

LNG Shipping News

AN LNG JOURNAL TITLE ON LNG CARRIERS

19 July 2018

NLNG awards FEEDs for expansion project

Nigeria LNG Limited (NLNG) has awarded contracts for front end engineering design (FEED) for its planned plant expansion project, train 7.

Winning the contracts were B7 JV Consortium and SCD JV Consortium. B7 JV comprises KBR, Technip and Japan Gas Corp (JGC), while SCD JV Consortium is made up of Saipem, Chiyoda and Daewoo.

This move brings the Nigerian gas exporter closer to realising its goal of increasing LNG production output from 22 mill tonnes per annum (MTPA) to 30 mill tonnes per annum.

A completed FEED process will pave the way for engineering, procurement and construction (EPC) pricing and bidding processes, which are the preconditions for a final investment decision (FID).

They will participate in the dual FEED process and produce a basic design engineering package (BDEP) to determine the EPC pricing, and their bids to construct the train further down the line.

NLNG Managing Director and CEO, Tony Attah, said at the signing ceremony held in London; "The front end engineering design is the most crucial part in the build-up to the actualisation of train 7. After some delay and lost opportunities to reinforce Nigeria's position prominently on the global energy map, today's event goes to show that train 7 is alive.

"Typically, FEED takes about 9-12 months but we have explored another strategy for this project by adopting the dual FEED process, which awards this crucial part of the train 7 project to two prospective engineering consortia, instead of one contractor.



Nigeria might need more of these going forward. Photo credit- Wärtsilä

"What this does for us is give us a degree of freedom to start FEED and sometime after, EPC bidding, with both activities overlapping. We remain committed to taking FID as soon as these processes are complete.

"The history of the LNG industry in Nigeria is chequered. After about 30 years of trying to get an LNG project going, in 1989, NLNG was incorporated and one FID after the other, 6 trains were built in quick succession, making us the fastest growing LNG company in the world at the time.

"But we lost steam just after 2007, while the rest of the world went past us with the development of their gas resources and the gain of greater market share. We started our LNG industry 24 months after Qatar, but Qatargas has attained a production capacity

of 77 mill tonnes per annum with additional target of 30% LNG production in the immediate future. I believe it is time to reset the narrative. It is time for gas revolution in Nigeria.

"So, 30 years after the incorporation of NLNG, and 20 years after we exported our first LNG cargo, we are looking to the future and that future for us is Train 7. Activities are lining up for this project. With the continued support of the Federal Government of Nigeria and the Shareholders towards this future, the odds are clearly in our favour," he said.

NLNG is owned by four shareholders - the Federal Government of Nigeria, represented by NNPC (49%), Shell Gas BV (25.6%), Total Gaz Electricite Holdings France (15%), and Eni International (10.4%).

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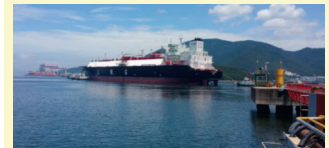
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New LNG benchmark index on trial

The Baltic Exchange has started public trial reporting of a new LNG benchmark vessel.

The trial period started on 10th July, 2018.

Benchmark LNG vessel description:

- 91,500 dwt TFDE propulsion.
- 160,000 cu m capacity.
- 17 knots on 100 tonnes laden/95 tonnes ballast IFO (380 cst).
- 0.1% boil off.
- 20 tonnes IFO/day port consumption idle.
- 40 tonnes IFO/day port consumption working.
- Max 20 years of age.

Benchmark route - BLNG1:

Vessel to be cold ready to load. Delivery OPL Gladstone, loading 25-40 days from index date, for one round voyage with discharge

in Japan (Tokyo) redelivery Gladstone, duration 20-25 days. 1.25% total commission.

The route will be assessed in \$/day every Tuesday on a weekly basis, published at 11:00 hrs London time.

Whilst the route is on trial, the

data will not be downloadable.

It will only be published on www.balticexchange.com, the exchange pointed out.

The exchange also said that market feedback or any suggestions will be welcome via balticbroker@balticexchange.com ■



The Baltic Exchange is trialling an LNG index

GTT receives more orders

GTT has received orders from Samsung Heavy Industries (SHI) and Hyundai Samho.

The Samsung order concerns the tank design of a new 174,000 cu m LNGC, to be built on behalf of a European shipowner.

The delivery of the ship is planned for the third quarter of 2020.

GTT's membrane containment system Mark III Flex has been selected for this vessel's tanks design.

Philippe Berterrotière, GTT Chairman and CEO, said: "We are very pleased to pursue our partnership of excellence with Samsung Heavy Industries through this new order."

GTT has also received an order from Hyundai Samho Heavy Industries (HSHI), concerning the tank design for two LNGCs of 174,000 cu m, on behalf of another undisclosed European shipowner.

The company will design the LNG tanks of both units, which will also be fitted with the Mark III Flex membrane containment system.

Their deliveries are planned during the first quarter of 2021.

Berterrotière said: "We are delighted to receive these two new orders from HSHI, which takes the number of current orders from HSHI up to eight and further illustrates the industry's confidence in our technologies." ■

CME Group and Cheniere to develop LNG futures contract

Claimed to be the world's leading and most diverse derivatives marketplace, CME Group is to develop an LNG futures contract with physical delivery to Cheniere's Sabine Pass terminal.

"In recent years, the shale revolution has unlocked abundant supplies of natural gas here in the US, creating new risks and opportunities for producers, processors, consumers and traders," said Peter Keavey, CME Group Global Head of Energy. "Through its Sabine Pass liquefaction facility, Cheniere is delivering Henry Hub-indexed natural gas to the world in the form of LNG."

"This agreement with Cheniere is significant because it will be the foundation for developing a new LNG risk management tool for producers, consumers and traders around the globe, while further

cementing the role of Henry Hub Natural Gas futures as the global gas pricing benchmark," he added.

Cheniere's Sabine Pass LNG terminal currently operates four trains capable of producing 18 mill tonnes of LNG per year. A fifth train is under construction and a sixth is fully permitted and shovel-ready, representing up to 27 mill tonnes per year of LNG capacity at the site.

Cheniere is also constructing a separate LNG export facility outside of Corpus Christi, Texas.

As US Gulf Coast LNG is increasingly exported to Asia, South America and Europe, there will be

an increased need for producers, processors and end users to hedge their price risk.

CME Group's robust suite of natural gas futures and options are already helping customers manage risk around this shift away from regional benchmarks to an increasingly interconnected global gas market, the company claimed.

In addition to its deeply liquid and established global benchmark Henry Hub Natural Gas futures and options contracts, a physically deliverable LNG futures contract from CME Group is expected to help the industry manage price risk more effectively and efficiently. ■

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When will Ichthys start up?

There appears to be some confusion as to the intended start up date of Japan's Inpex giant Ichthys field off the Australian coast, according to local sources.

Inpex's new CEO Takayuki Ueda told Reuters recently that the company was yet to start producing gas from the \$54 bill project, located some 220 km offshore Western Australia and 820 km southwest of Darwin.

He didn't give any indication as to when this would happen.

Ichthys was originally due to start production at the end of 2016 but this initial start-up date was pushed back to mid-2017, and then moved to March, 2018, due to delays in the installation of Ichthys' offshore facilities.

It then slipped back to May, due to poor weather and cyclones,

before going further out to late September.

Wood Mackenzie's Asia/Pacific director of gas and LNG research, Nick Browne said that the latest series of delays were always on the cards.

"A lot of people felt that the initial timeline set in May for the first LNG shipped by September was too aggressive," Browne told Fairfax Media.

"We see a fourth quarter start as more realistic. They have set a 30th September deadline for shipping but we see this slipping into the fourth quarter but at the same time, it still feels like they are

now moving into the final stages."

Inpex had said on 1st June that commissioning of all onshore and offshore facilities at the much-delayed project was complete and that gas would start flowing within a week or two.

"There are various minor issues to address in the final safety checks ... but there are no major problems with the facilities," Ueda, told Reuters in his first interview with overseas media since taking the helm at Inpex last month.

He added that the company is keeping its target to ship its first LNG cargo by the end of September. ■

Total closes Engie acquisition

Total has finalised the acquisition of Engie's upstream business for an overall enterprise value of \$1.5 bill.

Additional payments of up to \$550 mill could be payable by Total in case of an improvement in the oil markets in the coming years, the French oil major said.

This business portfolio includes participating interests in liquefaction plants, notably in the US Cameron LNG project, long term LNG sales and purchase agreements (SPAs), an LNGC fleet, as well as access to regasification capacities in Europe.

"Acquiring Engie's LNG business is a real step change for Total allowing us to leverage size and flexibility in the fast growing and increasingly commoditised LNG market.

"This transaction makes Total the second largest global LNG player among the majors with a worldwide market share of 10% and the Group will manage an overall LNG portfolio of around 40 mill tonnes per year by 2020. It also helps us to build a position in the US LNG market, with the 16.6% stake in the Cameron LNG project," said Patrick Pouyanné, Total's Chairman & CEO.

Total's LNG portfolio expected by 2020 includes:

- A total volume of LNG managed of 40 mill tonnes per year.
- A liquefaction capacity portfolio of 23 mill tonnes per year, distributed among the major LNG production areas - Middle East, Australia, Russia and the US.
- A worldwide LNG trading contracts portfolio of 28 mill tonnes per year to supply each LNG market with competitive and flexible resources.
- A role of a key supplier for the European market with regasification capacities of 18 mill tonnes per year.
- A fleet of 18 LNGCs, including two FSRUs. ■

Taipower to secure second LNG supply tranche

State-owned Taiwan Power Co (Taipower) has issued a request for expression of interest (REOI) for a second tranche of LNG supply.

This will total 1.8 mill tonnes per year on a DES basis, starting from 2025 for a period of 10-20 years, according to a report from Platts.

The REOI follows the 4th July government approval for Taipower's Hsien-Ho onshore LNG import terminal in northern Taiwan and the adjacent Hsieh-Ho power project, which comprises two combined cycle power units.

Gas will feed the power facilities via a 170,000 cu m FSRU, which will be provided by the chosen LNG supplier, over 2025-2032 and by Taipower's own Hsieh-Ho onshore receiving terminal from 2032 onwards.

The deadline for submissions

for the REOI process is 31st December this year. The company reportedly said that it planned to short list potential suppliers and issue a request for proposal by the end of the third quarter of 2018, with contract negotiations to start in the fourth quarter, Platts said.

Taipower's new LNG requirement follows another REOI issued at the end of 2017 for the supply of 1.8-2.4 mill tonnes per year of LNG over 15 years or longer to the utility's planned Taichung receiving terminal.

For the first supply contract, the company plans to short list potential suppliers and issue a request for proposal by the end

of the third quarter of this year, with contract negotiations to start in the fourth quarter.

Taipower's requirements are underpinned by Taiwan's target to reduce carbon emissions and nuclear power generation capacity, and increase the share of natural gas in the country's power generation mix to 50% by 2025.

To meet these goals, Taipower plans to build 15 new gas-fired power generation units.

The Hsieh-Ho units 1 and 2 are planned for commissioning in July, 2025 and July, 2030, respectively, with an estimated consumption of 0.9 mill tonnes per year of LNG each, the report concluded. ■

NEWS NUDGE

Cheniere advances Corpus Christi LNG expansion

Cheniere Energy has officially applied to US regulators for permits to expand its Corpus Christi liquefaction and export plant by adding seven mid-scale trains totalling 23 mill tonnes per annum of output.

Dynagas to leave Cool Pool

It has been reported that Dynagas has pulled out of the Cool Pool, due to its three vessels entered in the pool being timechartered out.

Dynagas was one of the original members of the pool along with Golar and GasLog

and had the three LNGCs entered into the commercial pooling arrangement.

Pemex to order an FSRU

Mexico's state oil and gas company Pemex has reportedly invited bids to operate an FSRU to import LNG. ■

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Nakilat achieves 9% increase in profits

Nakilat has reported an increase in net profit of 9% for the first half of this year.

The LNGC owner and operator said it had recorded QR445 mill for 1H18, compared to QR409 mill during the same period in 2017.

During the past year, there have been many positive developments across the company, despite the challenging market conditions in the maritime sector.

Nakilat said that continued to pursue its long-term strategic goals through the expansion of its fleet with two additional LNGCs earlier this year and more re-

cently, acquired a major stake in its first FSRU.

This significant milestone is in line with the company's plan to diversify and grow its business portfolio, with the aim to widen its international outreach and secure its industry-leading position in the dynamic and competitive LNG market, the company said in its results presentation.

In addition, it opens a new horizon and business avenue for Nakilat to sustain its long-term growth and development strategies, which in turn will further maximise value and returns for shareholders.

The 1H18 financial results were a reflection of the company's secured long-term agreements with financially strong charterers, which has enabled Nakilat to maintain steady cash flow and generate positive value for its shareholders.

The company's cost optimisation strategy and initiatives, as well as periodic repayment of loan principals, have resulted in reduced financing costs and enhanced efficiencies across its

operations, it claimed.

Commenting on the company's results, Nakilat CEO, Eng Abdullah Al Sulait, said: "Nakilat's commitment to deliver value for our shareholders and maintain our leadership in energy transportation have been the main driving forces behind the solid performance achieved today.

"The diversification of our fleet through the acquisition of our first FSRU paves a new business avenue for Nakilat to expand our outreach to developing and emerging markets, thereby enabling us to sustain our long-term growth and development strategies. While we remain focused on achieving our strategic goals, we are also continually assessing the market and our current investments in relation to profitability to address any risk involved for the company and our shareholders.

"This enables us to prudently navigate anticipated or unexpected challenges, in an effort to steer the company forward as a global leader and provider of choice for energy transportation and maritime services," he concluded. ■



Nakilat CEO, Eng Abdullah Al Sulait

Flex LNG in LNGC sale and leaseback

Flex LNG has completed the sale and leaseback of the newly delivered LNGC 'Flex Rainbow', which was originally announced in the company's first quarterly presentation.

The company took delivery of the LNGC from Samsung Heavy Industries on schedule on 9th July, 2018.

'Flex Rainbow' is the company's fourth LNGC to be delivered, while four more LNGCs are currently under construction.

'Flex Rainbow' is of 174,000 cu m capacity powered by ME-GI machinery giving considerable fuel savings, compared to traditional LNGCs, Flex LNG claimed.

At the time of her delivery, the LNGC also commenced a six, plus three months timecharter with a

major European energy company.

As mentioned in the company's first quarter 2018 financial report were the acquisition of two LNGC newbuildings with X-DF machinery from an affiliate of Gevean for \$184 mill each.

These vessels are scheduled for delivery in 2020 and the transaction was subject to final documentation and execution of 'Flex Rainbow's' sale and leaseback.

With this announcement, the closing condition for these acquisitions has thus been fulfilled, Flex LNG said. ■

NEWS NUDGE

Vessel orders

Seatankers Management Company, part of Fredriksen Group, has ordered a 173,400 cu m LNGC at Daewoo.

She will be fitted with an MEGI engine and full re-liquefaction system (FRS).

The ship will be built at the Okpo Shipyard and will be delivered in 2020.

This was announced just days after DSME received an order from the Angelicoussis Group for its 100th vessel placed at DSME.

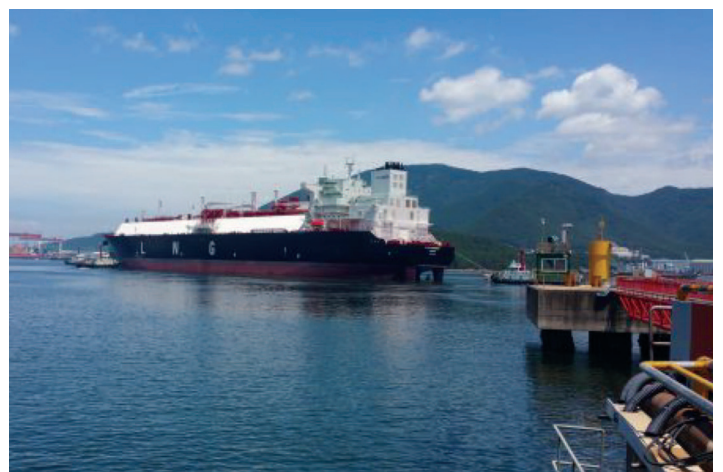
The 173,400 cu m FSRU, ordered for Maran Gas Maritime, is due for delivery in the first half of 2021.

Elsewhere, Hyundai has confirmed an order from Capital Maritime for four 174,000 cu m LNGCs worth \$744 mill in total, which was rumoured in the last newsletter.

TMS Cardiff Gas was believed to have placed an order for three LNGCs at two Korean shipbuilders.

Based on the data from Asia, two 174,000 cu m LNGCs were ordered from Hyundai Heavy Industries (HHI) and one 170,400 cu m LNGC from Samsung Heavy Industries (SHI).

No more information was forthcoming as this newsletter went to press. ■



Flex LNG has agreed a sale and leaseback for one of its new LNGCs

FERC denies any pending LNG terminal delays

The US Federal Energy Regulatory Commission (FERC) has denied any delays reported of 12 to 18 months on the timing of pending applications for LNG terminals.

In an interview posted on the FERC Open Access podcast FERC Chairman, Kevin McIntyre said that recent media reports of such letters were incorrect. "FERC has issued no such letter," he asserted.

To the contrary, he added, there is good news regarding the timing for LNG applications.

"In just the last few days we have made truly significant strides in reforming the permitting process with our federal partners, eliminating duplicative efforts and instituting a streamlined procedure that will significantly reduce our LNG permitting timelines," McIntyre said. "The details are still being hammered out, but we expect to have a formalised agreement in place in the coming days. I expect to be able to provide more detail on this soon."

In the past six months, FERC has issued revised notices of schedule for two projects, and one schedule for a greenfield LNG project that is subject to the FAST-41 process, McIntyre said.

"FERC staff is very cognisant of the financial market impacts of its LNG project schedules," McIntyre said. "Moreover, since we have been working diligently to streamline our permitting process and are still making significant strides in that direction, the release of any schedules to date would have been premature."

"For these reasons, among others, FERC takes very seriously the schedules that it issues regarding these LNG projects. To that end, we will not issue schedules until we have all the facts necessary and have implemented our improved processes to create accurate schedules," he explained. ■

SK Shipping in legal battle with Samsung over LNGC

SK Shipping is in a legal battle with Samsung Heavy Industries over an alleged defect in an LNGC, a South Korean Government opposition leader told Yonhap News.

Kim Jung-hoon of the main opposition Liberty Korea Party said a problem with the dew point temperature in an inner barrier space of the LNGC's cargo containment system was discovered when it arrived at the Sabine Pass LNG terminal, quoting a report circulated by KOGAS.

SK Shipping, the logistic service company of SK Group, refused to load LNG at the terminal, due to the problem, which caused the vessel to remain idle for at least 75 days.

Samsung has alleged that there was no problem in the performance and safety of the gas carrier's cargo containment system.

SK Shipping has formally launched legal action against Samsung over the alleged defect, Kim said, according to Yonhap. ■

Mitsubishi christens second Sayaringo STaGE LNGC

Mitsubishi Shipbuilding has held a christening ceremony for the second Sayaringo STaGE type LNGC.

The christening was held on 6th July at Mitsubishi's Nagasaki Shipyard.

Featuring a length of 293.5 m and a width of 48.94 m, 'Diamond Gas Rose' will have a capacity of 165,000 cu m.

After her completion in August, 'Diamond Gas Rose' will join her sistership 'Diamond Gas Orchid', which was completed in late June, in shipping LNG for the Cameron

LNG Project, in Louisiana.

The Sayaringo STaGE is successor to the Sayaendo, a vessel noted for its improved Moss-type spherical tanks that deliver reliability, according to Mitsubishi Shipbuilding.

The adoption of apple-shaped tanks in the new Sayaringo STaGE has enabled an increase in LNG carrying capacity without changing the ship's beam, while the fitting of a hybrid propulsion system has boosted fuel efficiency, compared to the Sayaendo, it was claimed. ■

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WinGD celebrates 100th X-DF engine order

Only five years after its launch, WinGD has won an order for the 100th X-DF engine.

This technology developed by WinGD has demonstrated, on tests and engines currently in operation, that it offers stable combustion, inherently low NOx and greenhouse gas emissions and high overall system efficiencies, as well as reliable and safe gas operation, the company claimed.

GasLog Ltd, one of the early supporters of the X-DF technology, has eight LNGCs, each fitted with two 5X72DF main engines with three newbuilds recently entering service.

For the latest GasLog LNGC orders at Samsung Heavy Industries, X-DF propulsion machinery was selected.

"When we select an engine for GasLog, the most important considerations are the engines' contributions to the safety, competitiveness, sustainability and reliability of the vessel for our customers. When we selected the X-DF it was crucial for us to find a dual fuel engine which could offer all those features for today's and the future environment. WinGD's X-DF engines were the choice for our new vessels and we continue



An X-DF engine seen on a testbed

to be confident in their low pressure dual fuel technology," said Richard Sadler, Gaslog Ltd COO.

"If ever there was confirmation that the shipping industry is embracing LNG as the first choice for IMO compliant engines, the 100th ordered WinGD X-DF, dual-fuel engine is proof. With over 12,000 running hours logged on the first WinGD DF engine in operation

(Terntank's 'Ternsund') and over 100,000 running hours accumulated for the full X-DF engine fleet with 13 vessels at sea, the performance, benefits and reliability of WinGD's low-pressure technology is proven," claimed Rolf Stiefel, WinGD's Vice President of Sales and Marketing.

"Achieving the 100th X-DF engine milestone in July, 2018, after

only five years, validates that customers, such as shipyards, vessel owners and operators have recognised its unique benefits. Beside its leading position in the LNGC market today, X-DF is gaining ground for future tankers and containerships to ensure that newbuilds are built to meet 2020 regulations in the most economical way," he added. ■

'Vladimir Rusanov' to arrive in China via NSR

The Arc7 LNGC 'Vladimir Rusanov', which is jointly owned by MOL and China COSCO Shipping Corp, is due at Jiangsu Rudong terminal on 19th July having loaded at Yamal cargo and transited the Northern Sea Route (NSR).

She sailed from Sabetta on 25th June and arrived at the Bering Strait on 6th July.

The vessel is the first of three newbuildings in the MOL and China COSCO Shipping joint venture purpose-built for the Yamal LNG Project. Since the vessel started shipping LNG at the end of March, 2018, she has transported four LNG cargoes to Europe sailing

down the Norwegian coast.

With the arrival of the summer transit season in the Arctic, the vessel had her first opportunity to navigate eastwards along the NSR to East Asia via the Bering Strait without icebreaker support.

This voyage also marks the first of the Yamal LNG Project's direct LNG delivery to East Asia, MOL said. ■

ClassNK issues new guidelines for liquefied gas carriers

ClassNK has released 'Guidelines for Liquefied Gas Carrier Structures – Independent Prismatic Tanks (Second Edition)'.

This publication specifies the technical requirements specifically related to the structural strength assessments of liquefied gas carriers by using direct calculation.

The two components of the guidelines include the 'Guidelines for Direct Strength Analysis', and 'Guidelines for Fatigue Strength Assessment'.

Based on the latest knowledge acquired through Class NK's R&D, the inclusion of the 'Guidelines for

Fatigue Strength Assessment' outline strength assessment methods against fatigue cracks caused to vessels by prolonged and repeated loads.

By implementing fatigue strength assessment methods that follow the guidelines, it will be possible to carry out more reasonable fatigue designs for primary members of not only hull structures, but also of independent cargo tank structures and their supporting structures. ■

ABS to class BOTAS FSRU

ABS is to class an FSRU ordered by Turkish oil and gas pipeline operator, BOTAS.

To be built at Hyundai Heavy Industries, the FSRU will have a 170,000 cu m storage capacity and a 1,000 MMSCFD LNG discharge capacity.

The FSRU will be jetty moored off the coast of Turkey and operated by Mitsui OSK Lines (MOL).

It will be classed using the ABS 'Guide for Building and Classing LNG Regasification Vessels'.

"As demand for gas has in-

creased over the last decade, the supply chain has had to adapt and figure out new ways of getting gas to expanding markets," said ABS Senior Vice President and Chief Business Development Officer, Jamie Smith. "FSRUs, like this one for Turkey, are providing gas distributors and suppliers an efficient and effective solution for getting their product to consumers."

"We are excited to work with all of the stakeholders in advancing safety throughout the development of this project," said ABS Manager for Turkey, Seyfettin Tatli. "This FSRU will help BOTAS expand Turkey's energy infrastructure and reduce dependency on pipeline gas, allowing them to deliver LNG more efficiently and cost-effectively."

Recognising the changing land-

scape and increased industry focus on gas, ABS launched its Global Gas Solutions team in 2013 to support industry in developing gas-related projects.

This team provides industry leadership, offering guidance in LNG floating structures and systems, gas fuel systems and equipment, gas carriers, and regulatory and statutory requirements. ■

Genscape tracks LNGCs in Kuwait

Genscape Vesseltracker has recently introduced 19 AIS antennas worldwide.

These involve key port locations in the Middle East and Africa, including Kuwait. The AIS antenna data provides near-real time visibility into vessel movements, allowing clients to gain an understanding of the global commodity supply chain.

The latest antenna addition in Kuwait's Mina al Ahmadi Port in the Persian Gulf is especially valuable to our clients who need to understand the region's import and export levels.

In addition to Kuwait's high oil production and supply, the country is increasing its reliance on natural gas imports to meet growing electricity demand. As a short-term solution to fulfill natural gas needs, Kuwait completed construction of its first LNG import terminal in 2013, the Mina Al-Ahmadi GasPort.

Using a combination of big data analytics and machine learning, Genscape Vesseltracker aggregates the AIS data captured by the Mina al Ahmadi Port an-

tenna to give traders, analysts, and suppliers transparency into current movements on the water.

The Cockpit tool quickly decipheres which ships outside of the terminal are specific to LNG. Clients can use the platform to see expected ship arrivals at the GasPort, or to determine where the LNGC is headed after it loads.

Genscape Vesseltracker data showed the long-term track of the LNGC 'Sonangol Etosha,' heading

toward the terminal in early July. Her voyage can continue to be tracked by creating custom alerts on the vessel to get frequent updates, as it approaches or leaves the facility.

Genscape's antenna partners receive full access to all AIS antenna data and information from the company's ship database, including vessel owners and managers, and technical specifications. ■



Genscape Vesseltracker's Cockpit Tool can quickly analyse vessels by type, including LNGCs. As of 3rd July, AIS data showed that the LNGC 'Sonangol Etosha' was making her way to Mina al Ahmadi

NEWS NUDGE

Awilco secures timecharter contract

Awilco LNG has timechartered the 2013-built, 156,000 cu m, TFDE 'WilForce' for between 9-12 months to an oil and gas major.

Subject to customary inspection and vetting acceptance of the LNGC, the contract is scheduled to commence in September, 2018, subsequent to a scheduled drydocking.

Awilco LNG also said that the contract is estimated to contribute an annualised EBITDA of about \$26 mill during the charter period.

Galveston Bay LNG receives permission to export

The US Department of Energy (DOE) has issued an order authorising Galveston Bay LNG to export up to 785.5 bill cu ft of domestically produced LNG per year for 20 years by ship from its proposed liquefaction facility to be located in Texas City, Texas.

Under the authorisation, Galveston Bay LNG will be allowed to export gas to countries both with and without a Free Trade Agreement with the US.

Galveston Bay LNG is wholly-owned (100%) by NextDecade LNG, which in turn is owned solely by NextDecade Corp.

WORLD LNG CARRIER ORDERBOOK

Name	Yard	Containment System	Capacity	Propulsion	Delivery Date	Ordered	Primary Owner
Pan Europe	Hudong-Zhonghua	GT NO 96	174000	TFDE	01/06/2018	2014	Teekay LNG
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
LNG Schneeweisschen	DSME	GT NO 96	180000	TFDE	31/07/2018	2015	MOL
Rudolf Samoylovich	DSME	GT NO 96	172410	TFDE - Azipod	01/08/2018	2014	Teekay LNG
Energy Liberty	Japan Marine United Corp	SPB	165000	TFDE	01/08/2018	2014	MOL
Diamond Gas Rose	Mitsubishi H.I.	Moss	165000	STaGE	01/08/2018	2015	NYK
Enshu Maru	Kawasaki	Moss	164000	STRH	30/08/2018	2014	K-Line
Castillo De Caldelas	Imabari	TZ Mk. III	178000	MEGI	01/09/2018	2014	Elcano
Vladimir Vize	DSME	GT NO 96	172410	TFDE - Azipod	01/09/2018	2014	MOL
Kinisis	DSME	GT NO 96	173400	MEGI	15/09/2018	2015	Chandris
British Achiever	DSME	GT NO 96	173400	MEGI	01/10/2018	2014	BP
Georgiy Brusilov	DSME	GT NO 96	172410	TFDE - Azipod	01/10/2018	2014	Dynagas
Marvel Eagle	Kawasaki	Moss	155000	TFDE	19/10/2018	2014	MOL
Jmu Tsu 5071	Japan Marine United Corp	SPB	165000	TFDE	01/11/2018	2014	NYK
British Contributor	DSME	GT NO 96	173400	MEGI	01/11/2018	2014	BP
Boris Davydov	DSME	GT NO 96	172410	TFDE - Azipod	01/11/2018	2014	Dynagas
Marvel Hawk	Samsung	GTT Mark III Flex	174000	XDF	01/12/2018	2014	MOL
Marvel Crane	Mitsubishi H.I.	Moss	177000	STaGE	01/12/2018	2015	NYK
Nikolay Zubov	DSME	GT NO 96	172410	TFDE - Azipod	01/12/2018	2014	Dynagas
Samsung 2150	Samsung	GTT Mark III Flex	174000	XDF	01/01/2019	2014	MOL
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
Mitsubishi Nagasaki 2323	Mitsubishi H.I.	Moss	177000	STaGE	01/01/2019	2015	MOL
Maran Gas Chios	DSME	GT NO 96	173400	MEGI	01/01/2019	2015	Maran Gas Maritime
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
Gaslog Gladstone	Samsung	TZ Mk. III	174000	XDF	01/01/2019	2014	GasLog
Yamal Spirit	Hyundai Heavy	TZ Mk. III	174000	MEGI	01/01/2019	2015	Teekay LNG
Pan Africa	Hudong-Zhonghua	GT NO 96	174000	TFDE	01/01/2019	2014	Teekay LNG
Shinshu Maru	Kawasaki	Moss	177000	STRH	01/02/2019	2015	MOL
British Mentor	DSME	GT NO 96	173400	MEGI	01/02/2019	2014	BP
Nohshu Maru	Mitsubishi H.I.	Moss	180000	STaGE	01/02/2019	2015	NYK
Jmu Tsu 5072	Japan Marine United Corp	SPB	165000	TFDE	01/03/2019	2014	MOL
British Sponsor	DSME	GT NO 96	173400	MEGI	01/03/2019	2014	BP
Hyundai Ulsan 2937	Hyundai Heavy	GTT Mark III Flex	180000	XDF	01/04/2019	2016	SK Shipping
Diamond Gas TBN	Mitsubishi H.I.	Moss	165000	STaGE	01/05/2019	2015	Mitsubishi
Hyundai Ulsan 2964	Hyundai Heavy	GTT Mark III Flex	180000	MEGI	01/05/2019	2017	Knutsen
Bushu Maru	Mitsubishi H.I.	Moss	180000	STaGE	01/06/2019	2015	NYK
Flex Constellation	DSME	GT NO 96	173400	MEGI	01/06/2019	2017	Flex LNG
Hyundai Ulsan 2963	Hyundai Heavy	GTT Mark III Flex	180000	MEGI	01/06/2019	2017	Knutsen

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
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Name	Yard	Containment System	Capacity	Propulsion	Delivery Date	Ordered	Primary Owner
Sohshu Maru	Kawasaki	Moss	177000	STRH	01/07/2019	2015	MOL
Hyundai Ulsan 2938	Hyundai Heavy	GTT Mark III Flex	180000	XDF	01/07/2019	2016	SK Shipping
Jmu Tsu 5073	Japan Marine United Corp	SPB	165000	TFDE	01/07/2019	2014	MOL
Daewoo 2430	DSME	GT NO 96	172000	TFDE - Azipod	01/07/2019	2014	Teekay LNG
Maran Gas Syros	DSME	GT NO 96	173400	MEGI	01/07/2019	2014	Maran Gas Maritime
Gaslog Windsor	Samsung	GTT Mark III Flex	180000	XDF	01/07/2019	2017	GasLog
Kawasaki Sakaide 1729	Kawasaki	Moss	155000	TFDE	01/08/2019	2014	MOL
Daewoo 2431	DSME	GT NO 96	172000	TFDE - Azipod	01/08/2019	2014	Teekay LNG
Flex Courageous	DSME	GT NO 96	173400	MEGI	01/08/2019	2017	Flex LNG
Daewoo 2432	DSME	GT NO 96	172410	TFDE - Azipod	01/09/2019	2014	MOL
Mitsubishi Nagasaki 2322	Mitsubishi H.I.	Moss	177000	STaGE	01/09/2019	2015	MOL
Daewoo 2466	DSME	GT NO 96	173400	MEGI	01/10/2019	2016	Maran Gas Maritime
Daewoo 2433	DSME	GT NO 96	172000	TFDE - Azipod	01/10/2019	2014	Teekay LNG
Daewoo 2467	DSME	GT NO 96	173400	MEGI	01/11/2019	2016	Maran Gas Maritime
Daewoo 2489	DSME	GT NO 96	173400	MEGI	01/11/2019	2015	BWGas
Daewoo 2434	DSME	GT NO 96	172000	TFDE - Azipod	01/11/2019	2014	Teekay LNG
MOL HUDONG-ZHONGHUA 1/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	01/12/2019	2017	MOL
DSME 2490	DSME	GT NO 96	173400	MEGI	01/02/2020	2018	BWGas
MOL HUDONG-ZHONGHUA 2/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	01/03/2020	2017	MOL
HHI NYK/EDF	Hyundai Heavy	GTT Mark III Flex	174000	XDF	30/04/2020	2018	NYK
DSME 2491	DSME	GT NO 96	173400	MEGI	01/05/2020	2018	BWGas
Daewoo 2478	DSME	GT NO 96	173400	MEGI	31/05/2020	2017	Maran Gas Maritime
Samsung 2213	Samsung	GTT Mark III Flex	180000	XDF	01/06/2020	2016	GasLog
HHI / Total	Hyundai Heavy	GTT Mark III Flex	174000	XDF	01/06/2020	2018	Cardiff Marine
HHI / Total / Sovc	Hyundai Heavy	GTT Mark III Flex	174000	XDF	01/06/2020	2018	Sovcomflot
HHI / Cardiff #1	Hyundai Heavy	GTT Mark III Flex	174000	XDF	01/06/2020	2018	Cardiff Marine
HHI / Cardiff #2	Hyundai Heavy	GTT Mark III Flex	174000	XDF	01/06/2020	2018	Cardiff Marine
Flex Aurora	Hyundai Heavy	GTT Mark III Flex	174000	XDF	01/06/2020	2018	Flex LNG
SHI Gaslog #1	Samsung	GTT Mark III Flex	180000	XDF	01/06/2020	2018	GasLog
Hyundai Ulsan 3086	Hyundai Heavy	GTT Mark III Flex	180000	MEGI	01/06/2020	2018	Knutsen
Daewoo 2469	DSME	GT NO 96	173400	MEGI	30/06/2020	2016	Maran Gas Maritime
MOL HUDONG-ZHONGHUA 3/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	01/07/2020	2017	MOL
DSME 2479	DSME	GT NO 96	173400	MEGI	01/08/2020	2018	John Fredriksen
Flex America	Hyundai Heavy	GTT Mark III Flex	174000	XDF	01/08/2020	2018	Flex LNG
DSME 2480	DSME	GT NO 96	173400	MEGI	01/09/2020	2018	John Fredriksen
SHI Gaslog #2	Samsung	GTT Mark III Flex	180000	XDF	01/09/2020	2018	GasLog
MOL HUDONG-ZHONGHUA 4/4	Hudong-Zhonghua	GT NO 96	174000	MEGI	01/10/2020	2017	MOL
DSME 2483	DSME	GT NO 96	173400	MEGI	01/10/2020	2018	Alpha Gas
DSME 2484	DSME	GT NO 96	173400	MEGI	01/12/2020	2018	Alpha Gas
DSME Minerva #1	DSME	GT NO 96	173400	MEGI	01/03/2021	2018	Minerva Marine
DSME Minerva #2	DSME	GT NO 96	173400	MEGI	01/07/2021	2018	Minerva Marine

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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	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 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	HUA XIANG 8	13,720	LNG	China	Yes	Zhejiang Huaxiang

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

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Built	Name	CBM	Cargo Type	Trading area	Trading in LNG?	Ship Owner / Operator
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	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	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
2021	Stolt TBN (option)	7,500	LNG		Yes	Stolt-Nielsen Gas

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