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Australian LNG firm Woodside gives details of large potential fuel market

Plans include fuel for shipping and onshore transport in the Pilbara region

Our Asia-Pacific editor

Starting point for LNG fuel operations in Western Australia

Australian liquefied natural gas producer Woodside Energy is planning to help the growth of a market for LNG as a fuel for shipping and onshore transport and is targeting the Pilbara region of Western Australia because mining companies use billions of litres of replaceable diesel and heavy fuel oil for their operations.

Woodside's main LNG plants, the North West Shelf plant and Pluto LNG are near Karratha, the gateway to the Pilbara mining region and its own cargo exports are shipped from the port town of Dampier.

Build-out

The Wheatstone LNG plant, to be operated by Chevron Corp. and in which Woodside has a stake is located at nearby Onslow and comes on stream later in 2017.

Pilbara is Australia's main mining area for iron ore exported to Asia and global group Rio Tinto alone has 15 iron ore mines and exports from four independent port terminals, all potential users of LNG fuel.

Woodside said that with LNG proven to produce 25 percent less greenhouse-gas emissions than diesel and up to 30 percent lower than for heavy fuel oil it was expanding its presence in the market and gave more details of its new venture in the northern part of the state of Western Australia.

With the International Maritime Organisation deciding to restrict sulphur levels in global shipping fuels from 2020 and to start tracking greenhouse emissions from large ships, Woodside said that now was the time to join the fuel market for shipping and heavy-horsepower machinery and trucks.

"This represents a major opportunity for LNG to replace fuels that will no longer be viable when the new caps on sulphur take effect," the company said.

"Woodside considers the Pilbara region in Western Australia to be an ideal location from which to drive the transition to LNG as a transport fuel, with world-class LNG production facilities close to fuel-intensive industries that rely heavily on imported diesel and heavy fuel oil," it said.

"Around 3 billion litres of diesel are imported into the Pilbara each year and the mining industry alone uses around 5 billion litres of heavy fuel oil to ship its exported products," said Woodside.

"If we can switch just a portion of this to LNG, the emissions reductions are considerable. Woodside is collaborating with many parties to convert these energy-intensive operations in the Pilbara to LNG," it explained.

"It has potential to provide an important new market for Woodside and make a significant contribution to meeting Australia's emission reduction targets," the company said.

"To demonstrate the flexibility of LNG as a transport fuel, Woodside took delivery of the "Siem Thiima" in January 2017. This is the first LNG-fuelled supply vessel in the southern hemisphere and joins our fleet as the primary supply vessel for Woodside's offshore operations," it said.

The company described its LNG fuel ambitions in its 68-page "Sustainable Development Report 2016".

The report gives company details of issues such as environmental measures, workplace integrity and company values shared by shareholders, employees and the community.

"Increased use of gas-fired power presents an opportunity for those countries with severe air-pollution concerns and growing energy systems, notably China and India," Woodside noted in the report.

"Our producing assets in Australia include the landmark North West Shelf Project, which has been operating since 1984," said an introduction by Chief Executive Peter Coleman.

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Driftwood LNG project in Louisiana aims for first share offering on Nasdaq to raise up to $200M

Our North American editor in New York

Tellurian Inc., the developer of the Driftwood LNG project in Louisiana and whose Chairman is former Cheniere Energy Chief Executive Charif Souki, has issued a prospectus for a proposal to sell shares on the Nasdaq Capital Markets stock exchange valued at up to $200 million.

The share offering when it goes ahead could be one of many future financial transactions as Tellurian develops its Driftwood venture to produce 26 million tonnes per annum from a liquefaction plant near Lake Charles.

Share sales are cost-effective ways of funding

Proceeds

"We intend to use the net proceeds from the issuances and sales of common stock for general corporate purposes and working capital," Tellurian said.

Tellurian also recently appointed SG Americas, a US broker-dealer subsidiary of France's Societe Generale Corporate and Investment Banking, as its financial advisor.

Tellurian founder Souki, who last year brought Martin Houston, former head of LNG at the UK BG Group, into his company completed a reverse takeover in February 2017 to gain a listing for Tellurian on the Nasdaq to ease the path to fund-raising.

Meg Gentle, another former senior employee of Cheniere, operator of the Sabine Pass LNG plant in Louisiana, joined her former CEO at his new company as Tellurian's President and CEO.

In publishing the share sale prospectus, Tellurian also announced the signing of a distribution agency agreement with Swiss bank Credit Suisse Securities "to sell Tellurian shares from time to time" on the Nasdaq.

"The distribution agreement provides that Credit Suisse will be entitled to compensation for its services at a fixed commission rate equal to 3.0 percent of the gross sales price per share," said Tellurian, whose shares were last priced on the Nasdaq at $12.81 per share.

Construction of the Driftwood liquefaction plant is scheduled to begin in 2018 and first cargoes could then be shipped by 2022.

The project will be unique in having 26 MTPA of output coming from 20 small-scale processing Trains provided by US equipment company Chart Industries, based in Cleveland, Ohio.

Each of the Trains with Chart heat exchangers will produce 1.3 MTPA of LNG.

Before the completion of the reverse takeover and the gaining of the Nasdaq listing, the Tellurian company signed prominent industry players as stakeholders.

French energy company Total acquired a substantial stake in Tellurian in December 2016. ■

US Rio Grande LNG project of former Shell executive Eisbrenner sets up stock market listing

The US Rio Grande LNG project development company in Texas run by former Royal Dutch Shell senior executive Kathleen Eisbrenner is following the trend for large liquefaction projects on the Gulf Coast to list on the stock exchange by setting up a merger with a listed firm.

Eisbrenner's privately-held company NextDecade has signed a letter of intent for a business combination transaction to enable NextDecade to become a publicly listed company. It is using the services of a specialized firm called Harmony Merger Corp.

The Rio Grande export venture, which is advancing through the Federal Energy Regulatory Commission permitting process aimed at building a plant to produce 27 million tonnes per annum of LNG, will be able after the listing to raise funds easier from stock issues and other market transactions.

The Tellurian Inc. development company of former Cheniere Energy Chief Executive Charif Souki recently completed a reverse takeover of a small oil and gas exploration outfit to give Tellurian a listing on the Nasdaq global exchange to help funding for its Driftwood LNG project in Louisiana.

Cheniere itself is listed on the New York Stock Exchange and was able to raise billions of dollars to build the Sabine Pass plant in Louisiana, the first on stream liquefaction and export facility on the Gulf Coast.

The Tellurian move also helped distribute shares to early backers, including French energy company Total and GE Oil & Gas, a future equipment provider and now a stakeholder in Tellurian.

The Eisbrenner company aims to do the same and is using the reverse merger route for its listing.

"Harmony currently has $117.5 million of cash in trust. The proposed all-stock transaction is expected to yield a combined entity with a 'pro forma' enterprise value exceeding $1 billion at closing, with additional stock consideration to be paid to NextDecade shareholders upon the achievement of certain milestones," said NextDecade.

"Pursuant to the LOI, Harmony and NextDecade have also reserved capacity for strategic partners to invest in the company prior to the closing of the merger," the Eisbrenner company added.

Eisbrenner said that after conducting an extensive review regarding development financing it was decided to move forward with the reverse merger. "This transaction is a natural next step in NextDecade's strategy of continuing to de-risk its projects to attract world-class customers and access capital on competitive terms," said CEO Eisbrenner.

"We believe that the proposed merger will enhance NextDecade's ability to provide flexible solutions to customers and producers, and create value for our current and future stakeholders and partners," she stated.

The Eisbrenner company in January 2017 signed land agreements with state and municipal authorities for a site of around 1,000 acres at Shoal Point to build the plant.

The land at Shoal Point has deep water access to the Gulf of Mexico at the port of Brownville. ■

Crowley Maritime and Eagle LNG start building base for Florida fueling

US shipping line Crowley Maritime Corp. and project development and supply company Eagle LNG Partners said they had begun construction of a new liquefied natural gas fueling facility in Florida.

The bunkering station is being constructed on a Crowley site at the Jaxport's Talleyrand Marine Terminal in the port of Jacksonville.

The facility will be an LNG fueling station to serve Crowley's new Commitment Class, LNG-powered, combination container and roll-on roll-off ships for trading between the US and Puerto Rico.

The Crowley vessels will be "some of the world's first to be powered by LNG" and are expected to begin service in the second half of 2017 and first half of 2018.

Crowley's Vice President for LNG Matt Jackson explained how the project was part of the shipping line's overall expansion and modernization plans for its Puerto Rico service.

The Florida facility will serve as the fueling station for the Crowley LNG-powered ships.

"Within the month, Chart Industries is expected to deliver two of its new, 1-million litre cryogenic tanks for LNG storage at the site," said Jackson.

Including the Jacksonville LNG fuel project, Crowley said it was investing more than $550 million in the two new ships along with a new 900-foot pier and other improvements at its Isla Grande terminal in San Juan, Puerto Rico.

"The start of construction marks a milestone as we continue making progress with our partners, supplier Eagle LNG and Chart Industries," said Jackson.

Gasunie sees profit hit by tariffs issue but offset by higher delivery volumes

Our Europe editor

Gasunie, the Dutch natural gas company and Rotterdam LNG import terminal co-owner, said profits plunged because of an impairment linked to a regulatory ruling as revenues also declined amid more small-scale LNG shipments and low-calorific conversion of pipeline gas because of the cap on Groningen field production.

The company said revenues dropped to $1.54 billion euros ($1.65Bln) for 2016 compared with 1.63Bln euros in 2015.

Gate LNG

The company, which is a stakeholder in the Gate terminal with Royal Dutch Vopak, posted net profits last year of 183 million euros ($196M), a drop of around 67 percent compared with the 553M euros recorded in 2015.

Gasunie said the main reason for this decline is an impairment of 450 million euros for Gasunie Transport Services (GTS), the pipeline transmission operator, over its cut in tariffs under the regulatory framework in the period 2017-2021.

The cut follows a decision by the Netherlands Authority for Consumers and Markets. As a result of the decision GTS tariffs will be lowered. Over the next five years the annual revenues will gradually fall by a total amount of 200M euros.

In addition, the decision will result in a one-off depreciation of the GTS network of 450M euros, now deducted from the 2016 earnings.

"Due to the production cap on low-calorific Groningen gas, substantially more high-calorific gas from the Netherlands and abroad had to be made suitable (converted) for use by domestic households and companies," Gasunie explained.

Gasunie said the volume of gas converted from high-calorific to low-calorific rose to 23.4 billion cubic metres versus 16.9 Bcm in 2015, helping to maintain sufficient gas supply for domestic households and companies after the reduction in the Groningen field production.

Gasunie CEO Han Fennema (left) with Shell VP Maarten Wetselaar, Vopak CEO Eelco Hoekstra and Port of Rotterdam CEO Allard Castelein at an LNG launch

"In 2016, we transported more gas than in the previous year," said Han Fennema, Chief Executive of Gasunie.

"The volume of natural gas we converted also rose. This shows that our gas infrastructure is fully deployed in the Netherlands and Germany, countries that are in the middle of the energy transition," added Fennema.

Gasunie said the volume of transported gas increased to 1,236 terawatt hours (TWh) compared with 1,170 TWh in 2015.

Trucking and parcel delivery firm UPS invests in LNG vehicles and stations

US trucking and parcel delivery company UPS said it planned to add 50 liquefied natural gas vehicles to its alternative fuel fleet as part of new investments of more than $90 million in natural gas transportation and fueling stations.

The company said it would use its additional LNG vehicles in Chicago, Indianapolis, around the St Louis area of the state of Missouri and in Nashville, Tennessee, all areas where it has its own existing LNG fueling stations.

While UPS is increasing its number of LNG vehicles it is also building six new fuel stations for compressed natural gas (CNG) and adding 390 new CNG tractors and terminal trucks.

"With more than 4,400 natural gas vehicles and a network of fueling stations, UPS has had great results using natural gas as an alternative fuel in our fleet," said Mark Wallace, UPS senior vice president for global engineering and sustainability.

"We know the importance of investing in natural gas globally for our fleet and the alternative fuel market," added Wallace.

"In 2016, we used more than 61 million gallons of natural gas in our ground fleet, which included 4.6 million gallons of renewable natural gas," he said in reference to bio-methane fuel made from organic waste.

"This helped us to avoid the use of conventional gas and diesel, and decreased CO2 emissions by 100,000 metric tons," said Wallace.

The six new CNG stations will be built in Ontario, California, Orlando, Florida, Salina in Kansas, Louisville in Kentucky, Greensboro in North Carolina and the Candian city of Vancouver in British Columbia.

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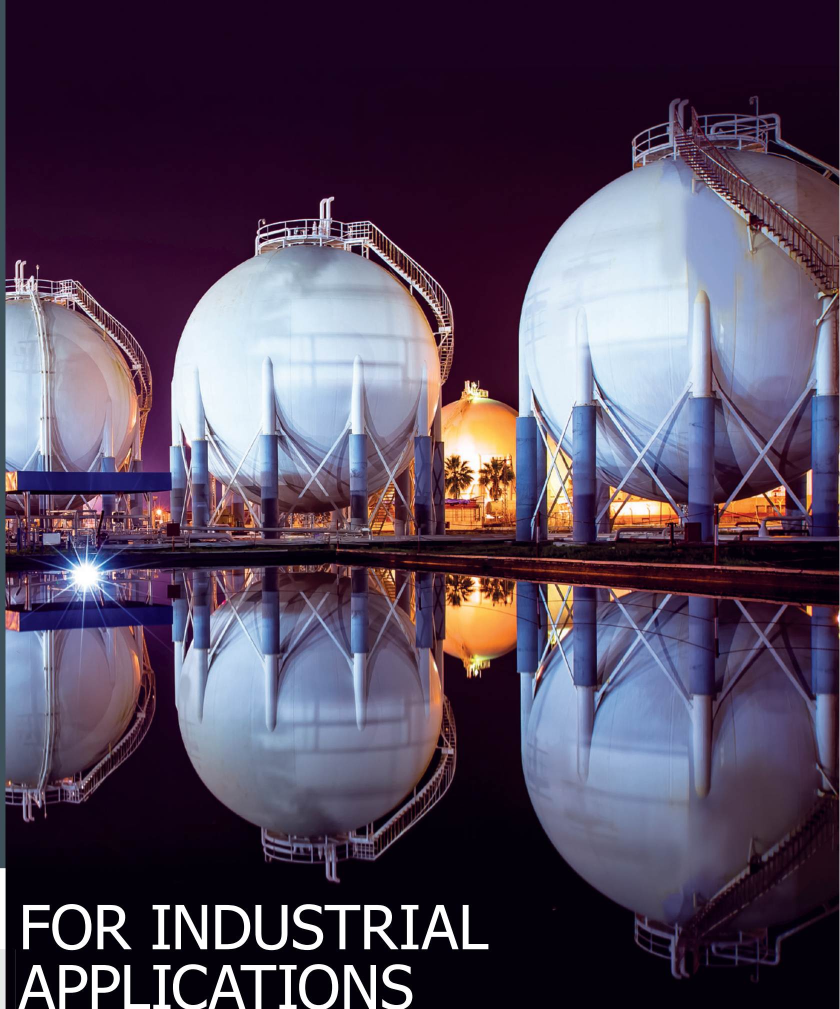

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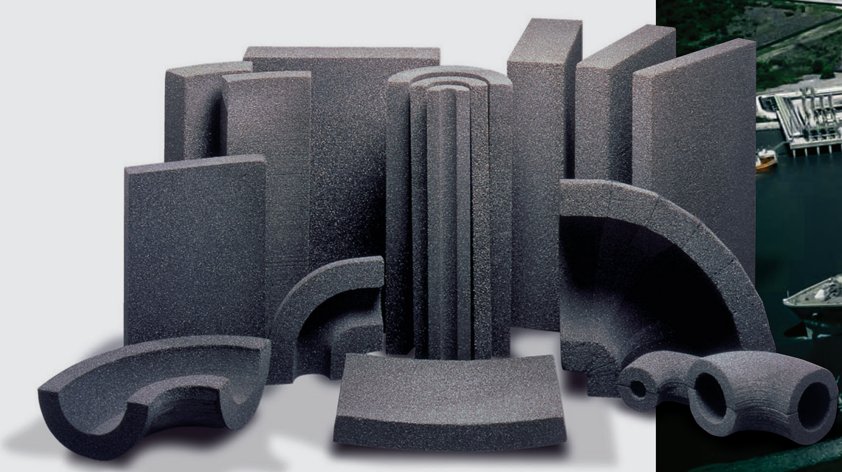

NEWS NUDGES

Chiyoda names new CEO

Chiyoda Corp. of Japan, one of the world's leading LNG engineering and construction companies, has overhauled its senior management after the losses and poor performance prompted by its Emas Chiyoda subsea business acquisition. Senior Executive Vice President Masaji Santo has been named as President and Chief Executive and Katsuo Nagasaka, who is currently a director and Senior Vice President, has been named executive Chairman. Senior Vice President Hirotsugu Hayashi has been appointed as the new Chief Financial Officer.

Qatargas adds to Poland deal

Qatargas has concluded a side deal alongside an existing sales agreement with Polish Oil and Gas Co. Under the additional accord, Qatargas will increase the volume of LNG currently supplied to Poland to 2 million tonnes per annum. The new agreement will come into effect in January 2018 and will run until June 2034. The LNG will be supplied from the Qatargas Train 3, a joint venture between Qatar Petroleum, ConocoPhillips, and Mitsui & Co. of Japan. The cargoes will be delivered on board Q-Flex LNG vessels to the Swinoujscie import terminal on the Baltic coast of Poland.

US LNG ship approval

The American Bureau of Shipping, the US classification society, has granted Approval in Principle for the Seatransporter-DF, a dual-fuel design concept developed by Algoship Designers Ltd. of Nassau in the Bahamas. The design has the capability to accommodate multiple engine types as well as Type-C or membrane containment systems for LNG fuels.

Wood Group snaps up Amec FW for broader combination as industry consolidation continues

Our Europe editor

Wood Group, the UK energy services company based in Aberdeen, has reached an agreement to take over the London-listed energy and LNG project engineering company Amec Foster Wheeler in an all-share deal valued at more than 2.25 billion pounds ($2.75Bln).

Under the terms of the combination, each Amec Foster Wheeler shareholder will receive for each Amec FW share 0.75 of new Wood Group shares.

Wood's Ian Marchant praises 'transformational transaction'

After TechnipFMC

The Wood deal to acquire Amec FW is the latest in the industry following the $13Bln merger agreement in 2016 between France's Technip and FMC Technologies of Houston, Texas.

Combining Wood Group with Amec FW creates a leader in subsea and upstream oil and gas industry services with a major player in the onshore energy and LNG projects sector.

"Opportunities for cost and revenue synergies have been identified which support the significant shareholder value creation opportunity of the combination," Wood said.

"The Wood Group directors, having reviewed and analysed the potential cost synergies of the combination, based on their experience of operating in the engineering and technical services industry, and taking into account the factors they can influence, believe that the combined Group will be able to achieve significant sustainable cost synergies of at least 110 million pound, equivalent to approximately US$134m per annum on a recurring basis," Wood added.

Wood said it also believed that "significant additional revenue growth opportunities may be realised" by the takeover.

Robin Watson and David Kemp, currently Chief Executive and Chief Financial Officer of Wood Group respectively, were named as CEO and CFO of the combined group.

Wood Group Chairman Ian Marchant will also continue as Chairman of the merged company.

Four members of the Amec FW board will join the board of the combined company on completion of the deal as non-executive directors, with Roy Franklin joining as Deputy Chairman and Senior Independent Director.

Amec FW was most recently appointed as owner's engineer for the Chile LNG terminal company GNL Quintero for services related to an expansion.

While the various subsidiaries of the Wood Group take part in the upstream sections of LNG projects, Amec FW has expertise in engineering, procurement and construction management.

The company was awarded a five-year global enterprise framework agreement from Shell Global Solutions International on 7 March 2017 to provide engineering services for its downstream ventures worldwide.

Amec FW said at the time the award from the projects unit of Royal Dutch Shell marked significant progress in its global engineering consultancy's strategy to build the business and deploy its capability.

UK-based Amec took over US company Foster Wheeler to create the current Amec FW firm in November 2014.

"The combination represents a transformational transaction for Wood Group, which accelerates our strategy and creates a global leader in project, engineering and technical services delivery across a range of industrial sectors," said Ian Marchant, the Wood Chairman.

"It extends the scale and scope of our services, deepens our existing customer relationships, facilitates further development of our technology-enabled solutions and broadens our end market, geographic and customer exposure," added Marchant.

Commenting on the takeover by Wood, John Connolly, the Chairman of Amec FW, said : "Since the arrival of Jonathan Lewis as CEO, the executive management team of Amec Foster Wheeler has made significant progress towards the transformation of the business."

Connolly added that this had been achieved through cost reduction initiatives, the disposal of non-core assets and a reorganisation of the business.

"The Amec Foster Wheeler board have fully supported the revised strategy and the preparations to deliver the appropriate balance sheet to support the standalone prospects of Amec Foster Wheeler," said Connolly. ■

Qatar Gas Transport gives upbeat message for future operations of 25-vessel LNG fleet

Our Middle East editor

Qatar Gas Transport Co., the Qatar LNG carrier operator also known as Nakilat, gave an upbeat message at its annual meeting in the Qatari capital Doha as it continued the process of taking back all its vessels from the operatorship of the Shell shipping unit and posted an annual net profit of 955 million Qatari riyals ($262M).

"Despite the volatile market condition, Nakilat continued to achieve growth and development across our various operations, capitalizing on the strength of our integrated businesses and talents within the organization," said Nakilat Managing Director Abdullah Fadhalah Al Sulaiti.

Nakilat is in the midst of the largest ever transition of LNG fleet operations. It involves 25 vessels which have so far delivered more than 320 million cubic metres of Qatar's LNG to over 20 countries.

Nakilat annual meeting taking place in Qatari capital Doha

Shell has provided a range of shipping services to Nakilat's LNG fleet since it was established in 2006.

"We successfully consolidated the management of four wholly-owned LNG carriers to our in-house ship management arm, Nakilat Shipping Qatar Limited, in the last quarter of 2016, and embarked on an organization-wide cost optimization exercise to further enhance synergies," added Al Sulaiti.

"These initiatives together with our sound business strategy have formed a solid foundation for Nakilat to achieve its vision to be a global leader and provider of choice for energy transportation and maritime services," he said.

Shell had previously provided ship management for 14 Q-Max and 11 Q-Flex LNG carriers as well as Shell's shipping expertise.

The fleet's vessels comprise the 266,000 cubic metres capacity Q-Max carriers and the 210,000 cubic metres capacity Q-Flex ships.

The fifth vessel to be handed back from Shell's management is the Q-Max LNG carrier "Al Dafna".

The 266,366 cubic metres capacity "Al Dafna" is wholly-owned by Nakilat and chartered by RasGas, which itself is merging with Qatargas. The LNG fleet is being transitioned in three phases.

When the transfer accord was signed in October 2016, Nakilat expressed its thanks to Shell for its professional management of the fleet over the previous eight years and was determined to uphold the same excellent standards for the vessels. ■

Oil Search posts mixed results from latest tests for PNG LNG

Oil Search, a stakeholder in the Papua New Guinea LNG plant and the joint venture planning its expansion, has released mixed results from the latest field drilling for additional feed-gas resources onshore the Oceania nation.

The latest results come after the "substantial uplift" recorded earlier in 2017 in the natural gas resources for additional LNG production.

Oil Search gave a positive outcome from the test operations at the Muruk 1ST1 well drilled to a depth of 3,754 metres.

"The well drilled through a fold axis, resulting in the Toro reservoir being penetrated twice. Preliminary log data analysis indicates that the reservoirs are gas bearing," Oil Search said.

"After plugging back the ST1 wellbore, Muruk 1ST2 was kicked off from 3,470 metres to drill a near-vertical wellbore, down the inferred steeply dipping fold limb, to extend the gas column," said the report.

Oil Search is operator of the Muruk well in which an affiliate of ExxonMobil Corp. also holds a stake along with Australian energy company Santos.

However, the news was not positive after the latest appraisal well test on the Antelope Deep exploration target at the end of February.

"The Antelope 7ST1 well was drilled to 2,300 metres, the total depth for the appraisal component of the well. The well did not encounter carbonates, in line with Oil Search expectations," the report added.

Oil Search, whose main oil and gas operations are centred in PNG, also said its 2017 annual meeting would be held in the ballroom at the Crowne Plaza Hotel in Port Moresby on Friday 19 May at 9:30am (Port Moresby time).

■

Shell CEO van Beurden puts case for LNG and natural gas at Houston event

Our North America editor in New York


Van Bearden addresses CeraWeek conference in Houston

Royal Dutch Shell Chief Executive Ben van Beurden said expansion of natural gas and LNG activities would be one of his company's key contributions to reducing greenhouse-gas emissions.

Van Bearden told the CeraWeek energy conference in Houston, Texas, that one of the reasons Shell acquired BG Group of the UK was for its LNG portfolio involving the global trading of natural gas.

Emissions

"The Paris agreement on climate change acknowledges that emissions will continue in different sectors at different levels. These emissions will need to be offset elsewhere in the energy system," the Shell CEO said in his speech.

"The next step should be for governments to put in place the right policies, driving action on the supply and the demand side," Van Beurden said.

"The largest contribution Shell can make to reducing emissions globally in the near term, is to continue to grow the role of natural gas," stated the Shell CEO.

"When burnt to produce electricity, gas emits around half the CO2 that coal does," he said.

"As the US has demonstrated, using gas in the power sector is a fast and relatively cheap way to reduce CO2 emissions in the short term.

"Growing the role of gas was one of our reasons for acquiring BG, a company with a strong gas portfolio. Today, gas accounts for around half of Shell's production," he said.

Van Beurden said Shell had a long history in Houston.

"Our ties to the city date back to the early years of the Texas oil business at the start of the twentieth century," he said.

"Over the coming decades, the world will likely need much more energy to meet growing demand.

"As before, many could be lifted out of poverty. And, as before, our industry could play a crucial role in powering this progress," said Van Beurden.

"But this is only one part of the story. True, the world needs more energy. But we also need to produce all that energy while emitting much less CO2. This is of course a key driver behind the energy transition," he said.

Van Beurden explained that hydrocarbons such as oil and gas couldn't simply be dropped completely from the energy mix and be replaced by wind, wave or sun power for reasons of security of supply and high costs.

■

Myanmar plans tender for FSRU import facilities and infrastructure

The Myanmar government is planning an international tender during the second quarter for the Asian nation to acquire its first LNG import facility in the form of a floating storage and regasification unit.

Initial ministry studies suggest the FSRU will have the capacity to handle 3 million tonnes per annum of LNG imports to service an associated gas-fired power plant and a pipeline of 200 kilometres for a total cost of around $2 billion.

The location being looked at for the LNG facility to be deployed is Yangon in the eastern state of Mon.

Despite having an estimated 18.7 trillion cubic feet of natural gas reserves, only less than 30 percent of Myanmar's population has access to electricity.

The government is acting because the current low level of electrification and unreliable power supplies are hindering foreign investment and the development of domestic businesses.

Most of Myanmar's own natural gas resources are currently exported to neighbouring countries such as China and Thailand.

This supply comes principally from the Yadama and Yetagun offshore gas fields.

With most of the current production destined for foreign markets, the government is considering how it can prioritise and satisfy its domestic demand for electricity generation and LNG imports is one of the answers.

Government officials said the winning tender would be selected by the end of 2017 and the FSRU and power plant could be on line by as early as 2021.

Under the LNG part of the tender, the bidders are being asked to supply the LNG and all infrastructure required, including the FSRU.

An offtaker would then be party to a gas sales agreement with the tenderer, but would not be responsible for any capital expenditure nor the operating costs of the FSRU.

■

Canadian province of BC focuses on sending gas to US border for 54 cents per MMBtu instead of LNG to Asia

Our North America editor in New York

The Canadian province of British Columbia still holds out hope of developing a liquefied natural gas industry while welcoming plans by pipeline company TransCanada to ship its gas to cities like Toronto and to compete in the US for now instead of shipping LNG cargoes to Shanghai and Tokyo.

TransCanada has just successfully concluded a long-term, fixed-price bidding process to transport natural gas on the Canadian Mainline from the Empress receiving point in the central province of Alberta to the Dawn Hub in the southern province of Ontario near the US border.

Access

The Dawn Hub is an important link in the movement of natural gas from Western Canada to markets in central Canada, the Great Lakes region and the northeast US.

TransCanada's filling up of most of its pipeline capacity could have a positive effect on the competitiveness of Canadian natural gas which has been priced out of the North American market - even in Canada - by US shale gas.

TransCanada CEO Russ Girling helping Canada compete

TransCanada said its open season had resulted in binding long-term contracts from natural gas producers in the Western Canada Sedimentary Basin at a simplified toll of C$0.77 per gigajoule, the equivalent of US$0.54 per million British thermal units. The toll is in addition to the cost of the gas.

"WCSB producers are facing a much more challenging landscape than they have in the past," TransCanada said.

"This new offering helps our customers compete more effectively by utilizing existing capacity on the Canadian Mainline, and demonstrates the importance and value of this system to deliver their products to markets in Eastern Canada and the Northeast US," said Russ Girling, President and Chief Executive of TransCanada.

TransCanada operates a network of natural gas pipelines that extends more than 91,500 kilometres, tapping into virtually all major gas supply basins in North America.

The Canadian company is also the continent's leading provider of gas storage and related services with 653 billion cubic feet of storage capacity.

"This long-term agreement provides significant benefits for our customers, shareholders, communities and governments that depend on the economic benefits that are generated by natural gas exploration, production and transportation," added Girling.

The targeted in-service date of the pipeline is November 1, 2017.

The BC Minister of Natural Gas Development Rich Coleman said his province welcomed TransCanada's successful open season to transport natural gas east on the Canadian Mainline to southern Ontario.

"This development will create approximately 6,000 jobs in Western Canada," said Coleman.

"This will allow many British Columbians to support their families and will provide the province with millions of dollars in revenue for services like health care and education.

"This long-term access for natural gas will also mean millions of dollars of investment in northeast British Columbia," the minister added, referring to the Canadian shale-gas basins.

"British Columbia's natural gas is an environmentally responsible choice for Canadian consumers, utilities and businesses and it means Canadians will be supplying Canadians with their natural gas supply.

"We remain committed to reaching potential markets that will create benefits, such as jobs and investment at home.

"This includes retaining and increasing our traditional markets in North America, developing access to Asia through a liquefied natural gas export industry, and supporting value-added opportunities for our abundant resources," Coleman stated. ■

Ineos takes over Engie licences and aims to play its part in smaller UK version of US shale-gas revolution

Ineos, one of the largest global chemical companies and the importer of the first US shale-gas cargo into the UK, is now broadening its presence in British shale gas exploration to lessen its future reliance on imports.

The first shipment of US shale gas in the form of ethane needed for chemical plant feed-stock was unloaded at the Grangemouth petrochemical plant in Scotland in September 2016.

The 27,500 cubic metres capacity Evergas LNG-LPG tanker "JS Ineos Insight" brought the shipment to the Grangemouth facility located on the banks of the River Forth from a plant at the Marcus Hook port in Pennsylvania.

However, Ineos has just broadened its UK shale-gas interests by acquiring more licences to take ethane and other derivatives from its own shale-gas production.

Ineos said its shale gas subsidiary plans to drill two coring tests in the UK where it recently expanded its holdings to more than 1.2 million acres by acquiring all onshore exploration and development licence interests held by French energy and utility company Engie. The Ineos Shale unit said the transaction involved minority interests in 15 licences, seven of which Ineos holds an existing interest in.

The remaining eight complement the company's existing licence interests in Yorkshire, Cheshire and the East Midlands.

Three of the licences are operated by Ineos, eight by IGas Energy and four by Cuadrilla.

Ineos, whose main offices are in the UK and Switzerland, has said it requires shale gas to secure a supply of competitively priced energy and feedstock for its UK and European petrochemicals businesses.

Over the past few years as the North Sea's supply of ethane has dwindled Ineos has been forced to run its plant at Grangemouth at half capacity with limited supply of the raw materials necessary to produce its products.

With an abundant supply of ethane emerging from the US from shale gas, Ineos has now invested in new import terminals at its sites in the UK and Norway to import US ethane from shale gas. ■

Australian energy and LNG engineering firm WorleyParsons signs Chevron services contract

Our Asia-Pacific editor

Australian engineering company WorleyParsons, whose past projects have included working on the Singapore LNG import terminal and liquefaction plants in Western Australia such as Wheatstone LNG, has signed a long-term, multi-regional agreement with Chevron for engineering and procurement services.

The scope of the WoreyParsons-Chevron agreement covers all engineering phases of Chevron's capital project programme from conceptual engineering to final design.

Eligible

The statement said Australian-listed WorleyParsons, which has worldwide operations from the Asia-Pacific region to the US, would have several of its office bases eligible to work under the agreement.

WorleyParsons is already on projects like Wheatstone LNG

"WorleyParsons has enjoyed a strong relationship with Chevron over many years and this agreement further solidifies the relationship between our companies," said Andrew Wood, Chief Executive WorleyParsons.

"As Chevron grows in the years ahead, we are proud to be a trusted partner," said Wood.

WorleyParsons holds a current engineering services contract for the Chevron-led Wheatstone liquefaction and export project in Western Australia, due to come on stream later in 2015.

Recently WorleyParson was the subject of takeover speculation after a Middle East group based in the United Arab Emirates acquired a substantial stake and said it could buy more shares.

WorleyParsons confirmed in early March 2017 to the Australia Securities Exchange that had spoken with the Dubai-based Dar Group about a full offer in November 2016.

The Australian company is currently valued at A$2.55 Billion (US$1.92Bln) and the share moves by Dar come at a time of widespread restructuring and rising costs in the industry.

WorleyParsons has been a leading designer and builder of global and Asia-Pacific facilities and has worked on ventures such as the Northwest Shelf, Pluto LNG and Wheatstone LNG export plants in Western Australia in addition to Singapore's sole regasification terminal.