian Global Access as well as the Driftwood inter-connecting feed-gas pipeline, have received all the necessary permits and licenses to begin construction.

Tellurian Chief Financial Officer Antoine Lafargue told analysts in a conference call that the Driftwood venture was progressing with support from companies such as Petronet and French energy major Total.

Lafargue said that an investment from Aramco, which already has a preliminary accord to take a 25 percent stake in Sempra Energy's Port Arthur LNG project in Texas, would further boost Drift-

wood's prospects. "We are having ongoing discussions. We're in a good position with them and are looking forward to working closely with them," said Lafargue in regard to the Saudi talks.

"They have plenty of need for LNG rather than just one large contract with one company," added the Tellurian CFO.

Tellurian's Driftwood project signed an initial agreement with Petronet of India on September 20 under which the Indian company would negotiate to buy up to 5 million tonnes per annum of US volumes and would invest up to \$2.5 billion in the project.

Thailand moves forward with onshore terminal in Rayong province as part of Map Ta Phut complex

LNG Journal editor

Thailand is building a new LNG import terminal near the current Map Ta Phut terminal in eastern Rayong province with the first phase costing 28 billion baht (\$913 million) and involving a joint venture between Thai power company Gulf Energy and state-owned Thai energy firm PTT.

However, the Thai government said that the driving force behind the venture would be the state's Industrial Estate Authority of Thailand (IEAT) and the new onshore terminal project would be called the Map Ta Phut Phase 3 Project.

Public-private

It would include the signing of the Public Private Partnership (PPP) contract with the joint venture established by the Gulf PTT Tank Consortium and PTT.

Gulf Energy would own 70 per cent of the terminal project and PTT would hold 30 percent.

The Gulf Group manages a portfolio of gas-fired and renewable power projects that serve both the Electricity Generating Authority of Thailand (EGAT) and private customers in Thailand's



Signatories from three Thai companies in project

main industrial zones. Currently, Gulf Energy has 25 power projects in operation in Thailand, including gas-fired and other thermal and renewable facilities and two solar projects in Vietnam.

"The construction period of infrastructure will not exceed three years," said the government on the LNG terminal building schedule.

"The project including a port and the LNG terminal would be built on reclaimed land to facilitate shipments of LNG volume of

not less than 5 million tonnes per annum (for LNG terminal phase 1) and up to 10.8 MTPA at a later stage," it added.

The LNG terminal phase 1 has an investment cost not exceeding 28 billion baht and is expected to be completed by 2023. The whole terminal would be completed by 2025 with a total cost put at 40.9 billion baht (\$1.3Bln).

The existing import terminal at Map Ta Phut has 11.5 MTPA and has been in operation since 2011 with cargoes imported from

nations such as Qatar, Trinidad and the US.

Energy firm PTT's subsidiary, PTT Exploration and Production (PTTEP), is expecting more LNG volumes from Mozambique where it has a stake in the southeast African nation's onshore production plant.

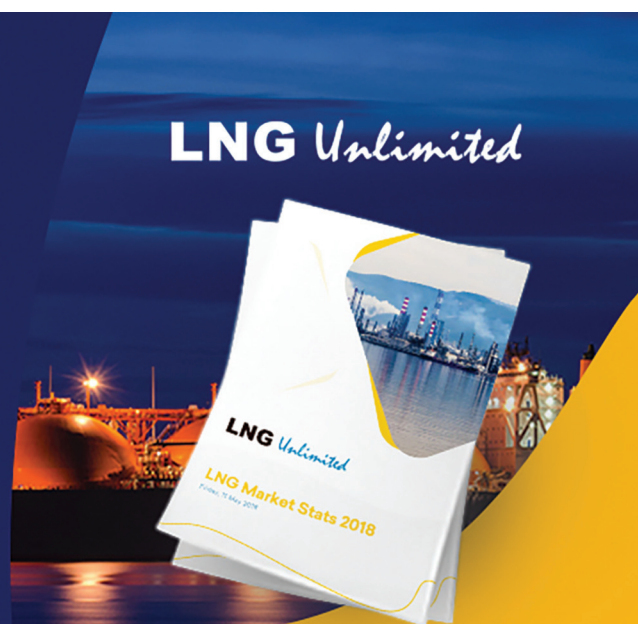
Additionally, PTTEP has purchased natural gas assets offshore Malaysia from Murphy Oil of the US, giving the Thais a stake in a floating LNG project planned by Malaysian energy company Petronas.

Thailand has said that its current LNG strategy is underpinned by plans to develop new markets in neighbouring southeast Asian countries and also includes small-scale LNG ventures.

The Thai government said the new LNG terminal at Map Ta Phut was one of "five mega infrastructure projects of the Eastern Economic Corridor", including high-speed train links to Bangkok and U-Tapao airports, the expansion of U-Tapao airport and the extension of the Lam Chabang deep sea port.

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Shell marks QCLNG plant 500th cargo delivery

Royal Dutch Shell said its Queensland Curtis coal-seam-gas-to-LNG plant on Curtis Island near Gladstone has just shipped its 500th cargo since coming onstream in 2014.

Shell's QGC business said it was celebrating the landmark along with joint venture partners China National Offshore Oil Corp. and Tokyo Gas.

The cargo will be delivered to an Asian import terminal by Gladstone's namesake vessel, the 174,000 cubic metres capacity carrier, the "Gaslog Gladstone".

"The 500th LNG cargo safely completed loading on October 3 from our plant on Curtis Island, five years after the first cargo set sail," said Shell's QGC Vice President, Tony Nunan.

Three separate CSG-to-LNG plants were completed side-by-side on Curtis Island and came on stream during an 18 month period from 2014 with a combined six liquefaction Trains.

The QCLNG plant was developed by BG Group and acquired by Shell in February 2016 when the Anglo-Dutch company completed its takeover of BG.

The Shell QCLNG plant produces around 8.5 million tonnes per annum and the other two facilities on Curtis Island, the Santos-operated Gladstone LNG and the ConocoPhillips-led joint venture, Australia-Pacific LNG, have similar amounts of output.

About 5.2 MTPA of QCLNG volumes are contracted to third-parties.

"It takes commitment and collaboration to safely and efficiently develop, process and supply gas to both domestic and international markets," added Shell's Nunan.

Qatar Petroleum says LNG is suited to meeting challenges

LNG Journal editor

Qatar Petroleum has spoken up for the producer side at the LNG Producer-Consumer Conference in Tokyo while also encouraging importers and nations currently without LNG to take advantage of the fuel that is now a crucial part of the global environmental clean-up.

The LNG Producer-Consumer Conference is a global annual dialogue, launched in 2012, and organized by Japan's Ministry of Economy, Trade and Industry, and the Asia Pacific Energy Research Centre.

Keynote

The conference was held again this year at the Convention Center of the Grand Prince Hotel New Takanawa at Minato-ku in Tokyo and was attended by around 1,000 delegates.

Qatar Petroleum President and Chief Executive Saad Sherida Al-Kaabi made a keynote speech and reiterated Qatar's commitment to its global reputation as a safe, trustworthy and reliable LNG producer "at all times and under all circumstances."

He said that Qatar was cooperating with many countries around the



Qatar Petroleum CEO Al-Kaabi making his speech at Tokyo event backed by Japan's Economy Ministry

world to ensure the security of their energy supplies and the sustainability of their economic growth.

"We are also working with customers, industry players, and stakeholders for a sustainable, affordable and secure energy supply for all," said Al-Kaabi.

"Most importantly, we are providing a sustainable energy solution to environmental and climate change concerns, and responding to widespread global moves towards cleaner and more cost effective fuels," he added.

Al-Kaabi said the natural gas has all the advantages it to make it a pivotal element in any strategy to tackle environmental challenges.

"It is versatile, flexible, economic, and clean. No other energy source can boast the combination

of all these four qualities," stated the Qatari CEO.

Al-Kaabi said the Gulf nation was continuing to progress with its North Field expansion project that would take total output to 110 million tonnes per annum from the current 77 MTPA amid a major shipbuilding campaign to build up to 100 LNG carriers over the next decade.

"The LNG industry is very dynamic and invigorated, and it connects all corners of the world through hundreds of trade routes, and LNG receiving and regasification terminals," declared Al-Kaabi.

"We, in Qatar, are doing our part to keep this momentum moving forward for the benefit of our partner countries and their peoples," he said.

French firm GTT signs storage tanks contract for Arctic LNG

Gaztransport and Technigaz (GGT), the French LNG containment tank system designer, has signed a contract to provide storage for three gravity-based structures that will form the liquefaction and export operations of the Arctic LNG II project proposed by Novatek of Russia for the Gydan Peninsula.

GTT said it signed a contract with Saren BV, a Russian joint venture comprising Renaissance Heavy Industries Russia and Saipem of Italy related to detailed design and construction of the near-shore

plant and its requirements. The contract awarded to GTT concerns the design, construction studies and technical assistance for the containment systems of the LNG and ethane tanks to be installed inside the three GBSs.

The Paris-based company said the first two GBSs will each have two LNG storage tanks of 114,500 cubic metres capacity and one ethane storage tank of 980 cubic metres capacity.

The third GBS will have two LNG storage tanks of 114,500 cubic metres capacity.

The Arctic LNG plant and its associated services will sit on platforms on top of the concrete caissons, which will be attached to the seabed after being floated into place.

GTT said that the LNG containment tanks to be provided would have the company's GST technology.

The Arctic LNG concrete-based units would be built in a drydock at the Novatek-Murmansk LNG Construction Centre and towed to their final location in northern Siberia and installed.

Oil Search head Peter Botten to step down in handover once LNG expansion goes ahead

LNG Journal editor

Oil Search Managing Director Peter Botten, one of the leading figures in Papua New Guinea oil and gas development over the past 26 years and who had a key role in the nation's emergence as an LNG exporter, has decided to hand over the company helm to a successor.

Botten joined Oil Search in 1992 and has been the company's MD since then, developing PNG's oil and natural gas resources and taking a positive stance on the need for economic and social development for the population.

Successor

Oil Search is headquartered in the PNG capital Port Moresby and is listed on the Australian Securities Exchange.

His successor was named as Keiran Wulff, who is the Oil Search Executive Vice President for activities in Alaska, the centre of its business holdings outside PNG.

Wulff worked at Oil Search from 1993 to 2008, holding several senior technical, operational and executive roles, and re-joined the com-



Botten will retain his hands-on role well into 2020

pany in 2015. He has more than 30 years of experience in the industry and is a geologist by training, with undergraduate and postgraduate qualifications from Curtin University in Perth, Western Australia.

Oil Search is a shareholder in the PNG LNG project and also has a stake in the P'nyang gas field licence that forms part of the LNG expansion plan to take output to almost 20 million tonnes per annum from around 9 MTPA at present.

A consortium led by French major Total and called Papua LNG, holders of the Elk-Antelope gas field licence, have already agreed to improved terms for the govern-

ment from expansion revenues.

The P'nyang field licence, controlled by PNG LNG plant operator ExxonMobil, also includes Australian-listed Santos as well as Oil Search.

Formal talks are taking place with the PNG government to secure a P'nyang Gas Agreement to take the \$13-billion LNG expansion project forward.

Oil Search said that to ensure a smooth transition of responsibilities from the Botten era, Wulff was appointed Chief Executive-designate on 30th September 2019.

He will retain his Alaskan responsibilities until mid-December

2019 to manage the company's entry into front-end engineering and design (FEED) for the Pikka Unit development in Alaska.

Wulff will commence his role as Managing Director and join the Oil Search Board on 25th of February 2020. Bruce Dingeman, who is currently Chief Operating Officer of the Alaska business unit, will take over Wulff's role in Alaska.

Oil Search said that Botten would remain Managing Director of Oil Search until February 2020 and would continue to be employed by the company until August 2020, focusing primarily on the LNG expansion project as the joint venture moves towards a final investment decision.

"The board is extremely appreciative of Peter's long and dedicated service to Oil Search over the past 26 years," said Rick Lee, Oil Search's Chairman.

"Under his leadership, Oil Search has grown from a small exploration and production company to a regionally significant oil, gas and LNG producer and exporter," he added.

Dominion Energy names senior leadership team under CEO Farrell for LNG and power

Dominion Energy, the power and natural gas operator and owner of the Cove Point LNG plant in Maryland, has made changes in responsibilities to build a senior leadership team under Thomas F. Farrell, Chairman, President and Chief Executive.

The company has named two executives to the new position of co-chief operating officer.

Robert M. Blue, currently executive vice president and president and chief executive of the Power Delivery Group, and Diane Leopold, currently EVP and president and chief executive of Gas Infrastructure Group, were each named EVP and co-COOs effective as of December 1.

Leopold's responsibilities will include two operating divisions

and LNG. She will have responsibility for Gas Transmission and Storage, consisting of 14,800 miles of natural gas transmission, gathering and storage pipelines as well as the Cove Point LNG facility.

Cove Point has exported around 40 LNG cargoes so far in 2019 after shipping its first cargo in March 2018.

Japanese trading house Sumitomo Corp. and Indian state-owned gas utility Gas Authority of India each have 20-year take-or-pay contracts for liquefaction capacity at Cove Point.

Leopold will also oversee Gas Distribution with local gas companies in Idaho, North Carolina, Ohio, Utah, West Virginia and Wyoming

and a South Carolina utility.

Two of the company's five new operating divisions will report to Blue. These are Dominion Energy Virginia, the vertically integrated electric utility in Virginia and North Carolina and Contracted Generation, which includes Millstone Power Station and more than 50 long-term contracted solar facilities.

Also effective on December 1, Carter M. Reid, currently EVP and chief administrative and compliance officer, will become EVP and chief of staff for Dominion Energy, and president of Dominion Energy Services.

Blue, Leopold, Reid and James R. Chapman, EVP, chief financial officer and treasurer, will all con-

tinue to report to Farrell.

"Bob and Diane have led business units at Dominion Energy for a combined decade and bring to their new roles vast understanding of the energy sector and its relationship to customers, and superior leadership skills," said Farrell.

"Our five new operating segments will be in excellent hands," he stated.

P. Rodney Blevins will continue in his role as president-Dominion Energy South Carolina and will report to Leopold. Donald R. Raikes, president of Gas Distribution, and Paul E. Ruppert, president of Gas Transmission & Storage, will also report to Leopold.