LNG Unlimited

LNG JOURNAL PUBLICATION 29 January 2019

Papua New Guinea's LNG plans set for rapid advance in March

Oil Search has a base in Port Moresby and is listed on the Australian Securities Exchange

LNG Journal editor

Oil Search Managing Director Peter Botten has PNG in focus. He has just been awarded Australia's highest honour, the Companion of the Order of Australia, for 'eminent service' to Australian-PNG relations

The Papua New Guinea government and the owners of the licences for feed-gas to enable liquefied natural gas expansion in the Oceania nation are expected to give the go-ahead for the joint venture by the end of March.

One of the shareholders, Australian Securities Exchange-listed company Oil Search outlined the latest plans in its fourth-quarter earnings report.

Signings

An accord was signed between the Petroleum Retention License 15 joint venture and the PNG Government in November, detailing the key terms and conditions to apply to the Papua LNG Gas Agreement.

"The Government and the PRL 15 and PRL 3 joint ventures are targeting to finalise both the Papua LNG and the P'nyang Gas Agreements before the end of March 2019, which will enable an integrated Front-End Engineering and Design (FEED) entry decision to be taken for the proposed three-Train LNG expansion," said Oil Search.

"In the PNG Highlands, the Muruk 2 appraisal well commenced drilling in early November and is expected to reach the target reservoir shortly," it added.

"Muruk 2 aims to delineate the resource volumes in the Muruk field which, due to its proximity to existing infrastructure at Hides, could provide a valuable source of gas for further LNG development," stated Oil Search.

Oil Search also said that its total revenue for the quarter was US$503.1 million, a 6 percent rise from the previous quarter.

"This reflected a 5 percent increase in hydrocarbon sales and stronger realised LNG and gas prices (up 5 percent), partly offset by lower realised oil and condensate prices (down 15percent)," said the company whose assets are in PNG and the US state of Alaska.

Oil Search added that despite the earthquake that struck PNG in February 2018, revenues for the full year were 6 percent higher than in 2017 at US$1.54 billion.

Managing Director Peter Botten said that quake was one of the most challenging in the company's history due to the damage in the PNG Highlands.

However, the country has recovered well as has Oil Search, which finished 2018 in a strong financial position with liquidity of US$1.5 billion.

Botten added that one of the company's highlights was the memorandum of understanding signed between Papua LNG and the PNG Government.

"In November, during the APEC Summit in Port Moresby, the PRL 15 joint venture participants entered into an MoU with Papua New Guinea for the development of the Papua LNG Project," he said.

"Since the MoU was signed, good progress has been made on finalising the more detailed Gas Agreement," added Botten.

"Well-defined plans are in place to complete and sign the full Gas Agreement, with all parties aiming for this to occur no later than 31 March 2019, in line with the MoU timeline," stated Botten.

Engineering

Oil Search also explained that while the key focus during the quarter was on the Papua LNG Agreement, the P'nyang gas field agreement is also scheduled to be finalised before the end of March.

"This will enable an integrated front-end engineering and design entry decision to be made on the proposed three-Train expansion at the PNG LNG plant site shortly afterwards," said Oil Search. ■

UNLIMITED AGENDA

Senegal appoints Doris Engineering of France to advise on FLNG and its deepwater projects

LNG Journal editor

Doris Engineering, the French energy contracts company with global operations, said it was awarded an advisory contract by the Senegalese Ministry of Petroleum for developments offshore the West African nation, including a BP-run floating LNG project and an exploration and production venture operated by Australian LNG producer Woodside.

This two-year contract consists of reviewing plans focusing on the optimization and the robustness of proposals to develop the Grand Tortue-Ahmeyim fields for the BP FLNG project and its partner Kosmos Energy of the US, as well as the venture relating to Woodside's Rufisque, Sangomar and Sangomar Deep (RSSD) blocks within the Senegalese portion of the Mauritania-Senegal Basin.

Recognition

"This award is the recognition by the Senegalese Government of Doris's expertise in LNG and oil and gas deepwater projects," said Nicolas Parsloe, Chief Executive of the Doris Group.

Feed-gas is in offshore Grand Tortue-Ahmeyim fields

"It is also the result of good communication and understanding of their requirements. The contract is in line with the consultancy missions that we have performed alongside National Oil Companies in West Africa during the last 20 years," added Parsloe.

"Our strategy is to work hand-in-hand with NOCs and the regulatory authorities. We are proud to support Senegal in the development of its oil and gas sector," stated the Doris CEO.

Doris said it would also be taking the opportunity to train Senegalese engineers on the methodology and operating standards required for deepwater energy projects.

BP and Kosmos recently decided to go ahead with their multi-billion dollars of investments in developing FLNG offshore Senegal and its neighbour Mauritania.

Their final investment decision covers the funds necessary to bring on stream the cross-border Greater Tortue and Ahmeyim gas fields to produce LNG.

The project will produce gas from a deepwater subsea system and transfer it to an FLNG hull at a nearshore hub located on the Mauritania-Senegal maritime border.

The FLNG facility for Phase 1 is designed to produce around 2.5 million tonnes per annum of LNG from recoverable gas in the fields, estimated to be around 15 trillion cubic feet.

First natural gas from the FLNG project is expected in the first half of 2022.

Woodside's RSSD joint venture has started front-end engineering activities following the award of the subsea contract for the SNE Field Development-Phase 1 to a consortium of leading offshore companies, OneSubsea, Schlumberger and Subsea 7.

Woodside, which acquired the Senegal blocks from ConocoPhillips in 2016, is a leading Asia-Pacific LNG player and operates the North West Shelf LNG export plant in Western Australia, along with the nearby Pluto LNG facility.

Mexicans expect to cancel tender for FSRU and terminal for Veracruz state to focus on domestic gas

Mexico is cancelling a tender for a liquefied natural gas floating storage and regasification unit originally proposed for the Port of Pajaritos to alleviate gas shortages in the southern Gulf of Mexico state of Veracruz.

State energy company Petroleos Mexicanos (Pemex) and its natural gas supply subsidiary, Mex Gas Supply, launched the tender in July 2018 and it attracted leading LNG FSRU sector players.

The tender was for the chartering and installation of an FSRU for an initial period of five years with regasification capacity of more than 500 million cubic feet per day.

The FSRU at Pajaritos would have required 2.5 million tonnes per annum of LNG, while an additional 2 MTPA of cargoes would have been purchased on a quarterly basis as needed.

Pemex executives haven been told by the new Chief Executive of Pemex, Octavio Romero Oropeza, that LNG imports were no longer a priority as the company's focus switches to producing more domestic natural gas.

Domestic natural gas production in Mexico has fallen by about 42 percent from its peak of 6.52 billion cubic feet per day reached in 2009.

Pemex is aiming to double production by 2024 to 5.7 Bcf per day, driven by associated gas, as part of a plan to reduce reliance on LNG and pipeline imports.

Mexican LNG imports are received at onshore terminals located at Altamira in the Gulf of Mexico and at Manzanillo on the Pacific Coast.

A third onshore terminal at Costa Azul, also on the Pacific Coast, is owned by Sempra Energy of the US.

However, Costa Azul imports have dropped off and Sempra is planning an LNG export facility, using feed-gas from imports originated in the US.

The Pajaritos FSRU had been planned to ease gas shortages in the southeast of the country, especially on the Yucatan peninsula, where the 485-mile Mayakan pipeline supplies five Federal Electricity Commission (CFE) combined-cycle gas-fired power plants.

The CFE has pointed to the imminent start-up of new natural gas pipelines from the US, including the subsea Sur de Texas-Tuxpan line crossing the Gulf of Mexico.

The Sur de Texas-Tuxpan subsea pipeline is a joint venture between North American company TransCanada Corp. and the Sempra subsidiary Infraestructura Energetica (IEnova).

The pipeline runs from South Texas to the Mexican port of Tuxpan and is scheduled to come on line in the first quarter of 2019 with capacity of 2.6 Bcf per day.

Indian imports in rebound underpinned by Qatargas

Indian liquefied natural gas imports rebounded on a year-on-year basis to jump 4.7 percent in December as more cargoes arrived from Qatar, West Africa and Australia after previous monthly declines.

LNG deliveries to India's three main import terminals at Dahej, Hazira and Dabhol near the West Coast port of Mumbai in December totaled 1.57 million tonnes compared with 1.50MT in December 2017.

For the first nine months of the fiscal year the shipments increased by 7.7 percent from April to December when they amounted to 15.33MT versus 14.22MT in the same nine months of the year before, according to the figures from the Indian Ministry of Petroleum and Natural Gas.

Indian shipments had dropped by 17.8 percent in November to 1.56MT from 1.90MT in November 2017, the second monthly decline after six straight months of increases.

The cost of cargoes in December was $800 million versus $700M in the same month of 2017.

LNG imports from April to December 2018 cost $7.5 billion compared with $5.2Bln in the same nine months of 2017.

Domestic production of natural gas in December was 2.86 billion cubic metres, which was higher by 4.2 percent compared with the 2.75 Bcm posted in December 2017.

Production of natural gas in the first nine months of the fiscal year came to 24.65 Bcm compared with 24.68 Bcm in the nine months of fiscal 2017-2018, a decline of 0.12 percent.

Santos posts quarterly LNG revenue record after plants ship 232 cargoes

LNG Journal editor

Gladstone LNG sent 20 fourth-quarter cargoes to Asia

Santos, the Australian operator of the Gladstone liquefied natural gas plant in Queensland and a stakeholder in export plants in Darwin and Papua New Guinea, posted record quarterly LNG revenue as its annual income from the fuel jumped more than 23 percent and a total of 232 cargoes departed from the three facilities.

Santos said in its quarterly activities report that total LNG sales revenue for 2018 amounted to US$1.45 billion versus US$1.17Bln in 2017.

Prices

Record overall quarterly sales revenue, including oil and other products, rose by 7 percent to US$1.04Bl, with record quarterly LNG sales revenue of US$449 million, up 39 percent.

The company said its annual realised LNG price was US$9.91 per million British thermal units compared with US$7.31 per MMBtu in 2017.

Fourth-quarter LNG volumes were sold at an average of US$10.96 per MMBtu versus $US10.43 in the previous quarter.

Fourth-quarter production of all products was higher than the prior quarter due primarily to the completion of the of acquisition of Australian company Quadrant Energy on November 27, partially offset by completion of the sale of Santos's non-core Asian asset portfolio in September 2018.

Quarterly LNG cargoes shipped from Gladstone LNG on Curtis Island, whose other shareholders are Petronas of Malaysia, France's Total and Korea Gas Corp., amounted to 20 cargoes and 80 shipments for the year compared with 89 in 2017.

"LNG production was lower than the prior year primarily due to the GLNG joint venture partners diverting about 40 PJ of gas (1 billion cubic metres) to the domestic market," said Adelaide-based Santos.

"The diverted gas, originally slated for export cargoes and equivalent to 700,000 tonnes of LNG, was sold to East Coast domestic customers," added the company.

Quarterly LNG cargoes shipped from PNG LNG, operated by US major ExxonMobil, amounted to 30 in the last three months of the year and 98 for all of 2018. The number of PNG shipments that departed in 2017 was 110.

Chinese LNG imports rose by 38 percent in 2018 in new surge

Chinese liquefied natural gas imports rose by 38 percent in 2018 as winter shipments surged in the final two months as more natural gas supplies were brought to the northern cities such as Beijing to help reduce coal use and improve air quality.

Among the final shipments of 2018, cargoes were unloaded from nations such as Qatar, Australia, Indonesia and Nigeria.

China imported a monthly record total of 6.29 million tonnes of LNG in December 2018, according to data from the General Administration of Customs, with shipments 25 percent higher than the 5.03MT received in the same month of 2017.

Up until November, China had imported a total of 47.52MT so the additional December shipments give the Chinese a 2018 total of 53.81MT compared with just over 39MT in 2017, second only to Japan and its 82.85MT total for 2018.

China had imported 5.9MT in November 2018, surpassing the previous monthly record of 5.18MT set in January 2018.

The imports of LNG had risen at a slower pace in 2018 than in 2017 when they increased by 46 percent from the previous year when shipments had amounted to just over 27MT.

LNG carriers from Australia, the Middle East and Africa are still heading in significant numbers for Chinese import terminals with January shipments for the network of 20 import facilities.

In addition to its 19 onshore terminals, China has also deployed a floating storage and regasification unit, the 170,000 cubic metres capacity "Hoegh Esperanza", at Tianjin port in northeast China to serve Beijing.

Analysts said the Chinese government had largely succeeded in its pledge to ensure abundant natural gas supplies and stable prices this winter as previous large-scale coal use was being replaced as far as possible by natural gas to improve air quality.

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NEWS NUDGES

Polish LNG tenders

Polskie LNG, the operator of the Polish import terminal at the Baltic port of Swinoujscie, said it had received environmental permits for its planned expansion of regasification capacity, storage and loading, allowing it to complete contract tenders. The Polish terminal began operations in 2009 and can currently receive almost 4 million tonnes per annum of LNG. Two tender procedures are currently in progress for the terminal. "The objective of the first is the selection of the contractor for three key components, construction of the third storage tank, process installations to increase regasification capacity and the LNG-to-rail transhipment installation along with a dedicated railway siding," said the company.

Algeria award to Chinese

Algerian state energy company Sonatrach, a main supplier to southern European LNG imports in France, Spain and Turkey, said it awarded a contract to China Harbor Engineering Co. to study, supply and build an additional marine jetty and port infrastructure at its Skikda LNG export plant on the Mediterranean coast. The Algerians said the contract was valued at 53 billion Algerian dinars ($445 million).

East Coast India terminal

Indian Oil Corp. is set to start the commissioning process for the first East Coast LNG import terminal at Kamarajar Port near Chennai. India's four operating import terminals are all on the West Coast at Hazira, Dahej and Dabhol near Mumbai and at Kochi in the southwest state of Kerala. ■

Sempra pushes Cameron LNG plant to start-up with over 8,000 workers

LNG Journal editor

Sempra's Cameron export plant site in Louisiana

Sempra Energy, the California-based utility, is making good progress on the commissioning process for the first liquefaction Train and other facilities at the Cameron LNG export plant in Hackberry in Louisiana, with almost 8,700 workers currently on site as activities increase.

"Construction continued in all areas with focus on aboveground piping installation, pressure testing, structural steel, electrical work, insulation, and fire proofing," said a report from the Federal Energy Regulatory Commission after an inspection visit.

Economics

The Cameron plant is a former import terminal that is being transformed by the addition of liquefaction Trains.

The project's first phase includes building three Trains at a cost of $10 billion with export capability of almost 15 million tonnes per annum of LNG.

"On Train 1, CLNG is preparing for the commissioning of the Hot Oil System and the solo run for the Mixed Refrigerant (MR) Gas Turbine. Installation of the Train 2 Main Cryogenic Heat Exchanger insulation, structural steel and above ground piping continues," said the FERC report.

"On Train 3, installation of underground and above-ground piping continues" it added.

Cameron LNG is jointly owned by Sempra, French major Total, Japanese trading house Mitsui & Co and Japan LNG Investment, a venture owned by Japan's Mitsubishi Corp. and the shipping company Nippon Yusen Kabushiki Kaisha, known as NYK Line.

At least two of the three Trains are expected to be producing LNG by the end of 2019.

"On average there are 8,680 workers on the site daily, between 650 and 750 of which work the nightshift. The construction workforce will decrease as commissioning activities progress," said the FERC report.

The FERC noted that the objective of the project was to export approximately 14.95 MTPA of LNG with a maximum operating capacity equivalent to pipeline receipts of up to 2.33 billion cubic feet per day of feed-gas. ■

Tellurian receives final EIS to start progressing with Driftwood LNG

Tellurian Inc., developer of the Driftwood LNG export project in Louisiana, said it expected to start construction near the Lake Charles site in the first half of 2019 after regulators issued a final environmental impact statement.

The final EIS was issued by the Federal Energy Regulatory Commission to develop the liquefaction plant to produce around 27.6 million tonnes per annum of LNG and its associated 96-mile pipeline.

"Tellurian thanks the FERC for a thorough review and for remaining on schedule," said Tellurian President and Chief Executive Meg Gentle.

"We look forward to receiving the agency's order granting authorization to site, construct and operate our Driftwood project," added Gentle.

"Tellurian will then stand ready to make a final investment decision and begin construction in the first half of 2019, with the first LNG expected in 2023," stated the CEO.

Tellurian, founded by former Cheniere Chief Executive Charif Souki, continues to sign up customers and investors for its export joint venture.

The most recent was in December 2018 when it signed a preliminary accord with Swiss-based international commodities firm Vitol to supply 1.5 MTPA of LNG cargoes for 15 years.

The Tellurian-Vitol is based on the Japan Korea Marker (JKM) price and cargoes on a free-on-board (FOB) basis whereby Vitol provides its own shipping.

Under the MOU, Tellurian and Vitol have agreed to negotiate a future LNG sale and purchase agreement subject to Tellurian's receipt of approvals from the FERC.

In addition to signing the accord on cargoes, Vitol said it was also evaluating a potential equity investment in the Driftwood Holdings partnership. ■

US pipeline giant progresses on two LNG plants and will move gas for 40 percent of US exports

LNG Journal editor

Kinder Morgan said it expected to provide about 40 percent of the volumes for current and future LNG and pipeline exports as it remained on schedule to brings its own small-scale liquefaction facility on stream in the first quarter at Elba Island in Georgia and eventually a second plant in Mississippi.

Elba Island is an existing import terminal being transformed into an export plant to produce an initial 2.5 million tonnes per annum of LNG.

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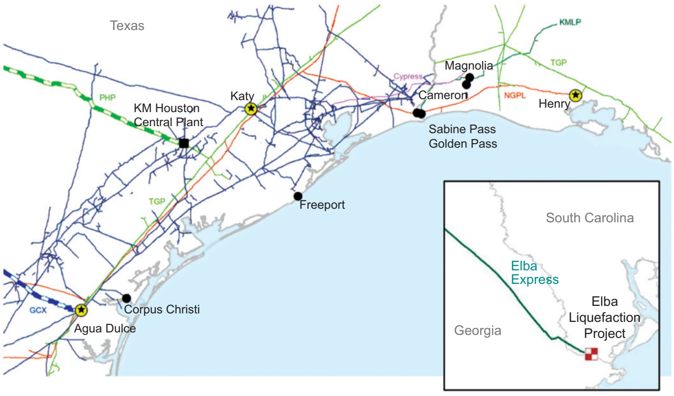

Kinder's liquefaction and gas transport opportunities

Production

Kinder Morgan, based in Houston, had earlier given a start-up date for Elba Island as the fourth quarter of 2018.

The Elba Liquefaction Project is being built at a cost of just $2 billion and will have feed-gas needs equivalent to around 350 million cubic feet per day.

"The project is supported by a 20-year contract with Shell," said Kinder in a presentation to investors following its fourth-quarter results.

"The first of 10 units is expected to be placed in service at the end of the first quarter of 2019, with the remaining nine units to come online throughout 2019," it added.

Kinder's partner in the joint venture, called Elba Liquefaction, is the US equity fund EIG Global Energy Partners, which holds 49 percent. Elba Liquefaction will own the liquefaction units and other ancillary equipment.

"Certain other facilities associated with the project are 100 percent owned by Kinder Morgan," said the company.

"The newly constructed Elba Express Modification Project is now in service, adding upstream compression facilities on the Elba Express pipeline to provide feed gas for liquefaction," explained Kinder.

The company stated that natural gas is critical to the American economy and to meeting the world's evolving energy needs.

"Objective analysts project US natural gas demand, including net exports of LNG and exports to Mexico, will increase from 2018 levels by 32 percent to nearly 119 Bcf/d by 2030," it said.

"Of the natural gas consumed in the US, about 40 percent moves on Kinder Morgan pipelines, and roughly the same percentage holds true for US natural gas exports," added Kinder.

"Kinder expects future natural gas infrastructure opportunities through 2030 will be driven by greater demand for gas-fired power generation across the country (forecast to increase by 15 percent), net LNG exports (forecast to increase almost five-fold), exports to Mexico (forecast to rise by 39 percent), and continued industrial development, particularly in the petrochemical industry," it said.

The existing LNG terminal on Elba Island is about eight miles upstream from the mouth of the Savannah River. It was first authorized by the Federal Energy Regulatory Commission in 1972 as an import facility.

The transformation project to turn the terminal into a liquefaction plant began in November 2016.

Kinder and two equity funds are also making progress on receiving FERC permits to transform the existing Gulf LNG import terminal in Pascagoula in Mississippi into an export plant.

The proposed Gulf LNG export facility would consist of two Trains, each with capacity of about 5 MTPA.

"The Gulf Liquefaction Company, Gulf LNG Energy and Gulf LNG Pipeline units are scheduled to have their final Environmental Impact Statement in April 2019, and the final decision for issuance of the FERC certificate is expected in July 2019," said Kinder.

Natural gas transport volumes on Kinder's pipeline system for the fourth quarter were up 4.5 Bcf/d compared with the same three months in the previous year.

"The group's success mirrors the record-breaking year enjoyed by the natural gas sector as a whole. US natural gas demand rose to 90 Bcf/d from 81 Bcf/d in 2017, an 11 percent increase," it said.

"This increase was driven by higher throughput on El Paso Natural Gas due to additional Permian capacity sales, on Colorado Interstate Gas due to growing Denver-Julesburg Basin production, and on Tennessee Gas Pipeline due to power demand and projects placed in service," said the company.

Kinder said its Texas intrastate networks also contributed to a rise in transport volumes due to higher demand from shippers serving Mexico and the Texas Gulf Coast industrial markets, and on Natural Gas Pipeline Company of America due to cold weather early in the quarter, increased Permian Basin receipts and power demand. ■

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French Fos LNG import facility set for capacity sale

Elengy, the main French LNG terminal operator, said it was preparing the launch in February of a sale of 10-year access capacities for the Fos Tonkin import facility near the Mediterranean port of Marseille.

The capacity sale will cover terminal access for a period of 10 years from 2021 to 2030.

"Within the sale process, Elengy will offer its potential customers several types of services, including the conventional unloading of Medmax-type (75,000 cubic metres capacity) LNG tankers, the reloading of small-scale tankers for LNG bunkering needs, as well as LNG truck-loadings," said Elengy.

"Detailed information concerning the services offered will be provided in the information memorandum at the opening of the sale," added the company.

Elengy owns the Fos Tonkin terminal and is a 72.5 percent shareholder in Fosmax LNG, owner of the Fos Cavaou terminal, also near Marseille.

The other shareholder in the Fos Cavaou terminal is French energy major Total.

The Elengy company is itself a subsidiary of French natural gas network owner GRTgaz within the large French utility group Engie.

France has a total of four LNG import terminals, with the other two located at Montoir-de-Bretagne on the Atlantic Coast and at the Channel port of Dunkirk.

The port of Marseille-Fos, which is France's largest trading port, is also developing plans for the construction of LNG bunkering infrastructure in co-operation with the managers of the Fos Tonkin and Fos Cavaou terminals.

Australian Gas Infrastructure Group starts link to pipeline for Pluto LNG

LNG Journal editor

Woodside Pluto vice-president Mike Price, City of Karratha Mayor Peter Long, Pilbara MLA Kevin Michel and Australian Gas Infrastructure Group general manager for commercial Jon Cleary at the Pluto pipeline ceremony (Photo: AGIG)

The Australian Gas Infrastructure Group (AGIG), one of the nation's largest natural gas network and transmission companies, has successfully commissioned the Pluto Inlet Station, the new facility connecting the Pluto LNG plant in Western Australia to the Dampier-to-Bunbury Natural Gas Pipeline.

The Dampier-to-Bunbury pipeline has been in continuous operation in Western Australia since 1984, linking the gas fields in the Carnarvon Basin off the Pilbara coast directly to mining, industrial, commercial and residential customers throughout the State.

Boosted

AGIG said the commissioning of the pipeline allows additional gas supply to reach Western Australian consumers.

Woodside Petroleum, operator of the Pluto LNG plant near Karratha, had engaged AGIG's development group to undertake a front-end engineering and design study to convert an existing outlet meter station to an inlet facility, along with the required compression.

Woodside is developing LNG distribution and increasing domestic gas supplies to customers as well as prolonging operations from the state's oldest LNG plant, the North West Shelf facility that has been in operation since 1989.

The completed inlet facility now has the capacity to supply up to 25 terajoules per day via the Dampier-to-Bunbury pipeline to domestic customers.

Andrew Staniford, the Chief Customer Officer at AGIG, said he was pleased to play a key role in this latest project achievement for Woodside, expanding increased capacity for natural gas.

"Delivering the successful commissioning of the Pluto facility for Woodside demonstrates continued project success for AGIG and a greater diversification of gas sources available to the WA market," said Staniford.

AGIG was only formed in 2017 through the merger of Australian Gas Networks (AGN), the Dampier-to-Bunbury Pipeline (DBP) and Multinet Gas Networks (MGN).

Galveston Bay LNG plans advance ahead of decisions on Rio Grande

NextDecade Corp., the developer of the Rio Grande liquefied natural gas export project in Texas, has held two public events to gather support for its second Texan export venture called Galveston Bay LNG.

The Houston-based company has just held two open house events, one at Rosenberg in Texas attended by landowners who inquired about the pipeline route, and a second at Texas City.

Galveston Bay LNG will include a 97-mile affiliated pipeline to move 3 billion cubic feet of natural gas per day from the Katy Hub in Waller County, while the liquefaction plant is proposed for a 550-acre site along the Texas City Ship Channel.

The Galveston Bay liquefaction plant would produce an initial 5.5 million tonnes per annum of LNG.

"The Galveston Bay project open houses represent the first of several opportunities throughout the regulatory and permitting process, led by FERC, for area residents to learn more about the proposed project and to ask questions," said NextDecade.

The company is also near the end of the regulatory process for the Rio Bravo Pipeline in South Texas and the Rio Grande export plant at the Port of Brownsville to produce around 27 MTPA of LNG.

The Texas Commission on Environmental Quality granted the Rio Grande project and its Rio Bravo Pipeline a state permit in December 2018, though federal regulators were not expected to make a decision about the projects until July 2019.

The Rio Bravo Pipeline is expected to transport 4.5 billion cubic feet per day from the Agua Dulce area to the Rio Grande liquefaction plant in Brownsville.

NextDecade's Rio Grande project remains subject to final review by the Federal Energy Regulatory Commission.

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LNG Canada awards around US$770M in initial contracts and expects to employ 10,000 people

LNG Journal editor

LNG Canada, the export project led by Royal Dutch Shell and four Asian partners in the West Coast province of British Columbia, said it had approved more than US$770 million in contracts and subcontracts and expected to employ around 10,000 Canadian workers as activities develop.

Shell and its four partners, Mitsubishi Corp. of Japan, Malaysian energy company Petronas, Chinese major PetroChina and Korea Gas Corp., had agreed in October 2018 to proceed with the joint venture and with construction at a cost of up to US$31 billion of the plant and its associated facilities.

Brownfield

The liquefaction plant is to be constructed at a brownfield site near Kitimat that had been an energy products terminal before being acquired by Shell in 2011.

The plant itself is expected to cost around US$11Bln using modular construction methods and will have two large liquefaction Trains initially, with each producing 7 million tonnes per annum of LNG by 2025. The plant would then be expanded.

From planning to reality: model of LNG Canada at Kitimat

Additional costs of up to US$20Bln will include feed-gas supplies for TransCanada's Coastal GasLink pipeline and other facilities.

"By the end of construction phase, LNG Canada and the Coastal GasLink pipeline project that is needed to transport natural gas from northeast BC to the LNG export facility near Kitimat, expect to employ approximately 10,000 Canadian workers," said the company.

"As the project progresses, more contracts will be awarded to benefit Canadian communities," it added.

LNG Canada said its contracts include one for US$132M to local First Nations businesses and, with the addition of contracts awarded to local firms in Kitimat, that total increases to US$248M and US$398M with the addition of BC businesses outside the local area.

"What these contracts and subcontracts represent, is tremendous opportunity for individuals to find employment on the LNG Canada project through our contractors and subcontractors," said Susannah Pierce, LNG Canada's Director of External Relations.

"For First Nations communities, it is delivering on the opportunities we have committed to that will assist the Nations address issues of poverty, unemployment and skills development," added Pierce.

"For local communities, it is the opportunity for young people to find employment that allows them to remain living in the North," she stated.

During the first month of the construction phase of operations in October 2018, there were 249 workers from the local area, including First Nations, employed by LNG Canada or one of its contractors. ■

Kwispaa LNG project considers pipeline corridor details to transport northeast BC feed-gas to plant

Steelhead LNG, developer of the near-shore export plant proposed for Vancouver Island, is currently investigating the pipeline route to bring feed-gas from the Chetwynd area of northeast British Columbia to Sarita Bay on First Nation-owned land.

The pipeline is expected to run for about 1,000 kilometres from Chetwynd to the Williams Lake area, southwest to Powell River, across the Strait of Georgia and would terminate at the proposed Kwispaa LNG plant.

It is planned to run parallel to existing rights-of-way for around 50 percent of its route. A specific route has not yet been selected and is subject to ongoing community and First Nation consultations.

Steelhead LNG has said it plans to select a preferred pipeline corridor and enter British Columbia's environmental assessment process in the first quarter of 2019.

The company would then submit environmental assessment applications for the liquefaction and pipeline projects with combined estimated costs of C$18 billion (UD$13.5Bln). A final investment decision is scheduled for 2020.

The construction phase would take approximately four years and the plant and pipeline could be on stream by 2024 if the permitting stage runs smoothly.

Steelhead LNG is in partnership with the Huu-ay-aht First Nation whose traditional land will host the liquefaction plant on Vancouver Island.

Current plans are for construction of a facility with initial capacity of 12 million tonnes per annum of LNG, requiring 1.9 billion cubic feet per day of feed-gas.

At the most recent January 2019 meeting of the Peace River Regional District council in Dawson Creek, executives of the LNG company made a presentation of their plans.

"We understand the importance of engaging communities at the earliest stage in the route exploration," said Corey Goulet, the Steelhead Vice President in charge of the pipeline project.

Goulet joined Steelhead in June 2018 and 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.

"We're committed to building mutually beneficial relationships with communities, and developing projects in an environmentally responsible manner," he added.

The 48-inch diameter pipeline is expected to transport around 2 Bcf/d in its first phase, expandable to about 4 bcf/d at full build-out.

The project also plans to include metering facilities and two compressor stations in the initial phase.

Goulet said that not all feed-gas production for the pipeline would be new and it was likely that existing output would be transported to the West Coast instead of going East through the neighbouring province of Alberta. ■

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Japanese LNG imports declined in 2018 amid a 20 percent jump in costs and nuclear re-starts

LNG Journal editor

Japanese liquefied natural gas imports declined by 0.9 percent in 2018 as coal and nuclear provided more competition for power generation, though the costs of the LNG shipments soared by more than 20 percent and a fall in Asian shipments was partially offset by a rise in Middle East cargoes.

The 2018 imports amounted to 82.85 million tonnes, 0.9 percent less than the 83.63MT received in 2017.

Bill for LNG cargoes was much higher at US$43.14Bln

Higher bill

The nation's latest import bill was 20.8 percent higher than in 2018 at 4,730 billion yen ($43.14Bln), according to the Finance Ministry data. Japan had paid 19.3 percent more in 2017 with an LNG bill of 3,915Bln yen ($35.58Bln).

The December 2018 imports were 7.25MT compared with 7.95MT in December 2017.

Nine of Japan's nuclear power plants, which numbered 54 on line before the Fukushima disaster in 2011, have re-started to reduce LNG needs.

Annual thermal coal imports were down slightly by 0.6 percent to 113.67MT and cost 15.8 percent more at 1,475Bln yen ($13.5Bln).

The Ministry data for December and the year showed that Asian LNG shipments from nations such as Malaysia and Indonesia, Papua New Guinea and Brunei dropped 17.9 percent last year to 20.67MT.

Imports from the Middle East region rose 2.2 percent, with shipments from countries like Qatar, the United Arab Emirates and Oman totalling 17.97MT in November.

US shipments of LNG amounted to almost 2.49 million tonnes, up from under 1MT in 2017.

Japan will be importing more cargoes in 2019 from the Cheniere Energy-owned Sabine Pass plant in Louisiana and the Cove Point plant in Maryland operated by Dominion Energy, as well as the newest Cameron LNG plant in Louisiana operated by Sempra Energy.

Monthly Russian shipments from the Sakhalin Island plant in the Far East fell 8.1 percent year-on-year to 6.67MT.

The balance of imports from other nations amounted to 35.05MT, with most volumes coming from Australia, as well as shipments from African nations and the spot market.

Mitsui of Japan seeks to build Russian and US volumes and discusses plans with Gazprom

Mitsui, the Japanese trading house and liquefied natural gas market participant, has held talks with Gazprom on progress made in two Russian plans to expand LNG output, on the existing Sakhalin Island plant in the Far East and at a planned facility west of Saint Petersburg.

Gazprom said a meeting was held in Moscow between Alexei Miller, Chairman of Gazprom, and his Mitsui counterpart, Masami Iijima.

The Baltic LNG concept proposes the design, construction and operation of an LNG production plant on the coast about 110 kilometres from Saint Petersburg.

The facility would be located in the port of Ust-Luga on the Baltic Coast of the Leningrad Region and would have capacity of 10 million tonnes per annum.

"They considered avenues for further cooperation, paying particular attention to the Baltic LNG project," said Gazprom.

"A joint design concept in the form of pre-front-end engineering and design is currently being developed for Baltic LNG," added the Russian company.

Gazprom and Mitsui are already shareholders in the Sakhalin II project where two Trains process more than 10 MTPA of LNG.

Both companies are also considering construction of a third production Train at the Sakhalin plant. The other Sakhalin shareholders are Royal Dutch Shell and Mitsubishi Corp.

"The parties discussed current issues related to bilateral collaboration, including the Sakhalin II (LNG) project," said Gazprom.

Sakhalin most recently had annual output of 10.9MT of LNG, exceeding the design capacity by over 1.3 million tonnes. Most of the cargoes are delivered to Japanese utilities and South Korea.

Gazprom noted that in December 2016, Gazprom and Mitsui signed an agreement of strategic cooperation, envisaging collaboration in various areas, including the Sakhalin II project expansion and LNG bunkering.

Gazprom and Mitsui signed a memorandum of understanding in 2018 on the Baltic LNG project, which would also include bunkering facilities.

Mitsui is also a shareholder in US LNG capacity through its stake in Cameron LNG in Louisiana.

The Cameron plant is owned by Sempra Energy of California and other joint venture participants are French major Total and the other Japanese companies Mitsubishi and the shipping line Nippon Yusen Kabushiki Kaisha, known as NYK Line.

The Cameron plant is entering the commissioning stage and the project's first phase includes building three Trains at a cost of $10 billion with export capability of almost 15 million.

> "A joint design concept in the form of pre-front-end engineering and design is currently being developed for Baltic LNG"
>
> *- Gazprom*