LNG Shipping News

AN LNG JOURNAL TITLE ON LNG CARRIERS

18 January 2018

Three Arc7s transhipping Yamal cargoes

The fourth 174,000 cu m Arc7 LNGC 'Eduard Toll' recently arrived at Sabetta on the Yamal Peninsula to load a gas cargo.

Arc7s are now taking Yamal cargoes to European receiving terminals for onward shipment to other destinations

She is owned by Teekay and was built by the Daewoo Shipbuilding Marine Engineering (DSME). The LNGC completed sea trials in early November, 2017.

The third Arc7, 'Boris Vilkitsky' also recently loaded at Sabetta and discharged at Rotterdam's GATE terminal. She is owned by a joint venture involving Dynagas, Sinotrans and China LNG Shipping.

'Fedor Litke' was the second Arc7 LNGC to be delivered and loaded LNG in late December for Montoir (see below).

The first - 'Christophe de Margerie' - loaded at Sabetta on 8th December, 2017, which was witnessed by Russian President Vladimir Putin at the official opening ceremony of the facility.

She discharged into tanks at the UK's Isle of Grain terminal on 28th December. The cargo was then reloaded into the Engie-owned 'Gaselys' on 7th January and was believed heading for Boston (Mass)) with an expected arrival date of 22nd January, according to Platts cFlow.

If the 'Gaselys' takes the Russian gas cargo to the US from the UK, this could be viewed as trying to circumvent US sanctions against Russia and in particular, against Novatek, sources said.

Meanwhile, the 'Christophe de Margerie' returned to Sabetta, where she left on 8th January and was thought to be bound for Milford Haven.

According to Platts, none of the first three cargoes from Yamal LNG — sold on a spot basis ahead of the Yamal LNG long-term contracts coming into force from April — have discharged their gas into the respective countries' grids.

Spanish connection

For example, Reganosa's terminal, located at Ferrol (Spain) recently received its first Yamal cargo transhipped from an Arc7 at Rotterdam's GATE terminal onto the 'Clean Energy'.

Due to its location in the Atlantic, Ferrol is claimed to offer strategic value in the global LNG market, as this now is a new exporting area, adding to the imports from the US, Nigeria, Trinidad and Tobago and Peru.

Another transhipment was recently conducted by Engie subsidiary, Elengy at Montoir, near Saint Nazaire.

On 10th January, the 'Fedor Litke' delivered her cargo, which was transferred to the Moss-type 155,000 cu m 'LNG Jurojin'.

The LNG was transferred through cryogenic pipelines linking the two berths, without being stored in the terminal's tanks.

In order to accommodate calls of the larger capacity Arc7s, Elengy made numerous improvements to its facilities, including berths renovations and the installation of compressors for LNG boil-off recovery.

Nantes Saint Nazaire is also claimed to be ideal for this type of operation, due to its geographical location, good meteorological and nautical conditions and high quality infrastructure and port services. ■

Thai receiving terminal project

Thailand's PTT LNG has awarded Tokyo Gas Energy Solutions, a subsidiary of Tokyo Gas Co, a project management consultancy contract to build the Nong Fab LNG terminal.

Nong Fab will have a capacity of 7.5 mill tonnes of LNG per year and will be built by PTT LNG's parent, PTT Public Co, to increase its annual capacity from 10 mill tonnes to 19 mill tonnes by 2023, Reuters reported.

The terminal will be built near PTT's Map Ta Phut LNG import plant and will be opened in 2021, PTT said. ■

SHIPPING NEWS AGENDA

LNGC deliveries ramp up

There have been a spate of newbuildings delivered recently.

For example, Hyundai Heavy Industries handed over the newly built LNGC 'Gaslog Houston' to GasLog on 10th January.

'Gaslog Houston' was named on 12th December at HHI, along with her sister 'Gaslog Hong Kong'.

Following her delivery, the 174,000 cu m vessel will commence her charter contract under an agreement signed between GasLog and Shell subsidiary BG Group in April, 2015. Both ships will be chartered to BG Group's subsidiary Methane Services (MSL).

GasLog confirmed that MSL will charter the newbuildings commencing mid-2018 and early 2019 for average initial terms of 9.5 years.

***On 9th January, 2018 Flex LNG took delivery of its first LNGC newbuilding - 'Flex Endeavour'.

In connection with the delivery, $105 mill of the secured term loan facility was paid out and a further $105 mill has been pre-positioned for the delivery of sister vessel 'Flex Enterprise', which was due to be delivered on 11th January 2018.

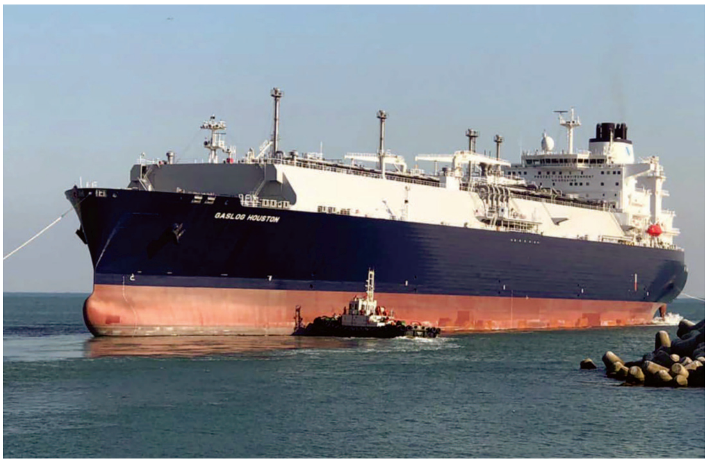
'Flex Endeavour' was scheduled to commence a timecharter with Uniper Global Commodities on or about 12th January, 2018, following crew mobilisation and completion of safety drills.

***BW LNG, part of BW Group, has taken delivery of the LNGC 'BW Tulip'.

Delivered on 5th January, 2018, 'BW Tulip' is the first of three sisterships ordered at Daewoo Shipbuilding and Marine Engineering (DSME).

The 173,400 cu m ships are fitted with MEGI engines.

The remaining two are due for delivery later this year and next.



'Gaslog Houston' was delivered this month and will commence a charter to the BG Group (Shell) in the near future

***'Pan Americas ' - the second in a series of four LNGCs ordered for the Queensland Curtis LNG project - was named at Hudong-Zhonghua Shipbuilding on 12th January.

She is of 174,000 cu m capacity and is due to be delivered next month.

The ship is jointly owned by Teekay LNG Partners, China LNG Shipping International and CNOOC. ■

Harris Pye eyes South Korean LNGC repairs

Engineering group Harris Pye has opened an office in Busan, South Korea.

This move was primarily to service the demand by domestic shipowners and operators who wish to bring their LNGCs to shipyards in South Korea for drydocking and inspection, repair or modification of their boilers.

Newly appointed Harris Pye Country Manager, Jaecheol Lee, explained: "Previously LNGCs were drydocking in Singapore, but now owners prefer to bring them to South Korea. This has enabled Harris Pye to set up a new office and offer repair and inspection services using our skilled workforce from our Singapore and Japan facilities initially for all necessary work on these marine boilers. In time we expect to extend our service to include industrial boilers.

"We are also able to undertake boiler construction, as well as offering all necessary engineering for, and installation of, ballast water treatment and scrubber systems for a variety of vessels.

"Establishing an office here in Korea means we can form the essential close and productive working relationship with our Korean clients," he said.

"We are delighted to have appointed Jaecheol Lee to this new position," explained Mark Prendergast, Harris Pye's CEO. "He majored in electrical/electronic engineering at university and has worked for 38 years in the marine field, primarily in sales and service for a variety of equipment manufacturers for newbuilds. With his hand on the tiller we look forward to expanding our Korean facilities in the months and years ahead." ■

NEWS NUDGE

MOL takes over Europe manning agency

Mitsui OSK Lines (MOL) has acquired Dutch manning agency Azalea Maritime, which has been renamed MOL Maritime (Europe).

This move will enhance the provision of top-quality seafarers for MOL-operated LNG carriers and tankers, the company said.

Operating as a manning agency, MOL Maritime (Europe) will continue to support MOL's operations from the Netherlands, while using Azalea Maritime's experience with European seafarers and knowhow of the manning business, MOL said.

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UK's Baltic Exchange launches LNG panellists group

Following an approach by Baltic Exchange member shipbroking companies involved in LNG, the organisation has formed the Baltic LNG Panellists Group.

This move comes as the Exchange seeks to develop a new LNG index, comprising several routes for this evolving shipping market.

Broking houses Affinity, Braemar ACM, Clarksons and SSY are the LNG Panellists Group's first members and they are currently assessing a range of LNG routes before reporting moves for a trial phase.

Commenting on the forming of the new group, Baltic Exchange CEO, Mark Jackson, said: "The growth in LNG transported by sea has led to the formation of a spot market. However, any spot market needs to be underpinned by standard contractual terms - as already happens in the tanker and drybulk freight markets.

"The Baltic Exchange is looking to support the LNG freight market as it matures and we hope to deliver greater transparency through an index. We are delighted that four of the most important independent LNG shipbroking companies have joined our panel and we look forward to developing a set of standardised assessments for use across the fast-growing LNG industry," he said.

In recent years, the substantial global increase in natural gas production and rising imports by India, China, Pakistan and Egypt has led to a fundamental change in LNG shipping market dynamics. In addition, more contracts are being signed for shorter durations and smaller quantities, without fixed destinations.

Trade patterns have diversified, as new import and export terminals have been built and the LNG fleet continues to expand. Until recently, the LNG shipping market was characterised by low levels of spot market activity, with the majority of business conducted on a long term contractual basis, the exchange said.

Various routes are currently being evaluated by the panellists. Once finalised, a proposal will be presented to the Baltic Index Council for approval and a trial phase. ■

German LNG terminal project reaches 'Open Season'

Gasunie LNG Holding, Oiltanking and Vopak LNG Holding are to form a joint venture - German LNG Terminal GmbH.

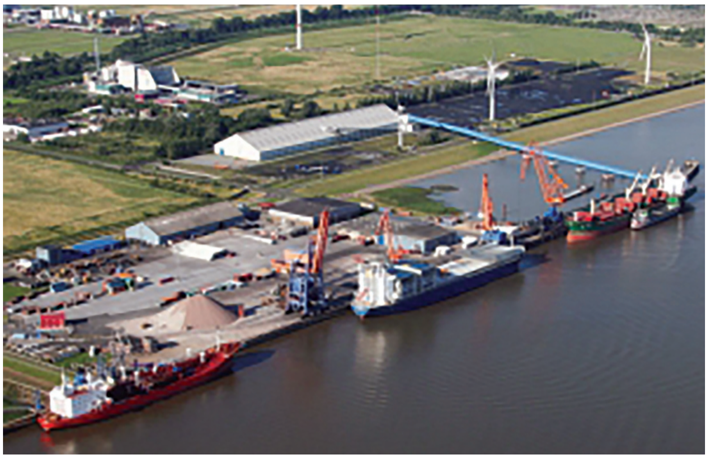
To attract interest from the market and to gain detailed insight in customer demand, an 'Open Season' was launched on 17th January, 2018.

The joint venture plans to build, own and operate Germany's first LNG import terminal at Brunsbüttel on the River Elbe, which will also provide LNG distribution services.

Brunsbüttel is located downriver from Hamburg. The industrial companies located in the region represents an attractive business environment, the companies said.

It is also located at the entrance to the Kiel Canal, meaning the Scandinavian countries and the Baltic States can easily be reached.

The following services will be offered at the terminal: discharge and loading of LNGCs, LNG storage, regasification and send out into the natural gas network and LNG distribution via trucks and barges.



Brunsbüttel is a deepwater port downriver from Hamburg

In July 2017, the three companies received EU anti-trust approval to establish the joint venture.

Subject to, among others, the outcome of the 'Open Season', construction of the terminal is envisaged to start after the final investment decision (FID) in 2019, to be ready for operations in the fourth quarter of 2022. ■

PRONAV to join Schulte group

Hamburg-based Schulte Group is to acquire 100% of the shares in LNGC shipmanager PRONAV.

However, the deal is still subject to the approval of the German Federal Cartel Office (Bundeskartellamt).

Schulte Group is currently providing management services for 23 LNGCs and has one LNG bunkering vessel and one 174,000 cu m LNGC on order, which will join the Schulte fleet in 2018.

This transaction puts the Schulte Group in a strong position to further exploit shipowning and shipmanagement potential in the growing LNG market, the company said. ■

Cheniere agrees LNG SPA with Trafigura

Cheniere Energy subsidiary, Cheniere Marketing has signed an LNG sale and purchase agreement (SPA) with Trafigura.

Under the terms of the agreement, the trading house will purchase around 1 mill tonnes of LNG per annum on a 'free on board' (fob) basis for a period of 15 years beginning in 2019.

The LNG's purchase price will be indexed to the monthly Henry Hub price, plus a fee.

"We are pleased to announce this long-term SPA with Trafigura, an important player in the global LNG market. We expect this SPA to help support Cheniere's expansion plans, and we look forward to a successful long-term relationship with Trafigura as a customer," said Jack Fusco, Cheniere President and CEO. "With a flexible solution tailored to the needs of our customer, this agreement demonstrates Cheniere's capabilities as a leading global LNG supplier." ■

GasLog Partners in public offering

GasLog Partners is looking to raise up to $97 mill by selling shares to finance future fleet expansion.

The company has priced its public offering of 4 mill units of 8.200% Series B cumulative redeemable perpetual fixed to floating rate preference units at $25 per unit.

Net proceeds from the public offering would be used for general partnership purposes, which may include future acquisitions, debt repayment, capital expenditures and additions to working capital.

GasLog Partners also said that it currently expects the financing to cover future acquisitions from its parent, GasLog Ltd.

The underwriters have a 30-day option to purchase up to 600,000 additional units. The partnership intends to file an application to list the units on the New York Stock Exchange.

GasLog Partners expected the offering to close on or about 17th January, 2018 just as this issue went to press. ■

'Macoma' first to be digitally classed by DNV GL

Towards the end of October last year, Teekay's Shell chartered newbuilding LNGC 'Macoma' became the first vessel to be assigned a full set of DNV GL digitally signed electronic class and statutory certificates.

Hans-Olav Siebke, DNV GL's work process manager newbuilding, said; "For the newbuilding regime, it was our goal to achieve a 100% digital delivery following the rollout of electronic certificates.

"It was very encouraging and rewarding to see our customer's vessel delivered with a complete set of electronic certificates just four days after their release, realising the full potential of the system," he said.

Representing the owner's perspective, Philippe Wesel, Teekay's newbuilding manager, said at the time of delivery; "We welcome the vessel to our fleet along with DNV GL's brand new electronic certificate regime. We look forward to utilising the IMO-compliant electronic regime and the additional DNV GL functionalities to the greatest possible extent to reduce the administrative burden on the ship and shore staff." ■

The LNGC 'Macoma' became the first vessel to be issued with DNV GL's digital certificates

TMS Cardiff orders LNGC

TMS Cardiff Gas has signed a contract with Hyundai Heavy Industries (HHI) to build a 174,000 cu m LNGC fitted with XDF propulsion.

The contract includes an option for a second vessel, the Greek-based owner said.

This order is the first in the company's so called X Carrier series, which will expand the company's fleet of managed vessels to 10. The vessel is scheduled for delivery in 2020, when she will enter into a seven-year timecharter contract with Total Gas & Power Chartering.

TMS Cardiff Gas added that it is looking for further growth in this sector, which is reflected by the additional capacity made available with optional vessels for delivery in 2020 and 2021.

"We are delighted to secure a new long-term time charter with Total, one of the leading global energy companies. Total is an important customer for TMS Cardiff Gas and we look forward to providing them with first-class LNG shipping services as they continue to expand their LNG activities," Christos Economou, TMS Cardiff Gas founder said.

TMS Cardiff Gas was established in 2011 and has a fleet of 10 gas carriers - six LNGCs and four VLGCs.

Haynes and Boone CDG Partner, Andreas Silcher, represented TMS Cardiff Gas in the contract.

He also represented TMS Cardiff Gas on the charter contract and has more than 10 years of experience in the maritime, oil and gas, and finance sectors, focusing on a wide range of commercial transactions. ■

NEWS NUDGE

Teekay LNG Partners declares distribution

Teekay GP LLC, the general partner of Teekay LNG Partners LP has declared a cash distribution of $0.14 per unit for the quarter ended 31st December, 2017.

The cash distribution is payable on 9th February, 2018 to all unitholders of record on 2nd February, 2018, Teekay LNG said.

Angola LNG production problem leads to tender cancellation

A production issue affecting Chevron's Angola LNG export facility has led to the cancellation of a tender to sell a spot cargo that was due to recently load.

Angola LNG has sent a notice to traders advising them of the production issue.

"On behalf of Angola LNG Limited, ALM formally advises you that Angola LNG Tender Number 0065 for the offer of a single cargo, through competitive tender, has been withdrawn," the notice said, Reuters reported. "This tender cancellation is due to a minor problem at the Soyo plant that has impacted production. This problem is now being remedied."

Angola LNG had originally launched a tender to sell a cargo loading on 10th-11th January.

Pertamina delivers first LNG cargo to FSRU

Indonesia's government controlled PT Pertamina has confirmed that the first LNG cargo has been delivered to the Nusantara Regas' Nusantara FSRU located in Jakarta Bay.

The LNGC 'LNG Aquarius' shipped the LNG gas cargo on 4th January.

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Energy Web Atlas upgrades LNG intelligence

Gulf Publishing Company has made several enhancements to its Energy Web Atlas (EWA) applications.

The ESRI-based geographic information system (GIS) platform allows users to examine real-time project information, export and manipulate data, and serves as a comprehensive source of actionable project intelligence, the company claimed

EWA's mapping platform includes detailed information on every LNG project, providing users with a single reference source for global LNG data, as well as comprehensive global pipeline information.

Additional features for the LNG platform includes:

- Ability for users to import their own external data to existing EWA maps.
- Capability to add custom annotation and symbols to maps.
- A new Global Shipping Ports layer that contains over 3,600 global ports with critical information, including port name, channel depths and maximum vessel size.

"Providing the option for users to include their own external data, whether it's a Shape file, Excel file or URL-based data, such as ArcGIS Server, KML or WMS Service, is another way the EWA platform provides continual improvement and innovation to the market place," said Scott Allgood, Director of Data for Gulf Publishing Co.

These subscription-based products, which are updated in real time, allow customers to interact with the latest data. Further map platforms covering renewable energy projects, downstream construction projects, and oil and gas pipeline infrastructure will be added this year. ■

BMT and MSI in FSRU terminal project

BMT and Metocean Services International (MSI) have been jointly awarded a contract by Gastrade to deploy an environmental monitoring system (EMS) for its FSRU.

In addition, MSI will be developed to be used for the design of the offshore moored FSRU and the subsea pipeline to the shore.

The Alexandroupolis FSRU will be located offshore Greece in the northern Aegean Sea in around 40 m water depth and will connected to the shore via a 24 km subsea pipeline. The FSRU is part of the Alexandroupolis independent natural gas system, which aims to create a new natural gas gateway to central and southeastern Europe.

MSI will provide a site-specific measurement program to record metocean parameters, including waves, currents, water levels and temperature offshore, as well as meteorological parameters onshore, for a period of 12 months.

BMT will deliver the metocean criteria study to support the engineering design phase and will use its in-house, long-term wave hindcast and hydrodynamic modelling software TUFLOW-FV, to simulate local sea states and hydrodynamic conditions. TUFLOW-FV is a 2D/3D finite volume numerical model that simulates hydrodynamic, sediment transport and water quality processes.

The Alexandropoulos FSRU will be fitted with BMT and MSL's environmental monitoring system

"We have worked closely with Gastrade's engineers to formulate a programme of work that will produce high integrity metocean criteria to support the design of the Terminal's facilities. A key requirement from the client is to reduce uncertainty in metocean characterisation. This will ensure that the design is fit for purpose, but not overly conservative," explained Robin Stephens, BMT's Metocean Group Manager.

"BMT and MSI have collaborated successfully on a range of metocean projects over recent years, and are able to combine synergies to provide appropriate and cost-effective metocean solutions," he added. ■

PSA Marine to provide FSRU services in Bangladesh

Summit Power International's (SPI) subsidiary, Summit LNG Terminal, has awarded a 15-year contract to PSA Marine Bangladesh, a subsidiary of PSA Marine.

Under the contract, PSA Marine Bangladesh will provide berthing, mooring, pilot and personnel transfer services to LNGCs calling at Summit LNG FSRU terminal, which has three escort tugs, one fast crew boat and one offshore supply vessel.

Together with Summit LNG, PSA Marine Bangladesh has targeted the commencement of operations in early 2019.

Peter Chew, PSA Marine Managing Director, said,"We have an excellent track record of providing towage services to LNG terminals, be it at the Singapore LNG terminal in Jurong Island or the Oman LNG terminal at Sur. We are honoured to work alongside Summit Power International and this win is a vote of confidence for our standing and capability as the preferred marine services partner for LNG terminals."

Muhammed Aziz Khan, SPI Chairman said,"Summit is the largest physical infrastructure company in Bangladesh generating 1,500 MW of electricity, 1,000 MW under construction and 2,400 MW under development. Bangladesh requires 15 mill tonnes of LNG and Summit will provide infrastructure for that.

"For our first project of LNG, we are pleased to bring on board PSA Marine, a pre-eminent marine services provider, to support our venture to develop region's fast growing LNG market. Summit Power has an excellent track record in working with world leading corporations to deliver the high standard projects and PSA Marine's best-in-class services are a natural fit with our operational philosophy,"he said.

In 2017, Summit LNG received a concession from Petrobangla, Bangladesh's state-owned company, to develop a floating LNG terminal facility, comprising an FSRU connected to shore by a six kilometre long subsea pipeline, on a build, own, operate, transfer basis in Moheskhali, Cox's Bazar to supply around 500 mill cu ft per day of natural gas to the national grid.

This project is part of SPI's $1 bill investment programme to deliver 1,000 MW of power and gas in Bangladesh. ■

GTT wins another South Korean order

At the end of last year, GTT received an order from a South Korean shipyard to design the LNG tanks of a new LNGC.

Her delivery is scheduled for the first quarter of 2020.

GTT will design the LNG tanks, allowing for a capacity of 174,000 cu m.

The insulation solution Mark III Flex has been chosen for its ability to reduce the daily guaranteed Boil-Off gas rate to 0.085% of tank volume.

The shipowner and shipyard's names were being kept confidential at this stage, GTT said. ■

WORLD LNG CARRIER ORDERBOOK

Name	Yard	Containment System	Capacity	Propulsion	Delivery Date	Ordered	Primary Owner
Pacific Breeze	Kawasaki	Moss	180000	TFDE	30/11/2017	2013	K-Line
Daewoo 2424	DSME	GT NO 96	172410	TFDE - Azipod	01/12/2017	2014	MOL
Kawasaki Sakaide 1731	Kawasaki	Moss	177000	TFDE	01/01/2018	2015	MOL
Castillo De Merida	Imabari	TZ Mk. III	178000	MEGI	01/01/2018	2014	Elcano
CESI Wenzhou	Hudong-Zhonghua	Membrane	174000	TFDE	01/01/2018	2013	China LNG Shipping Holdings
Sk Serenity	Samsung	KC-1	174000	TFDE	01/01/2018	2014	SK Shipping
SK Resolute	Samsung	TZ Mk. III	182000	XDF	01/01/2018	2013	SK Shipping
Pan Americas	Hudong-Zhonghua	GT NO 96	174000	TFDE	01/01/2018	2014	Teekay LNG
Patris	DSME	GT NO 96	174000	MEGI	05/01/2018	2014	Chandris
Flex Enterprise	DSME	GT NO 96	172400	MEGI	10/01/2018	2014	Flex LNG
Seri Camar	Hyundai Heavy	Moss	150000	STRH	01/02/2018	2013	MISC
Magdala	DSME	GT NO 96	173400	MEGI	01/02/2018	2014	Teekay LNG
Samsung 2148	Samsung	GTT Mark III Flex	177000	TFDE	01/02/2018	2014	MOL
Gaslog Hong Kong	Hyundai Heavy	TZ Mk. III	174000	XDF	01/02/2018	2014	GasLog
Castillo De Caldelas	Imabari	TZ Mk. III	178000	MEGI	01/03/2018	2014	Elcano
Energy Liberty	Japan Marine United Corp	SPB	165000	TFDE	01/03/2018	2014	MOL
Sk Spica	Samsung	KC-1	174000	TFDE	01/03/2018	2014	SK Shipping
Mitsubishi Nagasaki 2316	Mitsubishi H.I.	Moss	153000	STRH	01/03/2018	2014	NYK
Gaslog Genoa	Samsung	TZ Mk. III	174000	XDF	01/03/2018	2014	GasLog
Bw Lilac	DSME	GT NO 96	173000	MEGI	01/03/2018	2014	BWGas
Oceanic Breeze	Mitsubishi H.I.	Moss	155300	STRH	31/03/2018	2013	K-Line
Myrina	DSME	GT NO 96	173400	MEGI	01/04/2018	2014	Teekay LNG
Seri Cemara	Hyundai Heavy	Moss	150000	STRH	01/04/2018	2014	MISC
Daewoo 2441	DSME	GT NO 96	173400	MEGI	01/04/2018	2014	BP
CESI Lianyungang	Hudong-Zhonghua	Membrane	174000	TFDE	01/05/2018	2012	China LNG Shipping Holdings
Samsung 2149	Samsung	GTT Mark III Flex	177000	TFDE	01/05/2018	2014	MOL
Flex Ranger	Samsung	TZ Mk. III	174000	MEGI	01/05/2018	2013	Flex LNG
Kawasaki Sakaide 1734	Kawasaki	Moss	177000	STaGE	01/06/2018	2015	MOL
Kawasaki Sakaide 1720	Kawasaki	Moss	164000	TFDE	01/06/2018	2014	K-Line
Kawasaki Sakaide 1728	Kawasaki	Moss	155000	STRH	01/06/2018	2014	MOL
Diamond Gas Orchid	Mitsubishi H.I.	Moss	165000	STaGE	01/06/2018	2015	NYK
Kawasaki Sakaide 1729	Kawasaki	Moss	155000	STRH	01/06/2018	2014	MOL
Pan Europe	Hudong-Zhonghua	GT NO 96	174000	TFDE	01/06/2018	2014	Teekay LNG
Mitsubishi Nagasaki 2325	Mitsubishi H.I.	Moss	165000	STaGE	01/06/2018	2015	NYK
Mitsubishi Nagasaki 2326	Mitsubishi H.I.	Moss	180000	STaGE	01/06/2018	2015	NYK
Mitsubishi Nagasaki 2327	Mitsubishi H.I.	Moss	180000	STRH	01/06/2018	2015	NYK
Megara	DSME	GT NO 96	173400	MEGI	01/07/2018	2014	Teekay LNG
Flex Rainbow	Samsung	TZ Mk. III	174000	MEGI	25/07/2018	2013	Flex LNG
Jmu Tsu 5071	Japan Marine United Corp	SPB	165000	TFDE	31/07/2018	2014	NYK
Rudolf Samoylovich	DSME	GT NO 96	172410	TFDE - Azipod	01/08/2018	2014	Teekay LNG
Samsung 2150	Samsung	GTT Mark III Flex	177000	TFDE	01/08/2018	2014	MOL
Mitsubishi Nagasaki 2323	Mitsubishi H.I.	Moss	180000	STaGE	01/08/2018	2015	MOL
Kawasaki Sakaide 1735	Kawasaki	Moss	177000	STaGE	01/09/2018	2015	MOL
Daewoo 2462 MOL E.On	DSME	GT NO 96	180000	TFDE	01/09/2018	2015	MOL

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 = 26 October 2017

Fearnley LNG

Name	Yard	Containment System	Capacity	Propulsion	Delivery Date	Ordered	Primary Owner
Daewoo 2426	DSME	GT NO 96	172410	TFDE - Azipod	01/09/2018	2014	MOL
Kinisis	DSME	GT NO 96	173400	MEGI	30/09/2018	2015	Chandris
Daewoo 2442	DSME	GT NO 96	173400	MEGI	01/10/2018	2014	BP
Daewoo 2427	DSME	GT NO 96	172410	TFDE - Azipod	01/10/2018	2014	Dynagas
Daewoo 2443	DSME	GT NO 96	173400	MEGI	01/11/2018	2014	BP
Daewoo 2428	DSME	GT NO 96	172410	TFDE - Azipod	01/11/2018	2014	Dynagas
Jmu Tsu 5073	Japan Marine United Corp	SPB	165000	TFDE	30/11/2018	2014	MOL
Mitsubishi Nagasaki 2321	Mitsubishi H.I.	Moss	177000	STaGE	01/12/2018	2015	NYK
Daewoo 2429	DSME	GT NO 96	172410	TFDE - Azipod	01/12/2018	2014	Dynagas
Maran Gas Spetses	DSME	GT NO 96	173400	MEGI	01/01/2019	2015	Maran Gas Maritime
Daewoo 2444	DSME	GT NO 96	173400	MEGI	01/01/2019	2014	BP
Maran Gas Chios	DSME	GT NO 96	173400	MEGI	01/01/2019	2015	Maran Gas Maritime
Pan Africa	Hudong-Zhonghua	GT NO 96	174000	TFDE	01/01/2019	2014	Teekay LNG
Maran Gas Hydra	DSME	GT NO 96	173400	MEGI	01/01/2019	2015	Maran Gas Maritime
Hyundai Samho S856	Hyundai Heavy	TZ Mk. III	174000	MEGI	01/01/2019	2015	Teekay LNG
Samsung 2131	Samsung	TZ Mk. III	174000	XDF	01/01/2019	2014	GasLog
Hyundai Samho S857	Hyundai Heavy	TZ Mk. III	174000	MEGI	01/01/2019	2015	Teekay LNG
Hyundai Ulsan 2937	Hyundai Heavy	GTT Mark III Flex	180000	XDF	01/02/2019	2016	SK Shipping
Daewoo 2445	DSME	GT NO 96	173400	MEGI	01/02/2019	2014	BP
Daewoo 2489	DSME	GT NO 96	173400	MEGI	01/02/2019	2015	BWGas
Mitsubishi Nagasaki 2332	Mitsubishi H.I.		165000	STaGE	01/02/2019	2015	Mitsubishi
Daewoo 2446	DSME	GT NO 96	173400	MEGI	01/03/2019	2014	BP
Jmu Tsu 5072	Japan Marine United Corp	SPB	165000	TFDE	31/03/2019	2014	MOL
Hyundai Ulsan 2938	Hyundai Heavy	GTT Mark III Flex	180000	XDF	01/04/2019	2016	SK Shipping
Maran Gas Syros	DSME	GT NO 96	173400	MEGI	01/04/2019	2014	Maran Gas Maritime
Hyundai Ulsan 2964	Hyundai Heavy	GTT Mark III Flex	180000	MEGI	01/05/2019	2017	Knutsen
Mitsubishi Nagasaki 2322	Mitsubishi H.I.	Moss	177000	STaGE	01/06/2019	2015	MOL
Samsung 2212	Samsung	GTT Mark V	180000	XDF	01/06/2019	2016	GasLog
Flex Constellation	DSME	GT NO 96	173400	MEGI	01/06/2019	2017	John Fredriksen
Hyundai Ulsan 2963	Hyundai Heavy	GTT Mark III Flex	180000	MEGI	01/06/2019	2017	Knutsen
Daewoo 2430	DSME	GT NO 96	172410	TFDE - Azipod	01/07/2019	2014	Teekay LNG
MOL Hudong-Zhonghua 1/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	01/07/2019	2017	MOL
Daewoo 2431	DSME	GT NO 96	172410	TFDE - Azipod	01/08/2019	2014	Teekay LNG
Flex Courageous	DSME	GT NO 96	173400	MEGI	01/08/2019	2017	John Fredriksen
Daewoo 2432	DSME	GT NO 96	172410	TFDE - Azipod	01/09/2019	2014	MOL
Samsung 2213	Samsung	GTT Mark V	180000	XDF	01/09/2019	2016	GasLog
Daewoo 2466	DSME	GT NO 96	173400	MEGI	01/10/2019	2016	Maran Gas Maritime
Daewoo 2433	DSME	GT NO 96	172410	TFDE - Azipod	01/10/2019	2014	Teekay LNG
MOL Hudong-Zhonghua 2/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	01/10/2019	2017	MOL
Daewoo 2467	DSME	GT NO 96	173400	MEGI	01/11/2019	2016	Maran Gas Maritime
Daewoo 2434	DSME	GT NO 96	172410	TFDE - Azipod	01/11/2019	2014	Teekay LNG
Imabari Saijo 8200	Imabari	GTT Mark III Flex	178000	MEGI	01/01/2020	2015	K-Line
MOL Hudong-Zhonghua 3/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	01/01/2020	2017	MOL
MOL Hudong-Zhonghua 4/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	01/04/2020	2017	MOL

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 = 26 October 2017

Fearnley LNG

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	Triputra (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 Bahrain Vision	12,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
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	Norgas Unikum	12,000	LNG/LPG/Ethylene	Worldwide	No	Norgas Carriers
2012	Coral Energy	15,600	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2013	Coral Anthelia	6,500	LNG/Ethylene			Anthony Veder
2013	JX Energy TBN	2,500	LNG	Japan	Yes	JX Energy
2013	Kakuyu Maru	2,500	LNG	Japan	Yes	Tsurumi Sunmarine
2014	LNG-Oil combi**	2,000	LNG	Germany	Yes	Veka
2014	Short Sea LNG Tanker **	4,000	LNG	Germany	Yes	Veka
2015	10 small carriers TBN**	5,000	LNG			Bimantara Group
2015	Jahre TBN**	6,200	LNG	Norway	Yes	Donsotank/Jahre Marine
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	LNG Barge TBN	3,000	LNG	US Coast	Yes	LNG America
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 Inland bunker**	800	LNG	Germany	Yes	Veka
2015	Norgas TBN**	17,000	LNG/LPG/Ethylene	Worldwide		Norgas Carriers
2015	Norgas TBN**	17,000	LNG/LPG/Ethylene	Worldwide		Norgas Carriers
2015	PetroChina TBN	30,000	LNG	China		PetroChina
2015	TBN	14,000	LNG	China	Yes	Zhejiang Huaxiang
2015	TBN 1	27,500	LNG	China?		Danyang?
2015	TBN 2	27,500	LNG	China?		Danyang?
2015	TBN 3	27,500	LNG	China?		Danyang?
2016	Clean Jacksonville	2,200	LNG	US Coast	Yes	CME
2016	Dalian TBN	28,000	LNG	China	Yes	Dalian Inteh Group
2016	Hai Yang Shi You 301	30,000	LNG	Bali FSU	Yes	CETS (CNOOC)
2016	JS Ineos Indepence	27,500	LNG/Ethylene	Markus Hook - Rafnes	Ethane, for Ineos	Evergas
2016	JS Ineos Innvovation	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
2016	LNG Prime	2,250	LNG	Northwest Europe	Yes	Veka Deen LNG
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

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 = 9th November 2017

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Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
2016	Ocean Yield TBN**	36,000	Ethane/Ethylene	US - Teeside	Ethane, for Sabic	Gaschem Services
2017	Cardissa	6,500	LNG	Northwest Europe	Yes	Shell
2017	Yuan He 1	30,000	LNG	China	Yes	CSR
2017	ENGIE Zeebrugge	5,000	LNG	Northwest Europe	Yes	NYK
2017	CME TBN†	2,200	LNG	US Coast	Yes	CME
2017	CME TBN†	2,200	LNG	US Coast	Yes	CME
2017	Coral EnergICE	18,000	LNG	Northwest Europe/Baltics	Yes	Anthony Veder
2017	Coralius	5,800	LNG	Northwest Europe/Baltics	Yes, for Skangas	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	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	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	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	Shell Bunker Barge TBN 4	3,000	LNG	Northwest Europe	Yes	Shell
2018	Bernhard Schulte TBN	7,500	LNG	Baltic	Yes	Bernhard Schulte
2018	CME TBN†	2,200	LNG	US Coast	Yes	CME
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
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	Stolt TBN (option)	7,500	LNG		Yes	Stolt-Nielsen Gas
2020	Stolt TBN (option)	7,500	LNG		Yes	Stolt-Nielsen Gas
2020	Shell Bunker Barge	4,000	LNG	US Coast	Yes	Q-LNG Transport / Harvey Gulf
2021	Stolt TBN (option)	7,500	LNG		Yes	Stolt-Nielsen Gas

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