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Four pillars of BP strategy need LNG and gas success to stand up

CEO Dudley pins hopes on African FLNG and natural gas projects in Indonesia and Egypt
Our Europe editor

BP Chief Executive Bob Dudley said the first pillar of the UK major's strategy recognises that oil and gas will be important for decades as he listed vital projects he is pressing ahead with, including a floating LNG venture to be developed offshore West Africa and other LNG and gas ventures in Indonesia and Egypt.

"As a result the economics of the past are changing," Dudley told the BP annual shareholder meeting in London.

Purpose

"Our fundamental purpose has always been to help power economic growth and raise living standards, but we need to do that while helping to drive the transition to a lower carbon world," said the CEO.

He said BP's updated strategy had four pillars leading to the efficient delivery of heat, light and mobility as the economic and environmental circumstances change over the next five to 10 years.

Dudley said BP already had a portfolio that gives it options for higher margins and lower-cost production of natural gas and oil.

"The cleaner-burning properties of natural gas mean it is going to be increasingly important as an energy source and we are already shifting our portfolio further towards gas," he told the meeting.

"We formed a new partnership with Kosmos Energy to develop prolific gas discoveries off the coasts of Mauritania and Senegal



BP CEO: 'Already shifting our portfolio further towards gas'

in West Africa," explained Dudley, referring to the plan to develop two floating LNG hubs with Dallas-based Kosmos.

"Just last week we announced a huge new discovery in this province," added Dudley.

The BP discovery was at the Yakaar-1 well located in waters 95 kilometres northwest of the Senegalese capital Dakar.

BP and Kosmos said the Yakaar discovery, coupled with the earlier Teranga discovery, underpinned the prospects for a further LNG production system in the basin.

Dudley also told the BP investors that it was pressing ahead with the expansion of major LNG and gas projects in Tangguh in Indonesia and Khazzan in Oman, as well as Egypt.

"We bought a share of the giant Zohr gas field in the Mediterranean, adding to our strong position in Egypt," he added.

"The second pillar of the strategy is our Downstream, and you've already heard me talk about its increasing competitiveness," he said, listing advanced fuels for cars, trucks and planes.

Dudley said the third pillar of the strategy would see BP advancing its low-carbon activities right

across the business. "We already have a head start with a 20-year track record in renewables, having developed two great businesses in wind power and biofuels," the CEO said.

Dudley said the fourth pillar was the continuation of activities to simplify and modernize BP from top to bottom, making sure it has the right structures and organization.

"We set out in 2017 with plans to deliver on seven major projects, six of which are gas projects, supporting that shift to gas in the portfolio," he said.

"I was just recently in Egypt to celebrate the successful start-up of the West Nile Delta gas project where we brought that project in on budget, eight months ahead of schedule and with production rates 20 percent higher than planned," he said.

"The President of Egypt refers to it as a 'national mega-project for Egypt', putting thousands of people to work," he explained.

"In addition to these seven projects we have another nine on track for start-up from 2018 onwards, with construction on average, ahead of schedule and 15 percent under budget," said Dudley.

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Oregon's Jordan Cove venture gains momentum from industry backing in DC and Veresen merger

Our North America editor in New York

Jordan Cove LNG project, the liquefaction and export venture for the northwest of the US being carried forward by two merging Canadian companies, has joined the Washington DC-based industry group, the Center of Liquefied Natural Gas for support in the regulatory process.

The CLNG said it looked forward to having Jordan Cove as a member as it develops "the premier energy center on the West Coast" at Coos Bay, near the Canadian border.

Awareness

Jordan Cove has faced opposition from environmental groups in Oregon and the CLNG said it was keen to "raise awareness of the many uses of LNG, to educate the public on the successes of LNG" and to bring the fuel safely to market.

"CLNG welcomes Jordan Cove



Plant location in Coos Bay near an active sea port

LNG and believes this addition displays how vibrant the future is, not just for our organization, but the industry at large," said Charlie Riedl, Executive Director of CLNG.

"CLNG's membership is diverse, effective, and growing, much like the US and global LNG market," Riedl stated.

The Chief Executive of the Jordan Cove project is Betsy Spomer, a former senior executive of BG Group of the UK, which helped establish LNG in the US Gulf Coast at the Lake Charles terminal.

"We're delighted to be joining the Center for LNG and share CLNG's commitment to improved

understanding of LNG and public policies advancing the use of LNG," said Spomer.

"Enlisting CLNG's expertise and experience will help to reinforce our efforts to move the Jordan Cove LNG facility at Coos Bay forward," she stated.

Jordan Cove's development was led until recently solely by Canadian energy company Veresen Inc, though Veresen is now in the process of being taken over by Canadian peer Pembina Pipeline Corp. in a transaction valued at US\$4.3 billion.

Veresen and Pembina, both based in the city of Calgary in the

Canadian province of Alberta, said their transaction is expected to bolster the delivery of their existing strategy and portfolio of projects.

The Jordan Cove LNG venture is one of those projects, though it is being temporarily held up by a lack of a quorum currently at the US Federal Energy Regulatory Commission.

The FERC rejected the Jordan Cove venture in 2016, ruling that it lacked market support. However, since then the project has received backing from LNG buyers in Japan and has applied to re-enter the permitting process.

Veresen commented on the Pembina merger and the delayed Jordan Cove LNG venture in its merger statement.

Veresen explained that it had entered into an agreement with Pembina, under which Pembina would acquire all the issued and outstanding common shares of Veresen.

South Korea and Jordan favoured for US LNG cargoes at lower price as China and Japan missed

Cheniere Energy's Sabine Pass LNG export plant in Louisiana sent out three fewer cargoes compared with the record 16 shipments logged in the previous month, according to the latest data showing US deliveries to nine different countries at lower prices, including three to the Middle East and one to Thailand.

The latest LNG export report from the US Department of Energy showed that during March 2017 the shipments from Sabine Pass were delivered to a number of smaller nations in Asia and the Middle East.

Of the 13 shipments lifted from the Louisiana facility, three cargoes were delivered to Mexico, two to the Kingdom of Jordan, two to South Korea and one each to Chile, Kuwait, Pakistan, the Dominican Republic and Turkey.

However, there were no deliveries during the month to previous recipients such as Japan, China and India, while no shipment was sent in March to Western Europe.

Prices were much lower in March compared with February at between 3.02 per million British thermal units and \$6.02 per MMBtu versus a range from \$3.90 per MMBtu to \$7.05 per MMBtu during the previous month.

In the 12 months up until to the end of March 2017 from February of 2016, the largest recipient of US LNG has been Mexico with 21 shipments followed by Chile with 12 and China with 10.

The Kingdom of Jordan, which also recently began receiving natural gas pipeline supplies from Israel, is fourth on the list of recipients of Sabine Pass cargoes with eight shipments made since 2016.

The Sabine Pass plant now has three liquefaction Trains on stream, each with nameplate capacity of 4.5 million tonnes per annum.

The DoE figures also showed that five cargoes of US LNG were exported in ISO container tanks from the Hialeah facility near Medley in Florida, via the port of Fort Lauderdale, to the Caribbean island of Barbados.

Each of the ISO container shipments to Barbados were priced at \$10 per MMBtu. The exporter was American LNG Marketing.

Details of Sabine Pass March 2017 shipments in chronological order, including country destination, vessel, volume (given as thousand cubic feet [mcf] of natural gas) and cost at export point: South Korea "Gaslog Gibraltar" 3,583,966 \$3.02;

Mexico "Cool Voyager" 3,404,694 \$5.10;
Jordan "Maran Gas Apollonia" 3,358,596 \$3.02
Jordan "Golar Kelvin" 3,296,471 \$5.51;
Pakistan "Gaslog Skagen" 3,165,927 \$3.02
South Korea "Clean Ocean" 3,457,554 \$4.34
Turkey "Oak Spirit" 3,520,905 \$4.42
Dominican Republic "GDF Suez Point Fortin" 2,933,786 \$5.37
Thailand "Methane Alison Victoria" 3,112,643 \$3.02
Mexico "Creole Spirit" 3,707,229 \$4.54
Mexico "Rioja Knutsen" 3,615,896 \$5.51
Kuwait "Valencia Knutsen" 3,360,169 \$3.02
Chile "Gallina" 2,951,103 \$6.02

PNG expansion plans boosted by high quality shown during Muruk drilling

Australian company Santos, a stakeholder in three Asia-Pacific liquefied natural gas production plants, said it received further positive results from the Muruk 1 gas exploration well being drilled in the Papua New Guinea Highlands to help underpin PNG LNG plant expansion.

"Well logs and pressure data have confirmed that the entire Toro reservoir section is gas saturated," stated Santos.

The company explained that the Toro Sandstone interval in the Muruk side-track is similar to the "excellent, high-quality reservoir" penetrated in the original wellbore.

The Muruk 1 gas discovery was first announced in December 2016 and an additional side-track has been successfully drilled through the Toro reservoir objective to the southwest of the gas discovery.

"After cementing the 7-inch liner at 3,921 metres, Muruk side-track penetrated the top Toro at 3,968 metres and was drilled to a depth of 4,025 metres.

"Two cores were cut and the well was then deepened to 4,130 metres, to enable a full suite of logs and pressure data to be acquired," added Santos.

"The data acquired from logging, cores and pressure samples is now being evaluated. Subject to Joint Venture approval, a production test will be undertaken, to assess the deliverability and potential flow rates from the Toro," said Santos.

"The Muruk drilling programme confirms the discovery of a potentially significant new gas field, 21 kilometres north west of the Hides production facilities," it added.

Inpex CEO focuses on expansion plan in Australia rather than delay

Our Asia-Pacific editor

Inpex Chief Executive Toshiaki Kitamura acknowledged that the Japanese company's Ichthys liquefied natural gas project near Darwin in Australia's Northern Territory was behind schedule by several months and the shipping of the first LNG cargo could take place by the end of 2017 or early 2018.

Kitamura also said in an address to analysts that Ichthys LNG, being developed with French energy company Total, was likely to be expanded using additional liquefaction Trains constructed near the Bladin Point site.

Disputes

The latest delays have been caused by several issues, including wage and revenue disputes involving a local construction company working on the project which led to delays in building storage tanks and power facilities.

Delays in the completion of the natural gas fields offshore north-west Australia also added to the schedule slippage, as did the later



Kitamura: 'We have interests held in 14 exploration blocks'

completion by Daewoo Shipbuilding & Marine Engineering of the Central Processing Facility (CPF) that is still being towed to the site over the Ichthys field.

Inpex aims to bring liquefaction equipment on stream later this year and further delays could add to the final costs, currently running at \$37 billion.

"LNG tanks are also reaching the final stages of construction," said Kitamura.

"We will continue with our work, mainly focusing on commissioning work for onshore and offshore facilities," he added.

When completed by the main contractors, the JKC consortium comprising Japanese engineering groups JGC and Chiyoda and US engineering company KBR, the liquefaction facility will have two Trains with nameplate output of just short of 9 million tonnes per annum.

"Thereafter, the Ichthys LNG project will begin production of condensate, LNG and LPG in sequence during the current fiscal year," said the Inpex CEO without giving a specific date in the fiscal-year window between now and early 2018.

Gorgon Train is offline until June

Chevron Corp., the operator of the Gorgon LNG plant on Barrow Island in Western Australia, said one of its three Trains has been shut until mid-June because of a technical fault as its newest Wheatstone venture continues with its commissioning process.

Gorgon is Australia's newest liquefaction and export plant and has been shipping cargoes for just over a year, while another Chevron-run facility, Wheatstone LNG, will be coming on stream in a matter of weeks and taking Australia closer to the position of the world's No.1 LNG exporter.

Chevron said the processing Train 1 at Gorgon would be closed for about four weeks due to a problem with a "flow measurement device" at the plant where

nameplate production is 15.6 million tonnes per annum.

It is the second time in six months that Train 1 has been closed for engineering investigations. Production stopped in November 2016 to "address some performance variations" and was restarted in January.

The Gorgon plant Train 3 only started up in March 2017 and that landmark coincided with a scheduled temporary shutdown of Train 2 for planned work to improve its reliability.

Most LNG production plants suffer output stoppages in the first 18 months or so and are often temporarily shut as part of the medium-term ramp-up process to make sure operations are running smoothly and safely.

"Train 1 is expected to be

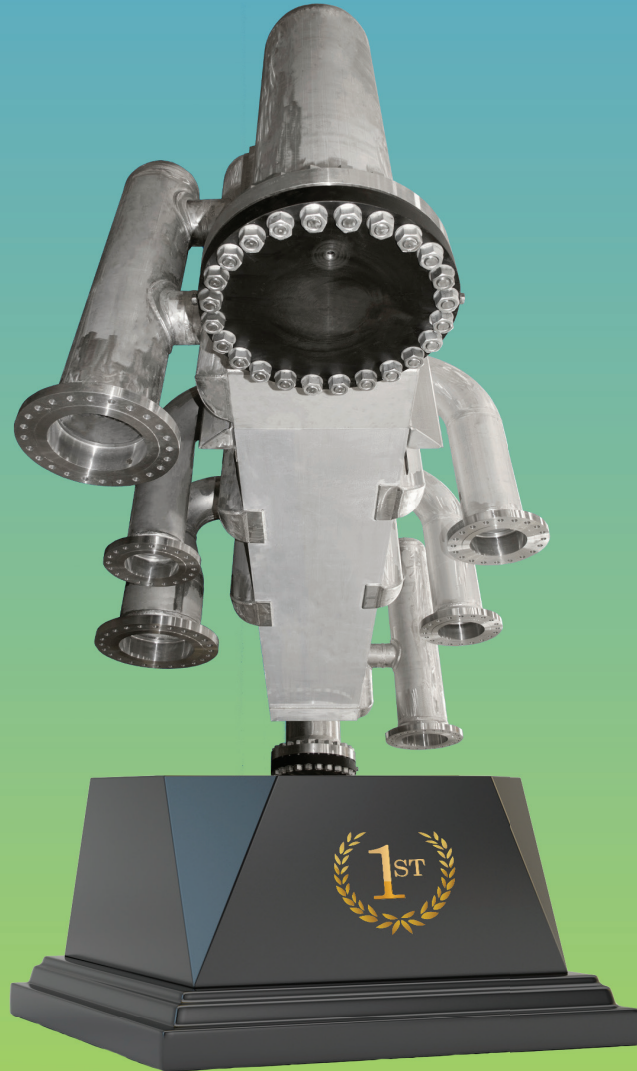
down approximately one month and we will take this opportunity to perform other routine maintenance. Trains 2 and 3 are running normally and we are continuing to ship cargoes," said Chevron.

The main shareholder in Gorgon is Chevron with just over 47 percent, while Royal Dutch Shell and ExxonMobil each have a 25 percent stake.

Chevron is also nearing the completion of its Wheatstone LNG project and a domestic gas plant near Onslow, in the Pilbara region of Western Australia.

Australian energy company, Woodside Petroleum, Chevron's main partner in the Wheatstone venture, said the new facility was on track to start soon.

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NEWS NUDGES

CB&I CEO to retire

CB&I, the US energy and LNG engineering company, said Philip K. Asherman would be retiring, aged 66, from his positions as President and Chief Executive from July 1 and would be replaced by Patrick K. Mullen. "CB&I's Supervisory Board is grateful for Phil's service and congratulates him on his nearly 12 years of leadership of what has become one of the premier energy infrastructure companies in the world," said L. Richard Flury, Non-Executive Chairman of the CB&I Supervisory Board. New CEO Mullen, aged 52, was named Chief Operating Officer in 2016 after previously serving as Executive Vice President and President of CB&I's Engineering and Construction unit where he was responsible for worldwide operations.

Ever cleaner LNG plan

Woodside Petroleum, the major Australian LNG producer, has signed a seven-year contract with a company called Contract Resources to use its planned facility in Karratha, Western Australia, to process spent catalysts and hazardous waste by-products from LNG production and the oil and gas stream process. The Contract Resources secure storage, processing and purification plant will be the first of its kind in Australia and construction is expected to commence shortly.

UK's gas network profit

National Grid, the UK utility and owner of the Grain LNG import terminal southeast of London, said its annual operating profit from UK Gas Transmission increased 5 percent to 511 million pounds (\$662M). "UK Gas Transmission delivered a solid performance," the company said.

LNG plant builder Chiyoda posts annual loss because of subsea unit

Our Asia-Pacific editor

Chiyoda Corp. the Japanese energy engineering company working on liquefaction projects such as Yamal LNG in Russia and Cameron LNG in Louisiana, recorded an annual loss of more than \$360 million as it installed a new management team to recover from problems at a subsea market subsidiary.

The Yokohama-based company posted a loss of 41.1 billion yen (\$361.4 million) versus a profit of 3.4Bln yen (\$30.7 million) for the fiscal year ended in March 2017.

Revenues steady

Annual revenues held up amid the subsea losses, though came in 1.3 percent lower than the previous fiscal year at 603.7Bln yen (\$5.30Bln).

"Although demand for energy grows steadily in the mid-term to the long-term with rising populations, economic development etc., the business environment in the next fiscal year will be still tough due to over-supply of LNG in the short term and a delay in the oil price recovery," said Chiyoda.

Chiyoda is currently working on LNG production projects in the ex-



One of Chiyoda's projects is Yamal LNG in Arctic Russia

pansion at Tangguh in Indonesia, the Yamal plant in Russia and two export ventures in the US, as well as Ichthys LNG in Australia.

It is also carried out pre-construction work for LNG in the south-east African nation of Mozambique.

"We will concentrate on our five on-going projects and to pursue favorable projects in the US, Russia and East Africa, with the anticipated launch after 2019 of new emerging business fields in the gas value chain such as FLNG and small-scale LNG," stated Chiyoda.

Chiyoda said it received new orders worth 351.8 billion yen (\$3.09Bln), down 12 percent on the 406.3Bln yen (\$3.57Bln) of orders won in the previous year.

Orders in the LNG and gas related industry amounted to 197.1Bln yen versus 166.6Bln in

2016. Chiyoda said most of these contracts related to a rise in domestic Japanese orders and the new liquefaction Train at the Tangguh LNG plant, operated by BP of the UK.

The company blamed its losses on the problems at Emas Chiyoda Subsea. The venture was established in late 2015 as a procurement and construction service provider in the form of a 50-50 joint venture between Singapore-based Ezra Holdings, the offshore contractor, and Chiyoda.

Having thoroughly re-valued the subsea business, the Chiyoda group recorded non-operating expenses and extraordinary losses of \$355M in the fiscal third-quarter. This then led to a management overhaul.

Japanese spot cargo prices were still higher in April than a year ago

Japanese government figures show that the average delivered price of spot liquefied natural gas shipments arriving in Japan was higher at an average \$5.90 per million British thermal units in April compared with \$5.80 per MMBtu in April 2016.

The preliminary average April 2017 contract-based price was also up compared with a year ago at \$5.70 per MMBtu versus \$4.20 per MMBtu in April 2016.

However, compared with the previous month the spot cargo prices were down.

The March 2017 spot price con-

tracted but not yet delivered had been \$6.20 per MMBtu versus \$8.50 MMBtu the previous month.

The spot cargo numbers come from the commerce division of the Japanese Ministry of Economy, Trade and Industry and are only issued if a minimum number of two trades are recorded.

The ministry emphasizes that "spot LNG" refers to fuel traded on a cargo-to-cargo basis and does not mean shipments under contracts on a short-term, medium-term or long-term basis. The statistical accounting of the spot prices started in March 2014.

"Subjects of these statistics are companies which are end-consumers of spot LNG. In order to avoid double counting, companies that mediate transactions (for example trading companies) are excluded from subjects of these statistics," the Ministry noted.

Overall shipments to Japan, last given for the month of March, amounted to 8.14 million tonnes, the same as in the March 2016.

The shipments were underpinned by Australian shipments and spot and short-term contract volumes.

Indonesia formalizes cargo accord for Tangguh LNG plant expansion to benefit domestic market

Our Asia-Pacific editor

BP has signed a final sales agreement to supply Indonesian state power company Perusahaan Listrik Negara (PLN) with a total of around 250 cargoes for 15 years from the new liquefaction Train planned at the Tangguh LNG plant operated in eastern Indonesia by the UK company.

The Sales and Purchase Agreement was signed at the Indonesian Petroleum Association convention and exhibition in Jakarta by executives of both companies and watched by Indonesian officials.

Third Train

BP had signed a preliminary accord with PLN in April 2016 to supply the volumes for domestic consumption at generating plants from the third Train being developed at the Tangguh LNG facility.



Facility in east of country will supply around 250 cargoes

Under the terms of the agreement, BP will supply PLN with 16 cargoes per annum from its portfolio between 2018 and 2020 and then until 2033 from the Tangguh third Train with its 3.8 million tonnes per annum of capacity, adding to the 7.8 MTPA being produced now.

The onshore front-end engi-

neering and design contract for the Tangguh third Train was the subject of competing bids for the LNG Train, an additional jetty and associated infrastructure.

The offshore phase of the venture includes two production platforms and 13 new natural gas wells.

The engineering, procurement and construction contract was

awarded in August 2016 to a consortium comprising Indonesian companies Tripatra Engineering & Construction and Suluh Ardhi Engineering as well as Japan's Chiyoda Corp. (onshore) and Saipem (offshore) of Italy.

The Tangguh liquefaction facility began production in 2008 and is a key supplier to Japanese and Chinese customers.

Japanese utility Kansai Electric Power has also signed an accord to receive around 1 MTPA from the third Train.

Japan Bank for International Cooperation, the nation's export credit agency, will provide a \$1.2 billion loan guarantee and a consortium of Japanese, Chinese and international banks are providing other financing for the \$8Bln expansion.

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Greek body that enables tracking of global LNG fleet signs deal with UN

Leading global ship satellite intelligence company MarineTraffic, whose service enables the tracking of the global LNG fleet and other vessels, has signed an accord with the United Nations Conference on Trade and Development (UNCTAD) for both organisations to enhance their services and allow for more accurate analysis of international trade and shipping trends.

The Geneva-headquartered UNCTAD plays an important role in integrating developing countries into the world economy, with maritime related research, policy analysis and data collection an integral part of this process.

MarineTraffic currently records 800 million vessel positions and 18 million vessel and port-related events monthly by tracking the Automatic Identification Systems (AIS) of ships through a network of terrestrial receivers and satellites.

MarineTraffic has powerful data analytical capabilities with the infrastructure, advanced algorithms and advanced delivery methods to allow companies and organisations to make sense of the huge volumes of data generated by vessel movements.

"This is a huge vote of confidence in MarineTraffic data by the world's most respected trade body," said the Greece-based company MarineTraffic's senior partner Argyris Stasinakis.

"Intelligence driven by AIS already enables the shipping industry to optimise port calls and vessel flows, minimise fuel consumption and the impact of shipping on the environment," added Stasinakis.

"We will be offering our sophisticated reporting and data mining services to UNCTAD and are proud to play our role in building a fairer and more efficient world," he stated.

Teekay LNG profit improves on charters with Cheniere and upcoming Russia work

Our North America editor in New York

Teekay LNG Partners, the Bermuda-based carrier fleet operator for the global shipping line, posted a first-quarter profit as it pressed ahead with putting four new carriers in charter, including two for delivering cargoes from the Yamal LNG project in the Arctic region of Russian.

Teekay said net income from LNG vessel operations rose to \$46.07 million in the first three months of 2017 compared with \$16.98M in the same quarter of 2016.

It also reported first-quarter net income of \$29.05M compared with losses of \$37.13M in the year-ago quarter.

Financing

The shipping company said it had completed or was nearing completion of around \$640M of new long-term financing for the partnership's growth projects.

These are in the form of the two M-type, electronically-controlled, gas-injection (MEGI) LNG



'Torben Spirit', named after Teekay founder, starts charter

carriers and its two 50 percent-owned ARC7 Ice-Class newbuilds for the Yamal LNG project in Russia, set to come on stream in about six months.

Teekay said it took delivery of its third LNG carrier with MEGI propulsion called the "Torben Spirit" and which commenced a charter contract in March 2017.

The first two vessels of this series are on five-year charters to Cheniere Energy for delivering US LNG cargoes from Sabine Pass. These are the "Oak Sprit" and the "Creole Spirit".

Teekay has a fleet of 54 LNG carriers under its name and held

in various ownership proportions, including 100 percent, 70 percent and 50 percent ownership as well as through minority stakes.

"During the first quarter, the partnership's results were in-line with our expectations," said Mark Kremin, President and Chief Executive of the LNG unit's parent company Teekay Gas Group Ltd.

"This included a one-month contribution from the delivery of our third MEGI LNG carrier newbuilding, the 'Torben Spirit', named after Teekay's late-founder, J. Torben Karlshoej," explained Kremin.

Daewoo Shipbuilding loses case in Korean battle over patent for LNG reliquefaction

Daewoo Shipbuilding and Marine Engineering, one of the world's leading builders of liquefied natural gas carriers, has lost a court case filed against its South Korean rivals over a patent for reliquefaction technology.

The Supreme Court ruled in favour of rival companies Hyundai Heavy Industries and Samsung Heavy Industries by rejecting the patent lawsuit, an official statement said.

The technology allows boil-off gas to be reliquefied to be reused as fuel for LNG carriers.

Samsung and Hyundai had claimed in court that Daewoo Shipbuilding's partial reliquefaction technology was not much different

from their processes and insisted that the Daewoo patent was invalid.

The rivals had also argued that Daewoo had marketed the technology as its own and helped it secure orders for LNG carriers.

In 2014, Daewoo Shipbuilding registered the technology as patentable.

However, the Patent Court of Korea in Seoul earlier in 2017 ruled in favour of Hyundai and Samsung in rejecting the Daewoo application and now a court has upheld that decision.

The Korean shipyards have virtual monopoly on building LNG carriers and the industry has recently emerged from a slump, led by more orders for LNG floating stor-

age and regasification units (FSRUs) and have received cash boosts from deliveries of completed newbuilds.

All three companies conducted huge cuts in costs to weather the industry storm, including reducing their collective workforces by 20,000 at the large shipyard operations.

Daewoo had been in the worst financial plight among the big three and had to renegotiate loan packages with creditors, led by the Korea Development Bank.

The company managed to improve its performance and swung to a net profit for the first quarter compared with heavy losses a year ago.

Nova Scotia LNG project aiming to supply Uniper of Germany will list on Toronto Stock Exchange

Our North America editor in New York

Pieridae Energy of Canada is planning a reverse takeover and a listing on the Toronto Stock Exchange as it follows the lead of US LNG developers before the start of financing and construction of its Goldboro LNG plant in the Atlantic province of Nova Scotia.

Calgary-based Pieridae is currently a privately-held company and it has now announced it is merging with Petrolia Inc. of Quebec, whose shares trade on the exchange and whose oil and natural gas properties in Canada are only in the exploration stage.

Capital raising

However, by taking over the listing of Petrolia, the Calgary company will more easily be able to raise capital on financial markets for its project which already counts German utility Uniper as its foundation customer.

US LNG projects such as Cheniere's Sabine Pass, Tellurian Inc's



Pieridae Energy CEO Sorensen organized merger for listing

Driftwood LNG and NextDecade's Rio Grande LNG have all opted for the advantages of being public companies to raise the billions of dollars required to complete their liquefaction and export ventures.

Under the terms of the transaction, Pieridae has committed to raise \$50 million through subscription receipts before the deal closes, with Petrolia expected to end up with 14.75 percent of the combined company. Pieridae Chief Executive Alfred Sorensen said the deal would help raise money in a

challenging environment as it looks to secure the C\$5.5 billion (US\$4.03Bln) needed for one processing Train and an additional C\$2Bln for the second train.

"Pieridae's Goldboro LNG facility project, combined with the resource potential held by Petrolia, constitutes an opportunity for investors to participate in the evolution and growth of Canada's only integrated LNG facility holding key permits and approvals for its current stage of development," he said.

The Pieridae CEO explained that while the supply agreement with Uniper allowed it to borrow debt at a much lower rate, there is a need to start construction by the end of the year or early 2018 to have enough time to finish and to start supplying the Germans by the end of 2021 as part of the off-take accord.

"It all very much revolves around the German offtake and loan guarantee, which kind of makes us more credible when it comes to getting to the finish line," said Sorensen.

"There's no doubt that Pieridae is punching way above its weight class," he added.

The combined Pieridae- Petrolia company will take the new name Amalco when the merger is completed.

"It is expected that the combined expertise and diversification of the two companies will provide Amalco with the potential of an effective and sustainable long-term growth plan," the companies said.

US Driftwood LNG plant developer cites adverse stock market conditions as it cancels share sale

Tellurian Inc., developer of the Driftwood LNG project in Louisiana, surprisingly withdrew its planned public offering of 10 million shares just 24 hours after first announcing the transaction, citing adverse market condition after primary US stock markets suffered falls.

"Due to the current market environment and in the interest of achieving the best value for our stockholders, we have decided to withdraw our recently announced public offering of common stock," said Meg Gentle, Chief Executive of Tellurian.

Tellurian's LNG project involves constructing a liquefaction and export plant near Lake Charles to match the Sabine Pass venture of Cheniere Energy with 27 million

tonnes per annum of output.

The company, founded by former Cheniere CEO Charif Souki and by Martin Houston, who ran the operations of the LNG portfolio company, BG of the UK, has already made progress in its building plan and needed the funds for running costs in the absence of earnings.

The cancelled sale was to have been the first of a series of share offerings and other transactions such as bond and note sales to investors and institutions that are likely over the next couple of years to raise the estimated \$12 billion the company needs to bring the Louisiana plant to first production.

Tellurian has previously issued 23 percent of its common stock to French energy company Total for \$207 million in investment.

Its Nasdaq listing comes from its reverse subsidiary merger with Magellan Petroleum Corp. to become a public company on the US-based global exchange.

Investors appeared to be expecting the move as Tellurian shares were little changed at \$11.03 per share on May 18, just 7 cents down on the \$11.10 per share value on May 10 when the company posted upbeat earnings.

However, as US stock markets suffered large declines on May 18 over concerns President Donald Trump would be unable to deliver tax and regulatory reforms amid party political controversies in Washington, Tellurian cancelled its proposed share offering.

Wall Street's main exchanges, the Nasdaq and the New York Stock

Exchange, temporarily lost ground though began to recover on May 19 on the perception the sell-off by investors was over-done.

Tellurian's shares had dropped \$0.90 to \$10.13 per share from \$11.03 when the share offering was first announced on May 17, more than the Nasdaq fall of 2.6 percent on May 18.

The Houston-based company has 202 million shares outstanding and now has a market capitalization of \$2.2 billion.

The sale of the 10M shares would have raised \$110.3M and there was an option to sell an additional 1.5M if there was demand, bringing the total value of the cancelled fund-raising to around \$127M.

Tamrotor of Norway sees compressor orders grow for newbuild carriers at Korean shipyards

Our Europe editor

Tamrotor Marine Compressors, the Norway-based equipment supplier, has signed a contract with Samsung Heavy Industries to supply a marine compressed air system to a newbuild floating storage and regasification unit ordered by Hoegh LNG, its third recent award to supply equipment to a South Korea shipyard.

Under the contract, international compressor supplier TMC will deliver a complete marine compressed air system consisting of two 44-kilowatt service compressors and two 44-kW control air compressors. The contract value was not disclosed.

Schedule

The systems will be installed on a 170,000 cubic metres capacity FSRU scheduled for delivery in the second quarter of 2019. It will



The 'Arctic Princess' LNG carrier has TMC equipment

have a regasification capacity of a minimum 750 million cubic feet per day.

TMC's contract with Samsung also includes options to deliver similar compressed air systems to three additional FSRUs that the shipyard may build for Hoegh.

These vessels have scheduled delivery dates of one unit in 2019 and two units in 2020.

"Hoegh LNG has one of the world's biggest fleets of TMC compressors for FSRUs. We are very pleased that they, in cooperation

with Samsung Heavy Industries, have once again selected our technology for their projects," said Per Kjellin, Managing Director of TMC.

In recent weeks, TMC has signed two additional contracts to supply marine systems to newbuild FSRUs, including one with Daewoo Shipbuilding and Marine Engineering ordered by BW LNG and another with Hyundai Heavy Industries, also booked to build a unit for Hoegh.

"It seems like several players are trying to capitalise on a very

favourable newbuild market to position themselves for further expansion in the FSRU segment," explained Kjellin.

"I believe everyone who is exposed to the newbuild segment, including TMC, is very pleased with this development," he added.

The newbuild vessel being built at Hyundai will be used at an LNG import project in Pakistan which Qatar Petroleum, Total, Mitsubishi, ExxonMobil, and Hoegh are developing in collaboration with Global Energy Infrastructure Ltd.

TMC was also recently awarded a contract by Golar LNG to supply compressors to the former conventional carrier "Hilli" being transformed into a floating liquefaction production hull in Singapore.

The FLNG vessel will produce LNG when eventually deployed in a venture offshore the West African state of Cameroon.

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