

Indian LNG import project off East Coast takes step forward

Andhra Pradesh set to have substantial shipments welcomed at Kakinada FLNG unit
LNG News Editor

Aker Solutions of Norway has signed a contract with the Norwegian-based development company Crown LNG for front-end engineering and design for the proposed Kakinada regasification and import project proposed for offshore the East Coast of the Indian state of Andhra Pradesh and for all-year operations in the Bay of Bengal.

There is currently only one LNG import terminal on the East Coast at Ennore, also known as Kamarajar, and the Kakinada facility will help solve significant gas shortages for industrial users such as fertilizer, petrochemicals and power plants in Andhra Pradesh.

Sub-contractors

Developer Crown LNG said SiemensEnergy of Germany and Wärtsilä Gas Solutions of Finland had been assigned as key sub-contractors to Aker Solutions for the project.

Siemens Energy will develop the power generation and distribution system as well as the platform control system, while Wärtsilä will develop the regasification system for the LNG terminal.

Under the agreement, Aker Solutions and key sub-contractors will first conduct the FEED for the terminal and after a final investment decision is taken Aker will take on the role as engineering, procurement, construction, installation and commissioning (EPCIC) contractor for the project.

"This LNG terminal will be



Crown LNG model of Bay of Bengal harsh-weather terminal

based in a location exposed to monsoon seasons, which requires partners with the best track record from harsh environment projects. This is why we have engaged Aker Solutions, Siemens Energy and Wärtsilä," said Gunnar Knutsen, Chief Executive of Crown LNG.

Crown LNG has an exclusive agreement to finance, build and lease the terminal to its client, Krishna Godavari LNG Terminal Pvt (KGLNG) and East LNG.

The KGLNG entity is a special purpose vehicle ultimately owned by US-based VGS Group Inc.

KGLNG is the company that has the licence to establish the LNG receiving terminal at Kakinada while East LNG is the holding company that owns KGLNG.

Norway's Crown LNG has also been contracted for operations and management of the facility through the 25-year lease period.

The offshore terminal will be located about 19 kilometres north-east of Kakinada and about 11km from the shoreline.

Crown LNG has opted to develop the LNG terminal as a gravity-based concrete structure that sits on the seabed.

"This solution will be able to withstand the harsh weather conditions the Indian monsoon season presents in the Bay of Bengal,

which enables a 365-day operating window for the terminal," stated Crown LNG.

Aker Solutions said it was pleased to be part of this project for natural gas development in India.

"Aker Solutions is recognized as the world's leading contractor for advanced concrete structures for marine projects," said Sturla Magnus, executive vice president and head of the topsides business at Aker Solutions.

"In the past, we have delivered some of the largest and most complex offshore concrete installations. As we embark on this important energy project, we will tap on more than 40 years of concrete experience, including the Troll A field (North Sea), the Hebron field (offshore Canada), Sakhalin I and II (Russia) and Adriatic LNG (offshore Italy)," declared Magnus.

India's seventh import facility at Jaigarh Port, south of Mumbai in Maharashtra state is the country's seventh facility and only the Kamarajar (Ennore) terminal is on the East Coast.

The FSRU, the "Höegh Giant", has been chartered by the Indian Hiranandani Group's H-Energy subsidiary to be deployed at Jaigarh for 10 years.

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New Fortress Energy secures LNG for power businesses in Central America through 2027

LNG News Editor

New Fortress Energy, the US operator and developer of liquefied natural gas projects in the Americas, has reached an agreement for LNG supply that will cover the needs of the existing gas-to-power businesses in Central America and the Caribbean through to the end of 2027, though was still seeking additional volumes for its Brazilian ventures.

"This transaction secures our LNG supply for the next several years across our existing portfolio of terminals and customers," said Wes Edens, Chairman and Chief Executive of New Fortress.

Commercial

"With commercial operations beginning in Mexico and next month in Nicaragua, this will ensure we provide our customers with reliable and affordable supply of cleaner energy," explained Edens.

"We will look to secure additional volumes later this year ahead of commencing our Brazil operations and as we continue to grow our customer base across all our terminals," added the CEO, who gave no details of who the



ISO containers will bring LNG to Mexico and Nicaragua

counter-party was in the latest supply agreement.

With this gas supply in place, New Fortress said it had purchased LNG volumes equal to approximately 100 percent of its expected needs for its current portfolio of five terminals and assets across the Caribbean, Mexico and Central America for the next six years.

The New York-based company said it anticipated securing additional LNG supply volumes later in 2021 to support NFE's terminals in Brazil, which are all expected to be operational in 2022.

"We executed our strategy to neutralize LNG exposure by securing LNG supply contracts that meet our downstream needs," said Kasciandro Senem, LNG Managing Director of New Fortress.

"Our next step is to extend this strategy to our Brazilian terminals. This work is well under way and will be executed in coordination with NFE's downstream developments in the country," added Senem.

The New Fortress import operations in Mexico, based on supplies in ISO containers, are at its Pichilingue LNG facility near La

Paz in Mexico's Baja California Sur state on the Pacific Coast.

The 100-megawatts Mexican power plant and affiliated LNG terminal have been welcomed in the peninsular state that has regularly suffered energy shortfalls and power cuts.

New Fortress had stated in its May 2021 earnings report that its LNG import projects in Mexico and Nicaragua would be completed by around July 2021.

The LNG for Mexico will be provided by conventional vessels arriving at the port of Pichilingue, located just north of La Paz, the state capital.

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 company said the OSVs are economical to run and can operate in low draft ports.

The company's Nicaragua facilities will enable the supply of re-gasified LNG to a 300 megawatts gas-fired power plant at Puerto Sandino in the Central American nation.

Vietnam's Mekong Delta LNG-for-power project awards Bechtel of US FEED contract for plant

Delta Offshore Energy, the Singapore-based company, has awarded the world's leading liquefaction plant builder Bechtel Inc. of the US the preliminary engineering contract for the power plant in Vietnam to be fuelled by imported LNG in Bac Lieu Province on the Mekong Delta.

Bechtel said it was awarded a contract to provide front-end engineering and design (FEED) services for a new 3,200 megawatts combined cycle gas turbine (CCGT) power plant in the Bac Lieu.

The LNG-for-power project is one of about half a dozen being developed in Vietnam and will be

sited about 175 miles (250 kilometres) south of Ho Chi Minh City, formerly Saigon.

Bechtel said the power plant consists of four single shaft units of H class gas turbine technology and would form "the energy backbone of the Mekong Delta" region, earmarked as a focus area for major economic development.

"This power plant is a game changer for the Bac Lieu province," said Scott Osborne, Bechtel's General Manager for Infrastructure in the Asia-Pacific region.

"We want to make a difference in supporting Mekong Delta and Vietnam by creating jobs and

training, working with local businesses, and providing new opportunities for those in the region," added Osborne.

"We are proud to be a part of Vietnam's future, contributing to its energy security, trade, and economy," he stated.

Power purchase

In parallel with the FEED services for the gas-fired power plant, Delta Offshore said it was conducting engineering for the offshore LNG import terminal, negotiating the terms of the Power Purchase Agreement with the Vietnam Electricity Authority and implementing

site preparation works. The provincial government of Bac Lieu province is planning to become a hub for industry in the coming years with modern factories and key infrastructure including roads, bridges, schools and hospitals.

Ian Nguyen, a co-founder and Managing Director of Delta Offshore, said Bac Lieu was ready for development, and the authorities there had shown their willingness to adopt progressive technologies.

"With our LNG-to-Power project, it will shine as the gateway for change in the Mekong Delta," stated Nguyen.

Grupo Ham opens 100th LNG station in Europe

Grupo Ham of Spain has opened its 100th liquefied natural gas filling station and now operates around 25 percent of existing facilities in Europe for LNG-powered trucks and other vehicles.

The Ham group said the latest LNG filling station was opened in Saint Quentin Fallavier in south-east France, reaffirming its leading role in the vehicular natural gas sector in the European Union and elsewhere.

The company's network of LNG and compressed natural gas (CNG) facilities is expanding in a growing number of countries with more than 30 in Spain and the others spread around the EU with most of them located in Spain, France, Belgium, Italy and the Netherlands.

Ham has also established an LNG-CNG foothold in South America with filling stations in Chile and Peru.

"A report from the Association of Natural Gas and Biogas Vehicles, noted that in Europe there are 400 service stations that allow LNG refuelling and on one in four of facilities have been designed, built and commissioned by HAM, many of them being owned by us and forming part our network of service stations," said the company.

Ham has also started developing networks in the newer entrants to the EU such as the Czech Republic, Finland, Poland and Slovakia, as well as non-EU countries like the UK and Switzerland.

"HAM as a trucking company as well was a pioneer in Spain in 2000 when it added to its fleet of 10 trucks, acquired in the US and powered by LNG, taking on a major environmental challenge with the aim of reducing polluting emissions and also building the first vehicular LNG plant in Europe for the refuelling of these vehicles," explained the company.

Taiwan boosts Qatar volumes amid terminal expansion plans

LNG News Editor

Taiwan has signed a new supply agreement with Qatar Petroleum for 1.25 million tonnes per annum of LNG as the Taiwanese use more of the fuel and expand their infrastructure.

The 15-year Sale and Purchase Agreement (SPA) was signed between Shun-Chin Lee, the President and Acting Chairman of state-owned CPC Corp. and Saad Sherida Al-Kaabi, the President and Chief Executive of Qatar Petroleum.

Fifth-largest

Taiwan is still Asia's fifth-largest importer after North Asia's top three of Japan, China and South Korea and with India in fourth place.

The Taiwanese are constructing a third LNG import terminal to meet increasing demand after imports rose 6 percent last year to 17.75 million tonnes.

These volumes put Taiwan com-



The Taiwanese Yung-An import terminal opened in 1990

fortable ahead of the sixth-placed Asian import nation Pakistan, which received 7.74MT in 2020.

The Qataris said that the deliveries to Taiwan under the SPA would begin in 2022.

"We are pleased to enter into this long-term LNG SPA, which is another milestone in our relationship with CPC," stated Al-Kaabi.

Since the first LNG delivery to Taiwan in March 2006, CPC has received more than 63MT of cargoes from Qatar.

"We are grateful to CPC and all our customers around the world

for selecting us as their trusted LNG supplier of choice," said the Qatari CEO.

"I would like to take this opportunity to thank the management of CPC and the negotiating teams from both sides for their efforts in concluding this SPA," added Al-Kaabi.

Among the Taiwan expansion plans, CPC is developing its third LNG import terminal in the Taoyuan district off the coast of Datan Borough in northern Taiwan.

Shell gives cautious Integrated Gas forecast for second quarter

Royal Dutch Shell has given an update on its second-quarter outlook with the Integrated Gas division, including LNG, expected to have trading and optimisation results significantly below average and similar to the first quarter of 2021 because of unplanned maintenance at LNG plants.

Shell said the Integrated Gas production total was forecast at around 900,000 and 960,000 barrels of oil equivalent per day.

"LNG liquefaction volumes are expected to be between 7.1 and 7.7 million tonnes, reflecting additional unplanned maintenance activities, which are expected to impact trading and optimisation results," explained Shell.

Shell's LNG sales for the first

three months 2021 had come to 15.80 million tonnes compared with 19.00MT in the same quarter of 2020, a fall of 16.8 percent.

"Trading and optimisation results are expected to be significantly below average and similar to the first quarter 2021," stated Shell.

The company added that underlying operating expenses in Integrated Gas are expected to be between \$400M and \$500M lower than the first quarter 2021, which included higher provisions related to counter-party credit risk.

Cash flow from operations is put at \$1.2 billion on Brent pricing and another \$1.2Bn from long-term contract prices.

Earnings in the Integrated Gas unit in the first quarter had come

to \$2.49Bn in terms of cash flow from operating activities.

Integrated Gas is one of four Divisions in the Shell global business along with Upstream, Oil Products and Chemicals.

The key point made for the other three divisions forecast that Upstream production is expected to be between 2.225 million and 2.300 million barrels of oil equivalent per day.

Quarterly cash flow from Upstream operations is expected to be around \$4 billion.

In Oil Products, marketing margins are expected to be higher than the first quarter of 2021 and the refining indicative margin is around \$4.17 per barrel.

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Senegal's FLNG delay

Kosmos Energy, the Dallas-based company developing a natural gas and FLNG joint venture with UK major BP offshore Mauritania and Senegal in West Africa, has given an operational update on the project with a delay expected for first gas. "In Mauritania and Senegal, the Greater Tortue-Ahmeyim project continued to make steady progress during the quarter with key milestones achieved across all major workstreams," said Andrew G. Inglis, Chairman and Chief Executive of Kosmos.

CNOOC deal for cargoes

Malaysian oil and gas company Petronas said the LNG division signed a 10-year deal to supply volumes to the trading unit of the Chinese major China National Offshore Oil Corp. "The deal is for 2.2 million tonnes per annum indexed to a combination of the Brent and Alberta Energy Company (AECO) indices," said Petronas. The transaction between Petronas and CNOOC was given a value by the Malaysians of around \$7 billion over the 10 years.

Charter rates rise

Shipping spot charter rates for LNG carriers dropped by around \$7,000 per day in the past week in the West of Suez market to be between \$75,000 per day and \$71,000 per day for vessels of 155,000-165,000 cubic metres capacity. For vessels East of Suez spot charter levels were also lower on the week to be at between \$57,000 per day and \$53,000 per day, according to London brokers. One-year charter rates for the most modern vessels increased by \$5,000 per day to around \$90,000 per day.

LNG developer Pembina and Inter Pipeline arrange investor meetings

LNG News Editor

Pembina Pipeline Corp., joint developer of the Cedar LNG project in British Columbia and the rejected Jordan Cove in the north-west US state of Oregon, has contacted shareholders for a special virtual-only meeting to be held on July 29 on the proposed strategic combination with smaller peer Inter Pipeline Ltd.

The C\$30Bln (US\$34Bln) combination of the Pembina pipelines and terminals company with the Western Canada energy transportation, processing and storage assets of Inter Pipeline has been recommended by the boards of both companies.

Market caps

Pembina is valued at C\$21.80 billion (US\$16.65Bln) based on its most recent share quote of C\$39.72 per share on the Toronto Stock Exchange compared with Inter Pipeline's market cap of \$8.60Bln with its stock price at



Pembina CEO Mick Dilger advances with merger strategy

C\$20.04 per share. Pembina's Jordan Cove LNG export plant was the first hydrocarbon venture stopped by the federal regulators under the Biden Administration, even before the Keystone XL pipeline cancellation by presidential decree.

The liquefaction plant was proposed for a 200-acre site at Coos Bay in Oregon, comprising five small-scale Trains, each with 1.5 million tonnes per annum of output, for a total of 7.5 MTPA.

The Jordan Cove project also included the separate 230-mile Pacific Connector Pipeline traversing

four counties in southern Oregon on the route to the liquefaction plant and feed gas would have been sourced from the Rockies.

Since the Jordan Cove cancellation in January 2021, Pembina has teamed up in a 50-50 partnership with the Haisla First Nation for the Cedar floating LNG project in the Douglas Channel near the BC town of Kitimat.

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

Another Canadian project may be on horizon with BC move

A third large-scale LNG export joint venture is being considered based on previous projects discussed since 2015 and has been outlined by a First Nation representative at a council meeting in the city of Terrace located near the Skeena River in northern British Columbia.

A spokesman for the Ksi Lisims LNG project, Paul Anderson, said such a venture could come on stream by late 2026 or 2027 if current open permits are acted upon in a timely manner.

Anderson said the Ksi Lisims project was negotiating with two pipeline companies who already have environmental approvals to build the pipelines.

He named the potential pipeline developers as Enbridge

Inc. and its Westcoast Connector Gas Transmission Project and TC Energy's Prince Rupert Gas Transmission Pipeline (PRGT).

The pipelines were considered for the now-cancelled LNG projects around the port of Prince Rupert, including one proposed by BG Group of the UK, since taken over in 2017 by Royal Dutch Shell.

The BG project had been planned for Lelu Island, near Prince Rupert.

According to Anderson, both pipeline companies had already received one-time only extensions of their original environmental permits and requiring construction to start by 2024.

"We are negotiating with both and we plan to announce our pipeline proponent fairly soon,"

said Anderson at the council meeting.

Since 2015, the Nisga'a Nation of northern BC has been considering how its support for LNG could lead to participation in its own project.

The PRGT had already been part of agreements with the Nisga'a First Nation.

Anderson sketched out a development plan, including a floating facility located on the north end of Pearse Island at a location called Wil Milit, a 114-hectare site owned by the Nisga'a Lisims Government.

He noted that the site is just 15 kilometres (9.3 miles) from Ginglox, the Nisga'a village at the mouth of the Nass River, where a construction camp would likely be set up.

Qatar Petroleum \$12.5Bln bond offerings to finance LNG expansion was over subscribed

LNG News Editor

Global banks and insurance companies formed a long line to invest in Qatar Petroleum's \$12.5 billion bonds to finance liquefied natural gas expansion in the Arab Gulf and the multi-tranche offerings could have been subscribed more than three times.

"The proceeds from the bond offerings will be used to support Qatar Petroleum's ambitious growth plans, particularly the North Field expansion projects over the coming few years," said Qatar Petroleum.

Virtual roadshow

The Qatari company had held a virtual roadshow for the bond offerings at the end of June and met with more than 130 international investors over a two-day period.

"These interactions resulted in significant interest from global insurers, asset managers, pension funds and bank treasuries, which resulted in a high quality order-book," explained Qatar Petroleum.

It saw participation from over 500 investors and with demand for the various tranches in the \$12.5Bln of offerings peaking above \$40 billion, meaning the bonds could have been sold more than three times.

"The outcome of this offering



Demand for Qatari bonds hit peak of above \$40 billion

is a strong testament to Qatar Petroleum's disciplined approach as an investor and formidable standing not only as the world's largest LNG producer, but also within the capital and financial markets," said Qatar Petroleum President and Chief Executive Saad Sherida Al-Kaabi.

Qatar Petroleum's capital spending needs are around \$35Bln over the next five years on various projects, including the North Field South (NFS) expansion.

It is assumed that Qatar Petroleum will bring in partners for up to 30 percent of the NFS equity.

The expansion of output at the Ras Laffan LNG plant will comprise the construction of four Trains for liquefaction to take the Arab Gulf state's output from 77 million tonnes per annum up to 110 MTPA.

Qatar is additionally considering boosting capacity beyond the

126 MTPA future second expansion already announced.

Qatar is currently the world's second-largest LNG exporter, just behind Australia, but Qatar Petroleum is the biggest global exporting company. The expansions will take it again to the No. 1 spot ahead of the Australians and still head of the fast-developing US.

"The North Field expansion projects will solidify Qatar Petroleum's leading role in the LNG industry as well as in the energy transition," said Al-Kaabi.

"We take special pride in the fact that investors recognized this role, the importance of our LNG projects and the bright future of our LNG industry, and that they have expressed overwhelming interest in this unique offering," he added.

"I would like to thank all the banks and financial and investment institutions that partici-

pated in this successful program. I would also like to thank Qatar Petroleum's team for the excellent preparation and execution," stated Al-Kaabi.

The sale ended up being the largest US dollar fixed-rate oil and gas offering, the largest corporate issuance in the Middle East region, and the largest corporate Formosa tranche raised globally.

The sale covered the following bonds:

- 5-year \$1.5 billion at US Treasury rates plus 50 basis points (Coupon: 1.375 percent).
- 10-year \$3.5Bln UST+90bps (Coupon: 2.250 percent)
- 20-year \$3.5Bln at a Yield of 3.15 percent (Coupon: 3.125 percent)
- 30-year \$4.0Bln at a Yield of 3.30 percent (Coupon: 3.300 percent)

Qatar Petroleum worked with a group of leading global financial institutions on these transactions.

US investment banks Citi and J.P. Morgan acted as Global Coordinators.

The Active Bookrunners were Bank of America (BoFA) Securities, Citi, Deutsche Bank, Goldman Sachs International, HSBC, J.P. Morgan, Japan's Mitsubishi UFJ Financial Group and Qatar National Bank Capital. Credit Suisse also participated in a background role.

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Minerva Gas leads small LNG fleets expansions

Owners of large and small LNG carrier fleets are maintaining robust order books with the latest ship to be delivered being for shipowner Minerva Gas along with four other vessels for various owners that emerged from the shipyards in June.

Greek shipping line Minerva has just taken delivery of the 173,400 cubic metres capacity carrier, the “Minerva Limnos”, from South Korean shipbuilder Daewoo Shipbuilding and Marine Engineering.

The vessel left DSME's Geosje shipyard on June 30. The “Minerva Limnos” features M-type electronically controlled, Gas injection (ME-GI) propulsion, a No. 96 GW LNG containment system from GTT and a PRS-FRS re-liquefaction system.

The vessel is flying the Malta flag and is classed by European classification society DNV.

“We wish to convey to the Master, Chief Engineer and all Officers and ratings of ‘Minerva Limnos’ our warmest congratulations and wholehearted wishes for safe, smooth and prosperous voyages and calm seas,” said a statement from Athens-based Minerva.

The new Minerva carrier was shown in latest shipping data as being just off the coast of Japan and was expected to head for the Panama Canal before lifting its maiden cargo in the Atlantic Basin.

The vessel delivery brings Minerva's LNG fleet numbers to three carriers, following deliveries of two vessels in January and February 2021.

The shipowner has ordered two further carriers, both of 174,000 cubic metres capacity, the “Minerva Chios” to be delivered in the weeks ahead and its sister ship, the “Minerva Amorgos” to be handed over by August 2022.

French plan may provide bio-LNG for CMA CGM Group at Marseille

LNG News Editor

French energy companies have joined together for a project to use the waste from the trash cans and rubbish bins of Marseille and the surrounding area of the Mediterranean port to make bio-liquefied natural gas of sufficient quality to be used as fuel for shipping.

The aim of the bio-LNG joint venture is to become a renewable energy source to fuel the LNG-powered container ships of the CMA CGM Group, the Marseille-based French shipping line.

Waste-to-LNG

EveRé, operator of the multi-process household waste treatment plant commissioned by the local regional council, the Métropole Aix-Marseille-Provence, will produce the bio-LNG.

Others who are parties to the project are TotalEnergies, the French oil and gas major and supplier of LNG fuel to CMA CGM, and the Fos-sur-Mer LNG terminals operator Elengy, a unit of utility Engie.

“The companies have joined forces to study the feasibility of



EveRé plant will produce bio-LNG from household waste

creating France's first production unit for liquefied biomethane (BioLNG), a low-carbon alternative fuel dedicated to energy transition in the shipping industry,” said TotalEnergies.

The Marseille waste treatment plant operator EveRé is a subsidiary of the Spanish Urbaser group.

“Produced by converting the bio-degradable part of household waste from the Marseille Provence region, BioLNG would allow for the decarbonization of shipping services departing from the Grand Port Maritime in Marseille and would be used primarily for the

CMA CGM Group's LNG-powered vessels,” explained TotalEnergies.

LNG itself allows for a 99 percent reduction in sulfur-oxide emissions, a 91 percent reduction in fine particles emissions and a 92 percent cut in nitrogen oxide emissions.

“By the end of 2024, 44 of the CMA CGM's vessels will be powered by LNG,” said TotalEnergies, which has the LNG bunkering contract for the shipping company.

Bio-fuel forms part of what is now called the “circular economic system”.

Seaspan signs deal worth \$1.5Bln for 10 vessels for ZIM Shipping

Seaspan Corp. a subsidiary of New York Stock Exchange-listed Atlas Corp. and with a fleet of 127 containerships, has entered into a long-term charter deal worth \$1.5 billion with Israel's ZIM Integrated Shipping for 10 LNG-powered, dual-fuel newbuilds.

Seaspan said the 10 vessels of 7,000 twenty-foot unit (TEU) capacity are expected to be delivered from the fourth quarter of 2023 and through 2024.

Seaspan said the construction of the LNG-capable containerships are being assigned to shipyards and will be financed from existing liquidity, cash flow from opera-

tions and additional borrowings.

The company, which provides many of the world's shipping lines with alternatives to vessel ownership by offering long-term leases on ships, said the 10 modern 7,000 TEU dual-fuel, LNG-capable containerships will have an aggregate purchase price of around \$1.05Bln and 12-year charters totalling about \$1.8Bln of gross contracted cash flow.

This is the second major Seaspan-ZIM charter deal after the February 2021 agreement for 10 LNG-fuelled containerships of 15,000 TEU capacity to serve across ZIM's various global niche trading routes.

Seaspan, which has main offices in Hong Kong and Vancouver in Canada, as well as a crewing office in Mumbai in India, said the deal with Haifa-based ZIM Shipping was a “forward-thinking” project.

“We see these modern 7,000 TEUs to be the natural successor to the ageing global pool of conventional vessels in the 4,000 to 9,000 TEU range, where relatively little fleet renewal has taken place,” said Bing Chen, Chairman, President and Chief Executive of Seaspan.

“We are experiencing strong customer interest for this vessel size,” he added.

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McDermott wins contract to boost lifespan of Darwin LNG and help underpin Timorese jobs

LNG News Editor

McDermott International of the US was awarded the main engineering contract from Australian LNG plant operator Santos for the offshore Bayu-Undan infill well that serves the Darwin liquefaction export plant in the Northern Territory.

McDermott said the contract is for subsea, engineering, procurement, construction and installation (EPCI) work for the Phase 3C project in the Timor Sea, located about 310 miles (500 kilometres) off the northwest coast of Darwin and 124 miles (200km) off the southeast coast of Timor-Leste.

Track record

"McDermott has a strong track record of delivering complex subsea projects in the Asia Pacific," said Mahesh Swaminathan, McDermott's Senior Vice President for the region.

"We will continue that tradition as we demonstrate our execution expertise and safety excellence throughout this project," added Swaminathan.



A dusk cargo lifting at Darwin LNG export plant

The Bayu-Undan field is one of Timor-Leste's largest gas fields and Santos became operator in May 2020 after buying out the stake of US major ConocoPhillips.

Preliminary work on the Phase 3C project commenced in May 2021 and the scope will be managed by McDermott's office in Perth, Western Australia.

"The McDermott scope involves a tieback of a single in-field well to existing facilities re-using existing flexible flowline with a new umbilical and certain infrastructure," explained the Houston,

Texas-based company.

Santos, as operator of the Bayu-Undan Joint Venture has already started the new infill drilling programme in the field in the waters of Timor-Leste.

The programme was given a final investment decision in January 2021 and comprises three production wells for additional natural gas and liquids reserves, extending field life as well as production from the offshore facilities and the Darwin liquefaction plant.

The Adelaide-based company said the wells would be drilled

using the "Noble Tom Prosser" jack-up rig, with first production expected in the third quarter of 2021.

Santos believes the infill drilling programme will add over 20 million barrels of oil equivalent gross reserves and production at a low cost of supply and importantly extend the life of Bayu-Undan and the jobs and investment that rely on it.

The Adelaide-based company noted that more than 400 Timorese are currently working on Bayu-Undan activities and this will make an important economic contribution to Timor-Leste.

The President of the Timor-Leste National Petroleum and Minerals Authority, Florentino Soares Ferreira, has said the Santos-led venture was important in the history of Timor-Leste.

"It will mark the first drilling campaign in the Bayu-Undan field as Timor-Leste offshore waters, following ratification of the Maritime Boundary Treaty (MBT) between Timor-Leste and Australia," stated Soares Ferreira.

LNG operator Woodside completes deal to boost stake in largest overseas project off Senegal

Western Australian LNG plant operator Woodside has completed the acquisition of the entire participating interest of Australian energy company FAR Ltd in the Rufisque Offshore, Sangomar Offshore and Sangomar Deep Offshore (RSSD) joint venture in Senegal.

The purchase price was US\$45 million plus a working capital adjustment of around US\$167M to reflect the acquisition effective date of 1 January 2020.

The final completion payment to FAR, after adjustments and remedying of FAR's defaults under the joint operating agreement, was approximately US\$126M.

Additional payments to Australian Securities Exchange-listed FAR of up to US\$55M are contin-

gent on future commodity prices and timing of first oil.

The Senegal oil projects is the biggest overseas investment by Perth-based Woodside, operator of Western Australia's North West Shelf liquefaction and gas plant at Karratha and the Pluto LNG export facility on the Burrup Peninsula.

Woodside Acting Chief Executive Meg O'Neill said the development of the Sangomar project was proceeding as planned.

"The continued safe execution of the Sangomar project is a key priority for Woodside in 2021," said O'Neill.

"A major milestone is the arrival of the 'Ocean BlackRhino' drillship in preparation for commencement of development

drilling," explained O'Neill.

"The construction of the floating production storage and off-loading facility, which is a converted oil tanker, is well underway and we are receiving delivery of subsea equipment in Senegal," she added.

Senegal itself will soon become an LNG producer with neighbour Mauritania from a floating liquefaction project being developed offshore by BP and Kosmos Energy of the US.

The Acting CEO described Woodside's Sangomar oil venture as a "world-class resource" which will deliver near-term production and revenue for Woodside and the company was targeting first oil in 2023.

As a result of this acquisition, Woodside's participating interest in the RSSD joint venture has increased to 82 percent for the Sangomar exploitation area and to 90 percent for the remaining RSSD evaluation area.

Woodside said it intended to sell down its participating interest in the RSSD joint venture to approximately 40-50 percent in the second half of 2021.

The Sangomar Field Development Phase 1 will comprise a stand-alone floating production, storage and off-loading (FPSO) unit with a production capacity of around 100,000 barrels per day, 23 subsea wells and supporting subsea infrastructure.



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