LNG Unlimited

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Total posts sold earnings amid price drops and makes progress on LNG

Overall LNG sales for 2019 rose by 57 percent to 34.3 million tonnes

LNG Journal editor

CEO Patrick Pouyanné pleased with cashflow and projects

The French major Total has reported solid earnings in a lower-priced market place and reported progress on all liquefied natural gas project fronts from Russia to Africa and Australia.

Overall LNG sales for 2019 rose by 57 percent to 34.3 million tonnes from 21.8MT in 2018.

LNG prices

Fourth-quarter LNG sales increased 35 percent to 10.6MT versus 7.9MT in the prior-year quarter.

Total also reported an average Japan-Korea Marker LNG price down 42 percent year-on-year from $5.80 per million British thermal units for the fourth quarter compared with the same three months of 2018 when it was $9.90 per MMBtu.

"The Group had solid fourth-quarter results with cash flow of $7.4 billion, an increase of more than 20 percent compared to the fourth quarter of 2018, and adjusted net income was stable at $3.2Bln, despite a lower price environment," said Chairman and Chief Executive Patrick Pouyanné.

Total said it generated cash flow of $28.5 billion last year with income growth of $2.4Bln compared with 2018 and with positive contributions from all segments.

"This performance was achieved despite the drop in oil prices of 10 percent and European gas prices of 38 percent, or a price environment down on average by about 20 percent," added Pouyanné.

The group reported solid adjusted net operating income for the year of $11.8Bln, a decrease of 13 percent.

In the Upstream segment the French operator reported , start-ups and ramp-ups including Yamal LNG in Russia and Ichthys LNG in Australia, Egina in Nigeria and Kaombo in Angola.

These projects generated strong cash flow and fueled production growth of 9 percent for the year, with LNG growth of nearly 50 percent.

The company also recorded the start-up of the Cameron LNG plant in Louisiana under Sempra Energy.

The Exploration & Production segment increased cash flow to $18Bln, despite the deterioration of the environment, with Integrated Gas, Renewables and Power (IGRP) posting an increase in LNG sales of nearly 60 percent and cash flow of $3.7Bln.

The Downstream contributed stable cash flow of $6.6Bln, notably thanks to its non-cyclical activities and despite a decrease in refining and petrochemical margins to the order of 10 percent.

Net investments rose to $17.4Bln and reflected in particular the strategy to strengthen LNG and deep offshore, as shown by the acquisition of Mozambique LNG and the launching of Arctic LNG 2 in Russia and the Mero 2 project in Brazil.

More than one-third of the net investments were made in the IGRP segment, which leads the Group's low-carbon ambitions.

The CEO noted that Total entered the gas and renewables market in India in partnership with the Adani Group and will build a 800-megawatt solar power plant in Qatar.

> "This performance was achieved despite the drop in oil prices of 10 percent and European gas prices of 38 percent..."
>
> *- Patrick Pouyanné, Chairman and Chief Executive, Total*

UNLIMITED AGENDA

Peace In The Valley: Tellurian says all claims by Cheniere against Souki and Houston dropped

LNG Journal editor

Tellurian Inc., the developer of the Driftwood LNG plant in Louisiana, said that Cheniere Energy, the largest US exporter, had permanently dismissed all claims against Tellurian Chairman Charif Souki, the former Cheniere Chief Executive, and Tellurian Vice Chairman Martin Houston.

The claims against the Tellurian executives had initially been heard at the 61st District Court of Harris County in Texas.

Cheniere case discontinued against Houston and Souki

Four years

The dispute involved multiple claims and counterclaims stretching back to 2016 after former Cheniere CEO Souki was forced out of Cheniere the previous year by billionaire activist investor Carl Icahn.

Souki went on to co-found Tellurian, which is developing the proposed Driftwood plant in Louisiana and multiple pipelines.

The court case related to projects in Louisiana proposed by Cheniere and Parallax Enterprises, a predecessor entity to Tellurian that was a business partner of Cheniere.

Parallax was founded by Martin Houston, the former UK BG Group executive, and became involved in a business relationship with Cheniere.

"Although this frivolous lawsuit was clearly an attempt to disrupt the hard work and success we are having at Tellurian, it never distracted us from our focus on building Tellurian's global natural gas business, beginning with Driftwood LNG," said Souki.

Cheniere had accused Parallax of failing to pay back a $46 million loan for developing LNG projects that Cheniere said Tellurian would ultimately benefit from.

Tellurian argued that those efforts, the proposed Live Oak LNG and Louisiana LNG facilities, were separate from its own Driftwood LNG venture.

Souki was ousted from Cheniere followed disagreements over his expansion plans, including the Parallax projects.

Within months of leaving Cheniere, Souki announced the founding of Tellurian with Martin Houston.

Parallax was founded by the UK executive in late 2014 following discussions with the then-Cheniere CEO Souki about LNG projects.

Souki's Driftwood plant is proposed for the west bank of the Calcasieu River, south of Lake Charles, and will have output of just over 26 million tonnes per annum when completed in 2023.

This comprises five liquefaction Trains built in two phases and with each having output of 5.25 MTPA.

Tellurian has expectations of delivering free-on-board (FOB) cargoes to buyers at between $3.00 per MMBtu and $4.00 per MMBtu.

The associated 96-mille Driftwood Pipeline has received all its regulatory permits. The pipeline has Gulf Coast interconnects with Transco, TETCO, TGP and Trunkline.

Tellurian also signed an accord in September 2019 with the leading Indian LNG importer for the purchase of up to 5 MTPA from Driftwood, concurrent with an equity investment by the New Delhi-based company.

Three US projects proposed for the Texas Port of Brownsville face lawsuit from local officials

Three LNG export plants planned for the Texas Port of Brownsville and comprising multiple liquefaction Trains and around 37 million tonnes per annum of output are facing indirect legal challenges aimed at the leases awarded by the Brownsville Navigation District for the plant sites.

The projects are the Rio Grande venture of NextDecade Corp, Annova LNG backed by Chicago utility Exelon Corp. and Texas LNG, run by local entrepreneurs.

The City of Port Isabel, the mayor of Port Isabel and a city commissioner have filed suit against the Brownsville Navigation District over the lease agreements.

Mayor J.J. Zamora and Commissioner Martin Cantu are listed as plaintiffs in the lawsuit filed in Cameron County 445th state District Court.

The suit requests a preliminary injunction followed by a permanent injunction against construction and operation of LNG plants at the port.

The plaintiffs allege that the projects would have "a detrimental and negative impact upon the environment, including air, soil and water quality" for residents of Port Isabel and wildlife in and around Laguna Atascosa National Wildlife Refuge.

As an example, the plaintiffs cite Texas LNG, the smallest of the three proposed ventures, whose facility on 625 acres on the north bank of the Brownsville Ship Channel would be in "close proximity" to Port Isabel.

The two other proposed projects that have lease agreements with the BND, Annova LNG and Rio Grande LNG, are also mentioned in the case.

All three ventures have received permission from the Federal Energy Regulatory Commission to move forward with their projects but are awaiting final investment decisions.

The suit alleges that three LNG plants operating at the same time would have a "large impact" on Port Isabel and the local environment and wildlife.

Texas LNG, Annova LNG and the Rio Grande LNG project, as well as its associated Rio Bravo Pipeline, represent total investments of $38.75 billion in Cameron County and the Rio Grande Valley, as well as thousands of jobs.

The largest plant, the Rio Grande venture, will export around 27 MTPA of production and its associated Rio Bravo Pipeline will transport 4.5 billion cubic feet per day of feed-gas from the Agua Dulce natural gas hub.

Construction of the Rio Grande facility is expected to commence shortly after the FID and with commercial operations scheduled for late 2023 or early 2024.

The Annova project is expected to ship around 7 MTPA from its proposed liquefaction plant planned as part of the second wave US build-out by LNG developers.

Thailand's PTTEP posts profit and revenue rise

PTTEP of Thailand, the oil and gas producer and LNG stakeholder, said it was aiming to maximize the value of existing projects and was proceeding with the development of the Mozambican Area 1 project with its partners and the Algeria Hassi Bir Rekaizto venture to contribute to long-term growth.

The Bangkok-based company reported 2019 net profit of $1.56 billion, an increase of 40 percent from 2018, as sales volumes improved from projects such as the additional stakes purchased in the Bongkot field in the Gulf of Thailand.

PTTEP, whose official name is Exploration and Production Public Company Limited (PTTEP), forecasts an increase in sales volume of 11 percent in 2020 as it continued its efforts to secure Thailand's energy security.

Phongsthorn Thavisin, President and Chief Executive, said that the total revenues in 2019 jumped by 17 percent to $6.41Bln (equivalent to 198.82Bln Thai Baht), increasing from $5.45Bln (176.68Bln Baht) in 2018.

The results were helped by the acquisitions of assets from US company Murphy Oil in Malaysia.

"Consequently, the average sales volume last year reached 350,651 barrels of oil equivalent per day (boed) or a 15 percent increase from 305,522 boed in 2018," said the CEO.

In the LNG sector, PTTEP has an 8.5 percent stake in the Area 1 licence of the Rovuma Basin offshore Mozambique.

Part of the overall stake, about 26 percent, was transferred to French major Total from Anadarko Petroleum of the US as a side-deal to the Occidental Petroleum takeover of Anadarko.

■

Qatargas sends first cargo to India's newest import terminal

LNG Journal editor

Qatargas has supplied a liquefied natural gas commissioning cargo for India's newest receiving terminal at Mundra in the northwest of Gujarat state.

The shipment was delivered by the Q-Flex carrier "Murwab", with 216,000 cubic metres capacity, after being loaded in Ras Laffan in Qatar on January 17.

The Q-Flex carrier 'Murwab' delivered from Ras Laffan

Gujarat

The Mundra facility is co-owned by Gujarat State Petroleum Corp. and the Adani Group.

The terminal has been operationally ready since late in 2018 while commissioning has been delayed because of onshore pipeline requirements and the final agreement and completion of commercial operation document.

The Mundra Port terminal is north of Mumbai and is designed with two storage tanks and capacity of 5 million tonnes per annum, while being able to accommodate the largest carriers.

Indian Oil Corp. completed India's only East Coast terminal at Kamarajar Port early in 2019 and Qatargas also supplied the commissioning shipment in February 2019 for that facility.

India's four other operating import terminals are at Hazira, Dahej and Dabhol near Mumbai and at Kochi in the southwest state of Kerala.

The East Coast terminal at Kamarajar, formerly one of India's main coal ports and previously called Ennore, can handle around 5 MTPA for Indian Oil, a state-backed refiner and fuel distribution company that is also a shareholder in Petronet LNG.

The Kamarajar terminal is located 25 kilometres north of Chennai in the state of Tamil Nadu.

The monthly total of cargoes recently received at Indian terminals averaged about 30 shipments and will increase as more terminals are completed, especially on the East Coast.

Qatargas has established a strong partnership with India since July 1999 when it started supplying LNG to Petronet.

■

Japanese agency to change rules for LNG investments

A Japanese state agency is having its financing and aid rules changed so that companies from Japan can invest in more LNG import terminals in southeast Asia and in trans-shipment stations for Russian volumes.

Japan currently supports companies involved in LNG projects through investment and loan guarantees via a government-backed natural resource company called Japan Oil, Gas and Metals National Corp. (Jogmec).

However, Jogmec is limited to helping to finance upstream operations, such as natural gas exploration and production.

New legislation is being introduced in Tokyo to allow Jogmec to support investment in projects further downstream, such as LNG terminals in other countries so that they can import the fuel.

Transporting the fuel over long distance efficiently also requires LNG to be reloaded at trans-shipment facilities, the development of which will also be aided under the plan.

Global LNG demand is projected to double by 2040, according to the International Energy Agency.

Japan is currently the biggest importer with 77.32 million tonnes of LNG received in 2019, 6.7 percent down on the 82.85MT purchased in 2018. The second-largest importer is China with 61MT received in 2019.

The easing of Jogmec's aid for the construction of LNG terminals is expected to help Japan expand its LNG trading activities with more low-priced shipments from the US export expansion pointed at Asia.

Jogmec is likely to get involved with plans by Novatek, operator of the Yamal LNG plant and lead developer of the Arctic II LNG project, and Japanese shipping company Mitsui OSK Lines to cooperate on the construction of LNG trans-shipment stations on the Kamchatka Peninsula in the Russian Far East and near the Barents Sea port of Murmansk.

The proposed trans-shipment projects will secure additional LNG cargoes for Asia via the Northern Sea Route from the Yamal facility and the Arctic project planned for the Gydan Peninsula.

■

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NEWS NUDGES

Equinor income falls

Equinor, the Norwegian operator of the Hammerfest LNG plant and a main supplier of pipeline gas to Europe, posted a net loss of $230M versus a profit of $3.37Bln in the same quarter of 2018. For the full year, net income was $1.85Bln, down from $7.54Bln in 2018. “Record high production, reduced costs and continued strong capital discipline contributed to solid results in a quarter with lower commodity prices,” said the company.

Trump LNG signing

Indian importer Petronet LNG is expected to sign a firm supply agreement with Gulf Coast liquefaction plant developer Tellurian Inc. during the scheduled visit to India on February 24-25 of US President Donald Trump. The initial agreement between Houston-based Tellurian and Petronet for up to 5 million tonnes per annum of US LNG was signed during a visit to the Texan city in September 2019 by Indian Prime Minister Narendra Modi.

Ship charter rates drop

Shipping charter rates for LNG carriers in the spot market dropped further in the week as winter season deliveries slowed down, adding to the market glut. Rates were quoted at an average of between $63,000 per day to $67,000 per day West of Suez and $56,000 per day to $62,000 per day East of Suez for vessels of between 155,000-165,000 cubic metres capacity, according to various brokers. One-year time charters for vessels of between 155,000-160,000 cubic metres capacity were seen at around $70,000 per day.

GTT chosen by CMA CGM to provides LNG services

LNG Journal editor

Gaztransport and Technigaz (GTT), the French technology firm for designs of systems for the maritime transportation and storage of liquefied natural gas, has been chosen by Marseille-based shipping group CMA CGM to provide services for its LNG-powered container ships.

GTT said it would provide assistance for the commissioning, operation and maintenance of CMA CGM’s future 23,000 TFE (twenty-foot equivalent) LNG-powered container ships equipped with GTT membrane containment technologies.

Paris-based GTT noted that with 18,600 cubic metres capacity LNG tanks, these ships will be the largest container ships in the world to use LNG as fuel.

Bunkering vessels owned by French energy major Total and Mitsui Osk Lines of Japan will supply 300,000 tonnes per annum of LNG fuel to CMA CGM and its nine ultra-large newbuild containerships set to operate on the Europe-Asia trade route.

One of the nine ultra-large LNG-powered containerships

The GTT service package includes the training of crews of the CMA CGM fleet through the provision of the G-Sim training simulator, specially adapted to replicate the LNG operations of CMA CGM vessels.

“GTT will also provide on board technical assistance during the commissioning of LNG tanks and during the first bunkering operations,” explained the tanks designer.

It explained that, if necessary, CMA CGM may use a GTT service called “Hears” to obtain 24/7 technical assistance.

“Thanks to the data continuously collected on board, the GTT teams will be able to assist and advise CMA CGM teams as closely as possible,” said GTT.

“In addition, the analysis tools integrated in the connected version will allow a follow-up over time of the tanks and their insulation spaces,” it added.

Canadian regulator takes next step on Gazoduq plan

The Impact Assessment Agency of Canada (IAAC) has unveiled impact statement guidelines and a draft public participation plan for the Gazoduq pipeline project to unlock Western Canadian gas resources and supply an LNG export plant proposed for Québec.

Gazoduq is planning to transport feed-gas from Western Canada and GNL Québec will export it as LNG from Saguenay, a town located about 200 miles north of Quebec City on a tributary leading to the St Lawrence River.

Gazoduq itself has just submitted its Detailed Project Description to the IAAC for the proposed 780-kilometre pipeline, which will also have other customers.

This IAAC step, which is part of the planning phase of the federal regulatory process, will allow the regulator to conduct its own consultations on the administrative procedures.

“It will also give the public an opportunity to learn more about the federal regulatory process,” said the IAAC.

The IAAC indicated it would work in collaboration with the Canada Energy Regulator (CER) throughout the integrated assessment process.

Both Gazoduq and the LNG project company, GNL Québec, had previously filed preliminary documents with the former regulatory regime, the Canadian National Energy Board.

The NEB has been replaced by the new Canadian federal energy body, the IAAC, backed up by the Canada Energy Regulator.

Gazoduq, as the pipeline builder, will operate the transmission line from an inter-connection with the existing mainline near Ramore, Ontario, owned by Canada’s largest pipeline operator, TC Energy.

Gazoduq will bring feed-gas to the liquefaction plant in the French-speaking province to what will be one of its main customers, GNL Québec.

The natural gas pipeline is designed to transport around 51 million cubic metres (1.8 billion cubic feet) of natural gas per day.

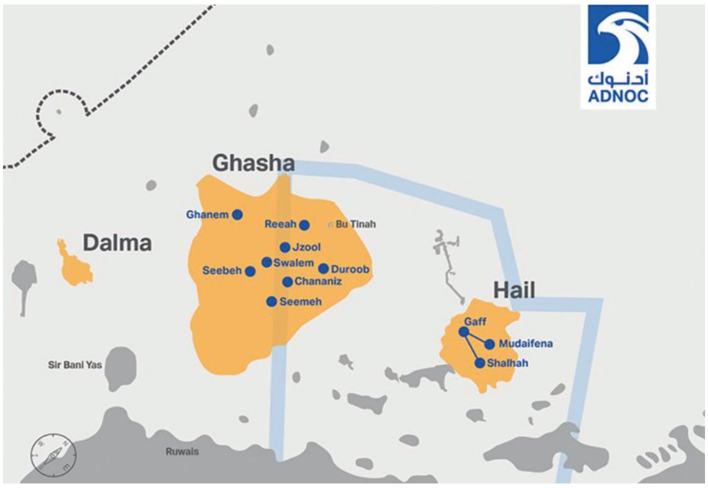
Gazoduq also recently completed the solicitation process for non-binding expressions of interest for transportation services on the pipeline.

KBR awarded project management contract for gas venture for LNG exporter Abu Dhabi

LNG Journal editor

KBR, the US engineering and LNG contractor, was awarded a major project management consultancy services contract for the Ghasha portfolio of gas projects by Abu Dhabi National Oil Company in the United Arab Emirates, the oldest LNG producer in the Middle East.

The Ghasha mega-project for sour gas is located on the north-west shore of Abu Dhabi and Adnoc is developing the project, estimated to have a daily production capacity of around 1 billion cubic feet of gas.



Ghasha mega-project for gas is located on northwest shore

Potential

The Ghasha production has the potential to meet about 20 percent of the UAE's gas demand by around the second half of the decade.

In addition, more than 120,000 barrels per day of oil and high-value condensates are expected to be produced when the project is on stream.

The Ghasha concession has a validity of 40 years and comprises three gas and condensate fields: Hail, Ghasha and Dalma.

Under the terms of the KBR contract, the Houston-based company will act as the main PMC contractor responsible for managing the successful engineering, procurement and construction (EPC) contractors for packages A & B of the Dalma Gas Development Project, Packages 1-5 of the Hail & Ghasha Development Project, the Hail & Ghasha Islands Project as well as the Deep Gas Project.

"This work is expected to be performed over four years with an optional extension for two more years," said KBR, whose other main contract in the Arab Gulf region is at Oman LNG.

The UAE region also holds the oil, gas and condensate fields Nasr, Sarb and Mubarraz.

Adnoc has a 60 percent stake in the concession. The second-largest shareholder is Italian energy company Eni with 25 percent.

"We deeply appreciate the tremendous amount of trust that Adnoc has placed in KBR to project-manage such a significant share of this strategic concession program," said Stuart Bradie, KBR President and Chief Executive.

"This award highlights Adnoc's confidence in KBR's reputation as the industry leader in the provision of value-added PMC services for similar mega gas-field development projects," added Bradie.

"We look forward to continuing our long-term relationship with Adnoc and to demonstrating once again our world-class ability to manage large-scale, complex projects such as this on time, within budget, but most of all with a strict safety culture," stated Bradie.

"We are confident that the Ghasha concession project will significantly boost in-country value. As always, KBR remains fully committed to act as one of Adnoc's strategic partners to achieve the targeted objectives," he said.

Adnoc's growth strategy focuses on unlocking and extracting maximum value from the available gas reserves in Abu Dhabi.

It also aims to achieve gas self-sufficiency and transform the nation into a net exporter of gas.

Adnoc proposes to create an ultra-sour gas hub in the region with the addition of Ghasha concession fields to the existing Shah Arab reservoir.

The UAE is the oldest LNG producer in the Middle East from its Das Island plant offshore Abu Dhabi consisting of three Trains with capacity of around 5.5 million tonnes of LNG per annum.

Adnoc recently confirmed new discoveries of gas in place totaling 15 trillion cubic feet and intends to continue LNG production for 40 more years and to increase its discovered resources. ■

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Eni and new LNG importer Bahrain sign agreement

Italian energy company Eni, with recent natural gas discoveries in nations such as Mozambique and Egypt, has signed an accord with the Gulf kingdom of Bahrain covering issues like LNG supply and exploration.

The deal was signed between Khalifa bin Ahmed Al Khalifa, Minister for Oil for Bahrain, and Eni Chief Executive Claudio Descalzi.

"The agreement will enhance collaboration in the energy sector, by facilitating the joint assessment and launch of new initiatives in areas of mutual interest, including renewable energy, LNG supply and exploration," said Eni.

"In the LNG sector, the collaboration will target a more sustainable and efficient energy mix to meet Bahrain's future energy needs," it added.

Minister Al Khalifa said Bahrain was delighted to be able to share Eni's unique know-how and expertise.

"This accord will allow for further discussion on collaboration between Tatweer Petroleum, the Bahrain field development company, and Eni, including the sharing of experience, expertise, and support on renewable energy, LNG supply, and exploration activities," added Al Khalifa.

Eni's operations in the Middle East have continued to grow over the last few years.

Notably, Eni began operating in Bahrain in 2019, with one offshore exploration license.

Bahrain has also just started commercial operations at its floating LNG import facility near Khalifa Bin Salman Port with partners including Teekay LNG, while pursuing exploration and production activities to find more gas.

Polish shipyard builds expertise in Canadian LNG-fueled ferries

LNG Journal editor

One of the newbuild ferries in service on Canadian routes

Canadian shipping line, British Columbia Ferries, has awarded another newbuild contract to the Polish Remontowa Shipbuilding company in the Baltic port of Gdansk for a liquefied natural gas-powered vessel.

The newbuild is scheduled to be delivered in 2022 and go into service in the Southern Gulf Islands located in the Strait of Georgia between Vancouver Island and the mainland of BC.

Salish Class

This vessel will be identical to the built by the Polish yard for BC Ferries in 2016.

The 107-metre Salish Class vessel will have the capacity to carry at least 138 vehicles and up to 600 passengers and crew.

It will allow for the retirement of the "Mayne Queen", a diesel-fuelled vessel currently operating on the route.

The ship will be powered by three Wartsila engines and electrically propelled by Schottel thrusters at each end, driven by an efficient gas-electric power plant.

"Our Clean Futures Plan is our path to replace diesel fuels with cleaner energy options," said the company.

"While this cannot be achieved in a single step, we are continually seeking energy sources that offer a cleaner, lower carbon-intensity option to displace non-renewable diesel," it added.

"In our move towards a sustainable future, adopting LNG is one way to reduce our impact on the environment today," stated BC Ferries.

The agreement with Remontowa is a design-build, fixed-priced contract that provides the company with substantial guarantees related to delivery dates, performance criteria, cost certainty and quality construction.

"The use of natural gas as the primary fuel that reduces GHG emissions by 15 to 25 percent, reduces sulphur oxides by over 85 per cent, reduces nitrogen oxides by over 50 percent and nearly eliminates particulate matter," said BC Ferries.

The total project budget, which includes financing and project management costs, is around C$92.3 million (US$70M).

European class society DNG GL plans launch of online bunkering

As the adoption of LNG as a ship fuel continues to speed up, European maritime classification society DNV GL plans to commercially launch in April 2020 a new online bunkering platform to take operators from the order process through to delivery.

The DNV GL tool is called FuelBoss and offers ship owners, operators and suppliers a single common platform for nomination, scheduling, spot inquiries and business intelligence.

"LNG suppliers Gasum, Cryo Shipping and Nauticor are amongst the confirmed pilot customers and have supported the development with their expertise and domain knowledge," said DNV GL.

"LNG has arrived in shipping," stated the class society with offices in Oslo as well as Hamburg in Germany and other cities.

"After a long wait, the number of vessels trading will more than double in the next two years," explained DNV GL.

Analysts said that as the fleet grows from vessels that primarily work fixed routes to those in more general operation, the complexities of LNG bunkering and planning need to adapt to these changing patterns.

"The idea behind FuelBoss is to accelerate the uptake of LNG in the maritime industry by providing suppliers with a highly efficient tool for managing all their customers and day to day operations, while offering ship operators a common interface for interacting with LNG suppliers ," said Trond Hodne, Senior Vice President at DNV GL Maritime.

"FuelBoss will standardize and simplify daily work processes and enable the LNG fuel industry to reap the benefits of digitalization," added Hodne.

"At the moment, both the interest in and the number of vessels using LNG is growing rapidly, but the bunkering picture is still fragmented. Delivery costs can be a significant part of the delivered LNG price, so optimizing the supply chain is essential," he stated.

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McDermott wins contract in LNG-producing nation Trinidad despite corporate troubles

LNG Journal editor

McDermott International, the US energy and LNG engineering company, was awarded a large contract by Anglo-Australian commodities and energy firm BHP for subsea work on the Ruby Project, offshore the LNG producing nation Trinidad and Tobago.

McDermott, which is currently undergoing a corporate overhaul under Chapter 11 bankruptcy protection, will provide subsea umbilicals, risers and flowlines (SURF), transportation and installation, as well as the pre-commissioning of one jacket and topsides for the Ruby venture.

McDermott's Derrick Lay Vessel (DLV) 2000 to be used

Field details

The Ruby Field is in the Block 3 (a) development area of Trinidad, about 28 miles (45 kilometres) off the northeast coast.

The field has estimated recoverable resources of 13.2 million barrels of oil and 274 billion cubic feet of natural gas.

First production is expected within a year and peak output is expected to be about 16,000 barrels of oil per day and around 80 million standard cubic feet per day of natural gas.

"We are pleased to support BHP in this new contract that continues to build on our successful track record in Trinidad ,"said Mark Coscio, Senior Vice President, North, Central and South America.

"The combination of heavy lift and pipelay capabilities of McDermott's Derrick Lay Vessel (DLV) 2000 are best suited for this project as it can efficiently transport and install both the flowlines and platform," added Coscio.

McDermott successfully executed a similar installation scope for the BP Trinidad & Tobago (BPTT) Angelin project last year.

It also was awarded a contract in January of 2019 by BPTT for the engineering, procurement and construction of the Cassia Compression Platform, located 35 miles off the coast of Trinidad.

BHP, as the operator, holds a 68.46 percent interest and Heritage Petroleum and the National Gas Company of Trinidad and Tobago (NGC) hold 20.13 percent and 11.41 percent respectively.

Engineering and project management of the project will be performed in Houston with engineering support from McDermott's Mexico City office. McDermott's DLV 2000 is scheduled to transport and install the flowlines and platform.

The project will begin immediately with completion expected in August 2020.

Despite its corporate troubles, McDermott is involved in some of the world's leading LNG construction projects, including several on the US Gulf Coast and the North Field Expansion in Qatar. ■

BP and Reliance say Indian projects set for first gas in mid-2020 to supplement LNG imports

BP of the UK and one of India's largest conglomerates, Reliance Industries, are on track for first gas from mid-2020 from projects developed to open up new Indian production when the nation is also increasing its LNG imports.

The RIL-BP joint venture has committed an additional $5 billion of investments towards monetizing about 3 trillion cubic feet equivalent of natural gas, or 500 million barrels of oil equivalent, from reserves in three projects.

The projects are named R cluster, Satellite cluster and the MJ fields.

"These projects will utilize the existing gas production infrastructure. Further, this infrastructure can act as a hub for development of any discovery from contiguous areas," said the BP-RIL partnership.

BP and Reliance sanctioned the projects in natural gas fields in the Krishna Godavari Dhirubhai offshore the East Coast of India.

India's Krishna-Godavari Basin covers more than 19,000 square miles offshore the state of Andhra Pradesh in the Bay of Bengal.

The KG-D6 block was Reliance's first offshore gas field development and its first underwater discovery. It was also India's largest deposit of natural gas when first found in 2002.

"The first-gas from these fields is expected in mid-2020," they stated.

"The peak production from these three fields is expected to reach 1 BCFe per day which is about 15 percent of envisaged Indian demand," they explained.

The RIL-BP joint venture also confirmed that it had completed the safe cessation of production in a planned manner, from the D1 D3 field in Block KG D6, also off the East Coast.

India consumes more than 5 billion cubic feet a day of natural gas and aspires to double gas consumption after 2022.

The offshore gas supplies will be in addition to LNG imports which in December 2019 surged for a ninth month in the current fiscal year as more volumes were imported at a lower cost from countries such as Qatar, the US, Australia and West African nations.

LNG imports for December jumped by 22.7 percent to 2.08 million tonnes compared with the 1.70MT received in December 2018.

The main operating terminals on India's West Coast are at Dahej, Hazira and Dabhol, near Mumbai. The newest terminal at Mundra is also now operational.

There is also the Kochi facility in the southwest state of Kerala and one East Coast terminal at Kamarajar, 25 kilometres north of Chennai Port in Tamil Nadu.

India imports about 250 cargoes a year, mainly from Qatar, the US, Russia Australia and Africa.

The import figures also showed that December LNG imports cost India around $800M during the month, less than the $900M spent in December 2018.

The cost of the fuel from April to December 2019 was about $7.1Bln versus $8.0 Bln in the year-ago period.

India's current monthly LNG requirements for the regasification network is around 30 shipments. ■