

LNG Shipping News

AN LNG JOURNAL TITLE ON LNG CARRIERS

6 December 2018

FSRU market set fair

Global LNG trade reached 236 mill tonnes in the first nine months of 2018, up by 7.1% from the same period of 2017.

This was due to a combination of robust Asian demand and new supplies of LNG from Australia and the US. For the full year, LNG trade is expected to reach around 320 mill tonnes, up by more than 7% from 2017, Höegh LNG said in its third quarter results presentation (see page 6).

Increasing Chinese demand continued to be a key driver for expanding LNG volumes, as Chinese imports totalled 37.7 mill tonnes during the first nine months of 2018, up 46% from the same period in 2017 and pointing towards full-year imports of more than 55 mill tonnes. As a result, China is set to become the world's second-largest LNG importer behind Japan with estimated imports of 85 mill tonnes for 2018.

China's 20 land-based regasification terminals currently have a combined monthly regasification capacity of 5.6 mill tonnes, which is expected to be insufficient for meeting seasonal demand swings and for supporting the current rate of demand growth.

LNG imports through FSRUs increased by 26% from the second to the third quarter of 2018. At 10.1 mill tonnes, however, FSRU imports were 6% lower than in the same period of last year. Imports to Bangladesh, Pakistan, Turkey and Brazil are higher than last year, while growing indigenous production of natural gas continues to dampen Argentinian and Egyptian LNG imports. Excluding Egypt, FSRU imports were on par with last year's levels in the third quarter, Höegh said.

The final investment decision (FID) by LNG Canada on 1st Octo-



Höegh is banging the drum for FSRUs

ber, 2018 surpassed new liquefaction capacity sanctioned in 2016 and 2017 combined. The first two trains of this development will have a production capacity of 14 mill tonnes when it comes online in 2025, making Canada a top-10 LNG producer globally with the ability to deliver LNG to Asia at highly competitive prices, compared with other suppliers.

Demand growth

In addition, the FID was taken without foundation contracts with third-party customers, reflecting expectations of significant future LNG demand growth and positioning project developers to serve as a bridge to an increasingly diverse set of buyers without the ability to sign long-term contracts with suppliers.

The combination of increasing volumes of LNG being offered to an expanding set of buyers is the main demand driver for FSRUs. Five FSRU contract awards have been announced in 2018, compared with only two short-term contracts last year.

FSRUs currently serve 22

import projects globally, while 10-12 projects have signed up FSRU capacity and are preparing to commence LNG imports over the next two years. In addition, there are a significant number of FSRU projects still in the selection process.

The global FSRU fleet consisted of 29 units as at 30th September, 2018. Thirteen FSRUs, including one LNGC-to-FSRU conversion, are currently under construction. Of these, three are not due for delivery until 2021 or later.

LNGC spot rates have increased to record levels of \$180,000-200,000 per day on a combination of fast-growing LNG supply and longer sailing distances, resulting in an increase in fleet utilisation.

The strong development in the LNGC spot market, combined with expectations of continued strength, appear to discourage efforts by certain LNGC owners to enter the FSRU market. Consequently, the number of potential FSRU operators going forward has been reduced, positively impacting the competitive situation, Höegh said.

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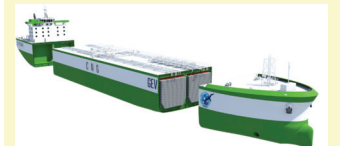
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'Pskov' completes first open water STS transfer for Yamal LNG

On 24th November, 2018, Sovcomflot's (SCF) LNGC 'Pskov' successfully completed the first LNG ship-to-ship (STS) transfer operation for the Yamal LNG Project.

'Pskov' loaded around 170,000 cu m of LNG from the Arc7 'Vladimir Rusanov', which arrived from Sabetta on the Yamal Peninsula to the transshipment area.

The STS was carried out at a safe anchorage off the port of Honningsvåg, Norway. Upon completion of the transshipment, 'Pskov' sailed to her planned port of discharge.

The successful STS transfer to 'Pskov' signals a new phase for the development of the logistics supporting Yamal LNG, SCF said. STS transfers enable shorter round voyages for Arc7 LNGCs, which increases the efficiency of their operation and consequently of the project in general.

Two conventional LNGCs operated by SCF, 'Pskov' and 'SCF

Melampus', are expected to be used in STS operations for Yamal LNG.

The STS was managed by Tschudi Shipping.

Earlier in August 2018, 'Pskov' delivered the first LNG cargo produced at the second Yamal LNG train from Sabetta.

Reuters reported that Honningsvåg will host between 150 and 160 STS LNG transfers from Yamal LNG by mid-2019, according to the local council, which also owns the port.

The port expects to earn around NOK10 mill for the service, while the local retail and hotel industry will see additional benefits, harbour council spokeswoman and local mayor, Kristina Sigursdottir Hansen,



SCF's 'Pskov' seen alongside the Arc7 'Vladimir Rusanov' taking cargo

reportedly said.

Tschudi Shipping's CEO, Jon Edvard Sundnes, said. "There is a contract until June ... It's a big deal and very promising for the future," while declining to reveal any commercial details.

Transferring cargoes in Norway cuts the journey of ice-breaking Arc7s by around 2,000 km, enabling more Yamal LNG to be shipped. ■

Nigerian exports hit 2 mill tonnes

More than 2.06 mill tonnes of LNG have been exported through Nigeria's Onne Port in the last 10 months, according to the Nigerian media outlet, New Telegraph.

The gas, which left the Bonny River port, between February and November, 2018 was valued at N650 bill (\$1.8 bill).

The Nigerian Ports Authority (NPA)'s shipping position statistics obtained by the newspaper revealed that 281,000 tonnes left the country in November, 2018 on five vessels. These were 'LNG Kano' (68,000 tonnes), 'LNG Sokoto' (65,000 tonnes), 'LNG Akwa Ibom' (65,000 tonnes), 'Gaslag Hong Kong' (70,000 tonnes) and the LPG carrier 'Navigator Capricorn' (13,000 tonnes).

Nigeria LNG (NLNG), which can produce 22 mill tonnes of LNG per year has long term supply contracts with Enel, Shell, Engie, Galp, buyers in Pakistan, China, among others. ■

Vitol agrees long-term LNG deal

PETRONAS LNG Ltd (PLL) and Vitol Asia Pte Ltd (Vitol) have signed a binding Heads of Agreement (HOA) for a long-term LNG sale and purchase (SPA) agreement.

Under the terms of the agreement signed on 1st October, 2018, the LNG supply to Vitol, due to commence in 2024, will be up to around 0.8 mill tonnes per annum for a period of up to 15 years on both delivered ex-ship (DES) and free on board (FOB) basis.

Vitol's main supply will come from LNG Canada, as well as from other PLL LNG supply chains.

LNG Canada is a major LNG project located in Kitimat, British Columbia, in which PETRONAS is one of the joint venture partners with equity holding of 25%.

Canada is PETRONAS' second

largest resource holder after Malaysia, with vast unconventional oil and gas resources in the North Montney region.

PETRONAS Vice President of LNG Marketing & Trading, Ahmad Adly Alias, said, "With a strong global supply portfolio, PETRONAS is able to provide flexible solutions within a changing and evolving LNG market. PETRONAS is pleased to sign this long-term LNG supply deal with Vitol and hope that it will continue to enhance the long history of business collaboration with the Vitol Group."

Vitol Head of LNG, Pablo

Galante Escobar, added, "We are delighted to be partnering with PETRONAS again, a global market leader and producer of natural gas and LNG. PETRONAS supplied our first LNG cargo in 2005 and we have now extended our LNG relationship until at least 2038.

"Vitol is committed to the long-term development of the LNG market and its evolution to become a more flexible and tradeable commodity. This supply deal with PETRONAS will further strengthen our ability to offer reliable and flexible LNG solutions to customers worldwide," he said. ■

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Yamal LNG starts third production train

PAO NOVATEK has announced that its joint venture Yamal LNG has commenced initial production at the plant's third LNG train.

The total nameplate capacity of all three LNG trains is 16.5 mill tonnes per annum.

"We have successfully launched all three LNG trains at our flagship Yamal LNG project according to our revised early launch schedule clearly confirming the uniqueness of Yamal LNG in the global LNG industry," said NOVATEK's Chairman of Management Board, Leonid Mikhelson.

"We have not only launched all three technological trains on budget, but have launched the third LNG train more than one year ahead of the planned original schedule. This fact is unprecedented for the industry plagued by massive cost overruns and project delays.

"We have transformed NOVATEK into a global gas player and obtained the unique experience of

design and construction of Arctic LNG projects. We will use this experience implementing our future LNG projects in this prolific hydrocarbon resource basin.

"The innovative fourth LNG train at Yamal LNG will be based on NOVATEK's proprietary liquefaction technology called 'Arctic Cascade' and will utilise Russian-manufactured equipment," he concluded. ■

First Sanga-Sanga LNG cargo

Indonesia's state-owned Pertamina has shipped its first cargo of LNG from the Sanga-Sanga block in East Kalimantan.

The shipment follows Pertamina Hulu Sanga-Sanga's (PHSS) replacement of Virginia Indonesia Co (VICO) as operator on 30th October. VICO had operated the block for more than 40 years under the PSC model, which was replaced by the gross-split sharing mechanism when PHSS assumed control.

Without disclosing the volume of LNG shipped, PHSS director Andi Wisnu praised shareholders for their commitment to the speedy production, commercialisation and monetisation of the block.

"We appreciate [the efforts of] all that were involved, starting from the preparation and processing to the LNG shipment from the Badak LNG refinery, which is operated by Badak NGL in Bontang, East Kalimantan," the Jakarta Post quoted him as saying recently.

Sanga-Sanga, which is located in the Kutai Kertanegara Regency of East Kalimantan, currently produces around 16,000 boepd of liquids and 70 mmcf per day of gas. The block's remaining recoverable reserves is estimated at 258 mill boe.

East Kalimantan is one of the country's most important oil and gas producing regions. The block boasts seven gas fields - Badak, Nilam, Pemaguan, Semberah, Mu-tiara, Beras and Lempake. ■

MISC in sale and leaseback deal

PETRONAS subsidiary, MISC has signed five-year timecharters with LNG Shipping for two LNGCs acquired from the Eni company.

MISC bought the 65,000 cu m 'LNG Portovenere' and 'LNG Lerici' and they are due to start five-year timecharters with a combined value of \$133 mill this month and January, 2019, respectively.

The acquisition and timecharters represent a move into the mid-sized LNGC segment by the Malaysian shipowner.

"In view of the evolving marketplace, there is certainly poten-

tial for us to diversify our solutions by including mid-scale and small-scale LNG transportation especially with the growing spot market demand for LNG trading and this will enable MISC to develop our capability in the trading of multiple-size vessels, as well as our reach to other global locations," said Yee Yang Chien, MISC President and CEO.

"These mid-sized LNG carriers also present unique opportunities that supports MISC's efforts to venture into non-conventional LNG shipping solutions, whereby upon expiry of the charter party, these vessels will have the potential to be converted into mid-sized FSRUs, FSUs or other alternative LNG floating solution projects," he added. ■



'LNG Lerici' is one of two medium size LNGCs which were sold on a leaseback basis

NEWS NUDGE

Taiwan receives Ichthys cargo

Taiwanese energy conglomerate, CNP Corp reportedly received its first cargo from the Ichthys LNG export plant in the Northern Territory of Australia on 26th November.

Hyundai wins more orders

Greece-based Latsco Shipping

was believed to have placed an order for two LNGCs at Hyundai Heavy Industries.

According to data provided by Asiasis, the 174,000 cu m vessels were ordered by Latsco Shipping's Consolidated Marine Management in a contract worth \$370 mill for the two and the vessels are due to be delivered in 2021.

Hyundai Heavy Industries also

said this week that it had won an order for another two LNGCs for an undisclosed Asian shipping company, according to Yonhap news agency.

The group said that its affiliate, Hyundai Samho Heavy Industries Co, had won the contract to build two 174,000 cu m LNGCs.

Hyundai said it will deliver the ships in mid-2021.

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Flex LNG moves into the black

Flex LNG Ltd reported a net profit of \$1.2 mill and profit per share of \$0 for the third quarter of 2018, compared with a net loss of \$4 mill and a loss per share of \$0.01 for 3Q17.

The net loss for the nine months ended 30th September, 2018, was down to \$3.5 mill, compared to net loss of \$11.7 mill for the same period of 2017.

Vessel operating revenues amounted to \$19 mill and \$41.1 mill in 3Q18 and nine month periods, compared with \$9.8 mill and \$19.5 mill, respectively.

LNGC operating costs, including the costs to charter in vessels, voyage related costs, broker commissions and technical operating expenses amounted to \$5.2 mill and \$20.2 mill in the periods, respectively. The year-to-date costs included \$6.1 mill in relation to chartered in vessels.

Flex LNG's cash balances decreased by \$61 mill in 3Q18 to \$16.6 mill (2017 = \$6.9 mill net inflow). In the nine month period, the company's cash balance increased by \$6.6 mill (2017=\$10.4 mill inflow).

In the nine month period, the operating cash inflow was \$10.7 mill (2017 = \$16.9 mill outflow) and capital expenditures was \$308.2 mill of which \$234.5 mill was related to investment in newbuildings under construction, while \$73.6 mill was used as advance payments in relation to the two newbuildings acquired on 28th May, 2018 from an affiliate of Geveran.

In addition, net cash flow from financing activities was \$304.1 mill of which \$584.6 mill was issuance of new debt while \$280.2 mill was debt repayment.

Fourth LNGC

On 9th July, 2018, the company took delivery of 'Flex Rainbow' from Samsung Heavy Industries on schedule. She is the fourth LNGC on the water, while another nine LNGCs are currently under construction.

On 11th October, 2018, Flex LNG successfully conducted a private placement, raising gross proceeds of the NOK equivalent of \$300 mill, corresponding to NOK 2,464 mill (based on a currency exchange rate of USD/NOK 8.21), through the placing of 172,938,947 new shares at a subscription price of NOK 14.25 per share.

This placement was significantly oversubscribed. Geveran Trading, the company's largest shareholder, has been allocated 57,646,316 shares for about \$100 mill, and will retain a 44.6% ownership in Flex LNG following the private placement.

On the same day, in connection with the placement, Flex LNG signed an agreement to acquire five LNGC newbuildings, comprising three MEGI LNGCs currently



The delivery of the 'Flex Rainbow' should boost the next set of results

under construction at Daewoo Shipbuilding and Marine Engineering (DSME) with scheduled deliveries in 2020 and two X-DF LNGCs currently under construction at Hyundai Samho Heavy Industries (HSHI) with scheduled deliveries in 2021.

The LNG newbuildings were acquired from affiliates of Geveran Trading.

Flex LNG also said that it had already covered all available days for 4Q18. Based on the current backlog, Flex LNG expected that revenues for 4Q18 will be around \$35 mill, considerably higher than the revenues of \$19 mill reported for 3Q18.

Øystein Kalleklev, CEO/CFO commented: "Flex LNG has rapidly become the largest owner of modern fifth generation LNGCs with a fleet expansion from six to 13 vessels since we presented our first quarter results at end of May. Unlike the vast majority of other LNG

shipping companies, we decided to strategically pursue shorter term employment until the shipping market showed signs of rebalancing. The market has now rebalanced with current fixtures now being agreed at all-time high rates. Thus, Flex LNG is very well positioned to reap the benefit of our strategy.

"This is somewhat evidenced by the company's improved financial performance in the third quarter, but more importantly highlighted by the very strong guidance for the fourth quarter, as well as the outlook for next year. We think the LNG shipping market will remain tight due to a combination of large increase in liquefaction capacity in the near, medium and long-term, limited fleet growth, increased tonne/mileage and increased focus on improving air quality favouring the ongoing switch from coal to natural gas."

NEWS NUDGE

'Maria Energy' at Corpus Christi

TEN's LNGC 'Maria Energy' was reported to be at Corpus Christi export facility operated by Cheniere Energy.

She was said to have arrived at Corpus Christi last weekend.

Cheniere started production in mid-November at one of its three trains planned for the \$15 bill facility but had not loaded LNG by the middle of this week.

A Golar LNGC berthed at the terminal during the facility's 15th November official opening but left a few days later without loading a cargo.

GTT continues to win business

GTT recently received an order from Daewoo Shipbuilding and Marine Engineering (DSME) for the tank design of two new 173,400 cu m LNGCs.

The vessels will be built for an undisclosed European shipowner.

Each tank will be fitted with

GTT's NO96 GW technology and the vessels' delivery is expected by the end of 2020.

In addition, GTT has received an order from an unnamed South Korean shipyard for the tank design of a new 174,000 cu m LNGC, to be built on behalf of another European shipowner.

This vessel's delivery is expected in the first quarter of 2021.

The LNG tanks will be equipped with the Mark III Flex containment system developed by the company.

The shipowner and shipyard names are confidential, GTT said.

Not stopping there, GTT has received another order from Samsung Heavy Industries (SHI) for the tank design of a new 174,000 cu m LNGC ordered by Minerva.

The tanks of this unit will be fitted with the Mark III Flex+ membrane containment system, offering a guaranteed boil-off rate of 0.07% of tank volume/day. Her delivery is scheduled for the first quarter of 2021.

Höegh LNG claims record results

Höegh LNG Holdings Ltd has reported a profit after tax of \$6 mill and an EBITDA of \$47.9 mill for the third quarter of this year - a record.

In 2Q18, the company recorded an EBITDA of \$40.3 mill.

The company reported total income of \$82.3 mill for 3Q18, compared with \$75.8 mill in the previous quarter. This increase is mainly a result of higher revenues generated by 'Höegh Giant' and 'Höegh Esperanza', as well as \$2.1 mill in revenue recognition of insurance proceeds and other reimbursements.

The net profit of \$6 mill for 3Q18 was down from \$7.8 mill reported for in the previous quarter, as the positive EBITDA development during the third quarter was offset by an impairment of \$9 mill. This related to jetty equipment previously installed in Ain Sokhna, Egypt, which was part of the 'Höegh Gallant's' timecharter with Egas.

Operating cash flows were higher in 3Q18, increasing by \$3.3 mill to \$44.5 mill. The net increase in cash and cash equivalents was \$54.4 mill during the third quarter.

As at 30th September, 2018, Höegh LNG held \$200.9 mill in current cash and marketable securities and net interest-bearing debt amounted to \$1,082 mill. Book equity, after adjusting for the mark-to-market of interest rate swaps, was \$791.6 mill, equivalent to an adjusted book

equity ratio of 38% (37%).

As a result, the company declared a dividend of \$0.025 per share for the quarter.

FSRUs financed

During the period, Höegh LNG secured commitments for debt financing of the newbuilding FSRUs No 9 and No 10.

Subsequently, No 9 was named 'Höegh Gannet', and is the largest capacity FSRU built thus far with 1 bill cu ft per day and 170,000 cu m and with a record construction time of 23 months, the company said.

In August, Höegh LNG received commitment letters for a \$177 mill debt financing for the FSRU. The loan comprises a 12-year tranche of \$132 mill guaranteed by South Korean export credit agency K-SURE and a five-year non-amortising commercial bank tranche of \$45 mill.

A month later, the company signed a timecharter contract with Naturgy Energy Group for 'Höegh Gannet'. This charter is expected to commence this month and has a term of 15 months. Under the contract, the FSRU will earn a fixed daily charter rate, which is in line with the current medium-term market for DFDE LNGCs, the company said.

The company also declared the

same dividend for the fourth quarter of this year and invested in the joint venture small-scale LNG initiative - Avenir.

In addition, the FSRU 'Höegh Esperanza' commenced operations in Tianjin and the company secured commitments for refinancing of 'Höegh Gallant' and 'Höegh Grace'.

President and CEO of Höegh LNG, Sveinung Støhle, commented: "We are pleased to deliver Höegh LNG's best underlying quarterly results on record, with EBITDA up 19% compared to Q2, reflecting continued operational excellence and a full quarter of income from 'Höegh Esperanza' under its contract with CNOOC in China.

"Our financial position is solid, and with debt commitments received for the financing of our two newbuildings, as well as for our first refinancing completed well ahead of maturity, we are fully financed across the fleet at attractive terms.

"Meanwhile, we continue to see an improving FSRU market and are currently exclusive and in the final selection round for four different long-term FSRU projects. Additional FSRU opportunities arise on a frequent basis, particularly in Asia, where China in a period of 12 months has emerged

NEWS NUDGE

Höegh hires new CFO

Höegh LNG Holdings has named Havard Furu as its new CFO effective from March, 2019.

The interim CFO, Steffen Foreid, will step down at the same time while continuing his role as CEO and CFO of the US subsidiary, Höegh LNG Partners.

Furu occupied the same role at law firm Wikborg Rein. Before that he was CFO in Western Bulk from 2009 to 2017 and was formerly employed by BW Gas as Assistant Director Strategy and Finance.

"We are very pleased to welcome Havard to the Höegh LNG team, as he brings with him very broad financial experience covering all relevant segments of the CFO role," said Sveinung Støhle, Höegh LNG President and CEO.

the world's second largest LNG importer and a high-potential market for FSRUs.

"With our proven operational platform that now includes the highly complementary small-scale LNG offering represented by our shareholding in Avenir LNG, Höegh LNG remains in a strong competitive position for the most attractive FSRU contracts in the market," he claimed. ■

Nakilat hosts 2018 Autumn SIGTTO Board & AGM in Doha

Qatar hosted members of the Society of International Gas Tanker and Terminal Operators (SIGTTO) for their Board and Annual General Meeting (AGM) on 28th November, 2018.

Nakilat sponsored the session in Doha and also participated in the meetings, as the company's CEO, Eng Abdullah Al Sulaiti is a SIGTTO Director.

Through hosting international maritime events, Nakilat is also contributing towards the develop-

ment of Qatar as a maritime hub and promoting the country as a preferred destination for the events, the company said.

As a company with one of the world's largest LNGC fleet, Nakilat has been a SIGTTO member for over a decade. ■



Doha recently paid host to a SIGTTO meeting

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Optimum CNG ship comes a step closer

Australian-based Global Energy Ventures (GEV) has completed two of the three ABS tests required for design approval of its CNG Optimum type ship.

CNG Optimum is a marine CNG storage vessel. It is the result of 20 years of CNG development and is designed to transport CNG over regional distances of up to 2,500 km. It has the flexibility to deliver gas from volumes of 50 to 400 MMscf/d, with small to medium gas reserves (< 1.0 TCF).

GEV claimed that the Optimum ship design maximises the amount of CNG that can be stored on board. The containment system is built using close-packed, high strength pipes that run the entire length of the ship's cargo tank.

According to GEV, there has been rapid CNG project development over the last three years, making it more accessible to the market. At the end of field or project life, these types of ships can be easily re-deployed, the company said.

GEV's CNG Optimum ship has

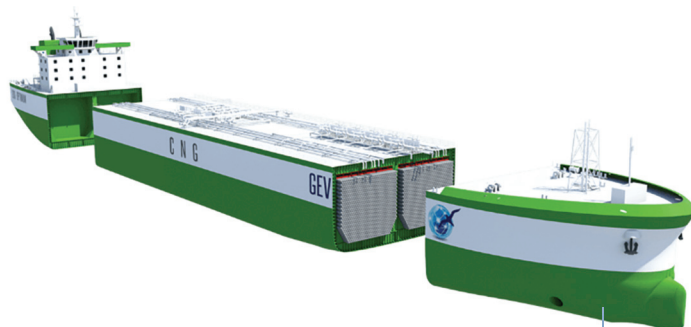
received an AiP from ABS with final testing due soon. If the CNG design completes the final test, it will receive an ABS Design Approval. At present, the company is working with four shipyards to determine scheduling and costs.

In October, the project completed bend and friction testing, verifying that the CNG containment pipes in the tanks can be forced together without any pipe movement. GEV developed a mechanism to clamp the gas storage pipes tightly enabling them to be locked together as one, which allows this design to meet all classification requirements.

Downward force

The tests replicated a downward force that would be applied on the pipes in a ship's cargo tanks.

According to GEV, previous work on this type of system failed,



GEV's CNG project has come a step closer

due to rubbing of the pipes, as the ship moved in response to sea conditions.

The final test will involve a fatigue test. This is a vigorous test that will require cycling a pressure vessel for 10 times its design life, from minimum pressure to operating pressure.

Ship design and engineering are being finalised ready for construction by in the first half of 2019. GEV expects the first CNG Optimum ship to be in service by early 2022, the company said. ■

NEWS NUDGE

BP takes 'Merchant' back

BP was thought to have chartered the 138,000 cu m LNGC 'Merchant', the former 'British Merchant'.

Brokers reported that the vessel was fixed for six months at a daily rate of \$50,000.

Poland to expand terminal

Polskie LNG is planning to expand the Świnoujście LNG terminal in the near future.

The company has asked for tenders for a 'design and build' formula, in which the contractor for the construction of the third tank, additional process systems increasing the regasification capacity and the railway siding will be selected.

Currently, the two major services offered by the LNG terminal include regasification and transshipment onto tank trucks. After the expansion, the terminal's regasification capacity will be increased and the range of transshipment services will be extended in order to maximise the plant's potential and create the opportunity to develop the LNG market over the coming years.

The planned expansion of the LNG Terminal in Świnoujście

includes three turnkey projects -

- SCV project consisting in the expansion of the existing LNG regasification system.
- New full containment tank process storage tank of 180,000 cu m gross capacity will be built along with process equipment and installations necessary for the integration with two existing storage tank systems.
- Railway project, which entails the construction of a new railway siding.

The fourth project implemented under the Świnoujście LNG terminal expansion programme is the construction of a new jetty. However, this will be implemented under a separate tender procedure, the company said. ■

Smit Lamnalco to provide Gladstone LNGC towage

Following a comprehensive tendering process, Smit Lamnalco has been awarded an exclusive licence by Gladstone Ports Corporation (GPC) to supply towage services at Gladstone.

The licence will commence on 1st January, 2019 for a five-year term, with an option to extend for a further three years to 31st December, 2026.

"Smit Lamnalco is proud to have again been selected to provide towage services in this unique environment. We are looking forward to continuing our strong partnership with GPC, our port stakeholders and the local Gladstone community," said Smit Lamnalco's Commercial Director, Frederik Rutgers.

Gladstone is one of Queensland's largest multi-commodity ports and serves an area rich in natural resources. The port's

major export cargoes include LNG, plus other commodities.

Smit Lamnalco has been providing harbour towage services at Gladstone since 2011. Eleven tugs, specifically designed to meet the operational characteristics of the port, will be deployed to service both harbour and LNG customers.

"We are looking forward to continuing our partnership with Gladstone Ports Corporation and its customers. We are pleased that GPC has recognised our ability to provide high quality, efficient and safe towage services to the broad spectrum of port users," said Stanley Maas, Smit Lamnalco's CEO. ■

WORLD LNG CARRIER ORDERBOOK

Name	Yard	Containment System	Capacity	Propulsion	Delivery Date	Ordered	Primary Owner
Jmu Tsu 5072	JMU	SPB	165000	TFDE	Mar-19	Feb-14	MOL
Jmu Tsu 5073	JMU	SPB	165000	TFDE	Jul-19	Feb-14	MOL
Jmu Tsu 5071	JMU	SPB	165000	TFDE	Nov-18	Feb-14	NYK
Gaslog Gladstone	Samsung	TZ Mk. III	174000	XDF	Jan-19	May-14	GasLog
Maran Gas Syros	DSME	GT NO 96	173400	MEGI	Apr-19	Jun-14	Maran Gas Maritime
Pan Africa	Hudong-Zhonghua	GT NO 96	174000	TFDE	Jan-19	Jun-14	Teekay LNG
Daewoo 2430	DSME	GT NO 96	172000	TFDE - Azipod	Jul-19	Jul-14	Teekay LNG
Daewoo 2431	DSME	GT NO 96	172000	TFDE - Azipod	Aug-19	Jul-14	Teekay LNG
Daewoo 2433	DSME	GT NO 96	172000	TFDE - Azipod	Oct-19	Jul-14	Teekay LNG
Daewoo 2434	DSME	GT NO 96	172000	TFDE - Azipod	Nov-19	Jul-14	Teekay LNG
Daewoo 2432	DSME	GT NO 96	172410	TFDE - Azipod	Sep-19	Jul-14	MOL
Kawasaki Sakaide 1729	Kawasaki	Moss	155000	TFDE	Aug-19	Sep-14	MOL
Marvel Hawk	Samsung	GTT Mark III Flex	174000	XDF	Dec-18	Oct-14	MOL
Samsung 2150	Samsung	GTT Mark III Flex	174000	XDF	Jan-19	Oct-14	MOL
British Contributor	DSME	GT NO 96	173400	MEGI	Nov-18	Nov-14	BP
British Mentor	DSME	GT NO 96	173400	MEGI	Feb-19	Nov-14	BP
British Sponsor	DSME	GT NO 96	173400	MEGI	Mar-19	Nov-14	BP
Daewoo 2444	DSME	GT NO 96	173400	MEGI	Jan-19	Nov-14	BP
Boris Davydov	DSME	GT NO 96	172410	TFDE - Azipod	Nov-18	Dec-14	Dynagas
Nikolay Zubov	DSME	GT NO 96	172410	TFDE - Azipod	Dec-18	Dec-14	Dynagas
Mitsubishi Nagasaki 2322	Mitsubishi H.I.	Moss	177000	STaGE	Sep-19	Jan-15	MOL
Marvel Crane	Mitsubishi H.I.	Moss	177000	STaGE	Dec-18	Jan-15	NYK
Mitsubishi Nagasaki 2323	Mitsubishi H.I.	Moss	177000	STaGE	Jan-19	Mar-15	MOL
Maran Gas Chios	DSME	GT NO 96	173400	MEGI	Jan-19	Jun-15	Maran Gas Maritime
Maran Gas Hydra	DSME	GT NO 96	173400	MEGI	Jan-19	Jun-15	Maran Gas Maritime
Hyundai Samho S856	Hyundai Heavy	TZ Mk. III	174000	MEGI	Jan-19	Jun-15	Teekay LNG
Yamal Spirit	Hyundai Heavy	TZ Mk. III	174000	MEGI	Jan-19	Jun-15	Teekay LNG
Daewoo 2489	DSME	GT NO 96	173400	MEGI	Nov-19	Sep-15	BWGas
Shinshu Maru	Kawasaki	Moss	177000	STRH	Feb-19	Sep-15	MOL
Sohshu Maru	Kawasaki	Moss	177000	STRH	Jul-19	Sep-15	MOL
Diamond Gas TBN	Mitsubishi H.I.	Moss	165000	STaGE	May-19	Nov-15	Mitsubishi
Bushu Maru	Mitsubishi H.I.	Moss	180000	STaGE	Jun-19	Nov-15	NYK
Nohshu Maru	Mitsubishi H.I.	Moss	180000	STaGE	Feb-19	Nov-15	NYK
Hyundai Ulsan 2937	Hyundai Heavy	GTT Mark III Flex	180000	XDF	Apr-19	May-16	SK Shipping
Hyundai Ulsan 2938	Hyundai Heavy	GTT Mark III Flex	180000	XDF	Jul-19	May-16	SK Shipping
Daewoo 2466	DSME	GT NO 96	173400	MEGI	Oct-19	Jun-16	Maran Gas Maritime
Daewoo 2467	DSME	GT NO 96	173400	MEGI	Nov-19	Jun-16	Maran Gas Maritime
Samsung 2213	Samsung	GTT Mark III Flex	180000	XDF	Jun-20	Sep-16	GasLog
Daewoo 2469	DSME	GT NO 96	173400	MEGI	Apr-20	Dec-16	Maran Gas Maritime
Hyundai Ulsan 2964	Hyundai Heavy	GTT Mark III Flex	180000	MEGI	May-19	Mar-17	Knutsen
Flex Constellation	DSME	GT NO 96	173400	MEGI	Jun-19	Mar-17	Flex LNG
Flex Courageous	DSME	GT NO 96	173400	MEGI	Aug-19	Mar-17	Flex LNG
Hyundai Ulsan 2963	Hyundai Heavy	GTT Mark III Flex	180000	MEGI	Jun-19	May-17	Knutsen
MOL HUDONG-ZHONGHUA 1/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	Dec-19	Jul-17	MOL
MOL HUDONG-ZHONGHUA 2/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	Mar-20	Jul-17	MOL
MOL HUDONG-ZHONGHUA 3/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	Jul-20	Jul-17	MOL
MOL HUDONG-ZHONGHUA 4/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	Oct-20	Jul-17	MOL
Gaslog Windsor	Samsung	GTT Mark III Flex	180000	XDF	Jul-19	Dec-17	GasLog
Daewoo 2478	DSME	GT NO 96	173400	MEGI	May-20	Dec-17	Maran Gas Maritime

DFDE = dual fuel diesel engines, STRH = steam turbine reheat / ultra steam turbine, MEGI = marine electric gas injection, DRL = slow speed diesel, FSRU = vessel with regas capacity, FLNG = floating LNG production unit
Data last updated = 8th November 2018

Name	Yard	Containment System	Capacity	Propulsion	Delivery Date	Ordered	Primary Owner
HHI NYK/EDF	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Apr-20	Jan-18	NYK
HHI / Total	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Jun-20	Jan-18	Cardiff Marine
HHI / Total / Sovc	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Jun-20	Jan-18	Sovcomflot
DSME 2490	DSME	GT NO 96	173400	MEGI	Feb-20	Feb-18	BWGas
DSME 2491	DSME	GT NO 96	173400	MEGI	May-20	Feb-18	BWGas
HHI / Cardiff #1	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Jun-20	Feb-18	Cardiff Marine
HHI / Cardiff #2	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Jun-20	Feb-18	Cardiff Marine
DSME 2479	DSME	GT NO 96	173400	MEGI	Aug-20	Feb-18	John Fredriksen
DSME 2480	DSME	GT NO 96	173400	MEGI	Sep-20	Feb-18	John Fredriksen
Flex America	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Aug-20	Mar-18	Flex LNG
Flex Aurora	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Jun-20	Mar-18	Flex LNG
SHI Gaslog #1	Samsung	GTT Mark III Flex	180000	XDF	Jun-20	Mar-18	GasLog
Samsung 2271	Samsung	GTT Mark III Flex	174000	XDF	Apr-20	Mar-18	Cardiff Marine
DSME Minerva #1	DSME	GT NO 96	173400	MEGI	Mar-21	Mar-18	Minerva Marine
DSME Minerva #2	DSME	GT NO 96	173400	MEGI	Jul-21	Mar-18	Minerva Marine
Hyundai Ulsan 3086	Hyundai Heavy	GTT Mark III Flex	180000	MEGI	Jun-20	Mar-18	Knutsen
DSME 2483	DSME	GT NO 96	173400	MEGI	Oct-20	Mar-18	Alpha Gas
DSME 2484	DSME	GT NO 96	173400	MEGI	Dec-20	Mar-18	Alpha Gas
SHI Gaslog #2	Samsung	GTT Mark III Flex	180000	XDF	Sep-20	May-18	GasLog
Maran Gas DSME	DSME	GT NO 96	173400	MEGI	Oct-20	Jun-18	Maran Gas Maritime
DSME 2487	DSME	GT NO 96	173400	TFDE	Apr-21	Jun-18	Maran Gas Maritime
DSME 2485	DSME	GT NO 96	173400	MEGI	Mar-21	Jun-18	Alpha Gas
HHI Thenamaris #1	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Nov-20	Jun-18	Thenamaris
HH 8012	Hyundai Heavy	GTT Mark III Flex	174000		Feb-21	Jun-18	John Fredriksen
HH 8013	Hyundai Heavy	GTT Mark III Flex	174000		May-21	Jun-18	John Fredriksen
HHI Capital Gas #1	Hyundai Heavy	GTT Mark III Flex	174000		Sep-20	Jul-18	Capital Gas
HHI Capital Gas #2	Hyundai Heavy	GTT Mark III Flex	174000		Dec-20	Jul-18	Capital Gas
HHI Capital Gas #3	Hyundai Heavy	GTT Mark III Flex	174000		Mar-21	Jul-18	Capital Gas
HHI Capital Gas #4	Hyundai Heavy	GTT Mark III Flex	174000		Jun-21	Jul-18	Capital Gas
DSME 2492	DSME	GT NO 96	173400	MEGI	Nov-20	Jul-18	John Fredriksen
SHI Celcius #1	Samsung	GTT Mark III Flex	180000	XDF	Oct-20	Aug-18	Celcius Shipping
SHI Celcius #2	Samsung	GTT Mark III Flex	180000	XDF	Jan-21	Aug-18	Celcius Shipping
HHI 3037	Hyundai Heavy	GTT Mark III Flex	174000	XDF	Jul-20	Aug-18	Cardiff Marine
SHI 2300	Samsung	GTT Mark III Flex	174000	XDF	Nov-20	Aug-18	GasLog
SHI 2301	Samsung	GTT Mark III Flex	174000	XDF	Dec-20	Aug-18	GasLog

DFDE = dual fuel diesel engines, STRH = steam turbine reheat / ultra steam turbine, MEGI = marine electric gas injection, DRL = slow speed diesel, FSRU = vessel with regas capacity, FLNG = floating LNG production unit
Data last updated = 8th November 2018



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WORLD SMALL SCALE LNG FLEET*

Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
1974	Seagas	187	LNG	Sweden	Yes	AGA
1988	Kayoh Maru	1,517	LNG	Japan	Yes	Daiichi
1993	Aman Bintulu / Lucia Ambition	18,928	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
1996	Surya Aki	19,475	LNG	Indonesia - Japan	Yes	MCGC
1997	Aman Sendai	18,928	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
1998	Aman Hakata	18,800	LNG	Malaysia - Japan	Yes	Perbadanan/NYK
2000	Tripura (ex Surya Satsuma)	23,096	LNG	Indonesia - Japan	Yes	MCGC
2003	Pioneer Knutsen	1,100	LNG	Norway	Yes	Knutsen
2003	Shinju Maru No.1	2,540	LNG	Japan	Yes	Shinwa
2005	North Pioneer	2,500	LNG	Japan	Yes	Japan Liquid Gas
2007	Sun Arrows	19,531	LNG	Malaysia - Russia - Japan	Yes	Mitsui
2008	Kakurei Maru	2,536	LNG	Japan	Yes	Hogaki Zosen
2008	Shinju Maru No.2	2,540	LNG	Japan	Yes	Shinwa
2009	Coral Methane	7,551	LNG/LPG/Ethylene	Northwest Europe/Baltics	Yes, sometimes	Anthony Veder
2010	Norgas Creation	10,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
2010	Norgas Innovation	10,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
2011	Akebono Maru	3,556	LNG	Japan	Yes	Chuo Kaiun
2011	Norgas Conception	10,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
2011	Norgas Invention	10,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
2011	Vision Spirit	12,000	LNG/LPG/Ethylene	Worldwide	No	Teekay
2011	Unikum Spirit	12,000	LNG/LPG/Ethylene	Worldwide	No	Teekay
2012	Coral Energy	15,600	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2013	JX Energy TBN	2,500	LNG	Japan	Yes	JX Energy
2013	Kakuyu Maru	2,500	LNG	Japan	Yes	Tsurumi Sunmarine
2013	Coral Anthelia	6,500	LNG/Ethylene			Anthony Veder
2014	LNG-Oil combi**	2,000	LNG	Germany	Yes	Veka
2014	Short Sea LNG Tanker **	4,000	LNG	Germany	Yes	Veka
2015	LNG Inland bunker**	800	LNG	Germany	Yes	Veka
2015	LNG bunker barge 1†	2,250	LNG	China	Yes	Anhui Huaqiang Natural Gas
2015	LNG bunker barge 2†	2,250	LNG	China	Yes	Anhui Huaqiang Natural Gas
2015	LNG bunker barge 3†	2,250	LNG	China	Yes	Anhui Huaqiang Natural Gas
2015	LNG Barge TBN	3,000	LNG	US Coast	Yes	LNG America
2015	10 small carriers TBN**	5,000	LNG			Bimantara Group
2015	Jahre TBN**	6,200	LNG	Norway	Yes	Donsotank/Jahre Marine
2015	Norgas TBN**	17,000	LNG/LPG/Ethylene	Worldwide		Norgas Carriers
2015	Norgas TBN**	17,000	LNG/LPG/Ethylene	Worldwide		Norgas Carriers
2015	JS Ineos Ingenuity	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2015	JS Ineos Insight	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2015	JS Ineos Intrepid	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2015	TBN 1	27,500	LNG	China?		Danyang?
2015	TBN 2	27,500	LNG	China?		Danyang?
2015	TBN 3	27,500	LNG	China?		Danyang?
2015	PetroChina TBN	30,000	LNG	China		PetroChina
2016	Clean Jacksonville	2,200	LNG	US Coast	Yes	CME
2016	LNG Prime	2,250	LNG	Northwest Europe	Yes	Veka Deen LNG
2016	JS Ineos Indepence	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	JS Ineos Innvation	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	JS Ineos Inspiration	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas

For more information please visit <http://small-lng.com>

*Includes multi-gas, ethylene and LNG bunker ships with 40,000 cubic metres LNG cargo capacity or less

TBN = To Be Nominated indicates ships are still at construction/planning stage

** = project shelved † = Data to be verified Data last updated = 6th December 2018

Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
2016	Hai Yang Shi You 301	30,000	LNG	Bali FSU	Yes	CETS (CNOOC)
2016	Navigator Aurora	35,000	Ethane/Ethylene	Markus Hood - Stenungsund	Ethane, for Borealis	Navigator
2016	Gaschem Beluga	36,000	Ethane/Ethylene	US - Teeside	Ethane, for Sabic	Gaschem Services
2016	Gaschem Orca	36,000	Ethane/Ethylene	US - Teeside	Ethane, for Sabic	Gaschem Services
2016	Ocean Yield TBN**	36,000	Ethane/Ethylene	US - Teeside	Ethane, for Sabic	Gaschem Services
2017	Oizmendi	600	LNG	Bilbao	Yes	Itsas Gas
2017	CME TBN†	2,200	LNG	US Coast	Yes	CME
2017	CME TBN†	2,200	LNG	US Coast	Yes	CME
2017	ENGIE Zeebrugge	5,000	LNG	Northwest Europe	Yes	NYK
2017	Coralius	5,800	LNG	Northwest Europe/Baltics	Yes, for Skangas	Anthony Veder
2017	Cardissa	6,500	LNG	Northwest Europe	Yes	Shell
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	LNG-Gorskaya TBN	7,300	LNG	Russia	Yes	LNG-Gorskaya
2017	Coral EnergiCE	18,000	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2017	JS Ineos Invention	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2017	JS Ineos Intuition	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2017	Yuan He 1	30,000	LNG	China	Yes	CSR
2017	Navigator Eclipse	35,000	Ethane/Ethylene	US	Ethane	Navigator
2017	Navigator Nova	35,000	Ethane/Ethylene	US	Ethane	Navigator
2017	Navigator Prominence	35,000	Ethane/Ethylene	US	Ethane	Navigator
2018	HUA XIANG 8	13,720	LNG	China	Yes	Zhejiang Huaxiang
2018	CME TBN†	2,200	LNG	US Coast	Yes	CME
2018	Shell Bunker Barge TBN 4	3,000	LNG	Northwest Europe	Yes	Shell
2018	Shell Bunker Barge TBN 2	6,500	LNG	Northwest Europe	Yes	Shell
2018	Shell Bunker Barge TBN 3	6,500	LNG	Northwest Europe	Yes	Shell
2018	Kairos	7,500	LNG	Baltic	Yes	Bernhard Schulte
2018	Qi Yuan	28,000	LNG	China	Yes	Dalian Inteh Group
2018	Evergas TBN	32,000	Ethane/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2018	Evergas TBN	32,000	Ethane/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2018	Evergas TBN	32,000	Ethane/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2018	Evergas TBN	32,000	Ethane/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2018	Bunker Breeze	0	LNG	Barcelona	Yes	Suardiaz Energy Shipping
2019	KLine TBN	7,500	LNG	Korea	Yes	Korea Line
2019	KLine TBN	7,500	LNG	Korea	Yes	Korea Line
2019	Stolt TBN	7,500	LNG	Mediterranean	Yes	Stolt-Nielsen Gas
2019	Stolt TBN	7,500	LNG	Mediterranean	Yes	Stolt-Nielsen Gas
2020	Shell Bunker Barge	4,000	LNG	US Coast	Yes	Q-LNG Transport / Harvey Gulf
2020	Stolt TBN (option) **	7,500	LNG		Yes	Stolt-Nielsen Gas
2020	Stolt TBN (option)	7,500	LNG		Yes	Stolt-Nielsen Gas
2020	Total TBN	18,600	LNG	NWE	Yes	MOL
2020	FuelLNG TBN	7,500	LNG	Singapore	Yes	FuelLNG
2020	CLS TBN	3,500	LNG	Japan	Yes	CLS
2020	Eesti Gaas TBN	6,000	LNG	NWE	Yes	Eesti Gaas
2020	ENN TBN	8,500	LNG	China	Yes	ENN
2021	Stolt TBN (option)	7,500	LNG		Yes	Stolt-Nielsen Gas
2021	Knutsen TBN	30,000	LNG	Mediterranean	Yes	Knutsen OAS

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