LNG Unlimited

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Algerian LNG plant at Arzew orders new equipment from US for upgrade

Air Products receives order from Sonatrach to supply four cryogenic heat-exchangers

LNG News Editor

Heat-exchanger being loaded onto a ship at Florida facility

Air Products said it received an order from Algerian national energy company Sonatrach to supply four cryogenic heat-exchangers for one of the North African nation's liquefaction plants on the Mediterranean Coast.

The LeHigh Valley, Pennsylvania-based company said the heat-exchangers would be manufactured at its plant in Florida and will replace the original ones supplied by Air Products more than 40 years ago.

Leader

Air Products is the world's leader in LNG technology and equipment and the latest order will head for Sonatrach's GL1Z LNG facility in Arzew, northern Algeria.

"The four heat exchangers will each have 1.3 million tonnes per year production capacity and will replace four previous heat exchangers supplied by Air Products in the late 1970s, which are some of the longest operating MCHEs in the world," said the US company.

The four MCHEs to be supplied by Air Products will be installed at the heart of the proprietary APC3MR™ propane pre-cooled mixed refrigerant liquefaction process at the multi-Train facility.

The original six MCHE's at the Sonatrach facility were supplied by Air Products in 1977.

Since that time, the location has undergone multiple rejuvenation projects and the original MCHEs are still in service.

The new exchangers will incorporate the latest advances in design and manufacture which have been developed by Air Products over the past four decades.

"This is a very significant contract for Air Products to have won with a very important customer, Sonatrach, who has been a valuable customer of ours for many years," said Samir J. Serhan, Chief Operating Officer at Air Products.

"This is another important milestone in our commitment to work with Sonatrach in Algeria and deliver the best heat-exchanger technology in the LNG industry," he added.

"Air Products is very proud that we built the original heat-exchangers, which are still operating at the Arzew facility in Algeria and have been for over four decades," explained Serhan.

"Air Products' goal is to provide excellent customer service and develop long-standing relationships with our customers and our continuous work with Sonatrach in Algeria is a perfect example of doing just that," stated Serhan.

Toufik Hakkar, Sonatrach's Chief Executive, said the supply, installation, supervision, and commissioning of the four MCHEs is part of Sonatrach's plan to revamp its LNG plants.

"This project will help reduce maintenance costs, reduce gas consumption rates and maintain LNG gas production at the GL1Z facility," added Hakkar.

"We have confidence in the expertise and capacity of Air Products as a Sonatrach LNG technology traditional provider, and as a partner in the gas industry to manage the contract in a way that matches our plan," stated the Sonatrach's CEO.

Additionally, beyond the supply of the equipment, Air Products said it would be responsible for overseeing the installation of the equipment and also provide advisory services and engineering studies.

Air Products will build the LNG heat-exchangers at its Port Manatee, Florida manufacturing facility.

Air Products opened its Port Manatee plant in January 2014 and completed a 60 percent expansion in October 2019 to meet the needs of the ever-growing LNG industry.

"In October 2018, Air Products dedicated a new LNG equipment test facility (ETF), which will enable Air Products to improve the reliability and yield produced from its LNG equipment and to design new equipment," the US company noted.

■

UNLIMITED AGENDA

Sempra and Cheniere of US as well as India's Petronet give Gastech views on LNG challenges

LNG News Editor

Participants in Virtual Summit state their various cases

Executives from the leading LNG companies in North America and India took centre stage at the Gastech Virtual Summit on the key issues facing the natural gas industry, with Sempra LNG saying the energy transition was already happening in California and gave an estimate of natural gas needed in LNG terms to back up renewables.

The LNG industry came to the fore in a panel of energy business leaders considering the topic: "Will market growth over the next decade be heavily dependent on rapid deregulation of markets?".

Utility needs

The moderator of the panel was Simon Flowers, Chairman of Energy at UK-based consultants Wood Mackenzie.

Speakers included Prabhat Singh, Chairman and Managing Director of Petronet LNG of India and several others including Faisel Khan, Senior Vice President, Finance and Investor Relations at Sempra LNG and Anatol Feygin Manager for Corporate Branding and Marketing at Cheniere Energy.

Sempra's Khan pointed to his company's experience in the energy transition and renewable energy areas such as California.

He noted that Sempra owned three utilities in California and Texas serving 35 million customers.

These include Southern California Gas Co., which is the largest gas distribution company in North America, and San Diego Gas and Electric, as well as Oncor Electric, the largest electric utility in Texas.

"I would say that in California right now we are definitely living the energy transition," said Khan.

"There's no doubt about it. I think you've seen a lot of the stuff going on in the news and so it's a definite part of our background in being a utility owner and developer," added Khan.

Sempra also owns the Cameron plant in Louisiana with over 12 million tonnes per annum of capacity and the 13 MTPA project at Port Arthur in Texas.

"On the topic of the dependence on deregulation in global gas markets and whether the gas markets will grow. You know I think that it's fair to say that as we live the energy transition here in California we can see the natural symbiosis between natural gas and renewable energy," explained Khan.

"I would have to say that for natural gas to act as a bridge for transition to renewables, I think it's a bridge that's a lot longer than we think," explained Khan.

"I think if we just look at some of the math behind some of this. If you want to add 50 gigawatts of renewable energy you might need between 10MT and 20MT of LNG (for gas-fired power) capacity just to be able to back up some of that renewable energy generation when the wind doesn't blow and the sun doesn't shine," stated Khan.

Anatol Feygin Manager, Corporate Branding, Marketing and Events at Cheniere Energy, also took part in the discussions, saying that the LNG market has continued to evolve and has proved that it is a reliable, flexible and affordable source of energy.

"We think the markets for LNG have evolved dramatically and perhaps one of the bigger developments was the entrance of US LNG," added Feygin.

"This meant the separation of the liquefaction product from the commodity. Our volumes began to flow in early 2016 and with that came a dramatic liberalisation and flexibility for the energy market that countries are continuing to enjoy today and we think it is the bedrock of this next phase of LNG market development," stated Feygin. ■

Venture Global explains LNG advantages in light of China coal expansion and California issues

Venture Global, the US developer of three LNG export plants in Louisiana, has spoken at the Gastech Virtual Summit in favour of LNG in the energy transition as a counter to huge new coal power-generation plans in China and the power cuts in the US state of California, he referred to as "green-outs".

Venture Global co-founder Michael Sabel who pointed out the huge advantages of LNG on the path to a cleaner environment.

The Arlington, Virginia-based firm is currently developing three LNG export projects in the US Gulf state of Louisiana with a total output of around 50 million tonnes per annum.

"China in the next five years is going to be turning on new coal production capacity equal to what all of Europe has today," said Sabel in a panel discussion.

Sabel described Venture Global as being very focused just on one segment of the energy sector and that's the production of LNG.

The said the company was in its particular niche to be a wholesaler of long-term contract volumes as it also seeks to be a low-cost producer.

"We think that is the best way that we can really help mitigate environmental impacts and improve outcomes," he added.

"There's going to be increasing demand for LNG in the next few years. We think there's approximately 100 million tonnes of new production capacity required roughly in 2025 and by 2040 it's going to be 300MT to 400MT," explained Sabel.

"The growing energy needs are going to have to be bridged, hopefully, by a lot of gas and LNG. If not, the market is going to be exposed to the short-term green-outs that we're seeing in California which are going to be very detrimental to the continued support of alternatives to fossil fuels," stated Sabel.

Sabel was supported in his views by Laurent Vivier, a Senior Vice President for Gas at French major Total.

"The debate has shifted slightly in the past two years. The natural gas industry was proud in being able to advocate itself as being part of the solution in the energy climate debate or within the energy transition," said Vivier. ■

Shipping hears story of the first liquefied hydrogen ship

The opening session at Gastech was in the Shipping sector, part of the Technical Agenda, as has been a tradition over many years.

It covered the world's first liquefied hydrogen carrier, the "Suiso Frontier", which was launched on December 11, 2019, in Kobe, Japan.

The vessel has a hydrogen tank and was constructed by Kawasaki Heavy Industries (KHI).

It is a key part of the HySTRA demonstration project, which will see hydrogen shipped 9,000 kilometres from southeast Australia to the Japanese city of Kobe.

The first panel speakers included those involved in the "Suiso Frontier" project, including Ahmer Saeed of Royal Dutch Shell and Yukichi Takaoka of HySTRA.

The speakers noted that the "Suiso Frontier" - "suiso" means "hydrogen" in Japanese - will play a key role in the HySTRA demonstration project that will see large quantities of hydrogen produced from brown coal in Australia and then shipped to Japan.

The HySTRA project will see low-calorie, moisture-rich brown coal "gasified", by mixing it with oxygen and steam under high pressures, at an under-construction facility in the Latrobe Valley, Victoria state, in southeast Australia.

The hydrogen gas will then be transported in trucks to the nearby port of Hastings, where it will be liquefied and loaded onto the "Suiso Frontier", before being shipped to Kobe. ■

Gastech keynote speakers from Canada, Singapore and Shell voice optimism on future gas transition

LNG News Editor

Gastech Virtual Summit

Singapore Minister of Trade and Industry Chan Chun Sing

Keynote speakers at the first Gastech Virtual Summit, including Ministers from Singapore and Canada and the head of Integrated Gas at Royal Dutch Shell, have voiced optimism about the future of LNG and natural gas and their managed role in the energy transition.

The Summit got under way with the title "Connecting the Gas, LNG and Energy Industry" and was a replacement event for the postponed Conference & Exhibition scheduled for Singapore.

Hope for 2021

The Singapore real Gastech Conference is now scheduled to take place in the Asian city-state in 2021.

The Virtual Summit first day included strategic and technical content, presentations and speeches online to address the collective challenges and opportunities the industry faces.

The Summit limited to broadcasts on the Web was decided upon by the Singapore organizers because of Covid-19 and concerns over accessibility and the wellbeing of speakers, delegates, exhibitors and visitors.

The Singapore Minister of Trade and Industry, Chan Chun Sing, was given the honour of being the first keynote speaker in the replacement Virtual Summit.

He outlined Singapore's plans for more LNG imports and its intention to play a leading role in global LNG bunkering.

"In Singapore, the import of energy is expected to continue to increase its share in our energy mix," said Chan.

"The Energy Market Authority has issued a request for proposals to appoint up to two new LNG importers for Singapore to enhance competition and to provide more options for gas buyers," added the Minister.

"These proposals will be evaluated based on their ability to provide reliable secure and competitive supply of LNG to Singapore," stated Chan.

Seamus O'Regan, the Canadian Natural Resources Minister, stated that Canada would not be able to meet its environmental goals without the oil and gas industry.

"Canada's energy assets are the envy of the world," O'Regan asserted.

"Natural gas will continue to grow for decades to come even as renewable sources of energy increase their market share," added the Minister.

"This bodes well for Canada, not just because we are the world's fourth-largest producer of natural gas, but because we have decades of expertise," explained O'Regan.

The Minister added that his nation's Indigenous Peoples largely supported the LNG industry such as Royal Dutch Shell's LNG Canada joint venture and were taking stakes in projects.

"Canada's energy and natural resources will play a critical role in the development and operation of tomorrow's green economy and people will want to be invested in Canada over the short, medium and long term," he stated.

Maarten Wetselaar, Royal Dutch Shell's Integrated Gas and New Energies Director, told the summit that companies would aim to bring down methane emissions, but natural gas and LNG would remain important for many years to come.

"We still cannot model a large power markets that run without natural gas even 30 years from now," explained the Shell executive.

"I cannot think how you would ever produce petrochemicals without starting with the molecule and natural gas is the obvious one," he stated.

"The industry also needs ways to mitigate the hard-to-avoid methane emissions and that's why the energy sector must pursue ways to offset or mitigate these emissions," said Wetselaar.

"One very exciting way is to reduce the concentration of greenhouse gas in the atmosphere by protecting and working with nature, by planting trees and starting carbon-capture ventures," he added.

"If you look at what has just happened you could say it's a dress-rehearsal for the moment when oil and gas peak, which we don't think has arrived," he continued, in reference to Covid-19 and the oil price crash.

"Yet, we think that it will be some time from now when there will be a recovery in demand before you actually reach peak demand," he said. ■


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NEWS NUDGES

Equinor gas wells move

Equinor, the operator of the Hammerfest LNG export plant in northern Norway and a main pipeline gas supplier to Western Europe, said it had conducted an in-depth analysis of gas wells drilled at the Martin Linge field before the company took over as the operator from Total in 2018. This review concluded that several of the wells did not have the necessary barriers. "Equinor therefore plans to drill new wells in order to ensure safe production," it stated. Equinor said deficiencies were discovered in four gas wells that were drilled at Martin Linge before 2018 and make them inappropriate for safe production."

Peru LNG for Asia

The Peru LNG export plant at Pampa Melchorita on the Pacific Coast shipped five cargoes to Asia in August, one to Japan, one to China and three to South Korea. The cargo shipped to Japan left on August 30 on the 170,000 cubic metres capacity carrier "Methane Julia Louise" at a price of $4.07 per million British thermal units, according to data from Peruvian national energy company, PeruPetro.

Spot shipping rates steady

Shipping charter rates for LNG carriers in the spot market increased over the past week. Rates were quoted at an average of between $53,000 per day and $55,000 per day West of Suez and at rates of between $49,000 per day and $51,000 per day East of Suez for vessels of between 155,000-165,000 cubic metres capacity, according to various brokers. One-year time charters were steady for the most modern vessels and were seen at rates of around $47,000 per day. ■

LNG import plans by China as well as Japan and bunkering progress of Singapore discussed

LNG News Editor

Gastech Virtual Summit

One of the main sessions of the Gastech Virtual Summit as it wound down after five days was a discussion of Asian LNG demand where Japan will develop new small-scale facilities, China is on a steady upward path for cargo imports and Singapore is determined to lead the field in LNG bunkering.

This strategic session on LNG demand and the requirements in Asia was held on the Web like the rest of the conference because of Covid-19 and included analysts of the North Asian markets of Japan and China.

Key points

Speakers included Hiroshi Hashimoto, an analyst at the Institute of Energy Economics in Japan, Ming Cai of energy consultants Poten & Partners and Alan Heng of Singapore's Pavilion Energy, a subsidiary of the city-state's wealth fund Temasek.

Hiroshi Hashimoto of the IEEJ said the North Asian market and the market in general was seeing cooperation between players.

"LNG cooperation is spreading to every corner of Japan," he explained.

"We also see LNG bunkering cooperation in every corner of the world," he added

"While Japan and South Korea have stabilized LNG demand, China has increased its LNG imports by more than 40 percent in 2017 and 2018 before increasing another 12 percent in 2019 and another 10 percent in the first half of 2020," explained Hashimoto.

"China is, therefore, becoming a larger LNG market. At the same time spot and short-term transactions are increasing and presently represent one third of LNG trade, meaning 120 million tonnes per annum of LNG," he said.

Alan Heng of Singapore's Pavilion logged in to speak

"This spot market share may increase this year, because of US supplies and the uncertainty in the market," stated Hashimoto.

He explained that LNG was now being sent longer distances to customers.

"Short-term cargo transportation distances were longer when Japan suddenly imported more energy cargoes to fill the gaps caused by the lost nuclear power in 2007-2008 and in 2011-2014," said Hashimoto.

"There are now more cargoes being transported from West Africa and South America, as well as Qatar and other Middle East countries," he added.

"However, overall LNG transportation distances have stabilised in recent years. That said, LNG from the USA travels longer and volumes are expected to increase, with more optimization of transportation desirable," said the IEEJ analyst.

Hashimoto also highlighted several trends and the future directions of LNG flows.

"Both buyers and sellers want long-term visibility. The portfolio approach at one end could create flexibility at the other end, expanding market scopes," he explained.

He stated that expertise in cargo-sharing could contribute to developing LNG demand in more countries.

"There are still undeveloped coastal zones along the coast of Japan," noted Hashimoto.

"The use of small-scale LNG in Japan is expected to be actively promoted in these areas through cargo-sharing," said the IEEJ executive.

Ming Cai of energy consultants Poten & Partners focused during his presentation on the likely pathway of Chinese LNG development over the next 20 years.

"It's my pleasure to speak again at Gastech to share my insights about what's going on in China. Let's start with forecasts," said Ming.

"We see China's natural gas demand exceeding 600 billion cubic metres a year by 2040," he said.

As regards Chinese LNG imports in 2020, Ming said he expected the figure to be around 64 million tonnes.

"In the long term it will go up to 80 million tonnes a year by 2030 and 100 million tonnes per year in 2040," he stated.

Non-National Oil Company participation is also growing in China and Ming said he expected more regasification capacity to be available by 2025, with 10 new terminals under development.

Alan Heng, Managing Director for Asia of Singapore's Pavilion Energy, also spoke of the Singaporean policy of taking a leading global role in LNG bunkering.

"We recently launched our Europe operations and formally commence LNG trading and natural gas supply into key European markets including the UK and Spain," said Heng. ■

Sovcomflot and Novatek sign multiple contracts to secure LNG shipping for Arctic II project

LNG News Editor

A Russian joint venture involving fleet owner Sovcomflot and natural gas company and LNG developer Novatek has signed contracts with a Russian bank and Zvezda Shipbuilding in the Far East to construct and lease 10 ice-breaking Arc-7 class LNG carriers.

The venture called Smart LNG has simultaneously signed long-term time-charter agreements for these 10 vessels with the Novatek-led Arctic LNG II project.

The Zvezda complex is located on Sea of Japan coast

Agreements

In total, contracts for 15 such vessels have now been signed, including shipbuilding, financing with Russian bank Veb.Rf Group, leases and time-charter contracts.

The Arctic LNG II project being developed with three gravity-based platforms and the estimated capital expenditure for the joint venture is now put at the equivalent of US$21.3 billion.

Arctic LNG will produce 19.8 MTPA of LNG as well as gas concentrate from the principal feed-gas resources, the Utrenneye gas field.

Novatek holds 60 percent of the Arctic LNG project and four other 10 percent stakes are shared between various shareholders.

The 10 percent holdings belong to French major Total, which is also a shareholder in the Novatek company, China National Petroleum Corp., China National Offshore Corp. and a Japanese investor group comprising Mitsui & Co. and the government institution, the Japan Oil, Gas and Metals National Corp. (Jogmec).

The contracts for the lead ship in the series were signed by Sovcomflot in October 2019 and the contracts for another four sister ships were signed by Smart LNG in January 2020.

Sovcomflot, also known as SCF, continues to implement its strategy, with the goal of steadily growing the company's value through expanding its portfolio of long-term industrial shipping contracts.

"The company point as a special focus on operations in challenging climatic and ice conditions," said Sovcomflot.

"With 10 long-term time charters added to this portfolio, SCF $20 billion in contracted future earning and receivables," stated the Russian shipping line.

The vessels will be operated under the Russian Federation flag and the Russian Maritime Register of Shipping (RS) will provide supervision during the construction of the vessel series.

The Zvezda complex is located at Bolshoi Kamen on the coast of the Sea of Japan and about 12 miles northeast of the city of Vladivostok.

The shipbuilder is owned by a consortium of Russian energy companies, including Rosneftegaz, Rosneft and the financial affiliate of Gazprom, Gazprombank.

"Shipbuilding and time charter contracts for 15 Arc7 LNG carriers, signed between 2019-2020, enable the Russian shipping community to play a role in transporting cargoes of strategic importance for the Russian economy, which are generated by large-scale energy projects in the Russian Arctic," said Igor Tonkovidov, President and Chief Executive of Sovcomflot.

"These contracts will also help to further develop our national expertise in ice navigation and create over 850 new jobs for Russian seafarers, as all the 15 vessels will have Russian crews," explained Tonkovidov.

"We are pleased to see that this new generation of Arctic LNG carriers, which will contribute significantly to growing the cargo traffic along the Northern Sea Route, was designed based on SCF's long-standing experience of safely operating vessels in ice conditions," stated the Sovcomflot CEO.

Sovcomflot bases its success in developing long-term partnerships with key customers, including Gazprom, Novatek, Lukoil, Royal Dutch Shell, French major Total, Exxon Neftegaz and Sakhalin Energy.

The Russian line's fleet comprises 146 vessels with a total deadweight of 12.6 million tonnes, including ships owned through joint ventures. More than 80 vessels have an Ice classification. ■

Total builds Dutch LNG station for EU trucks

French energy major Total and one of its fuel subsidiaries have started construction of a multiple-energy trucking station at the new A1 business park in Deventer in the Netherlands.

Total said that alongside the traditional fuels on offer, this multiple-energy station will sell cleaner liquefied natural gas aimed at trucking customers.

The new station is under the auspices of Total unit, Pit-Point.LNG, and is the company's first LNG station in the Netherlands.

The multiple-energy truck station, planned to be operational December 2020, is being built on the grounds of the business park, which is within 500 metres of the A1 motorway, via exit 24.

"This is an advantageous location for road transportation in the Netherlands and cross-border transport heading to Germany," explained Total.

Its most recent LNG innovations are also included: extra cold LNG especially for Volvo trucks and a digital display with LNG filling instructions in 11 languages so that drivers from many different countries can follow the instructions.

"This project fulfils our objective to grow in low carbon solutions. The transportation sector really needs to become cleaner," said Marja Versleijen, Director of Mobility and New Energies at Total Nederland NV.

The station is located next to a secured freight parking lot that also gives access to showers and Wi-Fi, making the station a full-service stop. ■

Swedish tanker becomes the first non-US-flagged to bunker in US

LNG News Editor

The 18,000 deadweight-ton "Fure Ven", a dual-fuel products tanker owned and operated by Furetank Rederi AB of Sweden, has become the first non-US-flagged vessel to bunker LNG at a US port.

Eagle LNG Partners, the US leader in small-scale LNG development in Florida and elsewhere, supplied the fuel to the Swedish-flagged "Fure Ven" at its terminal and fuel station at Jacksonville in Florida.

"This milestone paves the way for more international trading vessels to bunker at Jacksonville Port Authority (Jaxport), marking the latest tangible demonstration of LNG as a safe and reliable fuel solution," said Eagle.

"It also builds confidence in the case for LNG to help the shipping industry meet increasingly stringent environmental regulations, while still generating substantial cost savings," added the US company.

Furetank is owned by the Höglund family and is a founding partner of the Scandinavian commercial joint venture, the Gothia Tankers Alliance, comprising 32 vessels from various small shipping lines in sizes of 6,000 dwt to 37,000 dwt.

The 'Fure Ven' received fuel at Eagle LNG station

For the US bunkering operation, the vessel transited the St. Johns River and called at the Talleyrand Marine Terminal, which also serves the 7dUS shipping line, Crowley Maritime Corp.

"Eagle LNG Partners safely transferred 225 metric tonnes of LNG to the vessel from their on-site storage facility, with the bunkering taking less than seven hours to complete," said the US firm.

"The tanker was laden with renewable diesel cargo for Preem, the largest petroleum and biofuels company headquartered in Sweden," it added.

The "Fure Ven" is one of Furetank's V-Series, a new generation of product and chemical tankers introduced in 2018, which leverage innovative design features and LNG to deliver a fuel reduction of approximately 40 percent.

Furetank said these climate-smart vessels have also achieved substantial reductions in emissions.

"As early as 2014, Furetank decided to convert one of our vessels to LNG propulsion," explained Lars Höglund, Chief Executive of Furetank. ■

Petronas launches its LNG fuel service for Peninsular Malaysia

Malaysian Energy company Petronas has announced the launch of its LNG delivery service by truck for off-grid small-scale customers across Peninsular Malaysia from the regasification terminal at Pengerang in the state of Johor.

"Petronas provides industries in Peninsular Malaysia that are not connected to the natural gas infrastructure with an option to switch to gas as an alternative form of cleaner energy," said the company.

As part of the pilot phase, Petronas completed its first delivery of LNG to a tyre manufacturing plant for the company, Continental Tyre Alor Setar Malaysia. "The solution forms a part of Petronas's commitment to environmental sustainability and to drive the growth of natural gas usage in Malaysia," said Adnan Zainal Abidin, a Petronas Executive Vice President and Chief Executive of the company's Gas and New Energy division.

He said that by establishing the necessary infrastructure the national oil and gas company offers customers a cleaner and competitive form of energy for power.

"We achieve this by embracing our customers pain-points in our strategies which results in strong collaborations across Petronas's value chain to provide an integrated solution," he explained.

"Ultimately, we provide a one-stop centre for off-grid customers, covering supply, loading facilities and logistic services to ensure that their cleaner energy needs are met," he added.

"The launch of our latest solution is a testament to how Petronas delivers customer-centric solutions through our focus on innovation," stated Adnan.

Along with other global energy companies, Petronas recently posted a loss due to lower prices and a curtailment of economic activity because of Covid-19. ■

Asia spot LNG price-maker now seems to be Australia amid exports and high local demand

LNG News Editor

Australia is on shipping doorstep of North Asia demand

Australia exported a record 79.1 million tonnes of LNG in the 12 months to June 2020, up 5.9 percent from 74.7MT a year earlier while domestic gas consumption grew on both the East and West coast markets in the second quarter in contrast to the experience during Covid-19 across most of the developed world.

Australian domestic gas consumption on the East Coast was 7.7 petajoules higher quarter over quarter in the second three months of the year, according to the monthly report from consultants EnergyQuest.

Power use

"Gas-use-for-power (GPG) was down by 5.9 petajoules in the quarter, though other gas-use (residential, commercial and industrial) increased by 13.6 petajoules with increases in all states except New South Wales," said the report.

EnergyQuest noted that as one of the world's major LNG producers Australia is to some extent becoming a price-maker in relation to spot prices.

The Platts Japan-Korea Marker has increased from US$2.15 per million British thermal units at the start of July to US$4.66 per MMBtu on 4 September.

"This coincides with unexpected outages at the Western Australian Gorgon LNG project due to the shutdowns for repairs," said the report.

The national regulator, the Australian Competition and Consumer Commission publishes East Coast netback gas price estimates based on the Platts JKM.

This means that unexpected developments in Western Australia that affect spot prices will directly feed in to East Coast netback estimates and possibly East Coast prices. "To this degree any domestic contracts indexed to LNG spot prices will be hostage to unexpected shutdowns by West Coast projects, as well as projects elsewhere in the world," EnergyQuest explained.

The overall Australian LNG export market followed the rest of the world on the score that towards the end of the year the industry began to buckle under the weight of a global glut of the fuel.

Production of LNG in the second quarter of 2020 fell to 19.1MT, the lowest since the third quarter of 2018.

In July. Australian projects shipped a total of 5.8MT (85 cargoes), only marginally lower than 5.9MT (85 cargoes) in June, but well below the record level of 7.0MT in December 2019.

"From May onwards, the effects of Covid-19 on Australian LNG (in an already oversupplied LNG market) began to hit home," said the report.

"Projects began extending maintenance periods to rein in production and experienced cargo deferrals. Of the 85 Australian cargoes shipped during June, 33 cargoes were delayed during the month," it added.

The immediate impact on LNG price realisations was mixed.

Producers such as Woodside Petroleum, operator of the North West Shelf and Pluto LNG export plants, with a relatively high proportion of spot cargo sales, felt the biggest price impact.

However, the East Coast Australia-Pacific LNG facility and the Santos-run Gladstone LNG saw out the full year to end-June 2020 with little deterioration in realized prices. ■

North West Shelf LNG export project could have 7 million tonnes of spare capacity in future

UK energy consultants Wood Mackenzie said that the North West Shelf LNG export project in Western Australia, operated by Woodside Petroleum, could have up to 7 million tonnes per annum of spare capacity available by 2027.

This equates to 40 percent of the project's nominal capacity. The Woodside-operated five-Train NWS facility has been producing LNG since 1989.

Next year production capacity becomes available for the first time.

In addition, one of the shareholders, Chevron Corp., is also selling its NWS stake. The US major is already the operator of two other LNG export plants in Western Australia, the Gorgon facility on Barrow Island LNG and Wheatstone LNG in the Pilbara region.

The NWS LNG plant has six shareholders, with the four others being commodities firm BHP, UK major BP, Royal Dutch Shell and Japan-Australia LNG comprising Mitsui & Co and Mitsubishi Corp.

"Decisions on how to fill this (spare capacity) gap need to be made now, not only because time is running out, but also because the joint venture is breaking-up," said Wood Mackenzie senior analyst Daniel Toleman in a report.

"Chevron is running a process to sell out of the NWS, and we see other majors likely to follow," added Toleman.

"We see two windows of opportunity for backfill: one for smaller projects with short lead times, and the second for larger-scale resources that can extend the life of the NWS through to 2050," said the Wood Mackenzie analyst.

"Good progress has been made on near-term backfill small-scale projects," he explained.

"We believe the Pluto and the Waitsia projects will add incremental supply into the NWS from 2022. However, these projects are only short-term solutions," stated Toleman.

He noted that in the longer term, large-scale developments were needed.

The Scarborough and Browse developments, both operated by Woodside, are the most likely backfill options due to their size.

The report said that other possible candidates, such as the Clio-Acme fields 150 kilometres (93 mile) offshore in the Carnarvon Basin, or excess gas from the Greater Gorgon field development, now look unlikely.

"However, neither the Scarborough nor Browse developments are straight-forward to deliver," said the report. ■