

Jordan Cove LNG gains support from Western US congressmen

Colorado field hearing revealed support for Pembina venture as export route for gas
[LNG Journal editor](#)

US congressmen from the western states of Colorado and Utah have voiced support for the Jordan Cove LNG export plant proposed for the northwest state of Oregon as an outlet to Asia for Rocky Mountain region natural gas and huge shale-gas resources from the Piceance Basin.

The House Natural Resources Committee Chairman Rob Bishop, a Utah Republican, and Scott Tipton, a Colorado Republican, presided over a committee field hearing in Grand Junction in Colorado to examine opportunities for the export of natural gas.

Output

Jordan Cove if approved for Oregon would produce an initial 7.8 million tonnes per annum of LNG for export to Asian markets.

Pembina Pipeline of Canada is the developer of the Jordan Cove plant to be located at Coos Bay in the northwest US state.

The project had previously been rejected by the Federal Energy Regulatory Commission because of a perceived lack of market interest.

However, the Oregon-based project confirmed in May 2018 that it had signed preliminary accords with Jera Co Inc. and Itochu Corp. of Japan to supply LNG.

Jordan Cove formally refiled its application with the FERC in September 2017 and is expecting a ruling during the second half of 2018.

"The field hearing revealed the abundance of American energy



Committee Chairman Rob Bishop (centre) at session

available," said House Committee Chairman Bishop at the Colorado field hearing.

"Our western states hold vast reservoirs of natural gas and oil shale, but there remain unnecessary regulatory burdens to moving energy products to areas of demand," stated Bishop.

"I would like to thank Representative Tipton for working tirelessly to bring this issue to light for Colorado's third congressional district and fighting to bring well-paying jobs to the people of Colorado and across the nation.

"With what we've learned, we can better pursue a path forward that will allow for strategic and environmentally safe energy extraction," added Bishop.

"Western Colorado benefits from immense energy resources," Tipton said at the hearing.

"When developed responsibly, these resources can provide good paying jobs. That's why I have long called for a responsible energy development on federal lands, and was glad to have the opportunity to speak with expert witnesses about steps the federal

government can take to help Western Colorado fulfil its energy potential," added Tipton.

The hearing heard that, according to the United States Geological Survey, the Mancos Shale play in the Piceance Basin in northwest Colorado had the potential to be the second-largest natural gas deposit in the US.

The hearing was told that the proposed development of Jordan Cove in nearby Oregon and its affiliated Pacific Connector Gas Pipeline could connect the LNG plant with other pipelines in the Northwest.

Piceance Basin

"These projects would allow natural gas from the Rocky Mountain region, including the Piceance Basin, and elsewhere to be transported to markets in the Pacific Northwest and abroad," said the statement from the June field hearing.

"The opportunity for exports through the Jordan Cove terminal could sustain energy development and job growth in western Colorado for years to come," it added.

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Next wave of US LNG exports to point at China due to Asian nation's energy sector challenges

LNG Journal editor

The US is likely to become a larger supplier of liquefied natural gas to China once the build-out of the next wave of liquefaction and export capacity on the US Gulf Coast is completed because of continued domestic challenges in the Chinese energy and shale-gas sectors.

"China is the world's fastest growing natural gas consumer as its national government pushes programs to replace coal," said a report from the US think-tank, the Brookings Institution.

Consumption

The report said US LNG export capacity in 2017 reached 20 billion cubic metres of natural gas (15 million tonnes of LNG) with 2.9 Bcm going to China, accounting for 6 percent of Chinese imports of the fuel.

It noted that China's national energy strategy includes a goal of natural gas making up 15 percent of the nation's energy mix by 2030.

"If China's primary energy consumption reaches 5.5 billion tonnes coal-equivalent by 2030, natural gas consumption would



Sinopec's import terminal at Beihai in Guangxi province

reach about 650 Bcm, or 2.7 times its level in 2017," said Brookings.

The 2017 US export statistics for LNG saw Mexico, South Korea and China as the leading importers of volumes from the Sabine Pass plant in Louisiana.

A total of 1.94 billion cubic feet per day was exported, a 500 MMcf/d increase, according to government figures. The three countries received more than 50 percent of the shipments.

China is also increasing its imports of natural gas by pipeline.

These volumes come from the Central Asian Gas Pipeline and the China-Myanmar Oil-Gas Pipeline and account for 46 percent of the nation's imports.

The report said two new pipeline projects are scheduled to

come on line within the next two years, the Russian Siberian pipeline in 2019 and additional Central Asian capacity in 2020.

The US itself is heading for an estimated 60 MTPA of LNG output by the mid-2020s if most of the current projects advance to benefit from the US shale-gas boom.

China also has abundant shale-gas reserves, though will face challenges in ringing the resources to production, according to the report.

It pointed out that China has some of the world's largest shale-gas deposit at up to 361 trillion cubic metres, though only around 200 Tcm is said to be technologically extractable.

This is because of geological complexities, especially concern-

ing depths of some reserves at more than 3,500 metres below ground.

"As of 2017, shale gas production represents only 6 percent of the total domestic production," said the Brookings report.

"Although China has been implementing reforms in the sector, serious political and economic challenges lie ahead," it added.

"The National Development and Reform Committee (NDRC) concludes that a significant boost in domestic supply is unlikely in the near future because of low investment in exploration, technology barriers, regulatory constraints and inadequate infrastructure," stated the US report.

It cites the Paris-based International Energy Agency forecasting that China's natural gas production would only reach 255 Bcm by 2030, which means at least 395 Bcm, or 61 percent of the total projected demand, will have to be met by imports.

"To continue expanding natural gas imports is the only way to meet the demand under the current policy," added the US report. ■

Kwispaa LNG project in Vancouver advances with hiring of pipeline specialist to executive team

The Canadian company developing the Kwispaa near-shore LNG project in cooperation with one of the main First Nation North American tribes of Vancouver Island in British Columbia has strengthened its executive team.

Steelhead LNG said it had appointed energy infrastructure and pipeline specialist Corey Goulet as Vice President of its pipeline division effective from July 3.

"Goulet brings 33 years of experience in the energy infrastructure industry to Steelhead," stated the BC-based company.

"Corey's wealth of pipeline development, implementation and

operations experience is a perfect complement to Steelhead LNG's experienced management team" said Steelhead Executive Chairman for Pipelines R.L. "Randy" Jespersen, a former CEO of Canadian energy company Terasen Gas and who himself joined Steelhead in March 2018.

Goulet was most recently Vice President of Integrity and Projects at Tundra Energy Marketing.

He also spent nearly 20 years at TransCanada Corp., including in senior leadership positions and eight years at Enbridge Inc.

Steelhead plans to liquefy natural gas sent through underground pipelines to its floating facilities

and to export around 6 million tonnes per annum of LNG to Asia.

The Kwispaa FLNG plant would be located on First Nation land about 10 kilometres north of Bamfield in BC and about 70 kilometres southwest of Port Alberni, where Steelhead had previously planned another project.

Steelhead has already been awarded a Canadian National Energy Board export licence for up to 24 MTPA of exports from the Sarita Bay site.

Steelhead is one of the few remaining Vancouver-based energy companies focused on LNG export projects and in 2017 changed the

name of the former Sarita Bay venture to Kwispaa LNG.

The name change for the Sarita project was suggested by the Huu-ay-aht First Nation, an indigenous community located on the west coast of Vancouver Island and the development partner of Steelhead.

The Kwispaa project has received unanimous support from the tribal council of the small First Nation of 750 people.

The targeted in-service date for the pipeline project is the fourth quarter of 2024, subject to the receipt of the necessary regulatory approvals and permits in BC. ■

Woodside sees jobs boost from billions in investments

Woodside Petroleum, the Australian liquefied natural gas operator, has promised a jobs bonanza from LNG expansion to people in the city of Karratha, adjoining the port of Dampier from where LNG exports are shipped, as well as in the state of Western Australia and the Pilbara region.

Woodside operates the Pluto LNG plant as well as the North West Shelf LNG facility at Karratha and is also a shareholder in the Wheatstone LNG plant in the Pilbara area that came on stream in 2017.

The planned new liquefaction Train would take output at Pluto to around 9 million tonnes per annum and there is environmental approval for 12 MTPA of output at the facility.

The company's expansion plans also involve optimizing North West Shelf LNG plant output with additional feed-gas from the offshore Browse Basin that was previously the subject of plans for a stand-alone LNG export project.

Alongside Western Australia's Premier Mark McGowan, Woodside Chief Operations Officer Meg O'Neill said Woodside had opened a Web jobs portal for people to register their interest to work on Woodside-related projects.

"Woodside is again entering a growth and construction phase on the Burrup Hub, with Scarborough to Pluto and Browse to the North West Shelf on the horizon, both of which will support thousands of jobs as we invest billions of dollars in developing gas for domestic and export markets," stated O'Neill.

South Koreans sign deal to build terminal for Philippines in Luzon

LNG Journal editor

The SK Group of South Korea has signed an accord with the Department of Energy of the Philippines on the construction of LNG infrastructure worth \$1.7 billion in the Southeast Asian nation.

The Group's SK E&S unit Chief Executive Yu Jeong-Joon signed the agreement with Alfonso Cusi from the Department of Energy and Ramon Lopez from Manila's Department of Trade and Industry.

Proposal

SK E&S presented a plan to the Philippines government for the construction of an LNG import terminal with capacity to handle 5 million tonnes per annum, several gas-fired power plants of more than 600 megawatts and about 150 kilometres of pipelines on Luzon Island in the north of the Philippines.

The Korean company said it had approached the Philippines government with the plan in anticipation of it requiring infrastructure to meet growing natural gas demand.

"The Philippines has entirely relied on the Malampaya offshore gas field as its only supply source



Yu Jeong-Joon, SK E&S Chief Executive Officer (left), and the two Philippines government officials Alfonso Cusi, Department of Energy Secretary and Ramon Lopez, Department of Trade Secretary

for natural gas," said a statement.

"However, the Malampaya gas reserves are expected to be depleted by 2024 and the growing demand for electricity to fuel economic growth underscores the strong needs for LNG imports," it added.

The Philippines forecasts that the country's power demand will grow by an annual rate of 5.6 percent by 2040, while the demand for LNG will experience an annual growth rate of 1.7 percent, mainly from gas power plants along with its economic growth.

"Thus, the Philippines govern-

ment has been reviewing measures to complete LNG infrastructure by the end of 2023 to import LNG in earnest," said the government.

It currently has only one small-scale LNG import terminal completed by Australian-listed Energy World Corp. at Pagbilao in Quezon Province in 2017.

A second storage tank at the Pagbilao facility is being built as a tolling hub with access for third-party clients.

EWC is additionally constructing a 650MW gas-fired power station adjacent to the LNG terminal.

Gladstone LNG's 200th shipment is unloaded at Incheon in Korea

Gladstone LNG, one of three coal-seam-gas to-LNG plants built on Curtis Island in the Australian state of Queensland over the past three years, has delivered its 200th cargo.

The GLNG project came on stream in 2015 and produces 7.8 million tonnes per annum of LNG from two processing Trains owned in a joint venture by Australia's Santos, French energy company Total, Petronas of Malaysia and Korea Gas Corp.

The 200th cargo was carried on the 127,125 cubic metres capacity vessel "YK Sovereign" and unloaded at the South Korean In-

cheon import terminal on June 4.

Santos is the operator of GLNG and the company's Chief Executive Kevin Gallagher said the natural gas industry was building a better future for hundreds of millions of people throughout the Asian region through LNG deliveries.

"For the next two decades, the International Energy Agency expects natural gas to grow more than any other energy type, to a market share of more than a quarter of all global energy demand," explained Gallagher.

"Population growth, rapid urbanisation and the need to clean up air pollution across Asia will drive de-

mand for Australian LNG," he said.

"And as a lower carbon alternative to coal, natural gas will continue to play a key role in the pathway to lower carbon emissions" added the CEO.

As well as producing a clean energy, Gallagher said Santos and the GLNG project continued to deliver enormous economic and social benefits to Queensland.

"The GLNG project is investing around A\$900 million in upstream production infrastructure this year alone, providing ongoing jobs and business opportunities across Queensland," he said.

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Zhang Jia-Hua

Operations Team Leader
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NEWS NUDGES

Port Kembla terminal

Australian Industrial Energy has advanced with plans for the first Australian liquefied natural gas import terminal with Japanese partners Marubeni Corp. and Jera Co. Inc. to develop an LNG import facility near Sydney. The Australian-Japanese joint venture said it had now chosen Port Kembla to bring in shipments of LNG for the state of New South Wales by 2020.

TechnipFMC contract

TechnipFMC, the energy project engineering company, was awarded a contract by Australian LNG operator Woodside Petroleum to upgrade the water treatment system for the Pluto platform offshore Western Australia. Woodside is the operator of two onshore liquefaction and export plants, the North West Shelf plant and Pluto LNG, and both are served by offshore feed-gas resources. "The contract includes the engineering, procurement, construction, installation and commissioning of the Pluto water handling module."

PNG well testing

Oil Search, the Australian-listed company with a stake in the Papua New Guinea LNG plant, has completed work at the Kimu II gas well to test the potential resource upside for possible inclusion in the PNG expansion project. "Kimu II reached a total depth of 1,943 metres. The well successfully encountered gas in the target Alene reservoir," said Oil Search. "The provisional interpretation at this location is that it has similar reservoir properties to Kimu 1," it added.

Qatar plans to build on position as key LNG supplier to Indian buyers

LNG Journal editor

Qatar Petroleum said it was intent on meeting the LNG requirements of India with shipments from future Qatargas output as the Asian nation moved along the path towards a gas-based economy.

"India is a very important country for us, especially with regard to our growing LNG production and India's rising demand for energy," said Saad Sherida Al Kaabi, President and Chief Executive of Qatar Petroleum, in a statement.

"We are always open to enhance cooperation to meet its energy requirements," added Al Kaabi.

He was speaking as Indian companies continued to broaden their LNG supply portfolios, with Gas Authority of India in 2018 starting contracts for shipments from two US export plants and from the marketing arm of Gazprom of Russia.

Several other Indian companies, Bharat Petroleum, ONGC Videsh and Oil India Ltd hold a combined 30 percent stake in the Mozambique LNG project under development led by Anadarko Petroleum of the US.



Petronet's import terminal at Dahej, north of Mumbai

"Currently we are supplying over 8 million tonnes of our LNG to India every year under long-term agreements," Al Kaabi explained. In total, Qatar supplied more than 10MT to India in 2017, more than half of its shipments of 19.2MT.

"We intend to supply more. A few months ago I visited India and have had meetings with top officials of all the important Indian companies that are buying LNG," said the QP CEO.

"We have had discussions on these issues, and we are looking forward to increase the level of cooperation to satisfy India's growing LNG demand," he stated.

Nigeria was the second-largest

supplier to India after Qatar in 2017 with 3.08MT of deliveries. Australia intends to supply more cargoes to India and shipped 1.71MT in 2017.

US deliveries have only just started along with some from Gazprom Marketing & Trading.

Al Kaabi said the Qatari LNG supplier had good relationships with Indian companies and the country was a strategic business partner of QP.

The main Indian import terminal owner, Petronet LNG, operator of the Dahej and Kochi terminals, was formed by the Government of India in 1998 specifically to import LNG from Qatar.

Panama import terminal set to form part of Caribbean regional LNG hub

Panama, a new LNG importer, will see its Costa Norte regasification facility at the port of Colon, near the entrance to the Panama Canal on the Atlantic Ocean, play a key regional fuel role.

The joint venture terminal developed by US company AES Corp. and French energy group and utility Engie will initially serve the adjacent 380 megawatts gas-fired AES Colon power plant from September 2018.

The terminal, which will use an initial LNG shipment for commissioning purposes in the next few weeks, will also serve another new 420MW capacity Panamanian gas-fired plant expected to start up by 2020.

According to AES, the total capacity of the Costa Norte LNG terminal is around 1.5 million tonnes per annum, of which 25 percent will be supplied by Engie for the existing power plant.

The joint venture further strengthens a joint marketing agreement signed by Engie and AES in late 2017, whereby both groups agreed to jointly market LNG in the Caribbean from the AES Andres LNG import facility at Punta Caucedo in the Dominican Republic.

The Panama and Dominican Republic terminals are expected jointly to create an LNG hub in the region for small-scale distribution.

The AES Andres facility has been in operations since 2003 and

the Dominican Republic is the region's longest-standing LNG importing nation.

The combined regasification capacity of the Andres LNG terminal in the Dominican Republic and the Costa Norte facility in Panama is around 3 MTPA.

An agreement signed in May 2017 paved the way for Engie and AES to supply LNG to industrial customers, develop small-scale demand and provide LNG bunkering services.

AES also completed the up-grading of the AES Andres facility in 2017, including modifications to enable reloading and exports of shipments.

Qatar Petroleum joins LNG partner ExxonMobil as stakeholder in prolific Argentine shale play

LNG Journal editor

Qatar Petroleum, owner of the world's largest LNG production complex at Ras Laffan in the Arabian Gulf along with minority partner ExxonMobil Corp., has signed an agreement with the US major to purchase a large stake in its shale assets in the prolific Vaca Muerta play in Argentina.

The Vaca Muerta formation within the onshore Neuquen Basin has similar geological properties to the US Eagle Ford shale play near the Gulf of Mexico in Texas in terms of its depth, thickness, pressure and mineral composition.

LNG at stake

Argentina believes it is still on track to cease LNG imports as substantial shale-gas supplies from its estimated 308 trillion cubic feet of technically recoverable gas resources begin to flow in large quantities from the Vaca Muerta area by 2022.

Argentina is one of the few countries in the world after the US, Canada, China and to a limited extent Australia, to have begun commercial development of shale gas.

Qatar Petroleum is buying 30 percent of the hydrocarbon licenses for seven blocks in the Vaca Muerta (Dead Cow) play held by ExxonMobil.

The relevant agreements were



President and CEO of Qatar Petroleum, Saad Sherida Al-Kaabi, with Andrew P. Swiger, Principal Financial Officer of ExxonMobil, after signing the Argentina shale agreement in the Qatari capital Doha

signed in the Qatari capital Doha by Saad Sherida Al-Kaabi, President and Chief Executive of Qatar Petroleum, and Andrew P. Swiger, Senior Vice President and Principal Financial Officer of ExxonMobil.

"We are pleased to enter into this agreement with our long-time partner ExxonMobil, and to participate in the further development of the Vaca Muerta unconventional resource in Argentina," said Al-Kaabi.

ExxonMobil launched a project in the Vaca Muerta formation in October 2017 involving the staged development of about 300 horizontal wells with possible production of 11 million cubic metres per day.

The Neuquen Province in Argentina approved ExxonMobil's investment plan for the Los Toldos I South Block under a 35-year un-

conventional exploitation concession granted to the US major.

The latest South Block project builds on ExxonMobil's extensive operations in the Vaca Muerta with its six other licences.

It is Qatar's first investment in Argentina as well as its first significant foray into unconventional oil and gas resources.

"We look forward to working with ExxonMobil to leverage our combined world class capabilities to unlock the potential of these assets for the benefit of all stakeholders," said the QP CEO.

"This agreement is an important part of Qatar Petroleum's growth strategy. It goes hand in hand with the planned expansion of our local production from the North Field, which will further

boost Qatar's leading global position by raising its LNG production from 77 million to 100 million tonnes per year," he added.

ExxonMobil's Swiger said the agreement builds on the US company's long-standing and successful partnership with Qatar and underscores its commitment to develop Argentina's resources to further support domestic production of oil and natural gas.

"The Vaca Muerta shale in western Argentina is considered among the most prospective unconventional shale oil gas plays outside of North America," said the companies.

"Activity in the basin has picked up recently, mainly due to governmental incentives and rising domestic energy demand," they noted.

"A number of international operators have established presence in the basin and announced ambitious investment plans," they stated.

ExxonMobil's wholly owned subsidiary, XTO Energy, which is among the world leaders in unconventional oil and gas operations, is providing operational support to both companies.

This includes developing detailed appraisal and development plans for these assets, based on recently drilled wells and pilot production testing.

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Developer of Magnolia LNG takes on China investor

LNG Ltd, the Australian-based developer of the Magnolia LNG project in Louisiana and the Canadian Bear Head venture in Nova Scotia, is taking a Chinese investor on board in a share placement transaction.

The company said it signed a binding agreement for a share placement through an investment made by IDG Energy Investment Group, a Hong Kong Stock Exchange-listed equity fund.

The shares of LNG Ltd are listed on the Australian Securities Exchange and the placement will raise proceeds of A\$28.2 million (US\$21.5M) through the issuing of 56.44 million shares at A\$0.50, representing a 14 percent premium on the prevailing price.

IDG was formerly known as Shun Cheong Holdings Ltd and is registered in Bermuda as well as being quoted on the Hong Kong exchange.

LNG Ltd said the net proceeds from the placement would be used to support off-take marketing efforts, focused on Magnolia LNG, and for general corporate purposes.

"It is a great pleasure to welcome IDG Energy Investment to LNG's investor group," said Greg Vesey, LNG's Chief Executive.

"Proceeds from this share placement provide additional liquidity to LNG, and the investment from IDG demonstrates a high level of confidence in our company," added Vesey.

Magnolia LNG has all of its US regulatory permits in place as well as the construction contractors.

IDG's President Liu Zhihai said his company was excited by the investment in LNG in support of the Magnolia LNG project.

Singapore aims to lead LNG fuel sector in Asia with port bunkering

LNG Journal editor

The Maritime and Port Authority of Singapore (MPA) awarded grants to support the construction of two liquefied natural gas bunkering vessels as the city state aimed for LNG fuel leadership in Asia.

The MPA said it was giving a total of S\$6 million (US\$4.5M) to FuelNG Pte Ltd, a joint venture between Keppel Group of Singapore and Shell Eastern Petroleum, and Pavilion Energy unit Pavilion Gas to help implement ship-to-ship LNG bunkering as part of a cleaner port policy.

Delivery

Both LNG bunkering vessels are scheduled for delivery in 2020 and will be among the first of their kind to operate in Asia.

"This is a significant step towards cementing Singapore's position as a leading LNG bunkering hub in the Far East, catering to large ocean-going LNG-fuelled vessels," said the MPA.



Port of Singapore will have two LNG bunkering vessels

Andrew Tan, Chief Executive of the MPA, said LNG was a viable marine fuel solution to meet global environmental regulations such as the International Maritime Organization's 0.5-percent global sulphur cap on fuel from 2020.

"As the world's largest bunkering hub, we are pleased to support the building of the first two LNG bunker supply vessels for the Port of Singapore," said Tan.

"We look forward to the successful applicants contributing to the growth of ship-to-ship LNG bunkering," he added.

Both beneficiaries involve local

companies and one of them, FuelNG, said it would also be involved in quayside truck-to-ship bunkering.

"Leveraging expertise from both Keppel and Shell, FuelNG aims to provide safe, cost-efficient and reliable solutions in LNG bunkering for global customers who pass through the Port of Singapore, which will encourage the adoption of LNG as a marine fuel," said Chris Ong, Chairman of FuelNG.

Frederic Barnaud, Group Chief Executive Officer of Pavilion Energy, said his company was pleased with the support from the MPA.

Petronet of India and gas-fuel station network owner sign LNG agreement

Petronet LNG of India, operator of two import terminals on the West Coast, has signed an accord with Indraprastha Gas Ltd (IGL), one of the nation's largest gas companies and owner of a network of over 400 gas fuel filling stations, to co-operate on LNG infrastructure and distribution projects.

Petronet currently operates the Dahej and Kochi LNG terminals with capacities of 15 million tonnes per annum and 5 MTPA respectively.

IGL said the accord was signed in New Delhi by its Managing Director E.S. Ranganathan and his Petronet counterpart Prabhat Singh.

"The memorandum of understanding is aimed at synergising the efforts of two leading players

in India's energy sector to increase the reach of natural gas to the maximum number of consumers in the country as well as overseas," said IGL and Petronet.

"In addition, it is also aimed at promoting the use of LNG as an alternate fuel for motor vehicles in the country, especially heavy passenger and goods vehicles," they added.

Both companies will work together in the development of technology for LNG-powered vehicles and infrastructure for storage and distribution of LNG and compressed natural gas (CNG), of which IGL is a speciality supplier through its station network.

IGL has 446 CNG filling stations in the areas around New Delhi and has interests in city-gas distribu-

tion infrastructure in Delhi and four other cities.

Petronet was formed by the Government of India in 1998 specifically to import LNG and will be expanding its interests into LNG fuel distribution through the IGL accord.

Shareholders in Petronet include the other big Indian LNG players, Gas Authority of India, Indian Oil Corp., Oil and Natural Gas Corp. and Bharat Petroleum Corp.

Under the initial accord, IGL has agreed to a build-out of LNG and CNG dispensing stations, which it would own and operate, while partnering with Petronet in the development, procurement and promotion of LNG-powered vehicles such as buses and trucks.

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Lloyd's Register and Shanghai yard to develop dual-fuel bulk carrier with LNG capabilities

LNG Journal editor

Lloyd's Register, the UK maritime classification society, has agreed to jointly develop a dual-fuel bulk carrier, including liquefied natural gas-powered capability, with Shanghai Waigaoqiao Shipbuilding Co. of China.

LR and the Chinese company said they would develop the dual-fueled Newcastlemax 210K DWT bulk carrier from an updated existing conventional design to incorporate LNG propulsion.

Experienced

The UK class society said that the Shanghai Waigaoqiao company had become a very experienced designer and builder of Newcastlemax bulk carriers in recent years.

"Their design is well established, and now they have chosen to work together with LR to improve it and benefit from LR's experience of incorporating LNG as a fuel option," said LR.



Nick Brown, LR's Marine & Offshore Director, presents an Approval certificate to SWS director Chen Gang

The Chinese company's commercial director, Chen Gang, said the shipbuilder had specialized in designing and building large Cape-size bulk carriers.

"The experience and know-how that has been built to date has been utilised to develop this latest world-class design of the LNG-powered Newcastlemax bulk carrier," said Chen.

"This design enables the lowest

possible fuel consumption and allows owners to select a design that will meet the future sulfur-oxide emission challenge," stated Chen.

He was referring to the International Maritime Organization deadline of 2020 for maritime fuel to contain 0.5 percent or less of sulfur content.

Shipowners are being guided towards LNG propulsion as one of the ways of meeting the IMO restric-

tions as well as other anti-pollution rules in Emission Control Areas of Europe and North America.

"We are extremely happy to cooperate with one of the leading class societies, LR, for the development of this design and it will be very exciting to see how the market responds," added Chen.

"SWS is committed to continuing to develop, innovate and create more market-driven, environmentally-friendly and technology-enabled products in the future," he said.

Nick Brown, LR's Marine & Offshore Director, presented an Approval In Principle certificate to the Chinese company for the design project at the four-day Posidonia Shipping Exhibition in Athens.

"It's been an exciting project where we are delighted to have been able to support SWS in incorporating LNG as a fuel option," said Brown.

French class society Bureau Veritas issues list of approvals for LNG technology firm GTT

Bureau Veritas, the French classification society, said it issued a list of approvals to liquefied natural gas maritime storage company Gaztransport and Technigaz (GTT) for its latest containment systems and technology applications.

BV said its officers had been working with GTT to approve two new containment systems, the Mark III Flex+, an evolution of the Mark III storage tank but with a lower boil-off rate, and the GTT MARS, a containment system developed for liquefied petroleum gas vessels that is adaptable to any size of tank or ship.

As sector leader in LNG storage for ships, GTT sells licensing agreements around the world for up to \$10 million per licence to install its membrane technology in vessels, mostly built up until

now at South Korean shipyards.

Approval in Principle (AIP) has additionally been provided for a 6,500 cubic metres capacity LNG bunker barge, jointly developed between GTT and South Korea's DSEC, formerly part of shipbuilder Daewoo Shipbuilding & Marine Engineering.

BV approval is also pending for the design of a 180,000 cubic metres capacity LNG carrier.

"Both demonstrate GTT's move beyond containment technology systems to full ship design," said the class society.

As well as the bigger projects, BV has also approved GTT's solution for vapour pocket management.

This allows LNG carriers, in compliance with the revised International Code of the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (known as the IGC

Code), to operate with an increased filling limit above 98 percent.

Other approvals were for GTT's No. 96 tank pressurization system update to provide enhanced maintenance flexibility and safety and for reduced cool-down features of both the No. 96 and Mark III systems to improve cargo operations.

"These approvals are helping GTT expand the range and depth of their technologies," said Matthieu de Tugny, Chief Operating Officer of BV Marine & Offshore.

"The increasing sophistication of containment systems and expansion of their application, as in CMA CGM's breakthrough order for large containerships with membrane tanks, is driving the adoption and development of gas transportation and LNG as a marine fuel as well as supporting the

marine gas trades," added de Tugny. Philippe Berterottiere, Chairman and Chief Executive of GTT, said he was very pleased with the recent approvals from BV.

"We have demonstrated the reliability of our latest developments and their ability to meet the owners' requirements," added Berterottiere.

"I believe these new systems and designs will help the shipping industry to move forward and reduce the ecological footprint," he stated.

GTT completed an initial public offering in February 2014 to begin trading its shares on the Euronext exchange.

The shares were last quoted at 51.25 euros per share, valuing the company at 1.89 billion euros (\$2.2Bln) on Euronext.