

LNG Unlimited

LNG JOURNAL PUBLICATION

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Japanese LNG engineer JGC sees upsurge in liquefaction and regas

JGC expects growth in global markets led by more gas-fired power use in Asian countries

LNG News Editor

JGC Holdings Corp., the Japanese energy and LNG engineering group whose current work includes the LNG Canada project and the Coral South floating LNG venture off-shore Mozambique, posted lower net sales in the past fiscal year, though adjusted profits increased as it forecast a sector upsurge.

During JGC's fiscal year from April 2020 until the end of March 2021 net sales amounted to 433.9 billion yen (\$3.99Bln), lower than the forecast 480.0Bln yen (\$4.41Bln), though ordinary (adjusted net) income was higher at 25.5 billion yen (\$234.5M) compared with income of 22.3Bln yen (\$205.7M) reported in the previous fiscal year.

Impacts

Because of the impact of Covid-19 over the past year, earnings per share dropped to 20.37 yen (US\$0.19) from a forecast 31.70 yen (\$0.29) per share.

"We had assumed that our business environment impacted by Covid-19 would have returned to normal during the period concerned, but the situation has been unclear and different from our assumption," said JGC.

"In these circumstances, the net sales were affected by the fact that construction progress could not get a sharp recovery towards the end of the fiscal year to reach our forecast," added JGC.

"The operating income and ordinary income exceeded the forecasts because of margin



Topside modules were installed on the 'Coral-Sul FLNG' vessel at Samsung Heavy Industries in South Korea

improvements in domestic and overseas projects and a reduction in general and administrative expenses," stated the company.

JGC expected business to grow in the LNG sector in the coming years.

"LNG is a cleaner, lower-carbon fossil fuel for the energy transition and is expected to keep growing steadily amid higher demand in emerging economies," stated the Japanese company.

JGC said it would also seek to strengthen its contract portfolio to secure some of the many projects anticipated for LNG production and receiving terminals and gas-fired thermal power plants.

Additionally, JGC said projects would also likely increase in the already "traditional" renewable energy business such as in solar power, energy storage and biomass power generation, as well as in the new and experimental fields of hydrogen and ammonia fuel.

JGC said its outstanding contracts in the LNG sector amounted to 509.8Bln yen (\$4.6Bln) compared with 617.4Bln (\$5.6Bln) at the end of the previous fiscal year.

Petroleum refining engineering contracts, including in nations like Iraq, amounted to around 444.1Bln (\$4.0Bln).

JGC's corporate structure has

JGC Holdings as the parent company and JGC Corp. operating the overseas engineering, procurement and construction (EPC) business of the JGC Group.

JGC Corp. was chosen by Iraq to upgrade the oil refinery at Basrah, located 525 kilometres south-east of the capital Baghdad.

That Iraqi lump-sum EPC contract is valued at more than \$3Bln and the completion date is 2025.

Outstanding contracts increased in JGC's overall engineering sector backlog amounting to 1.24 trillion yen (\$11.4Bln), also including some power generation and chemical projects, versus 951.3Bln yen (\$8.74Bln) at the end of the previous fiscal year.

As part of the medium-term business plan, JGC said it would also be investing around 200Bln yen (\$1.8Bln) in key corporate activities such as digital transformation and research and development.

Targets

Its financial targets for the 2025 fiscal year include net sales of 800Bln (\$7.35Bln), operating income of 60Bln yen (\$500M) and net profit of 45Bln yen (\$413M).

JGC also explained its aims to promoting clean energy as well as, and not instead of, human welfare.

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Italy's grid and LNG terminal operator boosted by high gas usage and Trans-Adriatic Pipeline

LNG News Editor

Italian natural gas network company and LNG importer SNAM reported a more than 8 percent increase in net profits as more natural gas was used in Italy and it benefited from foreign investments in the Trans-Adriatic Pipeline bringing gas from Azerbaijan and its stake in the Abu Dhabi's pipelines system in the United Arab Emirates.

SNAM, whose name comes from Società Nazionale Metanodotti (National Pipeline Company), operates the gas grid and the onshore Panigaglia facility in the northwest near Genoa as well as having a 49 percent stake in the LNG facility, the "FSRU Toscana", moored 22 kilometres off the Italian coast between the cities of Livorno and Pisa.

Contributions

The company said quarterly net profits amounted to €313 million, an increase of 8.3 percent over the prior year earnings as a result of the positive contribution from associate companies and the optimisation of SNAM's financial structure.



Onshore Panigaglia LNG import terminal near La Spezia

SNAM said the volumes of natural gas injected into the Italian network in the first quarter totalled 18.22 billion cubic metres, a 6.8 percent increase on the same quarter of 2020.

The company's first-quarter revenues rose 5.6 percent to €717m and debts at the end of the quarter amounted to €13.7 billion versus €822m at the end of December 2020.

"The increase in gas demand, recorded in all consumption sectors, is mainly attributable to the colder temperatures recorded in the quarter, which were charac-

terised by an average daily temperature that was around 0.7°C lower than in the same period of last year," said SNAM.

SNAM's assets outside Italy include a share in a minority stake in Abu Dhabi National Oil Co. (ADNOC) Gas Pipelines in the United Arab Emirates.

The Italian company joined several equity funds in the ADNOC Gas Pipelines transaction, valued at over \$10 billion and comprising 20-year management rights for 38 pipelines in the UAE.

SNAM is also one of the shareholder in Greek gas network

owner DESFA along with Spain's Enagás and Belgium's Fluxys. The three companies hold a combined 66 percent in DESFA while the Greek state owns 34 percent.

The three also have a stake in Trans-Adriatic Pipeline bringing Caspian natural gas from Azerbaijan via Greece and Albania and under the Adriatic Sea to Italy.

SNAM said that in the first quarter the total volume of natural gas that moved through the Italian storage system came in 6.55 billion cubic metres, a 2.5 percent increase on the 6.38 Bcm of gas handled.

"The increase was mainly attributable to higher withdrawals from storage as a result of colder temperatures in the first quarter of the year compared with the corresponding period in 2020," added SNAM.

In the first quarter, a total of 0.38 Bcm of LNG was regasified at the Panigaglia LNG terminal near Genoa versus 0.46 Bcm in the same three months of 2020 as seven LNG carriers unloaded cargoes compared with 12 vessels in the 2020 quarter.

El Salvador gas-to-power project moves forward with BW Group and partners finding FSRU funds

BW Group said a \$128.3 million financial package has been arranged with IDB Invest, the private arm of the Inter-American Development Bank, to help fund a converted floating storage and regasification unit (FSRU) as part of a gas-for-power project in the Latin American nation of El Salvador.

The financial package has a 15-year contractual term. The funds provide resources for the purchase and conversion of the "BW Tatiana" LNG carrier to an FSRU.

This is the region's first FSRU, which will be permanently moored at the Port of Acajutla in El Salvador.

A BW Group subsidiary, BW LNG, is developing the project

with Invenergy, a multinational power generation and operations company.

"The power project's use of natural gas will reduce the country's reliance on imported diesel and heavy fuel oil-fired generation, resulting in significant environmental benefits," said the developers.

Invenergy and BW LNG will jointly commission, operate and maintain the FSRU.

"BW is grateful for the opportunity to bring clean, affordable energy to the region, with the support of Invenergy and IDB Invest," said Jessica Cheung, Vice President for Treasury and Corporate Finance at BW Group, the Singapore-based

shipping and oil and gas projects company with a fleet of around 420 tankers and ships, including 190 LNG and liquefied petroleum gas (LPG) vessels.

"Besides enhancing this project's competitiveness, we hope this financing encourages the development of many more LNG-to-power projects in the region," added Cheung.

BW LNG said a key part of the El Salvador project was the FSRU, which will have regasification capacity of 280 million standard cubic feet a day and storage capacity of 137,000 cubic metres.

Regasified LNG will be transported via a subsea pipeline to the onshore 378-megawatts natural

gas-fired power plant.

The El Salvador project is scheduled to be completed in 2022 and is expected to meet about 30 percent of El Salvador's energy demand.

"The close of financing for the FSRU represents a significant step forward in the completion of the transformational project, the foundation for El Salvador's clean energy future," said Meghan Schultz, Senior Vice President, Finance and Capital Markets at Invenergy.

"This multi-component project is only made possible through the collaboration and support of our incredible partners, BW LNG and IDB Invest," added Schultz.

Pivotal LNG and NorthStar pursue plans for expansion

The LNG supply company in the US state of Florida owned by Pivotal LNG and NorthStar Midstream, plans to increase the liquefaction capabilities to 360,000 gallons per day and double its storage capacity to 4 million gallons using the growing expertise of construction services companies in the US smallscale LNG sector.

The existing liquefaction plant in the port of Jacksonville in Florida, called JAX LNG, started operations in 2018 and is the largest of three US fuel plants owned by Pivotal and NorthStar.

This Florida project is supported by the growing expertise of American companies in the small-scale liquefaction, storage and shipping construction services sectors.

JAX LNG is located along the St. John's River in Jacksonville and the expansion is expected to be placed in service by early 2022 to support a new long-term LNG supply agreement for shipping.

Following completion of the JAX LNG expansion, Pivotal's network of LNG assets will reach a total production capacity of more than 470,000 gallons per day and a storage capacity of 9 million gallons at its three facilities in Florida, Alabama and Pennsylvania.

"We are thrilled to have the opportunity to meet our customers' LNG needs and the growing LNG demands in the eastern US," said Tim Delay, Vice President of Pivotal LNG.

"The expansion at JAX LNG with our partner NorthStar further demonstrates our commitment to investing in the future of clean energy," added Delay.

Construction of the liquefaction plant expansion is underway and led by the Salof Ltd com-

Sempra delays investment decision on Port Arthur LNG until 2022

LNG News Editor

Sempra Energy, operator of the Cameron LNG export plant in Louisiana and developer the Costa Azul venture in Mexico, has again delayed the final investment decision until 2022 on its third proposed export plant, the Port Arthur LNG project in Texas.

Sempra decided to delay the FID on the Port Arthur facility after originally scheduling the decision for around May 2020 until the market downturn pushed back the timetable and the signing of new customers.

Progress

"A final investment decision on Port Arthur LNG will likely move into next year, as we work with partners and customers to further reduce the greenhouse-gas emission profile of the project and evaluate the ongoing impacts of the Covid-19 pandemic on the global economy," said Sempra.

"We remain confident in our view that the market will need additional supplies of LNG in the coming years and believe Sempra LNG



Ready and waiting: Proposed site for Sempra's Texas plant

projects are the leading candidates to supply this need," added the San Diego, California-based company.

The project at Port Arthur in Jefferson County was authorized by the Federal Energy Regulatory Commission in April 2019 and involves the construction of two liquefaction Trains, each with capacity of 6.73 million tonnes per annum, the largest processing Trains among all the projects on the Gulf Coast.

Engineering and planning within the regulatory permitting process are continuing for the project.

Other Port Arthur facilities include two marine berths for LNG carriers with two LNG loading arms

and two hybrid arms, condensate loading and truck facilities.

It additionally has permits for a construction and materials loading and unloading dock and three full-containment LNG storage tanks.

The Port Arthur LNG also has an expansion planned to include two additional Trains, each with its own gas treatment facilities and each capable of producing 6.73 MTPA, along with associated utilities and infrastructure.

All four Port Arthur Trains are expected to include one propane and one mixed refrigerant refrigeration GE Frame 7EA compressor turbine.

TC Energy revises LNG Canada pipeline schedules and likely costs with Shell

TC Energy, the North American pipeline company, said it was working with the Royal Dutch Shell-led LNG Canada project on a revised timetable and budget because of Covid-19 delays while boosting US Gulf Coast LNG feed-gas supplies as it posted first-quarter losses after the cancellation of the Keystone XL oil pipeline.

The Calgary, Alberta-based company reported a quarterly net loss of C\$1.1 billion (US\$824M) compared with a net profit of C\$1.1Bln for the same three months in 2020.

The earnings included an asset impairment charge related to the formal suspension of Keystone XL

pipeline from Canada to the US in January 2021 by US President Joe Biden.

"While we were very disappointed by the revocation of the Presidential Permit for Keystone XL and the resulting after-tax impairment charge, we are well positioned to deliver sustainable, high-quality growth in the years ahead," said François Poirier, TC Energy's President and Chief Executive.

TC Energy also explained the latest developments on the Coastal GasLink project to transport LNG feed gas from northeast British Columbia gas fields to the Shell liquefaction and export plant

being constructed near Kitimat.

"In response to the Covid-19 pandemic, the British Columbia Provincial Health Officer in December 2020 issued an order restricting the number of workers on site for industrial projects in the Northern Health Authority region of BC," the company explained.

"Additional health and safety measures were implemented by Coastal GasLink to prevent and control the risk of transmission of Covid-19 among workers at the camps and at the worksites, enabling the project to proceed with critical activities," added TC Energy.

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NEWS NUDGES

Chiyoda LNG aims

Chiyoda Corp, the leading Japanese energy and LNG engineering company involved in projects worldwide, reported sales of 315.39 billion yen (\$2.88Bln) in the fiscal year to the end of March 2021, a fall of 18.3 per cent on the previous year. However, Chiyoda pointed out that it expected improvements in the coming year as it executed LNG engineering, procurement and construction projects in Qatar, the US and Nigeria.

Algeria's permits move

Algeria, the leading natural gas supplier with two LNG plants on the Mediterranean coast and pipelines to Italy and Spain, is taking measure to improve and clarify the authorization process for constructing energy pipelines and infrastructure. They are now defined in two decrees signed by Algerian Prime Minister Abdelaziz Djerad. "The first draft executive decree defines the procedures for obtaining authorizations to construct a pipeline transportation system, while the second defines the procedures for obtaining authorizations to build structures for pipeline transportation of petroleum products," said a statement.

Spot rates still high

Shipping charter rates for LNG carriers in the spot market were unchanged in the past week, though still at high levels in the Atlantic and Pacific basins. Spot charters for West Of Suez were quoted at between \$75,000 per day and \$79,000 per day for vessels of 155,000-165,000 cubic metres capacity. In the East of Suez charter market average rates were at between \$70,000 per day and \$74,000 per day, according to various brokers.

Norway's Equinor submits own report on fire last year at Hammerfest LNG plant now shut down until March 2022

LNG News Editor

Equinor, the Norwegian oil and gas company, has concluded internal investigations following two fires last year at its facilities in Norway, one at the Hammerfest LNG export plant and a second at the Tjeldbergodden methanol facility, and has submitted the results to the nation's Petroleum Safety Authority.

The fire at Hammerfest LNG on Melkoya Island occurred on September 28 in 2020, while the fire at the Tjeldbergodden plant at an industrial complex in Nordmøre happened just over two months later on December 2.

'Very serious'

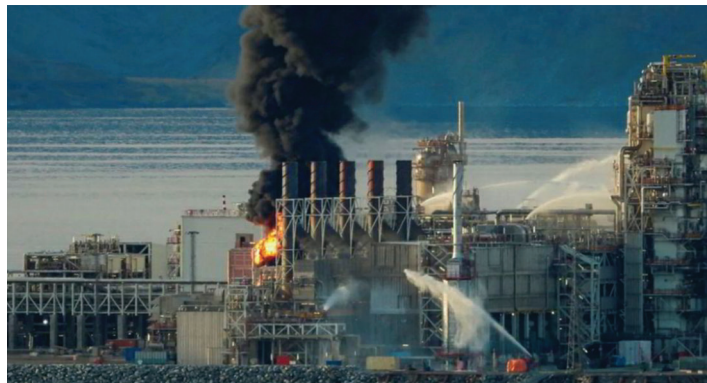
"Both fires at the onshore facilities in 2020 were very serious," stated Irene Rummelhoff, an Equinor Executive Vice President in presenting the reports.

"These incidents have made a deep impression on everyone who was involved or affected. The emergency response effort helped ensure that no one was injured," she added.

"I want to commend the efforts and commitment exhibited by our employees, suppliers and the local communities to return the facilities to safe operation," stated Rummelhoff.

She declared that the incidents in 2020 had triggered a comprehensive improvement effort within safety at Equinor's onshore facilities.

"We didn't waste any time in taking steps to ensure that incidents like this never occur again," said the Equinor executive.



Fateful day of September 28 in 2020 for the Melkoya Island facility. Fire-fighters brought blaze under control

"The findings in both investigation reports will be followed up with measures designed to reinforce and enhance the safety work at the onshore facilities and in Equinor in general," she said.

In the Hammerfest LNG report, Equinor concluded that during a start-up of the facility, a fire occurred in the filter housing of a gas turbine generator.

The investigation group noted that the cause of the fire was spontaneous ignition in the filters in the turbine's air inlets, caused by excessively high temperatures over a long period of time.

"The anti-icing heat exchanger in the air inlet was used outside of its intended area of application, thus causing the high temperature that triggered the fire," said the report.

"The investigation group does not believe that the maintenance interval for exchanging the filters that self-ignited is a contributing cause," said Equinor.

"No one was injured in the incident. Both the PSA report and our own investigation confirm that the fire was unlikely to spread to

other parts of the facility. The extinguishing efforts undertaken based on the precautionary principle, and in line with the applicable emergency preparedness principles, entailed extensive damage to parts of the facility," the report added.

Re-opening

Equinor also recently reported that the Hammerfest LNG facility, which supplies European import terminals, would remain closed until March 2022 due to the scope of the repairs needed to restore the facility to safe production.

Equinor has initiated modifications to the air intakes in the turbines to prevent similar incidents from occurring.

"The incident was not caused by a single technical or human error, but was the result of several direct and underlying factors," said the Equinor Hammerfest report.

"The findings will be followed up in a dedicated improvement initiative in Equinor," said the company.

“

These incidents have made a deep impression on everyone who was involved or affected. The emergency response effort helped ensure that no one was injured

”

- Irene Rummelhoff, Executive Vice President in , Equinor

Calcasieu Pass LNG starts pre-commissioning as start-up of nation's seventh facility moves closer

LNG News Editor

The US Calcasieu Pass liquefied natural gas export plant has begun pre-commissioning activities and moved closer to being the nation's seventh large-scale LNG exporter by the fourth quarter of 2021.

The plant developer, Venture Global LNG, was given permission by the US Federal Energy Regulatory Commission on May 10 to commission a gas turbine at the Calcasieu Pass plant, a move usually made several months before full commissioning for production and start-up.

Volumes

Once the seventh plant starts, the US is heading for the position of the World's No. 1 exporter by mid-2022, moving ahead of Australia and Qatar, with both producing just under 80 MTPA.

The Calcasieu Pass plant will have total output of 10 million tonnes per annum and its completion is ahead of schedule because it is being built using modular liquefaction Trains.

The Trains are being constructed in Italy and delivered for installation and set up at the Louisiana site.

About half of the 18 processing Trains to be used at the facility have now been installed.



Plant is being built with delivered modular Trains

At the end of April 2021, Venture Global issued a tender for at least 12 cargoes from Calcasieu Pass for delivery starting at the end of the third quarter of 2021.

With full production from Calcasieu Pass, the US would move to total nameplate capacity at the seven plants of 81.5 million tonnes per annum. This would rise to 86 MTPA once the sixth Train at Cheniere Energy's Sabine Pass plant in Louisiana comes on stream in 2022.

Venture Global plans a phased operational start-up with commissioning cargoes being lifted in the fourth quarter and full operations at Calcasieu Pass expected in mid-2022.

Calcasieu Pass is also being constructed with its associated TransCameron Pipeline.

The FERC letter just received

by Venture Global gives the company permission to introduce hazardous fluids to an LM2500 gas turbine at Calcasieu Pass after its formal request.

The company also listed other pre-commissioning works that can be started in the weeks ahead.

"Calcasieu Pass has now fulfilled the environmental conditions listed which were necessary prior to commencing the introduction of temporary Aqueous Ammonia to the Terminal's LM2500 gas turbine," said the notice.

"Calcasieu Pass hereby requests written authorization from the Director of the Office of Energy Projects (OEP) and a Notice to Proceed with the scope of work described no later than May 10, 2021," it added.

"Prior to introduction of haz-

ardous fluids, Calcasieu Pass shall complete and document for all pertinent tests (Factory Acceptance Tests, Site Acceptance Tests, Site Integration Tests) associated with the Distributed Control System and the Safety Instrumented System that demonstrates full functionality and operability of the system," explained Venture Global.

Tank and jetty

"Liquefaction Train 1 will be commissioned and run to produce LNG, which will be sent to the South LNG Tank and the South Jetty using the associated loading equipment," said the company in its formal description of plans given to FERC.

Venture Global told FERC that prior to full commissioning, Calcasieu Pass shall file a detailed schedule for equipment start-ups.

"The schedule shall include milestones for all procedures and tests to be completed, prior to introduction of hazardous fluids, and during commissioning and start-up," said Venture Global.

Prior to commissioning, Calcasieu Pass told the regulator it would also file results of the LNG storage tank hydrostatic tests and foundation settlement results along with those on adjacent piping.

The area of Calcasieu Pass in Cameron Parish in Louisiana already plays host to the existing Cameron LNG plant, operated by Sempra Energy.

In addition to the Calcasieu Pass plant, Arlington, Virginia-based Venture Global has received all authorizations to build a second plant, the Plaquemines export facility at river mile-marker 55 on the west side of the Mississippi River, about 30 miles south of New Orleans.

Both Calcasieu Pass and Plaquemines are being constructed with liquefaction and export capacity of 10 MTPA and with the same number of modular Trains.

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BP signs second deal on Woodfibre plant cargoes

The Canadian Woodfibre LNG project, a mid-scale venture being developed by the Asia-based company Pacific Oil and Gas Ltd, a subsidiary of Royal Golden Eagle (RGE) group, has signed a second supply agreement with UK major BP.

The Woodfibre project said its latest Sales and Purchase Agreement (SPA) was with BP Gas Marketing for the delivery of 750,000 tonnes of LNG on a free on board (FOB) basis over 15 years.

This SPA will increase BP's total LNG off-take to 1.5 million tonnes per annum, over 70 per cent of Woodfibre LNG's future annual production.

The Woodfibre plant is sited on a brownfield site of a former pulp mill, about 7 kilometre from the town of Squamish and 70km northeast of Vancouver in the province of British Columbia.

It was granted a construction permit back in July 2019 by the provincial authorities to proceed with building, though the developers have so far declined to take a final investment decision.

The plant when completed will comprise a facility with output of around 2.1 MTPA of LNG and storage tanks with 250,000 cubic metres of capacity.

"Forward-looking companies like BP are turning to projects like ours for sustainable, stable gas that will supply a clean energy mix," said Ratnesh Bedi, Pacific Oil & Gas President.

"We look forward to working with BP to deliver Canadian natural gas from one of the lowest carbon-footprint LNG facilities in the world," added Bedi.

Woodfibre has had close co-operation with the native North American Squamish First Nation in the area of the proposed plant.

Air Products expands global gases presence amid LNG dominance

LNG News Editor

Air Products, the leading provider of LNG equipment, reported a 3 percent decline in fiscal second-quarter net profits as it continued as the main LNG processing technology provider while building up a global industrial gases business with projects progressing in nations such as Malaysia, China, Saudi Arabia and South Korea.

The company reported net income of \$477 million, slightly lower than the same three months of 2020 and the results included an estimated \$0.10 to \$0.15 per share negative impact from the effects of Covid-19.

Orders

The LeHigh Valley, Pennsylvania-based company highlighted its continued safe operations at more than 750 facilities around the world as it continued in the past year to receive orders for its proprietary LNG technology, equipment and related process licenses.

These LNG orders were for Qatar's LNG production expansion,



Jazan gas joint venture in Saudi Arabia is still advancing

Sempra Energy's Costa Azul LNG export terminal project in Mexico and the currently delayed Mozambique onshore project in Cabo Delgado province.

The company said second-quarter sales rose 13 percent to \$2.5 billion, due to 7 percent higher energy cost pass-through, a 4 percent favourable currency and 2 percent higher pricing.

"Volumes were flat, as new plants, acquisitions and increased sale-of-equipment activities were offset by reduced contributions from the Lu'an (China) gasification

project, lower merchant demand from Covid-19, and the severe Winter Storm Uri that affected the US Gulf Coast," explained Air Products.

In its US operations Air Products noted in its highlights that it brought onstream a sixth air separation unit in Chandler in Arizona and the first cryogenic nitrogen plant in the Bayan Lepas Free Industrial Zone at Penang in Northern Malaysia to increase capacity to serve fast-growing electronics and other end-market demand.

New Fortress opening Mexican and Nicaragua import facilities

New Fortress Energy Inc, the New York-based company with expanding assets after two LNG acquisitions for shipping and Brazilian gas-to-power projects, posted a first-quarter loss as it pursues additional plans for floating LNG and natural gas production.

During the quarter New Fortress sealed two deals, one acquiring the shipping assets of Golar LNG Partners, the US affiliate of the larger Golar LNG Ltd, and a second in the takeover of Hygo Energy Transition, a Brazil-focused joint venture owned by Stonepeak Infrastructure Partners and Golar LNG Ltd.

Shareholders in Golar LNG Partners, the owner of a small LNG

fleet, voted in in February to approve the takeover by New Fortress, while Hygo Energy Transition will also now be integrated into New Fortress.

In its first-quarter earnings statement, New Fortress posted a widening net loss of \$39.5 million compared with a loss of \$500,000 in the final quarter of 2020.

The company's quarterly revenues were little changed from the previous quarter at \$145.7M.

"We closed the previously announced acquisitions of Hygo Energy Transition and Golar LNG Partners for \$5.1 billion enterprise value," said New Fortress as it also reported progress on other LNG fronts.

New Fortress stated that its LNG import projects in Mexico and Nicaragua would be completed in the next two months.

"Development projects are advancing on budget and schedule," said New Fortress.

The LNG for Mexico is set to be provided by a conventional vessel arriving at the Mexican project at Pichilingue Port, located just north of La Paz, the state capital of the Pacific Coast Mexican state of Baja California Sur.

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



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Nigeria awards permit for floating LNG export venture to be developed by Nigerian companies

LNG News Editor

Nigeria's Department of Petroleum Resources (DPR) has awarded a licence for a project to establish the West African nation's first floating liquefied natural gas production plant and run by a Nigerian oil and gas company rather than an international energy major.

Sarki Auwalu, the Director of the DPR, signed a contract at a ceremony with Nigerian company UTM Offshore Ltd to support the first Nigerian FLNG venture.

Backing

UTM is backed by the Nigerian National Petroleum Corp. (NNPC) and will use its gas resources.

The contract was signed by DPR and UTM Offshore's Chief Executive Julius Rone who received the License to Establish (LTE) permit for an offshore LNG production plant.

Nigeria has lagged behind other West African nations such as Cameroon and newcomers like Mauritania and Senegal in establishing FLNG facilities for its extensive natural gas resources.

The country operates the onshore Nigeria LNG plant at Bonny



UTM Offshore CEO Julius Rone signs the pre-FEED deal

Island in the Niger Delta where output in 2020 amounted to just under 21 million tonnes, a fall of 1.4 percent on the previous year as the company also develops its long-awaited Train 7 project.

The Nigeria LNG onshore plant with six liquefaction Trains is owned by four shareholders, Royal Dutch Shell, the French and Italian majors Total and Eni as well as NNPC, which owns 49 percent of the venture.

The onshore Train 7 contract was signed with an engineering consortium comprising Italy's Saipem, South Korea's Daewoo Engineering and Japan's Chiyoda

Corp. The contract along with a de-bottlenecking programme would add around 8 MTPA of capacity to the Bonny Island facility, taking the total to around 30 MTPA by 2025.

On the FLNG contract UTM said it had agreed a pre-front-end engineering and design contract with experienced Japanese liquefaction plant builder JGC Corp.

The DPR's Auwalu said the FLNG project being pursued by UTM was in line with the vision of the Nigerian Federal Government's efforts to transform Nigeria into more of a natural gas-based economy rather than relying solely on oil.

"The DPR will continue to provide opportunities and enable the businesses of promoters and investors in the oil and gas industry for the economic growth, stability and sustainability of Nigeria and for the mutual benefit of all investors and industry participants," said Auwalu after the signing.

UTM Offshore's CEO Rone thanked President Muhammadu Buhari's administration for creating "an enabling environment" for indigenous oil and gas companies to progress.

Rone expressed optimism that the project would be completed in the next four years.

UTM Offshore gave no details of likely production totals, though the initial plan was to process around 176 million cubic feet per day of natural gas and condensate.

However, JGC in confirming its award of the pre-FEED contract by UTM and NNPC gave some details.

"This project calls for an FLNG facility with a production capacity of 1.2 million tonnes annually using gas from the Yoho Gas Field owned by ExxonMobil and NNPC," added JGC.

Kosmos Energy says Mauritania-Senegal floating LNG project advances on all major workstreams

Kosmos Energy, the US shareholder in the floating liquefied natural gas joint venture offshore the West African nations of Mauritania and Senegal, halved its losses in the first quarter and said material progress was made across all the major workstreams of the LNG project centred on the Greater Tortue-Ahmeyim gas fields.

Kosmos stated that the project was 58 percent complete after advances made on the floating LNG vessel, the hub terminal with a concrete breakwater, the Floating Production Storage Offloading (FPSO) unit and on the subsea infrastructure.

Kosmos, the specialized Atlantic Margin exploration and production company whose projects are centred offshore West African nations as well the US Gulf of Mexico, is developing FLNG production in the waters of Mauritania and Senegal with UK major BP.

The Dallas, Texas-based company added that the first phase of the Tortue-Ahmeyim LNG project would be 80 percent complete by the end of 2021 and remained on track for first gas in the first half of 2023.

Kosmos halved its net losses in the first quarter to \$90.7 million from \$182.7M in the same three

months of 2020. The earnings statement showed revenues of \$176M, or \$53.66 per barrel of oil equivalent.

Net capital expenditures related to Mauritania and Senegal LNG in the first quarter were \$73M.

Kosmos said it exited the first quarter with approximately \$2.2 billion of net debt and available liquidity of around \$800M.

In March 2021, Kosmos successfully closed a \$450M offering of senior notes due in 2028.

"This month marks the 10th anniversary of the listing of Kosmos on the New York Stock Exchange," said Chief Executive Andrew G. Inglis.

"In those 10 years, Kosmos has evolved from a frontier explorer to a full-cycle E&P with a diverse reserve base that has increased nearly seven-fold, building the platform for continued success over the next 10 years," stated Inglis.

The CEO said 2021 was off to a strong start with momentum building across the business.

"We have begun infill drilling activities in Ghana and the Gulf of Mexico, will soon begin drilling in Equatorial Guinea, and are on track to deliver our production and cash flow targets for the year," explained Inglis.