

LNG Unlimited

LNG JOURNAL PUBLICATION

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Total takes stake in LNG and gas fuel supplier to US truck market

French major enters strategic agreement with Clean Energy for growing sector
[LNG Journal editor](#)

French energy major Total has entered a strategic agreement with US company Clean Energy Fuels Corp., the California-based supplier of LNG and compressed natural gas fuel for the trucking industry.

Total has agreed to purchase up to 50.8 million shares of Clean Energy's common stock for \$83.4 million, to become Clean Energy's largest stockholder with ownership of 25 percent of Clean Energy's outstanding shares.

Network

Clean Energy, based in Newport Beach and listed on the Nasdaq stock exchange, is a leading provider of natural gas fuel for transportation in North America and has a network of filling stations completed in 2017 from southern California to the Canadian border.

The US company has around 550 fuel stations across the country and in Canada as it continues with its growth strategy for LNG, compressed natural gas fuel and biogas fuel distribution.

The transaction has to be approved by regulators and Clean Energy shareholders, who will meet on June 8 to vote on the deal.

Clean Energy, with support from Total, also plans to launch a truck-leasing programme that is intended to place thousands of new natural gas-fueled, heavy-duty trucks on the road to use Clean Energy fuel stations.

"As presently contemplated,



Clean Energy CEO Andrew Littlefair (left) with Total CEO

this programme will allow fleets to begin driving heavy-duty trucks with the cleanest engine in the world at no increased cost compared to the diesel alternative," the two companies said.

Total stated that it would provide up to \$100 million of credit support for the leasing programme, which the companies expect to launch in the third quarter of 2018.

"Customers and regulators around the world are demanding cleaner transportation alternatives, particularly in the heavy-duty market," said Patrick Pouyanne, Chairman and Chief Executive of Total.

"Natural gas can become the fuel of choice. Total believes there is a strong development opportunity in the natural gas for transportation market in particular in the United States which benefits from unique giant low-cost gas resources.

"Total is looking forward to partnering with Clean Energy to accelerate the remarkable innovation capacities of this company," stated the Total CEO.

Total is one of the leading energy majors in the LNG value

chain and has access to volumes in the US and around the world.

"There couldn't be a better endorsement for the future of natural gas heavy-duty trucking in North America than for Total, one of the largest energy companies in the world, to step up with this investment," said Andrew J. Littlefair, CEO and President of Clean Energy.

"Being a European-based company, Total is all too aware of the opportunity to transition to cleaner alternative fuels," added Littlefair.

Financing

"Launching the financing programme should expedite the adoption of natural gas as the most environmentally friendly fuel for the trucking industry," said the Clean Energy CEO.

Clean Energy posted revenues for 2017 of \$341.6 million, a 15.2 percent decrease from the \$402.7M reported for 2016.

The company delivered 86.4M gallons of natural gas fuel in the fourth quarter of 2017 in the form of LNG and CNG, a 2.7 percent increase from 84.1M gallons in the same three months of 2016.

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LNG engineer TechnipFMC sees compelling market dynamic because of leadership in FLNG and onshore

LNG Journal editor

TechnipFMC, the energy and liquefied natural gas engineering company, posted mixed first-quarter results amid continued progress on the Yamal LNG project in Russia and as front-end engineering and design activity increased in the sector.

The company's current projects include the Yamal venture in Arctic Russia, where the build-out of the production plant is continuing and it gave an update in its earnings report.

Commissioning

"Construction and commissioning of Trains Two and Three is progressing well. Train Two is on track for start-up before year-end," said TechnipFMC.

TechnipFMC's second major project is the Mozambique floating LNG venture being developed for offshore the southeast African country by Italian energy company Eni and called Coral South FLNG.

It said that first steel had been cut for the turret of the Coral South floating production vessel at



TechnipFMC CEO Pferdehirt clearly sees merger benefits

the shipyard in Singapore and the procurement of the other main equipment was progressing well.

TechnipFMC overall first-quarter net income was \$95.1 million versus a loss of \$18.7M in the same three months of last year.

Revenues for the three months amounted to \$3.12 billion compared with \$3.38Bln in the same three months of 2017, a drop of 7.8 percent.

The orders backlog also fell 12.7 percent to \$14.01Bln from \$16.05Bln in the same 2017 quarter.

However, inbound orders more than doubled to \$3.48Bln, up on the 2017 quarterly total of \$1.58Bln.

"Our solid first quarter results

reflect continued strength in operational execution as well as the benefits of merger synergies," said TechnipFMC Chief Executive Doug Pferdehirt in reference to the completion of the amalgamation of France's Technip with FMC Technologies of the US.

"Despite lower revenue, total company adjusted EBITDA margin was unchanged year-over-year. Market conditions for key businesses also continue to improve," added the CEO.

"Looking forward, FEED activity was also robust in the period and points to an inflection in the downstream market," said Pferdehirt.

"In particular, increased front-

end and commercial activity in the LNG market is providing greater visibility into new project sanctioning," he added.

"This market dynamic is very compelling for TechnipFMC given our leadership positions in both onshore and offshore liquefaction," stated the CEO.

Technip's inbound orders for the quarter included \$1.2 billion for the Subsea division.

"Subsea orders have now exceeded revenues in three of the last four quarters. Market penetration of our integrated business model continues to gain momentum as evidenced by the award of three integrated (iEPCI) projects in the quarter," said the company.

"One of these awards - for Energean's Karish and Tanin development (offshore Israel) - is our largest and most comprehensive integrated award to date.

"The project fully integrates the entire subsea scope with that of the host production facility, leveraging the unique capabilities we have across our portfolio," it added.

Japanese LNG engineer JGC signs strategic partnership for US projects with privately-held Houston company

JGC Corp., the leading Japanese LNG engineering and construction company, said it had formed a US strategic partnership with a Texas-based, privately-held US company to offer joint engineering, procurement and construction services for projects.

JGC, whose headquarters are in Yokohama, said its agreement was with S&B Engineers and Constructors Ltd, whose offices are in Houston.

The Japanese company is a world leader in building liquefaction plants and has worked on the leading plants worldwide, most recently in constructing the Gorgon and Ichthys LNG plants in Australia and the Yamal LNG facility in Arc-

tic Russia. S&B Engineers is a family-owned company led by President and Chairman James G. Slaughter Jr., the son of co-founder, James G. Slaughter.

The company has served the chemicals and midstream energy businesses in the Gulf Coast region for more than 50 years.

"Leveraging the experience and complementary expertise of both companies, the partnership covers a full range of lifecycle services for the oil and gas, petrochemicals and chemicals markets," said JGC.

The two companies said they would focus on winning preliminary feasibility studies, front-end engineering and design, as well

as EPC and project management contracts.

JGC and S&B have previously worked on several EPC projects on the US Gulf Coast.

"Joining efforts in the US market will position both companies to better serve clients by offering a partnership that draws on JGC's global engineering and procurement expertise and S&B's direct-hire construction and local procurement capabilities," said Takehito Hidaka, President of JGC America.

"We look forward to collaborating with S&B and providing a competitive and valuable choice for our clients," added Hidaka.

James Brookshire, Chief Execu-

tive of S&B and the grandson of the founder and son of the current Chairman, noted that both JGC and S&B would benefit from the deal.

"This framework agreement for future collaboration is a major step for us moving forward. We share very similar safety, business, and ethical cultures and together we form the preeminent lump sum EPC contractor in the region," stated Brookshire.

It is JGC's second cooperation agreement in the past month. In April, it signed a cooperation deal with a major shipyard in northeast China to seek contracts for floating and modular LNG projects.

Senegal and Mauritania projects make more progress

Kosmos Energy, the US company based in Dallas with plans for floating LNG projects offshore the West African states of Senegal and Mauritania, saw its net losses widen in the first quarter as it continued to develop its joint venture with BP of the UK.

Exploration and production company Kosmos said it generated a net loss of \$50.2 million compared with losses of \$28.8M in the same three months of 2017 as it also pursued projects in other African nations such as Ghana and Equatorial Guinea.

Kosmos said its main highlight in the quarter was the February signing by the governments of Mauritania and Senegal of an Inter-Governmental Cooperation Agreement (ICA) which enables the development of the cross-border Tortue natural gas field to continue moving forward.

"With this agreement in place and all front-end engineering and design contracts now awarded by the operator (BP), Kosmos expects a final investment decision for the Greater Tortue project around the end of 2018 and is aiming for first gas in late 2021," said the US company.

Golar LNG, the Bermuda-based fleet operator and project company, signed a preliminary charter agreement in April 2018 on the provision of a floating LNG production hull for the FLNG.

Kosmos has estimated that the Greater Tortue Complex has resources for LNG production of around 25 trillion cubic feet of feed-gas and an additional 15 Tcf is contained in nearby fields.

"Kosmos is off to a good start in 2018 across all three areas of our business," said Andrew G. Inglis, Chairman and Chief Executive.

Japanese companies form ventures to set up domestic LNG bunkering

LNG Journal editor

Four Japanese companies have formed two joint ventures to develop the LNG bunkering market in the ports of Japan, similar to operations started in the north-west European ports of Rotterdam in the Netherlands and Zeebrugge in Belgium.

Japanese utility Chubu Electric Power has joined with two shipping companies, Kawasaki Kisen Kaisha (K-Line) and Nippon Yusen Kabushiki Kaisha (NYK-Line) as well as trading group Toyota Tsusho to establish the bunkering joint ventures after months of talks.

Central role

"The four companies have been in joint discussions on the commercialization of the LNG bunkering business in the Chubu (central region) of Japan," said a statement.

"The companies have now agreed to launch the business and on May 10 established two joint ventures to run LNG bunkering," they added.

"Going forward, each of the four



Japan plans to follow LNG route of European ports

companies will utilize the expertise and strengths that they each possess to propel the ship-to-ship bunkering," stated the companies.

They noted that LNG was expected to become an important alternative to heavy fuel oil due to its low emission rate of air polluting substances and greenhouse gases.

The Japanese ventures come at a time when the International Maritime Organization is leading global efforts for stricter reductions in harmful emissions from ships.

Ship owners and operators are choosing LNG fuel over traditional marine fuels in response to stricter sulfur and nitrogen-oxide emissions regulations, including

the IMO's implementation of a global 0.5 percent sulfur cap from 2020.

Emission Control Areas have also been formed around the ports and shipping lanes of Northwest Europe, North America and the Caribbean.

One of the Japanese LNG maritime fueling joint ventures will be called the Central LNG Marine Fuel Japan Corp. and the other will be known as the Central LNG Shipping Japan Corp.

Japanese companies, including NYK Line, already have a presence in the fast developing European bunkering market.

Mitsui of Japan sees final investment decision on Mozambique by year-end

Mitsui & Co., the Japanese trading house and stakeholder in the Mozambique onshore LNG project led by Anadarko Petroleum of the US, said it expected a final investment decision on the joint venture by the end of the year.

"The FID on the Mozambique Area 1 project during this financial year is in our sights," said Mitsui Chief Executive Tatsuo Yasunaga at a Tokyo meeting.

"Spending on the 2 trillion yen (\$18 billion) project will start in the following financial year," added Yasunaga.

The Anadarko-led Mozambique LNG project will be the African nation's first onshore develop-

ment, initially consisting of two Trains with total nameplate capacity of almost 13 million tonnes per annum.

Anadarko has a 26.5 percent stake in the Mozambique Area 1 licence area of the Rovuma Basin and Mitsui is a main shareholder with 20 percent, held with the Japan Oil, Gas and Metals National Corporation (Jogmec), the Japanese state-run strategic investment company.

Three Indian companies, Bharat Petro Resources, ONGC Videsh and Oil India Ltd., hold a further 30 percent combined.

The other stakeholders are the Thai energy company PTT Expro-

duction & Production and the Mozambique state-owned oil and gas firm ENH.

Mitsui and its partners have previously said the foundation project paves the way for significant future expansion of up to 50 MTPA from other fields in offshore Area 1.

The liquefaction and export plant will be constructed near the port of Pemba in the northeast Cabo Delgado Province and will have an initial 30-year lifespan.

The Mozambique joint venture is continuing to sell LNG volumes and most recently signed up French utility Electricite de France (EDF) as a buyer for a period of 15 years.

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NEWS NUDGES

Bahrain LNG contract

Smit Lamnalco, the Dutch tug and towage company, said it was selected by the National Oil and Gas Authority of Bahrain to provide marine services to the planned Bahrain LNG Floating Storage Unit. The company said its contract was for 20 years. Smit Lamnalco will deploy four LNG terminal-compliant tugs to provide escort, berthing and un-berthing of LNG carriers at the Bahrain import terminal to be located offshore about five kilometres east of Khalifa Bin Salman port.

Egyptian gas ramp-up

Italian energy company Eni said it started the third production unit of the Zohr natural gas production project in the East Mediterranean offshore Egypt that is leading to a halt in Egyptian LNG imports and a future restart of exports. Eni and its joint venture partner, Egyptian Natural Gas Holding Company, said the third unit takes installed capacity to 1.2 billion cubic feet per day just one week after the second unit's successful power-up.

Malaysia FLNG plan

Murphy Oil, the US energy company based in Arkansas and with US and international operations, said in its first-quarter earnings that its floating LNG joint venture offshore Malaysia was still on track for first production in 2020. Murphy is investing in the FLNG venture with Malaysian state energy company Petronas, which successfully started up the world's first production hull, the "PFLNG Satu". That vessel is deployed over the stranded Kanowit gas field offshore Sarawak.

US Driftwood LNG project says it has wide choice of venture partners

LNG Journal editor

Tellurian Inc., the developer of the Driftwood LNG export plant in Louisiana and associated infrastructure and resources such as pipelines and natural gas production, said it expected to identify its joint venture partners soon as more than 20 companies had shown an interest.

The company founded by former Cheniere Energy Chief Executive Charif Souki also said that it ended the first quarter with around \$112.5 million of cash and cash equivalents and remained debt free.

Balance sheet

"We have a strong balance sheet consisting of \$280M in assets, of which \$91M represents our proved natural gas properties," said Tellurian in its earnings statement.

Tellurian said it was making progress with its proposal to construct a global natural gas business underpinned by a liquefaction plant with output of around 27.6 million tonnes per annum.

Leading LNG engineering contractor Bechtel is the engineering,



Tellurian Chief Executive Meg Gentle says the only way is up

procurement and construction contractor for Driftwood LNG and has also made a \$50 million investment in the company.

Among its quarterly highlights, Tellurian hired investment bank Goldman Sachs and French bank Societe Generale Americas to serve as financial advisors to help raise the \$24 billion needed to bring its plans to fruition.

Tellurian also conducted non-binding open seasons through its subsidiaries to secure prospective shippers on two newly proposed pipelines, the Haynesville Global Access Pipeline and the Permian Global Access Pipeline.

"The pipelines are part of Tellurian's previously announced proposed pipeline network, the

development of which is expected to represent an approximately \$7Bln investment in US infrastructure and to create approximately 15,000 jobs in Texas and Louisiana," stated the company.

In its earnings, Tellurian noted that it had generated \$6M in revenue from LNG marketing and around \$1M from natural gas sales.

"There are more than 20 companies conducting detailed analysis in our data room for Driftwood Holdings and we expect to be able to identify our partners soon," said President and Chief Executive Meg Gentle.

"We intend to begin construction of the Driftwood LNG terminal in 2019," added Gentle.

Cheniere posts quarterly revenue surge to over \$2Bln after capacity ramp-up

Cheniere Energy, the US Sabine Pass LNG export plant owner in Louisiana and the developer of the Corpus Christi facility in Texas, posted first-quarter LNG revenues of \$2.16 billion, almost double the \$1.14Bln in income earned during the same three months of 2017 as more liquefaction capacity came on stream.

Cheniere said net income rose to \$357 million compared with \$54M in the first quarter last year as four processing Trains are now producing 18 million tonnes per annum of gas for export.

During the first quarter, Cheniere noted that it had entered into two sales and purchase agreements (SPAs) with PetroChina, a

subsidiary of China National Petroleum Corp., for the sale of 1.2 MTPA through 2043, with a portion of the supply beginning in 2018 and the balance in 2023.

The Houston-based company also entered into a 15-year SPA with global commodities company Trafigura for the sale of 1 MTPA starting in 2019.

In its operational overview, Cheniere said that of April 30 around 90 cargoes had been produced, loaded and exported during 2018.

"To date, approximately 350 cumulative LNG cargoes have been exported from the SPL Project (since the first quarter of 2016), with deliveries to 26 countries and

regions worldwide," said Cheniere.

In March 2018, the company also made its first commercial delivery under the 20-year SPA with Gas Authority of India relating to Train 4 at the liquefaction plant.

Sabine Pass has entered into six fixed-price SPAs with terms of at least 20 years for the first five Trains.

Under these SPAs, the customers will purchase LNG for a price consisting of a fixed fee per million British thermal units of LNG plus a variable fee per MMBtu equal to approximately 115 percent of the benchmark Henry Hub natural gas price.

Indonesian onshore LNG design contract for Inpex-led Abadi project awarded to KBR

LNG Journal editor

US LNG and energy engineering company KBR said it was awarded a design contract by Japanese oil and gas company Inpex for the Abadi LNG production venture onshore Indonesia using feed-gas from the Arafura Sea.

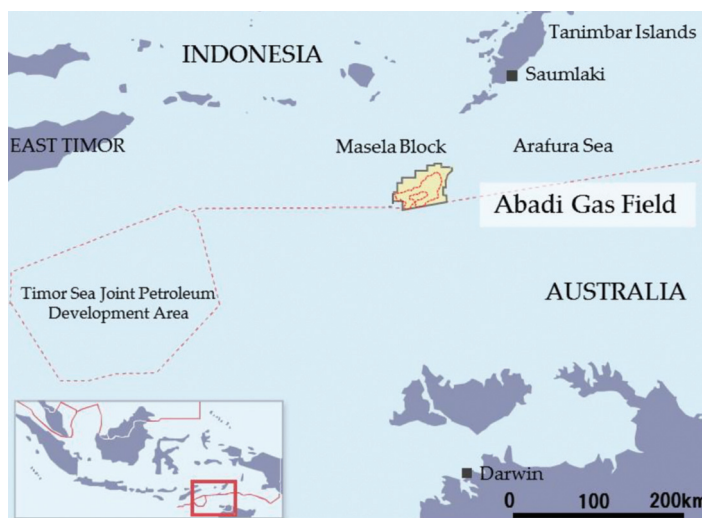
The Houston, Texas-based company said that under the terms KBR would provide a cost competitive, pre-front-end engineering and design package.

Master plan

"The pre-FEED will be performed entirely from KBR's Jakarta office in Indonesia," said the company.

"KBR will provide services including site master plan development, scope of work for the FEED phase as well as an engineering, procurement and construction schedule and cost estimate," explained KBR.

The Abadi project will use feed-gas from the Masela block operated by Inpex under the supervision of Indonesian regulators, called the Special Task Force for Upstream Oil and Gas Business



Onshore venture will tap Masela block in Arafura Sea

Activities (SKK Migas). The Masela block is located in the western Pacific Ocean overlying the continental shelf between Australia and Indonesia.

The original Inpex plan with partner Royal Dutch Shell was to produce 7.5 million tonnes per annum of LNG from a floating production hull, similar to Prelude FLNG offshore Australia.

The Abadi project is owned 65 percent by Inpex and 35 percent

by Shell, though the Indonesian government has control of the production sharing agreement.

The Indonesians propose that a 370-mile pipeline will be built to connect the Abadi gas field resources to a liquefaction plant on Aru Island.

Inpex is currently completing the Ichthys LNG project in Australia's Northern Territory for exports to Japanese utilities.

"This work is expected to be

performed within approximately six months, with KBR performing studies to establish configuration of the LNG process plant, supporting utilities, and product storage and export facilities," it added.

Due to the remote location of the plant in Eastern Indonesia, KBR said it would deploy its logistics teams to provide solutions for efficient management of construction personnel, materials and equipment.

"KBR is a world leader in designing and building LNG facilities and we have a proven record of delivering reliable and tested solutions in a price and schedule driven market," said Jay Ibrahim, a KBR regional president.

"KBR's partnership with Indonesia spans more than 40 years and we are proud to participate in this significant national strategic project," stated Ibrahim.

"We are committed to developing and enhancing the local engineering industry capabilities in Indonesia," he added.

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India to give result in June of acreage bidding round

India attracted 110 bids for its first open-acreage round for oil and natural gas exploration and production licences for 55 blocks onshore and offshore as the nation also continued to build its LNG import volumes to meet rising demand and to expand energy infrastructure.

Nine Indian-based companies submitted the bids for 55 blocks offered. The bids were for 92 onshore blocks and 18 offshore blocks, according to the Indian Ministry of Petroleum and Natural Gas.

The Ministry said it would endeavour to award the blocks by June 2018 so as to expedite the start of exploration activities.

The participating companies included five Indian public-sector operators, Oil and Natural Gas Corp. (India), Oil India Ltd., Gas Authority of India, IndianOil Corp. Ltd (IOCL) and Bharat Petroleum.

Four private companies took part. They were named as Vedanta, Selan, Hindustan Oil Company and Sun Petro.

"The response to the OALP Bid Round has been overwhelming compared to the last round of E&P auctions under the previous regulatory regime in 2009-2010," said the Ministry.

"Policy reforms have improved the ease of doing business by introducing a transparent regulatory framework," it added.

These 55 blocks are spread across 10 sedimentary basins covering 60,000 square kilometres, namely: Assam-Arakan (19), Mumbai Offshore (2), Cambay (11), Rajasthan (9), Krishna-Godavari (5), Cauvery (3), Kutch (2), Saurashtra (2), Himalayan Foreland (1) and Ganga (1) basins.

Egypt nears accord with Cyprus to use Aphrodite field's feed-gas

LNG Journal editor

Egypt is planning LNG production from feed-gas transported to its existing liquefaction plants near Alexandria via a pipeline linked to the Aphrodite natural gas offshore Cyprus as part of an East Mediterranean project costing up to an initial \$1 billion.

Egyptian Petroleum Minister Tarek El Molla said at a news conference in Cairo with Cyprus Energy Minister Yiorgos Lakkotrypis that gas belonging to the Greek-speaking half of Cyprus would be used in part for domestic consumption and in part for export for Egypt's LNG output.

Domestic

Egypt has rapidly increased its own production of natural gas in the past 12 months and hopes to become a hub for exporting to Europe after making a series of big discoveries in recent years in the East Med and the Nile Delta.

The Arab nation is aiming to halt LNG imports by the end of 2018 because of the huge volumes provided for the domestic market, particularly from the Zohr field in Egyptian waters of the East Med discovered and developed by Ital-



East Med Cypriot gas project will cost over \$1 billion

ian company Eni. The resumption of small-scale Egyptian LNG production has already started at its Idku LNG liquefaction plant near Alexandria. A second facility is at Damietta.

Molla said Egypt was negotiating an agreement with Cyprus for a pipeline to transport gas from the Aphrodite field to its LNG facilities.

The Aphrodite field was discovered in 2011 by Noble Energy of the US and has estimated reserves of at least 4.5 trillion cubic feet.

Cypriot Energy Minister Lakkotrypis said his island nation expected to sign a final agreement on the pipeline as soon as possible.

The Aphrodite natural gas discovery had previously been the subject of plans for Cyprus to build its own onshore liquefaction plant at Vasilikos.

Currently Cyprus's 15,000 square kilometre Exclusive Economic Zone (EEZ) has 13 exploration blocks located to the south of the island.

Pembina advances with Jordan Cove LNG and Pacific Connector

Pembina Pipeline Corp., the Canadian energy infrastructure company, said it was making more progress with a range of natural gas projects in North America, including the Jordan Cove LNG export plant and its affiliated Pacific Connector Gas Pipeline planned for the northwest US state of Oregon.

Pembina gave its latest project update as it posted record first-quarter profits of C\$330 million (US\$257M), a rise of 57 percent compared with C\$210M earned in the same three months a year ago.

Quarterly revenue soared to C\$1.83 billion (US\$1.42Bn) versus

C\$1.48Bn in the year-ago quarter.

The company closed its acquisition in October 2017 of Canadian company Veresen Inc., inheriting the US Jordan Cove LNG project and is pushing ahead with it as the acquisition of its Canadian peer fed through to earnings.

"Pembina continues to progress its proposed liquefied natural gas export terminal in Coos Bay, Oregon, and the related Pacific Connector Gas Pipeline that will transport natural gas from the Malin Hub in southern Oregon to the export terminal," stated Pembina in its earnings statement.

Jordan Cove officially filed its application with the US Federal Energy Regulatory Commission in September 2017 with the company expecting an outcome during the second half of 2018.

Jordan Cove if approved would be constructed at Coos Bay in Oregon to produce 7.8 million tonnes per annum of LNG for export to Asian markets.

The Canadian company said it was continuing to evaluate a steady stream of development opportunities to grow the business even further.

“Energy is a major cost driver in running an LNG plant. But with efficient Atlas Copco mixed-refrigerant compressors, we’re using less energy and saving more money.”

Zhang Jia-Hua

Operations Team Leader
Baotou Lu Ding Natural Gas Co. Ltd.
Inner Mongolia, China

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Alaska LNG project boosted by feed-gas supply deal with BP for resources from North Slope

LNG Journal editor

Alaska LNG, the project to export the state's North Slope natural gas resources to Asia, has reached an agreement with BP of the UK and Alaska Gasline Development Corp. on feed-gas supplies, including price and volume.

The parties anticipate finalizing a long-term gas sales agreement in 2018 for AGDC to purchase BP Alaska's share of 30 trillion cubic feet of gas from the Prudhoe Bay and Point Thomson units.

History

Janet Weiss, BP Alaska President, said the Alaska LNG project "has made significant progress" over the past year and BP was pleased to sign the agreement.

"This is an important project for the future of the Alaska oil and gas industry," stated Weiss.

BP operates the Prudhoe Bay field, the largest oil and gas field in North America and owns a 26 percent share of Prudhoe Bay as well as a 32 percent share of the nearby Point Thomson field.

"BP has a long history in Alaska



Head of BP in Alaska, Janet Weiss, reports steady progress

and Prudhoe Bay," said Bob Dudley, BP Chief Executive.

"We are very pleased to be part of the State's vision to bring Alaskan natural gas to new and expanding markets globally. We think this is good for the State, good for BP and good for the environment," stated Dudley.

AGDC represents the state within the Alaska LNG project and the company pointed out that the BP feed-gas deal that will enable a pipeline to deliver the gas from the north to a liquefaction plant in south-central Alaska is a boost for the venture.

It comes six months after Presi-

dent Donald Trump and Chinese President Xi Jinping witnessed the signing in Beijing of a five-party joint development agreement to monetize Alaska's natural gas with financial backing from China.

AGDC and the state signed a joint development agreement in November 2017 with three Chinese companies, China Petroleum & Chemical Corp., also known as Sinopec, as well as the financial institutions, the Bank of China and China Investment Corp.

"This (BP) gas sales agreement is a significant factor in progressing the Alaska LNG project," said AGDC President Keith Meyer.

"We have secured the customers, we have progressed on the pipeline build with regulators and the finance community and now we have a commitment that there will be gas to sell and put through the pipeline," added Meyer.

"I look forward to continued negotiations to secure supply from other North Slope producers," he stated, in reference to companies such as ExxonMobil Corp. and ConocoPhillips.

Alaska Governor Bill Walker thanked BP for its commitment to the project that aims to produce an initial 20 million tonnes of LNG for export and to also supply the domestic market.

"This agreement means Alaskans are one step closer to cleaner air, more jobs and more affordable energy to power homes and businesses," said Walker.

"Having BP, one of our long-time partners on this project, commit its share of the gas for sale underscores the progress we continue to make as we work toward building a stronger Alaska," added Walker.

Cameron LNG and engineering contractors expect processing Trains to start up in 2019

Cameron LNG, the existing US import terminal at Hackberry in Louisiana being transformed into an export plant, is expected to have three processing Trains in operation in 2019 after resolving scheduling issues with the contractors.

Owner Semptra Energy, the California-based utility, settled a dispute with the contractors, Chicago Bridge & Iron (CB&I), including financial claims relating to contract completions in the aftermath of Hurricane Harvey.

The engineering, procurement and construction (EPC) contract was signed in 2014 with CB&I, now merged with McDermott International, for a cost of around \$10 billion.

"We continue to believe this agreement puts both the contractor and Semptra in a stronger position to meet the current schedule," said Chief Executive Jeff Martin in a conference call about first-quarter earnings.

The LNG project is a joint venture led by Semptra and also now involving French energy major Total after it acquired the stake of French utility Engie.

The Japanese companies Mitsui & Co., Mitsubishi Corp. and the Nippon Yusen Kaisha (NYK Line) shipping company are also shareholders.

The new agreement to bring Cameron LNG onstream provides incentive bonus payments related

to completion and waivers any schedule-related damages from the original contract.

Semptra is also transforming its Costa Azul LNG facility on the Pacific coast of Mexico into an export plant, though is scaling back its plans.

The Semptra Mexican subsidiary, Infraestructura Energetica Nova (IEnova), is now looking at a small-scale plant with 2.5 million tonnes per annum of output by around 2023 instead of a larger plant constructed later with up to 12 MTPA of capacity and closer to the size of Cameron LNG.

Across the southern border, Semptra's IEnova subsidiary is also developing a marine terminal near the LNG facility north of Ensenada

in Baja California state. It would be IEnova's fourth refined product terminal in Mexico.

A third LNG export is also advancing in the US under Semptra's proposals along the Sabine-Neches Waterway at Port Arthur in south-east Texas with Australian company Woodside Petroleum as one of its partners.

The San Diego, California-based company is also looking to its newly expanded presence in Texas to boost future earnings.

Semptra in March 2018 closed a transaction to acquire Energy Future Holdings Corp., the indirect owner of 80 percent of Texas-based Oncor Electric Delivery Co.