

LNG Unlimited

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Japan's LNG imports fall to lowest in 14 years and China back at No. 1

Utilities turned to more nuclear and renewables as well as more coal use
LNG News Editor

Japanese liquefied natural gas imports dropped by just over 8 percent in 2023 to a 14-year low as more nuclear, renewables and high levels of coal were used and the nation was again overtaken by China as the world's No. 1 LNG importer.

Japan's annual LNG imports dropped by 8.1 percent last year to 66.15 million tonnes compared with 71.99MT in 2022 and 74.31MT in 2021.

This was the lowest total since imports of 64MT were recorded in 2009 by Japan's Finance Ministry.

LNG imports to Japan then rose in 2010 by 5.5MT to 69.5MT as demand from the power and city-gas sectors increased a year before the March earthquake and tsunami hit the Fukushima region and the nuclear plant that led to nationwide nuclear shutdowns and rising LNG demand.

Cargo costs fall

The 2023 LNG deliveries cost a total of 6.54 trillion yen (\$44.20 billion) which was 22.6 percent less than in 2022, according to the Ministry's preliminary figures.

As a result, Japan was no longer the world's biggest LNG importer and China was back in the lead with its total of over 71MT.

The Ministry data showed that Japanese imports in December 2023 amounted to 6.49MT, up 7.2 percent year-over-year and at a cost of 656.52 billion yen (\$4.43Bln), down 19.6 percent from December 2022.

Thermal coal imports delivered



The 155,300 cubic metres capacity carrier 'Seishu Maru' delivers from Australia to Japanese and Asia terminals

to Japan in December dropped by 8.1 percent from last year, though were higher at 9.74MT than the LNG deliveries.

Imports of thermal coal by Japan for all of 2023 also declined by 11.9 percent, though were still at a high level of 101.54MT of coal for the year.

The coal imports for power generation cost 3.48 trillion yen (\$23.49Bln), which was almost half the cost of LNG deliveries.

For the year, LNG imports by Japan from the US jumped by 33.6 percent to 5.52MT and deliveries from Russia were higher at 6.13MT, though the Russian total was down 10.7 percent compared with 2022.

Outside of Australia, Asian nations such as Malaysia, Indonesia and Brunei were the largest regional suppliers of Japan's LNG cargoes at 16.10MT, down 10.2 percent from the previous year.

Deliveries from the Middle East, mainly Qatar, dropped to 5.95MT which was 11.7 percent lower versus 2022.

The balance of deliveries to Japan came from Australia and the spot market with volumes in that segment rose to a total of 32.45MT.

Japan had briefly regained the

global No. 1 spot as an LNG importer from China in 2022 with its 72MT of volumes, though the pace of Chinese deliveries gradually increased in 2023 after a slow start.

Chinese data showed that LNG imports during the first 10 months of 2023 had amounted to 56.25MT, and then added 6.97MT in November and 8.22MT in December to take China to the top spot.

This gave China a total of 71.44MT of cargo deliveries in 2023, which was 5.29MT ahead of the Japan's annual total.

After shutting down its 54 nuclear reactors following the 2011 Fukushima nuclear disaster, Japan started to gradually restart nuclear power plants in 2015.

Together with increased solar and wind generation, the nuclear power has allowed a further reduction in LNG imports, which had reached a peak of 88.5MT in 2014.

Nuclear resurgence

A total of 11 nuclear reactors are now back in operation in Japan compared with the 54 that were online in 2011 before Fukushima and which had supplied around 30 percent of Japan's energy needs.

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Japan's JBIC signs accord with ADNOC on green finance amid key LNG and oil deals

LNG News Editor

The Japan Bank for International Cooperation (JBIC) has signed an agreement with Abu Dhabi National Oil Co. (ADNOC) to proceed with further discussions for financing under the bank's decarbonisation programme as ADNOC and a subsidiary have also pledged to continue supplying LNG to the Japanese along with long-term crude oil supplies.

"ADNOC is a leading energy company wholly owned by the Emirate of Abu Dhabi with a clear intent to decarbonise its operations," said JBIC.

"It has ambitions of achieving net zero emissions by 2045, promoting renewable energy, hydrogen and ammonia, carbon capture and storage (CCS), and other green energy initiatives," explained JBIC in regard to the leading energy company in the United Arab Emirates.

ADNOC spin-off

"The heads of agreement is intended to aim at building a consensus in which JBIC will provide a



LNG deal signed in 2023 between ADNOC and JAPEX

credit line to ADNOC under 'green operations' to support projects related to decarbonisation and the energy transition implemented by ADNOC or its subsidiaries," the state-owned Japanese bank added.

Carbon-capture and storage (CCS) is a technology that separates and captures CO₂ that would otherwise become a greenhouse-gas and stores it in deep-water caverns or other geological formations.

ADNOC Gas, which was spun-off in March 2023 to become a separate company, is estimated to

have the seventh-largest gas reserves globally and has signed supply agreements with Japanese companies.

The latest was signed in October 2023 with the trading subsidiary of Japan's power generation company Jera Co. Inc.

The multi-year agreement with Jera Global Markets, a utility-backed energy trader specialising in LNG and other fuels, builds on the energy partnership between the UAE and Japan.

The ADNOC gas subsidiary also signed a five-year LNG supply agreement with Japan Petroleum

Exploration (JAPEX) in August 2023.

JBIC noted that in addition to supplying LNG to Japanese import terminals the UAE emirate of Abu Dhabi was also key and long-term supplier of oil to Japan.

"As a stable and important supplier of crude oil to Japan for more than 40 years, Abu Dhabi is a strategic partner and a very important ally for Japan's energy resources strategy," said JBIC.

High potential

"In addition, Abu Dhabi has high potential in the sector of decarbonisation and energy transition as it has abundant resources for renewable energy and subterranean structures suitable for CCS," JBIC explained.

"The credit line under the HOA aims to support ADNOC's initiatives for decarbonisation and to create opportunities for collaboration between Japanese companies and ADNOC, and it is expected to contribute towards realising the decarbonised societies that Japan and Abu Dhabi are aiming for," JBIC declared.

Japanese LNG players Inpex, Tokyo Gas and Osaka Gas join e-methane study in UAE

Inpex Corp., the Japanese liquefied natural gas producer and project developer, has joined with LNG importers Tokyo Gas and Osaka Gas to conduct a joint study on e-methane production with the largest clean energy company in Abu Dhabi in the United Arab Emirates.

E-methane is synthetic methane produced from carbon dioxide and clean feedstock such as green hydrogen.

The UAE company involved in the study is Abu Dhabi Future Energy Co. (Masdar) and is jointly owned by Abu Dhabi National Oil Co. (ADNOC), Mubadala Investment Co. (Mubadala) and Abu Dhabi National Energy Co.

Inpex, which operates the Ichthys LNG export plant in Australia and is developing an LNG export joint venture in Indonesia from Masela block feed-gas assets, has already carried out initial studies with Masdar to produce e-methane utilizing low-cost renewable energy in Abu Dhabi.

"Tokyo Gas and Osaka Gas have newly joined this initiative, and through it plan to offtake e-methane in volumes equivalent to 1 percent of each company's annual city-gas demand," they explained.

City-gas mix

"Tokyo Gas and Osaka Gas are

aiming to introduce e-methane to cover 1 percent of their respective annual city-gas demand by 2030 and further increase the introduction of volumes to the total of their worldwide projects towards 2050," they added.

The four partners will evaluate the economics of producing and procuring feedstocks, such as green hydrogen and CO₂, as well as the production and transportation of e-methane. The overall reductions in CO₂ emissions will also be evaluated.

"E-methane is compatible with existing LNG infrastructure such as LNG tankers and terminals as well as city-gas infrastructure including

pipelines and consumer gas equipment, limiting social costs associated with its introduction," the companies explained.

They added that the synthetic e-methane was already considered a "pragmatic carbon-neutral or lower-carbon solution" for thermal sectors where electrification is a challenge.

"Masdar, Inpex, Tokyo Gas and Osaka Gas aim for the early establishment of an e-methane supply chain from the UAE to Japan to contribute to the UAE and Japanese governments' shared goal of achieving carbon neutrality by 2050," they stated.

NuStar agrees to \$7.3Bln takeover

NuStar Energy, the US liquids terminal and pipelines operator with 9,500 miles of pipeline and 63 terminal and storage facilities, has been acquired by Sunoco LP, the motor fuels distributor, in an all-equity transaction valued at \$7.3 billion including assumed debt.

The takeover of NuStar is the latest in US energy industry mergers over the past 12 months involving majors like ExxonMobil Corp. and Chevron Corp. as well as natural players like Chesapeake Energy.

The buyer Sunoco LP is a master limited partnership with core operations that include the distribution of fuel at 10,000 convenience stores, independent dealers and distributors located in more than 40 US states and the general partner owner is Dallas-based natural gas pipelines operator Energy Transfer LP.

Under the terms of the agreement, NuStar common unit-holders will receive 0.400 Sunoco common units for each NuStar common unit, implying a 24 percent premium as of January 19.

Sunoco said it had secured a \$1.6 billion 364-day bridge term loan to refinance NuStar's notes and revolving credit facilities and financing agreements.

Under the terms, around \$3.1Bln of Sunoco equity will be issued to NS unit-holders, though secondly a total of \$2.6Bln of existing NS Senior Notes and GoZone Bonds will remain outstanding.

And thirdly, \$1.6Bln of NS preferred equity and outstanding notes and borrowings will be refinanced.

BW Chairman Andreas Sohmen-Pao leads shuffling of shares in affiliates

LNG News Editor

The BW Group of Singapore with LNG and shipping interests and led by Andreas Sohmen-Pao has shuffled shareholdings by acquiring a bigger stake in BW Energy with a purchase of shares in the energy unit from another affiliate BW Offshore.

BW Offshore has entered into an agreement with the BW Group to sell all of its shares in BW Energy.

BW Energy, the group's oil and gas affiliate, is focused on the development and production of oil and natural gas field from licences held in Gabon and Namibia in West Africa and in Brazil.

Widespread interests

BW Group is involved with 15 subsidiaries or more and operates in the spheres of a publicly-listed company and a privately-held corporation at group level and through its number of businesses listed on various exchanges or jurisdictions including the Oslo stock exchange in Norway.

Sohmen-Pao is Chairman of BW Group and the listed affiliates in-



BW Chairman Sohmen-Pao rearranged assets stakes

clude BW Offshore, BW Energy, Hafnia, BW Epic Kosan and Cadeler.

Other BW Group companies include BW LNG, BW Dry Cargo, BW LPG, BW Water, BW Solar and BW Digital.

A statement said that BW Offshore would sell all of its stake in BW Energy at a price of 32 Norwegian crowns per share for a total 1.86 billion crowns (\$177 million) when completed.

The BW Offshore company has a fleet of about a dozen Floating Production Storage and Offloading (FPSO) units with potential for growth and will now concentrate on its main business.

BW Offshore is led by Chief Ex-

ecutive Marco Beenen and has its main offices in Singapore and Oslo.

Strategies

BW Offshore had previously said that it did not consider the shareholding in BW Energy to be a long-term strategic investment.

"We are pleased to have obtained a price for BW Energy that is close to the highest that the shares have historically traded, which became possible following the outcome of BW Group's mandatory offer resulting in BW Group holding approximately 52 percent of BW Energy," explained BW Offshore CEO Beenen.

India's Reliance Industries boosts natural gas to offset LNG needs

India's Reliance Industries, the group with growing natural gas and oil and chemicals businesses, reported increased fiscal third-quarter earnings amid moves to boost the nation's natural gas to offset LNG imports as prices start to decline.

Reliance reported that overall third-quarter revenues from its multiple business divisions increased by 3.2 percent to 248,160 crore Indian rupees (\$29.8 billion) compared with the same quarter in the previous fiscal year.

Reliance reported a rise in third-quarter net profits to 19,641 crore (\$2.4 billion), up 10.9 percent from the same three months of fiscal 2022.2023.

Overall gross earnings for the

three months increased by 16.7 percent year-on-year to 44,678 crore rupees (\$5.4Bln).

Records

Reliance said that the oil and gas segment of the business saw gross earnings (EBITDA) increase sharply by 49.6 percent and led by 72.6 percent higher gas and condensate production from the Krishna Godavari Dhirubhai 6 (KG-D6) block offshore Eastern India in the Bay of Bengal.

The KG-D6 block was India's largest deposit of natural gas and the largest such discovery in the world when it was found in 2002.

"Revenue from the oil and gas segment increased significantly

mainly on account of higher volumes partly offset by lower gas price realisations from the KG-D6 field," Reliance explained.

Reliance, based in Mumbai, is a group also involved in textiles, retail, telecoms and media and other business as well as oil, gas and chemicals.

In the oil and gas exploration and production division quarterly revenues amounted to 6,719 crore rupees (\$807 million), up 50.2 percent year-on-year and quarterly gross earnings from the Indian E&P sector for Reliance came to a record 5,804 crore rupees (\$697M), up 49.6 percent from the prior-year quarter.



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A handwritten signature in black ink, likely belonging to Jill Evanko.

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NEWS BRIEFS

Beach LNG boost

Beach Energy of Australia reported a 37 percent increase in quarterly sales revenue of A\$544 million (US\$358M), mainly due to the sale of the first Waitsia LNG project cargo from the onshore gas project in the Perth Basin of Western Australia and the one-off sale of a condensate shipment from the Waitsia venture with Mitsui of Japan. "Production and stored volumes from the Xyris Gas Plant, together with third-party surplus gas sourced via a swap arrangement, enabled processing and lifting of the first Waitsia LNG cargo at the North West Shelf plant (tolling) in December 2023," said Beach. "Beach acquired Mitsui's 50 percent share and sold the cargo to BP under the terms of the previously announced LNG sales and purchase agreement with BP. The cargo delivered revenue of A\$96 million and net cash proceeds to Beach of A\$49M after purchase of Mitsui's share," said Beach.

Latest Dutch cargoes

Two US LNG cargoes are heading for the Netherlands, including the first delivery of February. The vessel "Diamond Gas Metropolis" with 174,100 cubic metres capacity is scheduled to discharge a cargo on January 30 at the Dutch Gate terminal in Rotterdam. Shipping data shows that the cargo was loaded on January 16 at the Cameron export plant in Louisiana, operated by Sempra. The carrier "Woodside Rees Withers" with 173,400 of capacity is scheduled to deliver a cargo on February 2 to the Eemshaven floating terminal in Groningen. The cargo was lifted on January 19 from the Cheniere Energy-operated plant at Corpus Christi in Texas.

Baker Hughes swings to annual profits as US equipment and services firm also booked orders including Ruwais LNG

LNG News Editor

Baker Hughes, the US liquefied natural gas equipment-maker and energy services company, swung to an annual profit compared with a previous loss as quarterly income also rose along with revenues amid an operational overhaul and among the orders booked was one for LNG from the United Arab Emirates.

Baker Hughes, which has main offices in Houston and London, has two divisions, Industrial & Energy Technology (IET), including LNG, and the Oilfield Services & Equipment (OFSE) unit.

"As we continue our journey, 2023 proved to be a pivotal year for Baker Hughes. We successfully removed \$150 million of costs, realigned our Industrial & Energy Technology (IET) segment, and recently launched actions to further streamline our Oilfield Services & Equipment segment (OFSE)," said Lorenzo Simonelli, Baker Hughes Chairman and Chief Executive.

Strategy

"Our strategy to transform the way we operate is working. In 2023, our adjusted EBITDA was up double digits for the third consecutive year and exceeded prior cycle's peak levels by 25 percent," added Simonelli.

"IET orders remained strong, exceeding \$3Bn for the fifth consecutive quarter. Additionally, we were awarded more than \$1Bn of contractual service agreements (CSA), while we booked the previously announced 9.6 million tonnes per annum Ruwais LNG project in the UAE," the CEO explained.

"In OFSE, we continue to demonstrate solid margin improvement, with segment EBITDA margin increasing to 17.9 percent and Oilfield Services EBITDA margins now exceeding 20 percent - both record margins," Simonelli said.

Fourth-quarter net income jumped to \$439M compared with \$182M in the same three months



CEO Simonelli with ADNOC head Sultan Ahmed Al Jaber

of 2022, though was 15 percent down versus the \$518M logged in the previous quarter to the end of September.

The Houston, Texas-based company said that quarterly revenues rose by 3 percent to \$6.83Bn compared with \$6.64Bn in the prior-year quarter.

"Baker Hughes is on its way to becoming a leaner and more efficient energy technology company. We continue to carefully execute our plan to drive margins meaningfully higher," Simonelli stated.

For the 12 months Baker Hughes said that net income amounted to \$1.94Bn compared with a loss of \$612M in 2022.

Orders for the year rose by 14 percent to \$30.52Bn versus \$26.77Bn for all of 2022, while 2023 operating income almost doubled to \$2.31Bn from \$1.18Bn in the previous year.

However, quarterly orders dropped year-over-year by 29 percent to \$3.03Bn versus \$4.29Bn a year ago and by 30 percent to \$4.33Bn in the previous three months.

Performance

The company explained that strong orders performance continued across IET in the fourth quarter.

"In Gas Technology Equipment, momentum continued in the offshore market. Baker Hughes was awarded an important contract by SBM Offshore to provide turbo-generators, turbo-compressors, electric motor-driven compres-

sors, as well as commissioning spare parts, for a Floating Production, Storage and Offloading vessel (FPSO)," the company said.

"Gas Technology Equipment also secured an important contract from a consortium for one electric motor driven sour gas booster compression package, to support the development of offshore natural gas fields in the Middle East," it added.

Baker Hughes noted that its order was booked in the fourth quarter to supply two electric liquefaction systems for the Ruwais LNG project and would make it one of the first all-electric LNG ventures in the Middle East.

"Gas Technology Services secured several orders across multiple geographies and applications, as well CSA commitments worth more than \$1 billion primarily driven by LNG and offshore projects in North America and the Middle East," said Baker Hughes.

Upgrades

"Also in the quarter, Gas Technology Services secured several important upgrade orders, particularly in Europe for both refinery and gas network applications to provide operators with solutions that can enable efficiency gains and emissions reduction," the company stated.

Quarterly highlights in the OFSE business segment was in the form of two "significant" multi-year integrated solutions contracts in Latin America for drilling, completions and plug and abandonment services.

Gastrade moves on FLNG start-up project while Balkan grids expect July market test

LNG News Editor

Gastrade said that a cooperation agreement has been signed between key natural gas infrastructure owners from Greece, the Balkans and Central Europe including Gastrade itself as the developer of the Alexandroupolis floating LNG import terminal for Greece and the Balkans.

The memorandum of understanding was signed in the framework of a meeting just held in Athens of the 27-nation European Union's Central and South Eastern Europe Energy Connectivity (CESEC) programme to accelerate the integration of gas and electricity markets in the region.

Gastrade's presence at the event coincided with the completion of the conversion of the conventional LNG carrier "GasLog Chelsea" into a floating storage and regasification unit with various additions and with the vessel handed over after testing.

Commercial moves

The LNG FSRU will be stationed in the Sea of Thrace in the north-east part of the Aegean and about 17.6 kilometres (11 miles) from the coastal Greek town of Alexandroupolis.

Gastrade said that the MoU sealed the cooperation already taking place among gas and LNG transmission system operators like Greece's National Natural Gas System Operator SA (DESFA), Bulgaria's (ICGB, Bulgartransgaz), Romania's (Transgaz), Hungary's (FGSZ) and Slovakia's (EUStream).

"The full activation of the Vertical Corridor, through the appropriate upgrading of the networks of the involved nations will allow the transport of gas from the



LNG and regional natural gas executives at the EU's Central and South Eastern Europe Energy Connectivity (CESEC) gathering

South to North and vice versa, through European natural gas and LNG suppliers and transmission system operators (TSOs), leveraging the enhanced capabilities of Gastrade's new LNG Terminal in Alexandroupolis which is expected to reach commercial operations soon," said a statement.

"The operators who signed the MoU expressed their commitment to promote projects of common interest in the region, jointly or individually, and at the same time to support each other in securing funding from the EU and elsewhere," the statement added.

"They also agree to seek, where appropriate, the facilitation and guidance of the European Commission," it said.

Konstantinos Sifnaios, the Managing Director of Gastrade, also noted that the signing of the MoU also included the TSOs of Moldova and Ukraine and was a "significant step" to strengthening the energy security of Central and Southeast Europe.

LNG schedule

"Gastrade's project, the floating LNG terminal in Alexandroupolis, the first FSRU in Greece which will

be operational in the next weeks, is a gateway for LNG and natural gas transmission through the Vertical Corridor," explained Sifnaios.

"Gastrade is committed to supporting this strategy of diversification and independence of energy sources and transport routes from the historical monopolies. In this effort, we welcome Slovakia, Moldova, and Ukraine with great anticipation," Sifnaios declared.

As for the next steps, the participants said they would "prioritise their coordination" according to market-based solutions and European legislation.

"In this context, they agree to carry out simultaneously, in July 2024, one year earlier than the foreseen schedule, a binding market test for capacity allocation at their respective interconnection points, according to the CAM Regulation (EU) of the European Commission," they stated.

"Then, based on user interest, they will identify and size the most appropriate and targeted capacity expansion projects needed to meet demand along the Vertical Corridor route," they added.

NEWS BRIEFS

Dutch LNG fuel surge

The Dutch Port of Rotterdam registered less bunkering for shipping in 2023 except for LNG fuel with the overall total dropping to 9.9 million tonnes in 2023 compared with 10.6MT in 2022. "The demand for fuel oil, marine gas oil and other fuels was 6.7 percent lower than in 2022. Only bunkering of LNG rose significantly from 406,599 cubic metres to 619,243 cubic metres," the Port said. "This had everything to do with developments in the price of LNG. The demand for bunkers mixed with biofuels dropped from 790,851 tonnes to 751,638 tonnes," the Port added. "The overall decline is mainly caused by fewer sea-going vessels arriving in Rotterdam and because the price of bunker oil was temporarily more favourable in Singapore," it added. The Port Authority also noted that along with the Port of Antwerp-Brugge Authority all bunker vessels by early 2026 have to work with "officially accepted bunker measurement" systems. "With this measure, the port authorities aim to make the ARA bunker market more transparent, efficient and reliable," they added.

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Gastrade is committed to supporting this strategy of diversification and independence of energy sources and transport routes from the historical monopolies....

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- Konstantinos Sifnaios, Managing Director, Gastrade

GTT signs accords for Jovo shipping

French liquefied natural gas storage technology firm and smart-shipping services supplier, Gaztransport and Technigaz (GTT), has signed two technical services agreements for ships owned by Jovo Group of China.

GTT said the contracts covered GTT's assistance and operational support for the LNG carriers operated by Jovo.

The Chinese company owns four LNG carriers, several bought second-hand, and four liquefied petroleum gas (LPG) carriers.

GTT will provide its field expertise for inspections, maintenance, repairs and engineering consultancy.

"Jovo will also benefit from access to GTT's HEARS® emergency hotline, available 24/7, to provide rapid technical assistance to crews," GTT said.

Jovo is based in Guangdong province of southern China where it is one of the main suppliers of LNG and other fuels in the Pearl River Delta area.

The Chinese company is involved in LNG importing, trading and the city-gas business as well as pipeline gas deliveries and operating natural gas filling stations for vehicles.

Jovo notably owns and operates the Dongguan LNG terminal located on Lisha Island in Guangdong.

"It is with great satisfaction that we strengthen our collaboration with Jovo through the signature of two new service contracts," explained Adnan Ezzarhouni, General Manager of GTT China.

Norway's Equinor awards contract for Hammerfest LNG plant to locals

LNG News Editor

Equinor and its partners in the Snøhvit Future project and Hammerfest LNG have awarded a construction and installation contract to domestic company Leonhard Nilsen & Sønner.

The project partners of Equinor are Norway's Petoro, France's TotalEnergies, UK-listed Neptune Energy and Germany's Wintershall Dea.

The Snøhvit Future project includes onshore compression and electrification of the Hammerfest LNG export plant.

Exports

The regulators postponed the start of electrification by two years until 2030 compared with the original schedule and in the interim the plant will continue to run on gas turbines.

The gas turbines will also be maintained for back-up power from 2030 to 2033.

Hammerfest exports around 4.70 million tonnes of LNG per annum and most of the volumes



Snøhvit Future includes electrification of LNG plant

are delivered to European destinations like France, Spain, the Netherlands and Lithuania.

Most feed-gas for Hammerfest comes from a total of 20 wells in the Snøhvit and Albatross fields.

This output is transported to land through a 143-kilometre (90-mile) pipeline and the plant processes around 18.4 million cubic metres (mcm) of natural gas per day.

The Leonhard Nilsen company is headquartered in Andøy in Norway's Nordland county and the work is worth 1.5 billion Norwegian crowns (\$143 million) and will

generate local spin-offs for other areas including Finnmark and Troms.

"We are pleased to award this contract to a company in Northern Norway. For Equinor, it has been important that the Snøhvit Future project should create ripple effects throughout the region," said Trond Bokn, Equinor's Senior Vice President for Project Development.

"The Snøhvit Future project will strengthen Norway's position as a reliable long-term supplier of gas produced with very low greenhouse gas emissions," Bokn added.

Elixir Energy is still progressing with CSG-for-LNG expectations

Elixir Energy, the Australian exploration and production company with coal-seam gas interests in the Gobi Basin of Mongolia, is also making progress with asset development in the Australian state of Queensland where it is hoping to discover sufficient CSG for liquefaction and export.

Elixir has just provided an update on the next stages of its Daydream-2 appraisal well in its 100 percent-owned Grandis Gas Project located in the Taroom Trough of Queensland's onshore Bowen Basin.

"Elixir's technical team and various service providers have been evaluating the data gathered to date. Further inputs are due in the weeks to come from external

laboratories," the company added.

"The discovery of the presence of porous and permeable sandstone reservoirs at 4,200 metres in the Daydream-2 well - which produced gas to surface - has great significance for Elixir's Grandis Project - and for the greater Taroom Trough," said Elixir in statement to the Australian Securities Exchange.

The company said that Daydream-2 was drilled to a total depth of 4,300 metres, which Elixir understands to be the deepest well in Queensland in over a decade.

"The next stage of Elixir's Daydream-2 well program is now imminent, with the expected arrival on site of equipment for the initial stimulation and testing phase in

around a fortnight," said Elixir's Managing Director Neil Young.

"Our technical team's analysis to date indicates a potential new play that could be extensive. Our next stages of work are following to test that, starting with the imminent, comprehensive diagnostic fracture injection test (DFIT) program," Young added.

The company has already signed a data-sharing agreement with LNG operator Santos for the Bowen Basin.

The Elixir-Santos agreement also provides a mechanism to establish a forum for technical discussions about the deep plays in the Taroom Trough.

Australian company backed by African LNG nation Angola has success with Cuban oil field

LNG News Editor

Australian company Melbana Energy, which began production testing in October at its Alameda oil field offshore the north coast of Cuba, has delivered first oil from early production testing and was upbeat on future prospects for the Cuban production sharing contract held by operator Melbana in partnership with Sonangol, the national energy company of African LNG producer Angola.

Cuba's Block 9 PSC is 30-percent owned by Melbana as the operator and the 70 percent balance is held by Sonangol.

Melbana was awarded a 100 percent participating interest in the Block 9 PSC in September 2015 and in May 2020, Melbana agreed to transfer a 70 percent interest in Block 9 to Sonangol in consideration for it funding 85 percent of two exploration wells there.

Melbana shares were quoted on the Australian Securities Exchange on January 23 at A\$0.069 per share, valuing the company at A\$249 million (US\$164M).



Sonangol's LNG plant in southwest Africa. The company is also a big oil producer and has a majority stake in the first Cuban oil field offshore the north coast

Analysts said that the shares have failed to take-off substantially because of Melbana's low stake in the PSC and uncertainty among investors over future extraction and marketing of the oil in communist Cuba.

Angolan ties

Angola, whose LNG export plant has US major Chevron Corp. as its biggest shareholder, has always maintained close relations with Cuba which based military forces in the African nation during the Cold War into the 1980s.

Melbana's latest quarterly activities report, signed by Andrew Purcell, Executive Chairman of Melbana, and by Chris McKeown, Chief Commercial Officer, gave an expert overview of current oil activities offshore Cuba.

Purcell has previously said that he believed that a future Cuban crude oil price would be more than 75 percent of the current West Texas Intermediate US crude benchmark.

Melbana, based in Sydney, said that oil production was run on a test basis to acquire data on reser-

voir and logistics performance.

"Early production from Alameda-2 was completed in the quarter. Production testing was then run for a total of 10 days, twice the total duration of the drill stem test conducted in this unit previously, resulting in 20 tanker loads of oil being produced and delivered to offsite storage," explained Melbana.

"The flow peaked at 1,183 barrels of oil per day and was intentionally choked back to ensure a constant rate for the test period to optimise the collection of reservoir data," the report said.

Performance data

"The extended period of production also provided important performance data on logistical arrangements for the transport and storage of the oil produced," Melbana's report added.

"The conclusions drawn from this analysis have been important factors in the refinement of the development plan, including well design and spacing for this upper sheet reservoir," it added.

Woodside posts revenue rise and record output and confirms merger talks with Santos still ongoing

Woodside Energy, the Australian operator of the North West Shelf and Pluto LNG plants in Western Australia, reported an increase in quarterly revenues due to higher realised prices and supported by record full-year production.

Quarterly revenues for LNG, oil, pipeline gas and condensate sales rose by 3 percent to US\$3.35 billion, up 3 percent from the previous quarter, though were well down on the US\$5.16Bn logged in the same quarter of 2022.

Woodside said that quarterly revenues rose due to higher realised prices, partly offset by lower traded LNG volumes and the timing of oil and condensate sales.

The Perth-based company posted annual revenues \$14.03Bn, down from the 2022 total of \$16.85Bn when prices had surged.

The prices for produced LNG rose to US\$11.50 per million British thermal units versus US\$10.10 per MMBtu in the quarter to September 2023 and US\$20.30 per MMBtu in the same three months of 2022.

Santos merger

Woodside also commented after a long silence on the talks with Australian LNG peer Santos on a possible merger.

"Woodside confirmed in December that it was in discussions regarding a potential merger with

Santos Ltd. The talks are still at an early stage and there is no certainty that the transaction will progress," said Woodside.

"Woodside will be disciplined, conduct thorough due diligence, and will only pursue a transaction that is value-accretive for shareholders," said the comment in the quarterly activities report.

"As we complete our first full reporting year after the merger with BHP Petroleum, we are pleased with the results of our strong combined portfolio," the company added.

Woodside's output for all of 2023 amounted to a record 187.2 million barrels of oil equivalent (513,000 barrels per day), which

was at the top end of production guidance.

Woodside Chief Executive Meg O'Neill said production in the fourth quarter remained strong and helped to take 2023 full-year production to the record.

She said that fourth-quarter production reflected the completion of planned turnaround and maintenance activities at the North West Shelf LNG plant at the Shenzi oil project in the Gulf of Mexico.

"Pluto LNG also maintained its strong production performance, again achieving 99.9 percent reliability during the period," O'Neill noted.