LNG Unlimited

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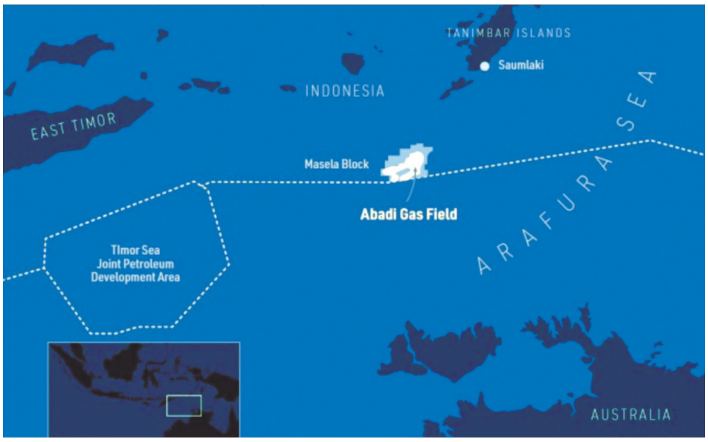
Indonesia and Japan to advance Abadi LNG project by year-end

Inpex Corp and the regulators SKK Migas are cooperating on new development plan

LNG News Editor



Indonesia's onshore plant has had previously changed dynamics and is now sited on Tanimbar Islands

Inpex Corp, the Japanese oil and gas company and operator of the Ichthys LNG plant in Australia's Northern Territory, is finalizing its revised development plan for the Abadi LNG export project in Indonesia to include carbon-capture facilities.

Inpex is the operator of the Abadi LNG project that had previously been expected to cost around $20 billion and has suffered repeated delays.

Addition

The Indonesian Upstream Regulatory Special Task Force, SKK Migas, said the Abadi project was set to advance after also previously changing project dynamics from offshore to onshore.

"Inpex as the leader of the consortium has decided that carbon capture, utilisation and storage (CCUS) will be included which means there will be additional capital expenditure," said Dwi Soetjipto, Chairman of SKK Migas.

He said the inclusion of CCUS for Abadi could add around $1.4bln in costs to the Indonesian venture.

Chairman Dwi, who is the former head of state energy company Pertamina, said he expected the revised development plan to be submitted by Inpex to SKK Migas by year-end.

Inpex is building the plant on Yamdena Island in a joint venture with Shell Plc using feed-gas from the Abadi gas field in the Masela Block of Indonesia's Arafura Sea.

The liquefaction and export plant could be expected to be operational by around 2028.

Inpex has already completed preliminary front-end engineering and design (FEED) for a facility with an annual initial capacity of 10.5 million tonnes.

The Maluku provincial administration in Indonesia had formally asked to have the liquefaction project on Yamdena Island.

The project was initially envisaged as a floating LNG project. The Indonesians then said that they preferred the building of a 370-mile pipeline to connect the Abadi gas field resources to a liquefaction plant on Indonesia's Aru Island.

However, Inpex opposed this plan and said it preferred a location in the southeast Asian nation's Tanimbar Islands.

Original plans

Inpex eventually had its way as Yamdena Island is the largest of the Tanimbar Islands chain.

The original Inpex FLNG plan for the Abadi project was to produce LNG from a floating production hull, similar to the Shell's Prelude FLNG project offshore northwest Australia in which Inpex is also a shareholder.

Shell also has a stake in Inpex's Abadi project of 35 percent, though has previously hinted in the last year or two that it was studying a sell-off of its shareholding in the Masela block from where the feed-gas will be supplied.

The Indonesians have already approved a 20-year extension to the Production Sharing Contract for the Inpex-operated Masela Block, extending the term of the PSC until 2055.

> **Inpex as the leader of the consortium has decided that carbon capture, utilisation and storage will be included which means there will be additional capital expenditure**
>
> *- Dwi Soetjipto, Chairman of SKK Migas*

UNLIMITED AGENDA

Oman signs Shell and TotalEnergies for natural gas block amid LNG expansion and bunkering

LNG News Editor

Oman, the LNG producer and exporter, has signed an exploration and production sharing agreement with UK major Shell and French company TotalEnergies to explore, appraise and develop natural gas resources at Block 11 onshore the Sultanate on the Arabian Peninsula.

A statement from the companies and Oman's Ministry of Energy and Minerals, said that under the agreement Shell would have a 67.5 percent working interest and be the operator of Block 11.

Stakes

TotalEnergies and Oman Oil Company, now known as OQ, would hold 22.5 percent and 10 percent stakes respectively.

"There is a continuous focus on enhancing the natural gas reserves of Oman through exploration and appraisal activities undertaken by several companies in the country," said Salim bin Nasser al Aufi, Oman's Minister of Energy.

"This agreement strengthens the strategic relations with partners in the sector such as Shell, TotalEnergies, OQ and others to ensure Oman's energy security and to attract more foreign investment," he added.

TotalEnergy and Shell pleased with Oman gas block deal

Block 11 is located on the western side of Oman and is known to have very high exploration potential as the Sultanate moves forward with LNG production, more domestic gas consumption and bunkering plans.

The bunkering proposal is for the port of Sohar, north of the capital Muscat.

The country also continues steady LNG output for Asia from the Oman LNG export plant at Sur, located south of Muscat, and with production capacity of around 10.25 million tonnes per annum in 2021.

Commitment

"Shell's entry into this block signifies a further commitment to Oman, while enhancing and diversifying its gas supply," said Walid Hadi, head of Shell in Oman and a senior vice president.

"For Shell, this partnership will strengthen our integrated gas business and generate value for Oman and our shareholders," he stated.

Block 11 is located in Al Wusta region, adjacent to Block 10, and is about 400km from Muscat. Block 11 covers an area of around 2,900 square kilometres in the centre of the country.

Shell also holds interests in Petroleum Development Oman (34 percent), Oman LNG (30 percent) and Shell Oman Marketing Company (49 percent).

The UK major is the operator of Block 10 in Oman following a concession agreement that was signed in December 2021. Shell is also exploring Blocks 42 and Block 55 in the Sultanate.

Laurent Vivier, the TotalEnergies Senior Vice President for Exploration and Production in the Middle East and North Africa, said entry into Block 11 gave the company the opportunity to unlock additional potential to meet domestic and export gas demand.

Bunkering

"It strengthens our strategic relationship with the Sultanate of Oman, as illustrated last December by our entry into the neighbouring Block 10 gas concession," added Vivier.

Mubadala Energy of Abu Dhabi reports another gas find offshore Malaysian LNG plant at Bintulu

Mubadala Energy, the international exploration and production company based in Abu Dhabi in the United Arab Emirates and with natural gas assets in the Eastern Mediterranean and LNG feed-gas resources in Malaysia, has reported another gas discovery in Malaysian waters offshore Sarawak.

The company said the discovery followed the successful start-up of Pegaga flagship gas project in Malaysia.

Quality

Mubadala Energy confirmed the discovery of a "good quality gas reservoir" penetrated by the Cengkih-1 exploration well in Block SK320, off the coast of Sarawak state.

"Preliminary analysis shows a significant gas column of more than 110 metres within the pinnacle carbonate reef reservoir," said the company.

Mansoor Mohamed Al Hamed, CEO of Mubadala Energy, said the latest gas find further cemented the company's position in Malaysia as a reliable and trusted operator with deep technical capabilities.

"Gas demand in Southeast Asia continues to grow and we look forward to helping meet those energy needs, in line with our strategy to play an active role.

The Cengkih-1 exploration well is located nearby the Pegaga field, one of the fields within the SK320 Block, which recently marked the successful production of commercial gas. The Pegaga gas project is a key producing field supplying gas to the Petronas LNG complex in Bintulu onshore Sarawak.

The Pegaga field had previously recorded the discovery of 1 trillion cubic feet of additional gas in place, following the post-drill results which confirmed a larger and better quality reservoir.

Building on Mubadala Energy's strong position in Malaysia, the company said the results bolstered its strategy to expand its position in natural gas as a key bridge fuel.

The Mubadala unit is the operator of Block SK320, with 55 percent participating interest in a production sharing contract.

The remaining 45 percent is held by a subsidiary of Malaysian state energy company, the Petronas Carigali group and Sarawak Shell.

Mubadala Energy has made six gas discoveries displaying a success ratio of 75 percent, a significantly higher number than the industry average.

The company reported a surge in annual output in its June 2022 earnings, reaching the landmark of 500,000 barrels of oil equivalent per day in its operations for the first time.

This achievement further established the company as a strategic player in the international energy sector and marked a 22 percent increase in production from 2021.

NFE sets date for presenting FLNG plan

New Fortress Energy Inc., the expanding LNG terminals, production, shipping and power assets owner, plans to hold a floating LNG investor day at the Kiewit Offshore Services shipyard near Corpus Christi in Texas.

New Fortress has chosen the shipyard and energy project fabrication subsidiary of Omaha, Nebraska-based construction giant Kiewit as its partner for the building of FLNG units on the US Gulf Coast and the presentation event will be held from 10:00 am Central Time on November 22.

The Kiewit yard is on 400 acres along the LaQuinta Channel, providing unrestricted deepwater access to the US Gulf of Mexico.

"Specializing in the fabrication and integration of offshore projects, the 555-acre KOS facility is home to NFE's 'Fast LNG' program and the ongoing conversion of marine infrastructure into floating liquefaction units," explained NFE in a filing with the Securities and Exchange Commission.

Wes Edens, Chairman and Chief Executive of NFE, said he looked forward to hosting the event at the Texas facility.

"We expect to achieve mechanical completion of our first FLNG unit in March 2023 and deploy FLNG 1 into operation by mid-year, with additional units to follow soon thereafter," explained Edens.

"Utilizing a highly skilled workforce on the US Gulf Coast, we have developed an efficient and repeatable construction process - essentially an FLNG factory - that substantially reduces the cost and time to build incremental liquefaction capacity to meet the urgent needs of the global energy markets," declared the NFE CEO. ■

Landlocked Czech Republic gets US LNG cargo at Eemshaven hub

LNG News Editor

The 'GasLog Georgetown' berthed at port in Netherlands

ČEZ Group, the national utility of the land-locked European Union member, the Czech Republic, said it received US LNG as its first shipment at the new Eemshaven LNG import hub in the Netherlands.

The LNG arrived onboard the 174,260 cubic metres capacity carrier, "GasLog Georgetown", from the Sabine Pass plant in Louisiana, operated by Cheniere Energy.

Grateful

"The natural gas that we will get thanks to this LNG terminal will help us manage the upcoming winter," said Czech Minister of Industry and Trade Jozef Síkela.

"We have chosen it because it is the very first LNG terminal put into operation in Europe after the start of Russian aggression against Ukraine," explained Síkela.

The Chief Executive of the ČEZ Group utility, Daniel Beneš, said he was glad to see that rapid progress had been made after the commissioning of the terminal, a reference to the arrival of the first cargo on September 6 onboard the carrier "Murex".

"Another two tankers with gas for the Czech Republic will arrive in October, and we will subsequently carry on at a rate of two or three ships every month," stated CEO Beneš.

"This is a significant step for the Czech Republic's energy security and an important safeguard, in the event that gas from other suppliers should cease flowing to the Czech Republic," the CEO added.

Anatol Feygin, Executive Vice President and Chief Commercial Office at Cheniere, said the Houston, Texas-based company was prepared to do its best help Europe with energy supplies, now and into the future.

"This is the result of long-term collaboration between the governments of the United States and the Czech Republic, as well as of the relationship that Cheniere has with ČEZ and with the Czech Ministries of Industry and Foreign Affairs," explained Feygin.

"We look forward to continuing in our dialogue with our Czech partners about how LNG from Cheniere can help the Czech Republic attain its goals in energy security and climate protection in the coming years and decades," added the Cheniere COO. ■

NextDecade seals share placement with banks after LNG supply deals

NextDecade Corp., the developer of the Rio Grande LNG export project on the Brownsville Ship Channel in Texas, said it was initiating a private placement of its Nasdaq-listed shares to 10 institutional investors as its proposed venture gathered pace with US and Chinese cargo sales agreements.

NextDecade sold $85 million of common stock at $5.50 per share, and the placement was subject to the satisfaction of customary closing conditions.

SPA progress

"The company intends to use the proceeds from the private placement to continue development activity in preparation for its anticipated positive final investment decision on the first three Trains at its Rio Grande LNG project," said NextDecade.

Credit Suisse Securities (USA) LLC acted as exclusive placement agent for the transaction.

NextDecade is making progress with Sale and Purchase Agreements (SPAs) ahead of the FID with the latest buyer being ExxonMobil Corp.

The US major signed a 20-year supply deal at the end of July 2022 through its trading subsidiary in Asia.

Under the SPA, the US major's Asia unit will purchase 1 million tonnes per annum of LNG supplied from the first two Trains of the Rio Grande facility. The first Train is expected to start commercial operations as early as 2026.

NextDecade mostly recently also signed a third supply agreement with a Chinese company since the start of 2022.

The Houston, Texas-based company signed a 20-year SPA with China Gas Hongda Energy Trading Co., a wholly-owned subsidiary of China Gas Holdings.

This deal was also for 1 MTPA of LNG indexed to Henry Hub and delivered on a free-on-board (FOB) basis.

NextDecade in April 2022 signed a 20-year SPA with the Singapore trading arm of ENN Group of China and another with China's Guangdong Energy Group Natural Gas. ■

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NEWS BRIEFS

Shell names new CEO

UK major Shell plc confirmed that Chief Executive Ben van Beurden would step down at the end of 2022 and named his successor as Lebanese-born Wael Sawan, who is currently the Head of Integrated Gas, Renewables and Energy Solutions and was previously in charge of Shell's Upstream division. Sawan has been 25 years at Shell and is a dual Lebanese-Canadian national. He grew up in Dubai in the United Arab Emirates and holds a Master's degree in Chemical Engineering from McGill University in Montreal and an MBA from Harvard Business School. "Wael's appointment is effective January 1, 2023, when he will also join Shell's Board.

Origin sells Beetaloo

Origin Energy, the Australian utility, has agreed to sell its 100 percent interest in its Beetaloo Basin shale gas assets in the Northern Territory. Origin said it was exiting its upstream exploration permits but would share any future profits and would retain its valuable Australia Pacific LNG stake in Queensland where it is upstream feed-gas provider and ConocoPhillips is the plant operator.

Gravy train leaves Brussels

The European Commission has agreed under European Union state aid rules to provide €5.2 billion of public funds to experimental hydrogen projects. The EU development funding of the hydrogen "value chain" will soar year by year and is being paid for by taxpayers in 13 members states, though not including Germany. The paying nations include LNG importers France, the Netherlands, Belgium, Finland, Greece, Italy, Portugal and Spain.

■

GRTgaz is confident France will weather winter season with LNG back-up while helping Germany with reverse gas flows

LNG News Editor

GRTgaz, the French natural gas transmission company with three liquefied natural gas import terminals under its control, said LNG would help it through the winter season and was working on reversing flows to Germany following the cut-off of pipeline supplies from Russia to the European Union.

GRTgaz has as its subsidiary Elengy, the operator of three terminals in Western and Southern France at Montoir-de-Bretagne, Fos Tonkin and Fos Cavaou.

Fifth French LNG terminal to be operating at Le Havre in 2023

Tight margins

France's fourth import terminal is at the Channel port of Dunkirk under the ownership of Belgian utility Fluxys and partners and a fifth will be operational at Le Havre from the next winter season in 2023-2024.

The Port of Le Havre on the northwest coast of Normandy had previously had an onshore facility that handled deliveries of LNG from Algeria for the national utility previously called Gaz de France.

French engineering company Technip Energies has said it would be supplying a marine loading arm to French major TotalEnergies as part of the floating storage and regasification project in Le Havre.

The offloading equipment will be installed on Bougainville dock in the Normandy port to transfer regasified LNG from the FSRU to the shore.

GRTgaz said it expected to be in balance this winter and did not expect shortages, though margins would be tight.

The company explained the country's gas storage supplies were filled at 94 percent and would reach close to 100 percent by the start of the winter season.

In trading terms, the coming winter gas season will run from October 2022 through to March 2023.

The utility GRTgaz said inflows from Germany currently stood at zero and the French utility was working on reversing flows at the border to help Germany traverse a difficult winter.

GRTgaz, which is headquartered in the Bois-Colombes suburb of northwest Paris, is the main natural gas transport operator in France while it is also assisted by another company, Teréga, the operator in Southwest France.

"The gas transmission managers are fully mobilized to steer the gas system, in close collaboration with the managers of the electricity transmission network and the public authorities," stated GRTgaz.

The company explained that in an average winter, the French gas system was able to meet demand, while supporting the electricity system and actively contributing to European security of supply.

Supply tensions

"A gradual drying up of gas transits from Germany has taken place since the summer of 2022 and GRTgaz is working to adapt its network to develop new export capacity from France to Germany, which will be available in mid-October. Flows previously coming from Belgium have also been reversed," it explained.

GRTgaz said that LNG deliveries had increased sharply and the LNG import terminals were available at near their maximum capacity of 90 percent regasification usage.

"LNG has played a major role in the supply of gas in France since the beginning of 2022. Since the beginning of Spring, the storage facilities have been filling and their rate is already 94 percent (84 percent on average in Europe) and will be close to 100 percent at the onset of winter," said the utility.

Scenarios

GRTgaz said it had worked on several consumption scenarios for the coming winter.

"A reference scenario, with an average winter without a marked cold spell, showed a balanced system, with no gas deficit (inflows and outflows equal to 393 terawatt hours)," said the company.

"However, there is little room for manoeuvre, especially on days with the highest consumption. All sources must then be mobilized (storage and imports via LNG terminals and adjacent networks) to satisfy domestic consumption, including electricity production as well as exports to neighbouring countries," added GRTgaz.

"In the case of very cold winters, the winter deficit can reach 16 TWh, which represents 5 percent of winter consumption, a level that can be absorbed by achieving the 'sobriety' objectives set by the public authorities," the utility stated.

"For the following winters, the commissioning of the floating terminal in Le Havre (FSRU) and the acceleration of the development of renewable gases will further reduce the risks," it added.

■

LNG importer Argentina goes ahead with gas field deal for TotalEnergies and Wintershall Dea

LNG News Editor

TotalEnergies has approved the final investment decision for the Fénix gas development offshore LNG importer Argentina in partnership with Germany's main oil and gas company Wintershall Dea.

The French major will develop a gas field located 60 kilometres off the coast of Tierra del Fuego in southern Argentina with Wintershall, which is based in the central German city of Kassel.

Project shares

Through its Total Austral affiliate, TotalEnergies operates the Fénix project with a 37.5 percent interest in partnership with Wintershall, which also owns 37.5 percent, while Buenos Aires-based Pan American Sur holds 25 percent.

TotalEnergies, Wintershall and Pan American Sur recently received extensions of more than 10-year from the Argentine government until 2041 on their offshore exploration concessions in the Austral Basin offshore Tierra del Fuego.

For Wintershall, which has been a shareholder in the Nord Stream pipeline gas projects with Russia's Gazprom, has other assets closer to Germany and also has plans to provide pipeline gas to the country from offshore Norway.

Wintershall's latest oil and gas discovery in Norway with a partner, UK-based Neptune Energy, was in the Hamlet prospect in the Norwegian North Sea and where Wintershall holds a 28 percent interest.

The gas field is 60 kilometres off coast of Tierra del Fuego

Spending $700M

For the Argentine venture, the Government in Buenos Aires recently endorsed a $700 million investment plan from the three companies, allowing TotalEnergies, Wintershall and Pan American Sur to proceed with the Fénix gas project.

"This is an important step for Argentina, Wintershall Dea and all partners involved," said Thilo Wieland, Wintershall Dea's board member responsible for Latin and South America.

"Fénix is a major natural gas project, that will contribute significant natural gas volumes for more than 15 years to the country's long-term energy supply," added Wieland.

"At the same time, this decision is a proof of our commitment to Argentina and will strengthen its role as a core country in our global portfolio," he stated.

Data from the Argentine Oil and Gas Institute shows that the Austral basin, located mainly in Tierra del Fuego province, produces around 25 percent of Argentina's natural gas, making it the second-biggest producing basin behind the Neuquen basin for shale gas and oil, which produces around 55 percent.

Horizontal wells

"The Fénix field will be developed through three horizontal wells, drilled from a new unmanned platform in 70 metres water," said a statement from TotalEnergies.

"The gas will be transported through a 35-kilometres pipeline to the TotalEnergies-operated Véga Pleyade platform and treated onshore at the Rio Cullen and Cañadon Alfa plants, also operated by the company," added TotalEnergies.

The partners said they expected a production start-up in early 2025 for Fénix with output of 10 million cubic metres per day of natural gas (70,000 barrels of oil equivalent per day).

"This latest development demonstrates TotalEnergies' ability to leverage its hydrocarbon portfolio with projects that have low technical costs and low emissions, that can be brought on stream fast by harnessing synergies with existing facilities," said David Mendelson, Senior Vice President for the Americas at TotalEnergies Exploration and Production.

"With first gas less than two and a half years from FID, Fénix will contribute to maintaining our production levels in Tierra del Fuego and securing supply to the Argentinean gas market," stated Mendelson.

TotalEnergies also confirmed it would benefit from tax breaks brought in to encourage foreign investments in Argentina's oil and gas fields.

Australia delivers more LNG to Asia

Australia's nine liquefied natural gas export plants shipped an estimated 6.66 million tonnes of LNG during the month of August compared with 6.20MT delivered in the previous month as Asian demand remained high, while prices dropped significantly month-on-month in the Australian domestic gas market.

The nation's revenues from the sales into the Asia-Pacific markets also increased to an estimated record of $7.52 billion (US$5.01Bln), up from a previous high of $7.13Bln in July and by almost 60 percent year-on-year, according to the monthly report from Graeme Bethune's Adelaide-based consultancy EnergyQuest.

The estimated deliveries in August to countries such as China. Japan and South Korea brought Australian LNG exports to a total of 78.4 million tonnes per annum an annualized basis by the end of last month.

West Coast shipments increased in the month from the Northwest Shelf and Pluto plants, operated by Woodside Energy, the Chevron-operated Gorgon and Wheatstone facilities and from the Darwin LNG and Ichthys LNG facilities, operated by Santos and Inpex Corp. in the Northern Territory.

The EnergyQuest report said that the shipments from these plants amounted to a total of 4.7MT in August, or 68 cargoes, versus 4.5MT, or 64 cargoes, in July.

It added that East Coast LNG shipments from the Santos-run Gladstone LNG, the Shell-operated Queensland Curtis LNG and the ConocoPhillips-operated Australian-Pacific LNG plant also rose month-on-month and were on par with the prior-year's shipments.

China's monthly LNG imports drop but shipments and gas from Russia up

LNG News Editor

Chinese liquefied natural gas imports in August 2022 to its network of 22 regasification terminals tumbled by 29 percent because of a mixed economic recovery, high spot prices and more pipeline natural gas imports.

The nation's LNG deliveries dropped to 4.72 million tonnes, or 70 cargoes, compared with 6.65MT, or 98 cargoes, in August 2021, according to data from the Chinese General Administration of Customs.

Drops

The deliveries to China in July had also fallen by 16.3 percent to 4.74MT versus 5.67MT received in July 2021.

Imports to regasification terminals in the January-to-August period also declined sharply by 21.5 percent to 40.64MT compared with 51.8MT in the same eight months in 2021.

China's main LNG suppliers are Australia, Qatar, the US, Malaysia, Indonesia, the Yamal plant in Arctic Russia and Papua New Guinea.

Chinese volumes come mostly from Australia and Qatar

According to shipping data, China is receiving more LNG from Russia, including nine cargoes in August. These comprised six from the Novatek-operated Yamal Peninsula plant and three from the Russian Far East facility at Sakhalin Island.

Deliveries of US LNG to China have tailed off in recent months, though Chinese energy companies have been quick over the past year to sign long-term sales and purchase agreements with new US Gulf Coast liquefaction projects and expansions.

China's LNG imports surpassed those of Japan in 2021 and amounted to 78.93MT, which was 18.3 percent more than in 2020 and made the country the No. 1 global LNG importer.

However, LNG deliveries to Japan's network of 37 terminals in August amounted to 6.27MT, or 92 cargoes, well ahead of the shipments received by Chinese in the months.

Pipeline natural gas deliveries continued to increase from Russia and the Central Asian states during the year and were up by 8.7 percent in August 2022 to 4.13MT compared with 3.80MT in August 2021.

The pipeline gas deliveries for the first eight months of 2022 surged to 30.40MT, an increase of just over 10.3 percent compared with 27.55MT in January-to-August 2021.

Japanese LNG imports edge lower as monthly costs break $6Bln barrier

Japanese liquefied natural gas imports declined last month by 0.4 percent, the same amount as the previous month, with shipments increasing from Australia, Russia and the spot market while monthly costs rose to over $6 billion for the first time.

Deliveries of LNG to Japan's network of 37 terminals amounted to 6.27 million tonnes in August 2022, or 92 cargoes, compared with 6.29MT, or 93 cargoes, in August 2021, according to the preliminary trade figures from the Japanese Ministry of Finance.

Payments

Japan's LNG deliveries had also dropped by 0.4 percent in July 2022 to 6.16MT compared with 6.19MT in the same month of 2021.

The August imports cost 874.47 billion yen ($6.09Bln), the highest ever monthly cost to the nation since LNG imports began from Alaska in 1969.

This bill was 140.1 percent higher than was paid in the same month a year ago when the cargoes cost 364.17Bln yen ($2.54Bln).

The effect on Japan's balance of payments was severe again in August for energy purchases as the yen has lost almost 30 percent of its value against the US dollar this year to hit its lowest level since 1998.

The country's thermal coal imports jumped 16.3 percent to 12.28MT and cost 628.35 billion ($4.38Bln) and Finance Ministry data showed that this was 282.1 percent more than in August 2021.

While LNG imports have edged lower in the past two months they had increased in the first three months of the fiscal year April-to-June as stock-building began.

Japan's 2021 LNG cargo deliveries had been less than those of China for the first time and came to 74.31MT, down 0.2 percent on 2020 and 4.62MT less that the Chinese total for 2021.

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US LNG equipment-maker Chart signs accord to seek carbon-capture projects in Mideast and Africa

LNG News Editor

Chart Industries, the US LNG equipment-maker and industrial gases company, has signed an accord to bring carbon-capture solutions to customers in the Middle East and Africa.

Chart said it signed a memorandum of understanding (MOU) with Abu Dhabi-based Contract and Trading Group (C.A.T. Group) to focus on the two companies providing carbon reduction services to state-owned firms and energy companies.

Specialist

Atlanta, Georgia-based Chart has expertise in providing liquefaction, regasification, storage and transportation for LNG and industrial gases and already includes carbon-dioxide measures in its offering through the Cryogenic Carbon Capture™ technology of its subsidiary Sustainable Energy Solutions Inc.

Chart acquired Sustainable Energy Solutions in 2020 and the company has 44 US patents issued, a further 17 pending and 20 patents issued internationally relating to carbon-dioxide storage, evaporators and other technologies.

Chart CEO Jillian C. Evanko with counterpart Joseph Gebara

The US company is continuing its expansion into the carbon-capture and cleaner energy sectors while also being among the leaders in providing equipment for LNG export plants on the US Gulf Coast as well as LNG transportation containers and fuel stations.

Chart's customers include Venture Global's export facilities in Louisiana, including the new Plaquemines project on the Mississippi River south of New Orleans, Cheniere Energy's Corpus Christi plant expansion in Texas and Tellurian's Driftwood project, south of Lake Charles in Louisiana.

"We are excited to partner with C.A.T., a respected global leader in contracting with a particular focus on the energy transition," said Jill Evanko, Chart CEO and President.

"We anticipate that our companies' complementary strategies to adopt carbon-capture technologies and complete project solutions will accelerate customer decisions about their clean energy operations, particularly in the Middle East and Africa where carbon-capture is a natural part of the movement towards more sustainability," added Evanko.

Partner

C.A.T. Group has broad customer relationships in the Middle East and Africa and has decades-long project experience.

It offers engineering, procurement and construction as well as project management to customers from its energy, civil, industrial, pipeline, and renewables divisions.

The Group's CEO, Joseph Gebara, said he was pleased to partner with Chart with its expertise in LNG and other sectors.

"Chart's technology, equipment and services are highly regarded in the LNG and CO2-capture sectors and together we will offer our customers in the Middle East and Africa complete solutions for the energy transition," added Gebara. ■

Leading LNG operator Chevron joins Keppel, Air Liquide and PetroChina to study Asian CCUS

Leading Asia-Pacific LNG operator Chevron Corp., along with French industrial gas company Air Liquide, Singapore's Keppel Infrastructure and Chinese energy major PetroChina have signed an accord to form a consortium to advance the development of large-scale carbon-capture, utilization, and sequestration (CCUS) solutions.

The consortium intends to research, test, and develop technological, logistical, and operational solutions for CCUS in Singapore.

Industry service

"In doing so, the consortium will look to provide industry-wide CCUS integrated infrastructure, primarily to support the energy and chemicals sector, by capturing and aggregating carbon dioxide (CO2) from large industrial emitters at a centralized collection facility," they explained.

The CO2 could then be utilized to make useful products, such as plastics, fuels, and cement, and/or transported through either pipelines or ships to suitable reservoirs in the Asia-Pacific region for sequestration via a process of injecting CO2 into deep underground geologic formations.

Chris Powers, vice president, for CCUS at Chevron New Energies, said the operator of the Gorgon and Wheatstone LNG projects in Australia believed in the future of energy was lower carbon.

"We are committed to advancing technologies and forming strategic relationships to make it happen," added Powers.

"We look forward to working with like-minded collaborators to progress and advance the development of large-scale CCUS solutions in the Asia-Pacific region for decades to come," he stated.

Michele Gritti, vice president for Large Industries and Energy Transition at Air Liquide SEA Cluster, said the company supported the decarbonization of industry to help address the urgency of climate change.

"We are pleased to collaborate with Keppel Infrastructure, Chevron, and PetroChina in this decarbonization endeavour, leveraging our expertise and experience in carbon capture, purification, and liquefaction to build a comprehensive carbon-capture decarbonization solution," added Gritti.

Chua Yong Hwee, executive director (New Energy) at Keppel Infrastructure, said that hard-to-abate sectors needed to leverage technology and innovation to transit towards reduced CO2.

Environment

"Keppel Infrastructure is well-positioned to support efforts to decarbonize key sectors, given our experience as a leading developer, technology solutions provider and operator of energy and environmental infrastructure in Singapore and the region," he declared. ■


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FPSO set for Africa LNG hit by typhoon

Kosmos Energy, the shareholder along with UK major BP in the floating LNG export project offshore Senegal and Mauritania, said the floating production, storage and offloading (FPSO) unit for the venture broke free briefly from the quayside during a typhoon at the Chinese shipyard where it had just been completed.

Kosmos, based in Dallas, Texas, said it had been informed of the incident by BP on September 16 after Typhoon Muifa had passed through the Shanghai region and China's Cosco Shipping Heavy Industry shipyard in Qidong.

Typhoon Muifa, which was the 12th to hit China in the current typhoon season, generated winds speeds of up to 215 kilometres (134 miles) per hour and caused the FPSO to break free from the quayside at the Qidong yard.

"During the typhoon, the mooring lines of the FPSO became compromised, resulting in the vessel drifting approximately 200 metres off the quayside," said Kosmos.

"No injuries have been reported in connection with this incident," it added.

Cosco Shipping's shipyard subsidiary announced in early September 2022 that it had completed the construction of FPSO destined to operate in the Greater Tortue-Ahmeyim gas fields.

The Greater Tortue-Ahmeyim LNG project has the FPSO as one of its key installations.

The first Mauritania-Senegal FLNG production facility is scheduled to have first gas in early 2023.

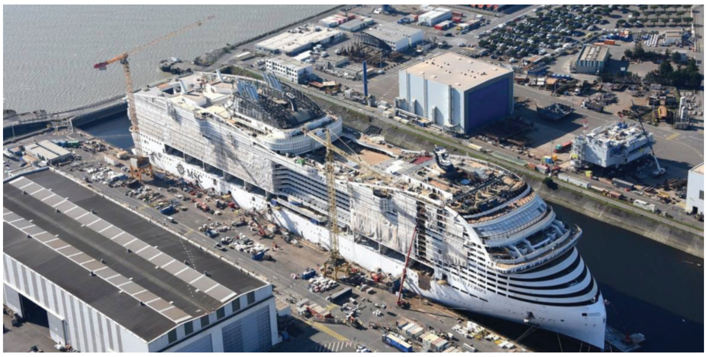
As part of support for the FPSO, mooring piles were pre-installed offshore while Cosco Shipping was completing the facility.

MSC Cruises to name LNG-capable ship at inauguration of Qatar Terminal

LNG News Editor

MSC Cruises, the Italian global cruise line registered in Switzerland and based in Geneva, said that its first dual-fuelled ship with LNG capability, the "MSC World Europa", would officially be named on November 13 in the Qatari capital Doha at a ceremony including the inauguration of the LNG-producing nation's new Arabian Gulf Grand Cruise Terminal.

"It is only fitting that this event marks the coming into service of the highly anticipated 'MSC World Europa', the first in our trail-blazing 'World Class' of ships," said Pierfrancesco Vago, Executive Chairman of the Cruise Division at the MSC Group.



Cruise ship at Chantiers de l'Atlantique in Saint-Nazaire

Sea trials

The "MSC World Europa" was constructed at the French shipyard, Chantiers de l'Atlantique at Saint-Nazaire on the Atlantic Coast of France, and completed her first sea trials in June.

The cruise line's second dual-fuelled vessel using LNG, the "MSC Euribia", has been floated out at the Chantiers de l'Atlantique yard and is scheduled to join the MSC fleet in June 2023.

One of the companies involved in LNG bunkering for Chantiers de l'Atlantique has been Gasum, the Nordic LNG supplier that has used the 7,500 cubic metres capacity vessel "Kairos".

MSC said in addition to using LNG when cleaner fuel is needed said its cruising platform had "future-proof marine and onboard hospitality technologies, state-of-the-art environmental technologies as well as ground-breaking and ultramodern design" for its growing customer base.

"The ship 'MSC World Europa' will become the biggest and most environmentally high-performing passenger ship to sail out of Doha and across the Middle East and welcome guests from around the world for the winter 2022-2023 season," added Executive Chairman Vago.

The keel was laid for the "MSC World Europa" in June 2020 at the Saint-Nazaire yard.

The 200,000-plus GT vessel is the first LNG-fuelled cruise ship to be built in France.

The company said the "MSC World Europa" would make her maiden voyage on December 20, offering cruises to Doha, Qatar, Dubai, Abu Dhabi and Sir Bani Yas Island, United Arab Emirates, plus Dammam in Saudi Arabia.

Höegh LNG Partners approve the merger with Höegh LNG Holdings

Höegh LNG Partners, the company with five ships and listed on the New York Stock Exchange, announced the approval by unit holders of the merger with Höegh LNG Holdings is finalised and the delisting of its shares.

The merger gives Höegh LNG Holdings control of 10 floating storage and regasification units (FSRUs) and two conventional carriers on completion and with the fleet additions from the Partnership.

Höegh LNG's two conventional carriers, each with 147,200 cubic metres of capacity, are the "Arctic Lady" chartered to TotalEnergies and the "Arctic Princess", chartered to Norway's Equinor.

Both vessels are mostly on shuttle duty delivering cargoes from the Equinor-operated Hammerfest LNG export plant.

The Norwegian facility resumed shipping cargoes in June 2022 after closing for repairs after a fire in September 2022.

Höegh LNG said that under the merger terms and conditions all of the Partnership's common units will be owned by Höegh LNG.

The common units of the Partnership are no longer listed on the NYSE and will be deregistered under the Securities Exchange Act of 1934.

Höegh LNG Holdings revealed the initial merger plan in December 2021 and sealed the deal in May 2022 when it agreed to acquire all outstanding common units not already owned by Höegh LNG Holdings in exchange for \$9.25 in cash per common unit.

The merger consideration represented an increase of \$5.32 (135.4 percent) per common unit when compared with the closing price per common unit of \$3.93 in December 2021, immediately prior to Höegh LNG's initial offer.

The consolidated Höegh LNG Holdings group's list of FSRUs, conventional carriers and charterers is now complete.

Australia's Woodside welcomes progress on proposed Browse Basin-to-NWS LNG project

LNG News Editor

Woodside Energy, the operator of the Australian North West Shelf and Pluto LNG export plants, has published the Environmental Impact Statement (EIS) for the latest export proposal from Western Australia.

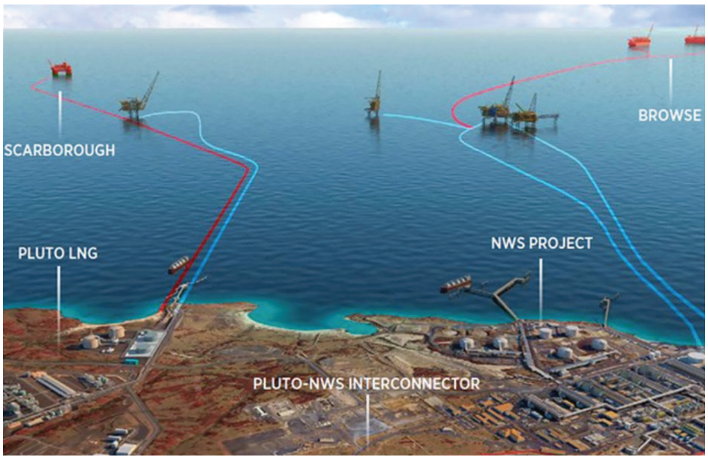
The EIS was drawn up on the directions of the Australian Department of Climate Change, Energy, the Environment and Water.

Investment

The final EIS includes responses to comments received during the public consultation process held over an eight-week period from December 2019 to February 2020.

As operator of the proposed Browse-to-NWS Project, Woodside said it welcomed the publication of the final EIS as a milestone for the project.

The Canberra Ministry will now prepare its recommendation report and provide it to the Minister.



Perth-based Woodside's operations with Browse top right

The proposed Browse-to-NWS Project would send feed gas from fields in the offshore Browse Basin to be processed at the NWS facility's Karratha Gas Plant.

Extension

"Browse and the NWS Project Extension are expected to contribute to our communities for decades to come," said Woodside.

"The proposed Browse-to-NWS Project could contribute to energy security in Western Australia and in the Asia-Pacific region, with production capacity of 11.4 million tonnes per year (LNG, LPG and Domestic Gas)," said the Perth-based company.

Woodside Chief Executive Meg O'Neill said moving into the assessment phase for the proposed Browse Basin project was a significant and positive step in the regulatory approval process.

The Browse Basin natural gas resources offshore Western Australia have been the subject of previous project suggestions, including floating LNG.

"The final EIS provides comprehensive detail of potential environmental impacts, proposed mitigations and management measures," stated O'Neill.

"The processing of Browse gas through the Karratha Gas Plant could provide energy needed in Western Australia and overseas, while providing jobs and taxation revenue that support our host communities," she explained.

Woodside noted that key work activities continued in support of progress towards front-end engineering design.

The company added that the corresponding State Environmental Review Document Response to Submissions would also be published once accepted by the Western Australian Environmental Protection Authority.

Shell output re-starts for 'Prelude FLNG' off Australia after resolution of long pay dispute

Shell in Australia said LNG cargo shipments and production had returned to normal on the "Prelude FNLG" vessel deployed off the northwest coast of Western Australia.

The full re-start followed the cancellation of industrial action and a work to rule by workers onboard the production hull.

A new contract had been agreed in principle at the end of August with the Australian Workers' Union and Electrical Trades Union in relation to the Prelude facility.

"The enterprise agreement has now been supported by a majority of employees in a formal vote and is expected to come into effect in early October 2022," explained Shell.

"We are focused on moving forward as a business and delivering affordable, reliable energy to our customers through continued safe, stable production in order to meet the critical global demand for energy security," the UK-based major.

Production

The FLNG vessel is moored 400 kilometres north of the town of Broome on Western Australia's Kimberley coast and has 3.6 million tonnes per annum of capacity.

The dispute began on June 10 with trade unions represented by the Offshore Alliance comprising the two unions and centred around stalled negotiations on new collective pay agreement.

The Australian energy safety authorities had only allowed the "Prelude" FLNG plant to re-start in April 2022 after being shut in December 2021 after the latest in a series of incidents in an electrical utility on board.

The "Prelude", which came on stream in 2019, generally has around 200 or so crew on board at the one time.

The Prelude joint venture is owned 67.5 percent by Shell and 17.5 percent by Inpex Corp. of Japan, operator of the Australian Ichthys project.

A further 10 percent of Prelude is held by LNG buyer Korea Gas Corp. and 5 percent by CPC Corp. of Taiwan.

> **"We are focused on moving forward as a business and delivering affordable, reliable energy to our customers through continued safe, stable production in order to meet the critical global demand for energy security"**
>
> *- Shell*