LNG Unlimited

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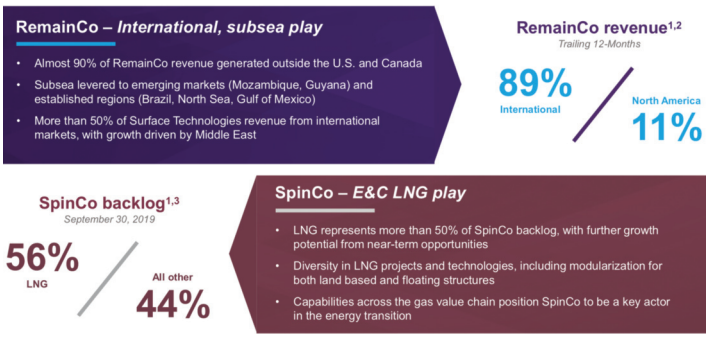
TechnipFMC on road to split-up shows LNG strength with orders

Five LNG projects have moved forward and Houston company has won two of them

LNG Journal editor



Friendly divorce: split will see Houston-based 'RemainCo' taking subsea under CEO Pferdehirt and Paris-based 'SpinCo' holding LNG under CEO Catherine MacGregor

TechnipFMC, Franco-US energy and LNG engineering company, said its split into two separate listed companies was on track for the first half of 2020 as it posted a 6 percent increase in third-quarter revenues to $3.33 billion as new large-scale LNG contracts were awarded.

The results included after-tax charges and credits with adjusted third-quarter net income at $54.4 million, down more than 61 percent from the $139.8M reported in the same 2018 quarter.

Decision

TechnipFMC said in August 2019 that it had decided to spin off its European-based engineering and construction operations into a separate business, leaving the Houston-based half of the firm as a technology-focused equipment supplier to the oil and gas sector.

The strategy is to reverse the 2017 merger of Technip of France and FMC Technologies of the US, a transaction valued at the time at $20Bln as it created TechnipFMC as a fully-integrated subsea provider.

"In the third quarter, we announced a transformational move to create two diversified, pure-play market leaders," said Doug Pferdehirt, Chairman and Chief Executive of TechnipFMC.

"The separation will enable both companies to benefit from dedicated focus of management, resources and capital while highlighting the unique value proposition and differentiated investment appeal of each company," he added. "We believe strongly that providing independence for these two world-class, high-performing businesses will unlock further opportunities and create value for all stakeholders," stated the CEO.

TechnipFMC is one of the leading engineering, procurement and construction companies whose current contracts include projects in the US, as well as the Russian Arctic LNG II project proposed for the Gydan Peninsula and the Mozambique LNG joint venture in southeast Africa.

"Five LNG projects over the past five months have either been sanctioned or moved closer to final investment decision in 2020, including the Arctic LNG 2 and Rovuma LNG projects that were awarded to TechnipFMC and our partners," said Pferdehirt in the third-quarter earnings statement.

"Rovuma builds upon our first mover advantage and early investment in Mozambique, where we are already executing the floating LNG scope on the Coral project," added the CEO.

"The award also serves as further confirmation of our leadership in LNG and our strong capabilities in the delivery of remote projects," he stated.

Pferdehirt concluded by saying that he wanted to "recognize the dedication, commitment and demonstrated results of the women and men of TechnipFMC that have enabled us to take this next step" to further reshape the industry.

"Thanks to their continued effort, we are making solid progress towards completing our planned separation in the first half of 2020," he said.

With approximately 15,000 employees, the LNG and energy spin-off would still be one of the largest engineering players in the sector.

It would be incorporated in the Netherlands with its headquarters in Paris and would remain listed on the Euronext Paris stock exchange.

TechnipFMC previously said that Catherine MacGregor, who joined the company in July 2019 after more than two decades at energy services firm Schlumberger NV, would be the CEO of the engineering and construction services spin-off.

The standalone company would be headed by TechnipFMC CEO Pferdehirt. It would have its headquarters in Houston, Texas, and be listed on both the New York Stock Exchange and Euronext Paris exchange.

■

UNLIMITED AGENDA

INVESTMENT

Canadian assets firm finds value in Maryland plant of Dominion Energy 2

BUNKERING

FortisBC gains support for Vancouver refuel station 3

EARNINGS

Chart benefits from sustained demand for its LNG equipment 5

STORAGE

Maritime LNG storage design firm GTT raises newbuild income 8

TERMINALS

AES Andres LNG contract oversight is with European firm Tractebel 9

PROJECTS

Bangladesh signs Saudi investors for terminal and gas-fired power 11

Brookfield Asset Management finds value in plant in Maryland whose owner has varied energy interests

LNG Journal editor

Asset firm's CEO is Canadian-born Bruce Flatt

Canadian equity fund Brookfield Asset Management has purchased a 25 percent stake in Dominion Energy Cove Point LNG, the single-Train Maryland plant holding tolling agreements with Indian and Japanese companies. The transaction shows the growing value of US liquefaction and export facilities.

Dominion Energy, the Cove Point parent company, said the deal with Toronto-based Brookfield was valued at more than $2 billion.

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

India-Japan

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

The deal is part of Richmond, Virginia-based Dominion's plan to establish a permanent capital structure for the LNG subsidiary, whose assets include the liquefaction plant and storage facilities on Chesapeake Bay at Lusby in Maryland.

Cove Point LNG also owns a 136-mile pipeline connecting the plant to the interstate pipeline system.

Brookfield is led by Canadian-born Chief Executive Bruce Flatt and has around $330 billion of assets under management and follows the same value-investment strategy.

Cove Point is a former LNG import terminal that was transformed into an export plant at a cost of $4.1Bln as the US benefited from the shale-gas boom to become an exporter.

"The agreement highlights the compelling intrinsic value of Cove Point and allows us to efficiently redeploy capital toward our robust regulated growth capital programs," said Dominion Energy Chief Executive Thomas Farrell.

Cove Point began commercial export operations in April 2018 and the facility has a nameplate capacity of 5.25 million tonnes per annum of LNG from its single Train.

The Cove Point plant is relatively small in comparison to Cheniere Energy's Sabine Pass plant where 22.5 MTPA of LNG is being produced from five Trains and with one more Train being built.

Construction of the Cove Point liquefaction facility began in October 2014, following more than three years of federal, state and local permit reviews and approvals.

Its cost compared with other plants was modest, though the build-out was the largest construction project ever for Maryland and for Dominion.

CDO Farrell said the deal implied an enterprise value for Cove Point LNG of $8.22Bln, not including working capital.

Dominion said it planned to use the proceeds for general corporate purposes and to reduce annual equity financing.

Dominion plans to continue to retain full operational control of Cove Point after the closing of the transaction, which is expected by the end of 2019. ■

Dominion to spend $500M with food giant to convert US hog waste to pipeline gas in at least five states

Dominion Energy, the developer of the Cove Point LNG export plant in Maryland, and a joint venture partner plan to double their investment in renewable natural gas (RNG) projects across the US to $500 million capturing methane from hog farms and converting it into pipeline-quality gas that can be used to heat homes, power businesses and fuel vehicles.

Dominion said the investments with Smithfield Foods Inc. through 2028 would expand their Align RNG joint venture beyond its initial projects in North Carolina, Virginia and Utah to pursue new projects across the country, including in Arizona and California.

Dominion and Smithfield Foods formed Align RNG in November 2018, committing $250M over 10 years to capture methane from Smithfield's company-owned and contract hog farms and convert it into clean RNG.

With the additional $250M investment the companies would produce enough RNG to power more than 70,000 homes and businesses by 2029.

"Align RNG's first project in Milford, Utah, will be operational this year and will produce enough RNG to power more than 3,000 local homes and businesses at full capacity," they said.

"After researching ways to transform manure into renewable energy for nearly two decades, Smithfield, together with our partners, has developed a proven business model that can be expanded at scale across the country," they added.

Methane is produced from a variety of natural sources, including hog manure, food waste and wastewater.

When released into the atmosphere, methane emits around 25 times more greenhouse gases than carbon dioxide.

By capturing methane from farms, the development of RNG significantly reduces GHG emissions from agricultural operations.

"When fully implemented, the expanded partnership announced today will prevent more than 2.5 million metric tons of greenhouse gases from entering the atmosphere, the same as taking more than 500,000 cars off the road or planting more than 40 million new trees," said the companies.

The Dominion and Smithfield efforts culminated in 2016 when Smithfield led the industry as the first major protein company to adopt a far-reaching greenhouse-gas reduction goal throughout its entire supply chain.

"Our partnership is revolutionizing the future of sustainable energy and agriculture in this country, and we are thrilled to partner with Smithfield to grow this exciting new industry," said Diane Leopold, President and Chief Executive of Dominion Energy's Gas Infrastructure Group.

"We're not only reducing greenhouse gas emissions, we're also turning a waste product into a clean energy resource," explained Leopold.

"We're capturing 25 times more greenhouse gas emissions from the farm than are ever released when the gas is used to heat homes or power businesses," she added. ■

IEnova makes progress on pipeline and LNG plant

IEnova, the Mexican subsidiary of California-based utility Sempra Energy and developer of the Costa Azul LNG export terminal on the Pacific Coast of Mexico, said third-quarter earnings declined, though it expected future profits from the commercial start-up of the new natural gas pipeline from Texas to Mexico.

IEnova reported a 3 percent fall in earnings to US$231.2 million as the company welcomed the coming on line in September 2019 of the South Texas-Tuxpan natural gas pipeline holding a 35-year supply agreement with the Mexican state-run Federal Electricity Commission.

In the first nine months of 2019, IEnova reported higher gross earnings of $684.8M compared with $668.5M million in the same period of 2018.

The California utility's other assets in Mexico include the Costa Azul LNG import terminal on the Pacific Coast that is being transformed into an export plant.

Costa Azul will have liquefaction capability constructed in two phases. The first part of the transformation of the plant will see the building of a single liquefaction Train to be located adjacent to the existing terminal and with capacity for 2.4 MTPA of exports.

At the earnings conference call, IEnova said the final investment decision on the Costa Azul venture was scheduled for the first quarter of 2020.

The company said it was still settling the project's engineering, procurement and construction bidding process, its offtake contracting as well as some regulatory permits.

"We continue to advance on all three fronts," stated IEnova Chief Executive Tania Ortiz Mena. ■

FortisBC and WesPac supported for Vancouver bunkering plans

LNG Journal editor

The British Columbia provincial government in Canada and provincial Premier John Horgan said they would support the Vancouver Fraser Port Authority and utility company FortisBC to establish the first ship-to-ship LNG bunkering service on the West Coast of North America.

FortisBC, the provincial power company is moving forward with US company WesPac Midstream to develop a full-service LNG bunkering jetty on Tilbury Island on the Fraser River and environmental assessment of this project is underway.

LNG bunkering jetty location at plant on Fraser River

IMO cap

The International Maritime Organization's cap on sulfur in fuel comes into effect in 2020 and the BC government said it would help the shipping industry to turn to LNG to meet those stricter rules.

The project near Vancouver includes putting a temporary floating bunkering terminal in place by 2020 to meet what is expected to be new demand for LNG from shipping because of the IMO restrictions.

WesPac plans to build the temporary bunkering berth until a permanent one is constructed by 2022.

The proposed jetty will be located at Tilbury Island in the southern part of the Fraser River, where FortisBC's Tilbury Island LNG plant has also undergone an expansion in production capacity.

The Tilbury plant now has an annual capacity of 3 million tonnes of LNG per annum.

Once completed the jetty would have one berth for a single LNG carrier and a berth for smaller LNG bunkering barges.

The WesPac-led joint venture is expected to cost around C$150 million (US$115M) and will supply LNG to both the domestic and international markets.

In addition to a domestic bunkering market, WesPac said it expected there would also be LNG export opportunities, with Asia being the main market.

WesPac said it expected to see up to 69 bunkering barges and 68 LNG carriers coming to and from the Fraser River terminal annually. ■

Largest LNG bunkering vessel is launched at Chinese yard

French major Total saw its first LNG bunkering ship launched at the Hudong-Zhonghua Shipbuilding yard near Shanghai. The unnamed vessel is subject of a charter contract between Total and fleet owner Mitsui OSK Lines of Japan.

It is expected to enter service in 2020 in the Dutch port of Rotterdam fueling LNG-power container vessels for French container shipping company CMA CGM under a contract lasting at least 10 years.

The ship is fitted with innovative tank technologies provided by French storage design firm GTT, giving the ship 18,600 cubic metres of capacity.

Total's newbuild is more than double the capacity of the biggest of the other 10 or so such LNG bunkering vessels currently in operation worldwide.

These include the "Engie Zeebrugge" (2017) with capacity of 5,000 cubic metres, the Shell-owned "Cardissa" (2017) with 6,500 of capacity, the "Coralius" (2017) with 5,800, the "Coral Methane (2018) with 7,500, the "Kairos" (2018) with 7,500 and in the US the "Clean Jacksonville" (2018) with 2,200 of capacity.

Total said its 135-metres-long vessel would meet the highest environmental standards with the use of LNG as fuel and complete reliquefaction of boil-off gas.

"The LNG bunker vessel's construction is in line with the International Maritime Organization decision to drastically limit the sulfur content of marine fuels as of 2020," said Total.

"In this context, the transition from heavy fuel oil to LNG is a competitive, efficient and immediately available solution for maritime transportation," it added.

The launch of the Total bunkering vessel near Shanghai comes several weeks after the first of the LNG-powered container ships ordered by CMA CGM took to the water at the Shanghai Jiangnan-Changxing Shipyard.

The Marseille-based CMA CGM line shipping group is one of the world's largest container vessel operators with over 500 ships and the first ship launched is one of nine on order. ■

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NEWS NUDGES

UK FSRU extension

InfraStrata plc, the UK-listed company focused on strategic infrastructure projects, said it had extended its period of exclusivity entered into with Meridian Holdings, a Cayman Islands company, to facilitate the acquisition of a floating storage and regasification unit (FSRU) venture in the UK. InfraStrata has now extended its exclusivity accord until the 8th of January 2020.

Nakilta's profits rise

Qatar Gas Transport Co., also known as Nakilat, posted nine-month results showing a 10.5 percent rise in net profits of 728 million Qatari riyals ($200M) versus 659M riyals during the same period of 2018. "Nakilat's strong financial performance bears testament to the company's ongoing emphasis and continuous improvements to remain competitive within the global energy transportation market, sustaining healthy cashflow and generating steady returns for our shareholders, said Nakilat Chief Executive Abdullah Fadhalah Al Sulaiti.

JERA deal in Vietnam

JERA Co. Inc., the largest Japanese LNG buyer and thermal power plants owner, said it signed an accord with Vietnam Electricity for cooperation in the LNG value chain. Under the deal, JERA and the Vietnam power company would discuss opportunities for mutual collaboration. "Specific areas for discussion include joint procurement of LNG, joint development of LNG receiving terminal projects, cooperation in introducing LNG to EVN power plants and collaboration on shipping optimization," they said. ■

Chart benefits from sustained demand for its LNG equipment

LNG Journal editor

Chart Industries, the maker of equipment for the liquefied natural gas and industrial gas industries, posted a surge in revenues as it benefited from orders across all sectors from large liquefaction plants to small-scale LNG while benefiting from contributions from its acquisitions.

Chart, whose headquarters are in the suburbs of Atlanta, said it continued to see revenue and orders strengthen in particular in the liquefaction, storage and transport markets for global LNG and for industrial gas infrastructure.

Portfolio

The company is a supplier of equipment to US LNG export projects on the Gulf Coast being developed by Cheniere Energy, Tellurian Inc. and Venture Global.

Chart said third-quarter orders of $286.2 million included record order levels for LNG fueling stations, lasers and hydrogen, contributing to record backlog of $755.6M.

During the quarter, Chart received full and final notice to proceed on Venture Global's Calcasieu Pass LNG export project in Louisiana, as well as an additional $6.6M order for air cooled heat-exchangers on the venture.

Demand for tanks and other engineered products is rising

Third-quarter revenue of $357.8 million increased by 31.4 percent compared with the same three months of 2018 when it was $272.2M.

"Our margin expansion activities from the past nine months, exceeding scheduled synergies from recent acquisitions, and our multiple aspects of growth potential with no heavy reliance on any one single application or end market positions us to deliver approximately $5.00 of projected adjusted earnings per share in 2020, before any additional big LNG orders," said Jill Evanko, Chart's President and Chief Executive.

"Further, we expect $1 billion of additional big LNG-related orders in the second half of 2020 which extends our upcycle for revenue and earnings through 2023," stated the CEO.

Chart posted net income of $18.7M for the third quarter, down from the $22.2M in the prior-year quarter, though up from $14.4M in the second quarter of 2019.

"Global LNG infrastructure activity continues to ramp up, with LNG opportunities currently being pursued by Chart in 71 countries," said the company. ■

Georgia firm signs Vietnam deal as third Asia cooperation accord

Chart Industries and Energy Capital Vietnam, a southeast Asian focused asset management firm, have signed an accord to promote the distribution of liquefied natural gas within Vietnam with Chart as the supplier of downstream and other equipment as well as its expertise.

This is the third such agreement Chart has signed in 2019 with Asian energy industry partners to promote the use of LNG and with plans to supply the technology.

Chart signed a memorandum of understanding with ECV, whose main offices are in Dallas, Texas, and Hoh Chi Minh City, for Chart to be a future supplier of downstream equipment for LNG terminals.

ECV has close relations with the Office of the Vietnamese Prime Minister and the Ministry of Industry and Trade, the key authoritative body that oversees the energy sector.

The country's total LNG demand is expected to reach 10 million tonnes per annum by 2030 with several terminals planned and with the US being one of the supplier.

Chart and ECV said that they also supported ECV's collaboration with Korea Gas Corp., the owner of import terminals in South Korea, the development of a privately-funded LNG regasification terminal, storage, gas supply system and 3,200 MW gas-fired power project near Mui Ke Ga in Binh Thuan Province on the southeast coast of Vietnam.

"As the global LNG infrastructure build-out continues in over 70 countries, we are pleased to partner with ECV and other like-minded companies to accelerate a cleaner future in Vietnam," said Jill Evanko, Chief Executive of Chart.

The latest agreement is similar to one Chart signed in March 2019 with Indian Oil Corp, owner of the first import terminal to start up on the Indian East Coast. The accord was signed in Washington DC by executives of both companies. ■

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Growing scale of operations; meeting changing safety, security and regulatory requirements; and ensuring worker readiness and compliance management while maintaining operational efficiency remains a key challenge.

Introduction

Companies in the Liquefied Natural Gas (LNG) industry have unique workforce requirements They must make intelligent operational decisions in order to improve the safety of plant and personnel, to boost their productivity, ensure compliance, increase resource utilization, and at same time be able to control labor costs.

The specific requirements for LNG companies include:

- Train and certify plant staff to do their jobs the right and safe way
- Equip workers with inspected and compliant Personal Protective Equipment (PPE)
- Ensure personnel have appropriate access authorization
- Capture accurate clock in/out data
- Make sure contractors are duly managed and accountable
- Determine if employees are fit for work
- Implement effective fatigue management
- Maintain reliable mustering control

Workforce operational challenge

LNG sites face a host of workforce-related challenges, and frequently rely on manual efforts and processes, which can lead to an increase in safety incidents and non-compliance —resulting in penalties, reduced work hours and financial losses.

Typical issues range from worker data contained in multiple, non-integrated systems or isolated in disparate silos, to duplication of manual data entry using paper-based tools, difficulty in performing validation checks, and lost time in approval processes.

LNG businesses often lack real-time enforcement of company policies and compliance status, and don't receive immediate notification of non- compliance. They also suffer from a loss of on-site productivity by employees, not to mention excess work hours billing by contractors.

Access to some LNG sites is inadequately controlled, while plant managers can only do basic mustering with limited functionality. Their efforts rely on non- integrated point solutions. Customized software for these applications is costly and tedious to maintain, with limited functionality.

Leveraging digitization solutions

LNG companies are now collaborating with leading automation suppliers like Honeywell to leverage the power of digitization to better manage their industrial workforce. Honeywell's advanced, integrated Digitized Workforce Management (DWM) solution is designed to improve safety, compliance and productivity of employees, contractors and visitors.

Honeywell's end-to-end workforce management offering features seamless integration with the Honeywell EIS access control system, as well as Enterprise Resource Planning (ERP) and Human Resource Management Systems (HRMS). Users can deploy a secure, web-based system enabling easy access to multiple stakeholders and driving visibility and measurability to a single pane of glass (SPG).

Honeywell's comprehensive approach encompasses:

- Contractor Management
  - Contractor on-boarding and off-boarding
  - Group mobilizations and inductions for shutdowns/turnarounds
  - Rationalize contract workforce
- Access Management
  - Visitor management
  - Approval workflow process for access to site/area
  - Lost card/temporary card issue process
  - Certification confirmation prior to site access
- Time and Attendance
  - Integrate HRMS, payroll and contractor systems with access control for time on-site reporting
  - Reconcile contractor work hours for shutdowns and service orders
- Compliance Management
  - Training, certifications, licenses, and purchase orders automatically checked for each worker
  - Fitness for work checks (drug and alcohol)
- Fatigue Management
  - Time on site management
  - Exposure management
  - Minimum rest rules
  - Fitness for work checks
- Mustering
  - Real-time count of people mustered at each location
  - Quick reconciliation of people on site and mustered
  - Gas monitoring integration for GPS location and man down events
  - Last known location of people not accounted
- Key Performance Indicators (KPIs) /Reporting
  - Standard configured reports
  - Sensitive information protected through robust security restrictions
  - KPI metrics tracking
  - Reporting distributed across departments

Value Proposition for LNG companies

By employing Honeywell's innovative solution to digitize workforce management, LNG operators can address a wide range of workforce-related needs. They're able to:

- Reduce site-mustering time from hours to minutes
- Implement real-time compliance status monitoring and enforcement
- Improve compliance through fatigue monitoring and random substance testing
- Increase productivity with time-on-site monitoring
- Reduce overbilling of contract work hours
- Ensure efficient visitor management
- Enact smart on-boarding for employees and contractors

Honeywell's integrated solution enables high-risk LNG operations to improve compliance visibility anywhere, anytime—even in field. Site operators can reduce the risk of penalties and reputational damage through increased compliance and a lower probability of safety incidents. They can also achieve an 80 percent reduction in mustering time.

LNG firms with a large workforce can reduce the time and effort for Health, Safety and Environment (HSE) administration by up to 40 percent compared to offline systems. This includes a 30 percent reduction in inspection time for PPE and other safety devices.

For companies with a distributed workforce, Honeywell's digitized solutions can save time in compliance management, and minimize lost work hours and penalties due to non-compliant workers.

Conclusion

Leverage the power of digitization with DWM. An advanced, integrated end-to-end workforce management solution to manage Safety, Security, Compliance & productivity of workforce. Honeywell DWM automates business processes and operational efficiency with real time data visibility and alerts reducing the administrative load of the HSE, security & operations team. With intelligent software and configurable business rules, you can gain new insights on personnel & asset movements throughout the facility.

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Maritime LNG storage design firm GTT raises revenues on continued advance of newbuilds

LNG Journal editor

Gaztransport and Technigaz (GTT), the French technology firm for designs of systems for the maritime transportation and storage of LNG, reported a jump in nine-month revenues as its order book rose to 120 units, including 100 newbuild LNG carriers.

GTT said nine-month revenues increased 8.7 percent to 199.7M euros ($222M) compared with 183.7M euros in the same nine months of 2018.

Numbers

GTT said that at the end of September its order, excluding LNG as fuel, stood at 120 units, including 100 conventional LNG carriers, six ethane carriers, six floating storage and regasification units (FSRUs), two floating LNG production vessels, three gravity-based structures (GBSs) and three onshore storage tanks.

With respect to LNG as fuel, GTT said its order book had grown from seven units in the first half to 18 units at the end of September.

"With 40 orders for LNG carriers during the first nine months, of which 14 were in the third quarter, business activity has been particularly strong," said Philippe Berterottière, Chairman and Chief Executive.

"In addition, there were significant orders for GBSs and ethane carriers equipment. This demonstrates GTT's ability to participate in the entire liquefied gas value chain from large gas projects to importation and bunkering terminals," added the CEO.

"The inflow of orders over the last two years is beginning to bear fruit and revenue has increased substantially from one quarter to the next," explained Berterottière.

The CEO said that given the strong order book and ship construction schedules, he confirmed revenue and gross earnings outlooks for the full 2019 financial year.

These forecasts are between 260M euros and 280M euros for revenues and 160M euros to 170M euros for gross earnings.

GTT said its core business activity was at a particularly high level. All of the LNG carriers will be equipped with GTT's recent technologies, the Mark III Flexplus, the Mark III Flex and the No. 96 GW storage tanks. Deliveries are scheduled for between the end of 2020 and the end of 2022.

Among the business highlights, GTT noted its order for storage tanks for the Arctic II LNG project proposed for the Gydan Peninsula in northern Siberia by Russian natural gas company Novatek and its French, Chinese and Japanese partners.

The contract concerns the design, construction studies and technical assistance for the membrane containment systems of the LNG and ethane tanks which will be installed inside the three nearshore GBSs on which the project will be built.

"The first two GBS terminals will be equipped with two LNG tanks, each with a capacity of 114,500 cubic metres and an ethane tank of 980 cubic metres," said GTT.

"The third GBS terminal will be equipped with two LNG tanks of 114,500m cubic metres each," it added.

The GBS terminals, which will be anchored to the seabed, will consist of concrete caissons with membrane containment tanks using GTT's GST technology.

The units will be built in a dry dock at Novatek-Murmansk LLC in Russia. They will then be towed and installed in their final location.

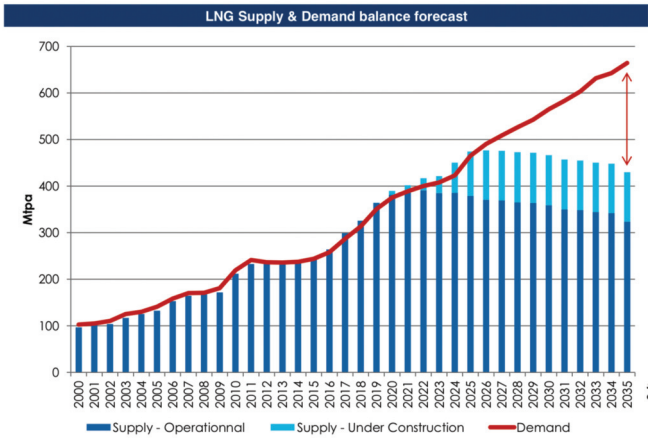
As regards LNG as fuel, GTT has also increased its orders for bunkering vessels.

During the first half of 2019, GTT received three orders for the design of tanks for LNG-powered merchant vessels and bunkering ships.

These included one from Sembcorp Marine shipyard for the design of tanks for an LNG bunker vessel of 12,000m cubic metres capacity on behalf of the shipowner Indah Singa Maritime, a subsidiary of Mitsui OSK Lines of Japan.

GTT also received an order from the Chinese shipyard Hudong-Zhonghua for the design of an LNG tank of 6,500 cubic metres capacity as part of the conversion of a very large capacity container ship for the German shipowner Hapag Lloyd. ■

LNG Supply & Demand: new capacity needed



GTT earnings presentation pointed to growth in industry

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Japanese shipments increase as costs fall

Japanese liquefied natural gas imports rebounded last month from an almost 20 percent drop the previous month to rise by 2.6 percent as Australian and spot volumes accounted for almost half of the nation's supplies and cargo costs declined 11.70 percent year-on-year.

LNG imports to Japan amounted to 6.43 million tonnes in September compared with 6.27MT in the same month a year ago, according to preliminary figures from the Ministry of Finance. This volume of deliveries amounts to around 90 cargoes.

According to LNG Journal estimates, Japan is on track to import around 78.03MT for all of 2019, if the volumes received in the remaining three months are in line with last year. That would be 4.82MT less than the 82.85MT imported in 2018 and the 83.63MT of cargoes delivered in 2017.

The cost of the September cargoes dropped to 341.03 billion yen ($3.14Bln) from September 2018 when the cost of shipments was 386.42Bln yen ($3.56Bln).

Cargo deliveries had fallen by 19.4 percent in August to 6.10MT versus 7.57MT in August 2018.

Cargoes of thermal coal were steady at 9.24MT, down 0.6 percent on the same month a year ago while six nuclear power plants were on line in September 2019 compared with over 50 on line before the 2011 Fukushima disaster.

The Ministry's data for September showed year-on-year fall in Middle East cargoes for a sixth successive month.

The September 2019 shipments from countries like Qatar, the United Arab Emirates and Oman totaled 1.12MT, down 12.5 percent from September 2018. ■

Dominican Republic LNG contract oversight is awarded to Tractebel

LNG Journal editor

AES Corp., the US power company and Caribbean LNG import terminal owner, has named Belgian engineering firm Tractebel as owner's engineer for the expansion of the existing LNG terminal near Santo Domingo in the Dominican Republic.

The Santo Domingo terminal has allowed the Dominican Republic to diversify its energy mix and reduce dependency on oil imports as well as offering a cleaner source of power generation.

Engie unit

Tractebel, a subsidiary of French utility and energy company Engie, also helped coordinate the development for AES of the Costa Norte LNG terminal near the entrance to the Panama Canal that started operations in Panama in 2017.

Tractebel said the Dominican Republic project consisted of constructing an additional LNG storage tank, more vaporization capacity and building two truck-loading bays.

"AES's approach is to drive multiple competitive front-end engineering and design aimed at selecting the most suitable one. Based on these studies, each engineering, procurement and construction bidder will propose its EPC price," explained Tractebel.

Caribbean nation's AES Andres facility at Punta Caucedo

Tractebel said its role was to support the AES Andres subsidiary during the development phase and until the EPC contractor is selected.

The Panama and Dominican Republic terminals are jointly creating an LNG hub in the region for small-scale distribution.

The AES Andres facility at Punta Caucedo in the Dominican Republic has been in operation since 2003, making it the region's longest-standing LNG importing nation.

Capacity at the AES Andres terminal is less than 2 million tonnes per annum, while the Costa Norte facility in Panama has around 1.5 MTPA of capacity.

"This new contract, awarded on the basis of successful collaboration Tractebel and AES had on their previous LNG project in Panama, demonstrates once more the confidence AES has in Tractebel, and its trust in Tractebel expertise," said Zech Christian, Tractebel senior project manager.

"The success of this phase is particularly important for Tractebel, as we aim to be awarded the next phase, owner's engineering during EPC execution," he added. ■

LNG operator Enagas sees jump in Spain's gas use to 10-year high

Enagas, the Spanish natural gas network owner and operator of LNG terminals, posted 2.3 percent higher nine-month net profits of 333.1 million euros ($371M) as demand for natural gas in Spain reached its highest level in 10 years.

"Regasification terminals and underground storage are at levels of use close to their technical maximum," said Enagas in its earnings report.

Enagas said that total demand for natural gas in Spain increased during the first nine months by 16.9 percent compared with the same period of 2018 and reached 294 terawatt hours of consumption.

"This is the highest cumulative figure recorded since 2009 and it is estimated that this trend will continue until the end of the year, with an expected increase in demand of around 14 percent at the end of 2019," the company added.

The owner of four LNG regasification plants in Spain and with stakes in two others in South America also operates 11,000 kilometres of high-pressure gas pipelines in Spain and 19 compressor stations.

Spanish LNG demand has been increasing as the winter season approaches with September deliveries amounting to around 30 cargoes.

The September intake was up 6 percent with additional cargoes booked for Barcelona, Cartagena and other Spanish terminals in October numbering around 23 deliveries so far.

Enagas has four domestic import terminals around Spain at Barcelona in the northeast, Cartagena in the southeast, Huelva in the southwest and Gijon in the northwest.

It also owns a 50 percent stake in the facility serving the northwest city of Bilbao. ■

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Bangladesh signs up Saudi Arabian investors for onshore terminal and gas-fired power plants

LNG Journal editor

Bangladesh is advancing with plans for a $3 billion liquefied natural gas onshore import terminal and related power plant developments backed by a leading Saudi Arabian power group.

Acwa Power, the Riyadh, Saudi Arabia-based participant in the water desalination and power generation industries, has signed an accord with Bangladesh to help develop LNG-based power plants and the terminal.

Saudi power group Acwa and Bangladeshis sign accord

Generation

As part of the agreement, Acwa will lead the development of 3,600 megawatts of gas-fired power plants with a total investment of around $2.5 billion.

The Saudis said that the project would consist of the power plants as well as an onshore regasification terminal with an expected additional investment of around $500 million.

Acwa added that the LNG facility could potentially be located in Maheshkhali in the Cox's Bazar district of Chittagong, or at an alternate location depending on the feasibility study.

Acwa Chairman Mohammed Abunayyan and Khaled Mahmood, Chairman of the Bangladesh Power Development Board, signed the accord for the terminal and the combined-cycle power plants using regasified LNG.

"As we continue to expand our global operations, we are proud to embark on this ambitious project with the Bangladesh government," said Paddy Padmanathan, Chief Executive Acwa Power.

"We have a long legacy of working collaboratively with leadership in growing economies to sustainably supply their power and water needs at low cost to accelerate their socio-economic and financial development," added Padmanathan.

"In line with government policies we will be contributing to the energy security of the country and ensuring the foundations of its success for generations to come," stated the CEO. Also present at the signing of the accord were Salman F Rahman, the Bangladesh Prime Minister's Adviser for Private Industry and Investment, and Nasrul Hamid Bipu, State Minister for Power, Energy and Mineral Resources.

Another witness to the signing was Abdulsalam Al Hazmi, Vice President of Performance and Business Development at the Saudi Aramco LNG Trading Unit, which could play a supply role.

Bangladesh currently has two LNG import facilities, both floating storage and regasification units.

The first FSRU can handle around 3.75 million tonnes per annum of LNG and was commissioned at Moheshkhali Island in August 2018 as the first Bangladesh import facility.

The Moheshkhali Island venture was co-developed by PetroBangla, the International Finance Corp., part of World Bank Group, and Excelerate Energy of the US, provider of the FSRU. ■

Oil Search sees ramp-up of Papua New Guinea plant after repairs as expansion stays on track

Oil Search, the Papua New Guinea energy company, said the PNG liquefied natural gas plant again posted high quarterly production, though suffered output disruption because of damage to the loading facility amid optimism for a final agreement before the end of 2019 on the LNG expansion project.

"Annualized gross PNG LNG production for the quarter averaged 8.3 million tonnes per annum, 20 percent above nameplate capacity, and the average production rate for the nine months to 30 September 2019 was 8.5 MTPA," said Oil Search.

"However, in August and September, it was necessary to reduce plant production rates for a short time when damage to one of the six mooring chains at the offshore liquids loading facility was detected," explained the Port Moresby-based company whose shares are traded on the Australian Securities Exchange.

"This prevented normal liquids loading procedures and consequently reduced ullage within the liquids storage system," it added.

"Due to the offshore loading issue, crude production from the Kutubu, Moran and Agogo fields was curtailed or shut-in in August and September, with priority access to available liquids storage given to PNG LNG condensate," stated Oil Search.

The company said that after mobilization of materials and equipment to the site, repairs to the damaged mooring chain were completed successfully in mid-October and normal loading operations have now resumed, with production ramping up.

"As a precaution, maintenance work on the other mooring chains at the facility has commenced," added Oil Search.

The Oil Search operations update also reported total revenue for the third quarter was US$361.1 million, 5 percent lower than the prior quarter, reflecting lower sales, weaker realized oil and condensate prices and the timing of LNG cargoes, with three cargoes on the water at the end of the period.

The company noted that in early September, the PNG Cabinet completed its review of the Papua LNG Gas Agreement, validating the agreement and taking forward the LNG expansion process with only the P'nyang Gas Agreement, to which Oil Search is party, now left to be finalized.

"Key legislative changes required under the agreement were passed by Parliament in mid-October," said Oil Search.

"Discussions regarding the P'nyang Gas Agreement recommenced late in the third quarter, with the Joint Venture and the PNG Government committed to its timely completion to ensure the proposed integrated three-train LNG development, underpinned by gas from the LNG joint ventures, can proceed into the front-end engineering and design (FEED) phase as soon as possible," it added. ■