

Algeria increases strategic gas flow for EU after Eni-BP deal

Eni to buy BP's two gas concessions at In Amenas and In Salah in southern Sahara

LNG News Editor

Eni, the Italian energy major and significant liquefied natural gas developer and market participant, said it agreed to acquire natural gas fields in Algeria from UK major BP because of the "great strategic value" they now held.

Eni said it would be buying BP's two gas-producing concessions at In Amenas and at In Salah where the UK company had about 46 percent and 33 percent respectively of working interest in the gas fields.

Sahara volumes

The In Amenas and In Salah assets, which are currently jointly operated BP with Algerian state energy company Sonatrach and Equinor of Norway, are located in the Southern Sahara.

The value of the Eni-BP transaction was not immediately disclosed.

ENI explained that production in both fields began in 2006 and 2004 respectively and in 2021 they produced around 11 billion cubic metres of gas, 12 million barrels of condensates and commercial volumes of liquefied petroleum gas.

"This acquisition has a great strategic value to further contribute to Europe's gas needs and further strengthens Eni's presence in Algeria, a major gas producer and a key country for Eni," said the Milan-based energy company.

Both gas fields and their processing plants had previously been the targets of terrorist attacks in 2013 and 2016 by Al Qaeda in the Maghreb.

The In Amenas gas field was the



In Salah is a venture involving BP, Equinor and Sonatrach

target of the most notorious attack in 2013 when 40 people were killed during a four-day siege and facilities were badly damaged.

The In Salah attack in 2016 was not so serious and did not result in damage or casualties, though the three companies, BP, Sonatrach and Equinor (Statoil at the time) temporarily withdrew their workers.

Eni said the BP deal would allow Eni to increase its portfolio of assets in the country and, jointly with the new contracts for the Berkine South basin and Block 404/208 recently signed, will allow new development opportunities mainly focused on increasing gas production.

Eni is aiming to increase natural gas production in Algeria and boost exports from the North African nation through the existing Trans-Mediterranean Pipeline.

The Trans-Med Pipeline linking Algeria and Tunisia to Sicily and then onwards to the Italian mainland will be a source of increased gas supplies for the European Union to offset the cut-off of pipeline flows from Russia.

Algeria is Italy's second-biggest gas supplier via the Trans-Med Pipeline, which has been in operation since 1983.

Italy is also a buyer of LNG volumes, along with nations like

France, Spain, the UK and Turkey from the Skikda and Arzew LNG export plants on the Mediterranean Coast of the North African state.

The TransMed has a daily capacity of more than 110 million cubic metres, though according to data it currently transports less than 60 mcm.

Algerian gas supplies are also carried to Spain on the Medgaz pipeline via Beni Saf, a town located west of the Algerian port of Oran, to Almeria in southern Spain.

Additionally, LNG producer Sonatrach signed a contract worth \$4 billion in July 2022 relating to supplying the EU with natural gas through further development along with European and US majors of blocks 404 and 208 of the Berkine Basin in Eastern Algeria.

TotalEnergies

The signatories with Sonatrach included Eni, French major TotalEnergies and Occidental Petroleum of the US and that deal covered around 146 wells producing oil and associated gas suitable for export to the EU.

US company Occidental acquired its stakes in the production sharing contract for blocks 404 and 208 of the Berkine Basin when it took over Anadarko Petroleum in 2019.

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Gastech in Milan proves success for many open discussions on LNG and EU gas post-Gazprom

LNG News Editor

The 50th anniversary Gastech Exhibition and Conference on LNG, pipeline natural gas and emerging energies proved a success as a forum for discussions on issues such as the future of Gazprom's ties with the West and projects to replace Russian gas from regions like the East Mediterranean and Africa.

More than 4,000 delegates attended the event and among the speakers were around 180 government ministers and senior company executives from around the world.

Exhibition

Gastech has had a busy Exhibition Hall where 750 companies presented their wares, serves and technologies to the industry.

The inaugural Gastech Conference was held back in 1972 and has continued to develop as a forum for discussions and since the end of Covid-19 restrictions a venue for industry networking.

Klaus-Dieter Maubach, the Chief Executive of Uniper, the main German utility and LNG trader, commented at the conference on the West's future relations with Russia and Gazprom in the light of the invasion of Ukraine.

Asked whether it was possible that Uniper could work again with Gazprom after the end of the conflict with Ukraine, Maubach noted that the company's relationship with Russia stretched back to the 1970s and that he had personally defended Gazprom as a reliable en-



Gastech speakers left-to-right: Uniper's CEO Klaus-Dieter Maubach, Peter Clarke, Senior Upstream Vice-President at ExxonMobil and Octávio Simões, CEO of US firm Tellurian

ergy supplier after the war started with Ukraine in mid-February.

"That, in hindsight, maybe it was even a mistake to think that gas would not be used. Maybe it was just wishful thinking," said Maubach.

"I believe that this partnership is broken and I don't think that we can re-establish that in the next weeks, months and years to come. So, we are focusing on replacing Russian gas," he declared.

Weaponizing

European leaders have accused Russia of "weaponizing" natural gas pipeline supplies via the Nord Stream 1 pipeline and on other Russian pipelines transiting Ukraine.

"There will be a burden for our consumers, also for industry, in the coming years," stated Maubach.

"I have already said a number of times this year and I'm educating also policymakers. Look, the worst is still to come," added the CEO.

"What we see on the wholesale market is 20 times the price that

we have seen two years ago. That is why I believe we need to have an open discussion with everyone taking responsibility on how to fix things," said Maubach.

Russia's Gazprom on September 2 indefinitely halted gas flows to Europe via the Nord Stream connection across Baltic Sea to Germany.

Uniper, as Germany's biggest importer of pipeline gas, has been hit hard by the reduced pipeline flows and is itself seeking alternatives such as LNG and has concluded deals since just before Gastech with companies such as Woodside Energy in Australia.

Another topic of discussion concerned the new natural gas basin in the Eastern Mediterranean from where more LNG will flow from Egypt and where the East Med Pipeline is being developed by three countries and backed by companies such as Italy's Eni.

Guido Brusco, the Chief Operating Officer of Eni, which is a main regional natural gas player with resources offshore Egypt and elsewhere, said at Gastech that the East Med Pipeline was closer to bringing gas to Europe via Israel, Greece and Cyprus.

The East Med Pipeline project will cost an estimated €6 billion (\$5.95Bn) to complete.

The three countries involved signed up to build the pipeline more than a year before the invasion of Ukraine and are now aiming to make a final investment decision by year-end and complete the link by 2025.

In April 2022 the European Parliament voted to keep the East Med Pipeline as a Project of Common Interest so that it remained eligible for EU funding.

The East Med Pipeline was the centre of discussions at Gastech between the Egyptian Minister of Petroleum and Mineral Resources, Tarek El Molla, and the Cypriot Minister of Energy, Commerce and Industry, Natasa Pilides.

"During the meeting, the two ministers discussed joint cooperation projects and the conditions of the oil and gas market in light of the challenges that they face," said a statement.

"They further reviewed the current status of the gas discoveries made offshore Cyprus and how to optimize their exploitation, noting that Cyprus seeks to benefit from Egypt's facilities and infrastructure which will receive Cypriot gas after developing the discoveries which serve the interests of both countries," they added.

The two ministers highlighted the importance of continuing coordination and constructive cooperation between both sides in light of the increasing importance of natural gas supplies for Europe.

African gas

The session also saw key contributions from energy ministers from Ghana, Kenya, Senegal, Zimbabwe and Djibouti who explored the role of natural gas and LNG in helping less well off countries to sustain the drive to growth while reducing carbon-intensive fuels.

Analysts note that African and some poorer Asian nations hold significant oil and gas resources and have not had the means or Western backing to finance them to enjoy the development benefits as the Western nations have had for more than 100 years.

The different circumstances for developing African nations was addressed by Ghana's Minister of Energy Matthew Opoku Prempe.



The East Med Pipeline was discussed by Egyptian Minister of Petroleum, Tarek El Molla, and the Cypriot Minister of Energy, Commerce and Industry, Natasa Pilides

DNV tells Gastech of role in Italy FSRU buys

European classification society, DNV of Norway, said at Gastech in Milan that it had advised Italian natural gas grid and LNG terminal operator SNAM on its acquisition of two floating storage and regasification units (FSRUs) from Golar LNG and BW Gas.

"DNV performed the buyer's technical and environmental due diligence for these important assets, the 'Golar Tundra' and the 'BW Singapore', which will play a key role in Italy's energy security and diversification," said DNV.

The class society noted that both ships can operate as FSRUs and as conventional LNG trading vessels.

Each ship has a storage capacity of 170,000 cubic metres of LNG and a nominal continuous regasification capacity of 5 billion cubic metres per annum.

"Their combined capacity should cover around 15 per cent of Italy's yearly gas needs," said DNV in its Gastech statement.

The Norwegian firm explained that while phasing out Russia pipeline gas imports would cause a drop in overall gas use by up to 9 percent in 2024, it would increase the share of imported LNG into the European gas mix.

SNAM had first agreed at the start of June 2022 to acquire the FSRU "Golar Tundra" from Golar LNG for \$350M.

Then in July 2022, SNAM said it had signed an agreement to buy the "BW Singapore" from BW LNG of Singapore to be financed from its own resources and could cost \$400M, which would be paid in two tranches.

Gastech hears utilities give views on supply, security and transition

LNG News Editor

After the opening day welcoming ceremony there were key panel discussion on "Balancing Near-term Energy Supply and Security Imperatives with Longer-Term Climate Goals" and "Energy Policy in Times of Geopolitical Confrontation".

Speakers from the leading EU utility companies took part, including Thierry Trouvé, head of France's GRTgaz and Stefano Venier, CEO of Italian gas grid and terminals operator SNAM.

Gas markets

GRTgaz CEO Trouvé argued that the unfolding crisis in Ukraine had prompted a renewed move towards greater energy sovereignty.

"We need to review the roots of our gas market in Europe, and we need to strengthen our energy sovereignty in Europe," stated the GRTgaz CEO.

In response to shifting expectations in the natural gas market



GRTgaz CEO: 'Crisis gave back gas sovereignty'

SNAM's Venier said there were challenges for EU import terminals and gas grids.

"When you have to cross the transition and reduce dependence on fossil fuels, then you have created a platform that can be used for other markets in Europe as well," explained Venier.

On energy security and the role of LNG and oil and gas, speakers included Octávio Simões, President and Chief Executive of Tellurian Inc. the US LNG project developer.

"We knew this crisis was coming. People think if the Russian conflict didn't exist, we'd be fine," noted Simões.

He stated that US LNG exports would be an attractive proposition in replacing Russian pipeline gas volumes.

"The integrated model is the next chapter and the last chapter for US LNG, which will make it more flexible and more attractive," stated the Tellurian CEO.

Baker Hughes CEO urged more dialogue on issue of net-zero

Lorenzo Simonelli of US energy services firm and liquefaction equipment supplier Baker Hughes urged more open dialogue about the net-zero issue.

Simonelli warned that without good dialogue around the practicality of net zero there was a high risk of energy poverty among populations.

"There is no silver bullet, you can't just flip the switch to come from one energy to another," he stated.

ExxonMobil view

Another participant in the first-day discussions was Peter Clarke, Senior Vice-President of Upstream Oil and Gas at US major ExxonMobil Corp.

Clarke emphasised the importance of supply diversity to ensure secure and stable consumer

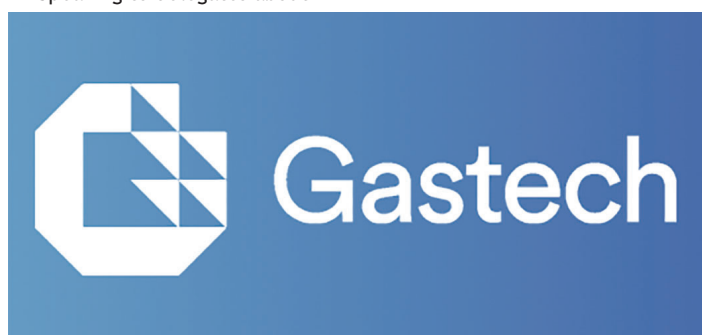
market conditions. "We think of diversity of supply, around infrastructure, but also on the supply side we need to be selecting projects that are most efficient with a minimum GHG footprint," said Clarke.

Gastech's opening ceremony had seen contributions from Italy's Undersecretary of State at Ministry of Foreign Affairs, Manlio Di Stefano, as well as the Mayor of Milan, Giuseppe Sala and others.

Speaking to delegates about

the importance of natural gas to the global energy system, Undersecretary of State Di Stefano, said Italy would play a full alongside its allies.

"Gas plays a key role in the green transition, securing low-carbon energy supply while reshaping the energy mix towards a net zero scenario, and opening up the way for the progressive diffusion of decarbonised and renewable gases," said the Minister.





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NEWS BRIEFS

GTT deal in China

Gaztransport and Technigaz (GTT), the French designer of LNG storage tanks for ships and for onshore, has signed a technical assistance and licensing agreement with Yangzijiang, the largest private shipyard owner in China and enabling the Chinese company to construct vessels using GTT membrane technologies. GTT said that Yangzijiang had already secured an order for four 8,000 twenty-foot unit (TEU) dual-fuelled containerships from Pacific International Lines, a leading shipping company in Asia.

Malaysia gas boost

Energy major Shell said its subsidiary in Malaysia, Sarawak Shell Berhad, had taken a final investment decision with national oil and gas company Petronas to develop the Rosmari-Marjoram natural gas project. The Rosmari-Marjoram fields are located 220 kilometres (137 miles) off the coast of Bintulu where the Petronas LNG export plant is located. The project is designed to produce 800 million standard cubic feet of gas per day from 2026.

Santos CCS plan

Australian energy company Santos, a major shareholder in the Darwin and Gladstone LNG plant in Australia and Papua New Guinea LNG, has been awarded permits to undertake evaluation and appraisal work for the potential storage of carbon dioxide in the offshore Carnarvon and Bonaparte basins, off the coast of Western Australia. The permits will enable Santos to pursue potential carbon capture and storage (CCS) opportunities with its joint venture partners. Santos Chief Executive Kevin Gallagher, said the permits allow the potential to yield additional CCS opportunities.

China National Petroleum Corp and Gazprom agree yuan-roubles gas payments amid Mongolia pipeline plan

LNG News Editor

China National Petroleum Corp. Chairman Dai Houliang and Gazprom's Chief Executive Alexey Miller have held a video conference as part of the Russian Eastern Economic Forum 2022 in Vladivostok and signed an agreement related to natural gas supplies as a plan to put a pipeline through Mongolia to China advanced.

A statement said the new accord was a supplementary to the "Sino-Russian Eastern Route Natural Gas Purchase and Sale Agreement".

Prospects

"The parties considered the course and prospects for the development of interaction between companies in a wide range of areas. It was emphasized that co-operation between Gazprom and CNPC is of a strategic nature and is consistently developing," added the statement.

The meeting discussed the project of pipeline gas supplies from Russia to China along the Far East routes.

It was noted that the main technical parameters of deliveries have already been fixed and Gazprom has started designing the supplementary gas pipelines.

"The parties paid special attention to the Power of Siberia-2 gas pipeline from Russia and the Soyuz Vostok gas pipeline via Mongolia, which will link the Russian and Chinese gas transmission systems," they declared.

Gazprom pointed out that in February 2022, an additional long-term contract for the sale and purchase of natural gas along the Far East route was signed.

"After the project reaches its full capacity, the volume of Russian pipeline gas supplies to China will increase by 10 billion cubic metres per annum and in total will



China National Petroleum Chairman Dai Houliang and his executives speaking on video link to Gazprom counterparts

reach 48 Bcm per annum," said Gazprom.

"Gazprom began to assess the possibility in 2020 of delivering gas to China through Mongolia amounting to 50 Bcm per annum," it said.

"Design and survey work began in 2022 as part of the Soyuz Vostok gas pipeline construction project. It will pass through the territory of Mongolia and will become a continuation of the 'Power of Siberia 2' Russian gas pipeline," stated Gazprom.

Gazprom said that CEO Miller also informed Dai Houliang about the status of work on the project for more gas supplies via the "Power of Siberia" gas pipeline.

"The linear part of the gas pipeline from the Kovyktinskoye field in the Irkutsk region to the Chayandinskoye field in Yakutia is almost 100 percent complete," explained Gazprom.

"As planned, before the end of this year, gas from the Kovykta field will begin to flow to 'Power of Siberia'. Thus, the fulfilment of Gazprom's contractual obligations to increase the volume of gas supplies to China in 2023 will be ensured," added St Petersburg-based Gazprom.

Another Russian natural gas company Novatek has contracts and investments from CNPC in its Yamal LNG plant and future Arctic LNG II project. CNPC through its Hong Kong-listed affli-

ate, PetroChina, also has stakes in LNG Canada and Mozambique LNG.

Gas payments

Gazprom said that also during the meeting, additional agreements were signed relating to the long-term Gas Purchase and Sale Agreement along the "eastern route".

In particular, there was a transition to making payments for Russian gas supplies to China in the national currencies of the countries - roubles and yuan.

"The new payment mechanism is a mutually beneficial, timely, reliable and practical solution. I believe that it will simplify the calculations, become an excellent example for other companies, and give an additional impetus to the development of our economies," stated CEO Miller.

The Eastern Economic Forum 2022 is taking place in Vladivostok from September 5 to September 8 under the Russian title of "Towards a multipolar world".

Gazprom noted that state oil and gas company CNPC was Gazprom's main partner in China.

Gazprom and CNPC had signed their 30-year Gas Purchase and Sale Agreement back in 2014 for the Eastern Route (through the "Power of Siberia" gas pipeline) amounting to 38 Bcm per year and first deliveries to China began in December 2019.

Energy trader Axpo granted \$4Bln credit line by Swiss Government because of hedging cover

LNG News Editor

Switzerland's Axpo, the largest producer of renewable energy and an international leader in energy trading and marketing, has been granted a subordinated credit line of up to 4 billion Swiss francs (\$4.07Bln) because of "unprecedented turmoil" on European power markets.

Axpo said future developments in the energy and power markets remained "unpredictable" and the Swiss government at the request of Axpo granted the company the credit line.

Provisions

"With this measure, Axpo is making further provisions to continue to deliver its contribution to the security of supply in Switzerland, even if the worldwide energy crisis escalates further," stated the company headquartered in Baden, Switzerland.

The international structure of the Axpo Group means that foreign-based subsidiaries such as Axpo Iberia trade in natural gas and LNG.

However, in power trading Axpo has to sell its production from Swiss power plants, around 25 terawatts hours per annum, via wholesale channels, and it hedges prices up to three years in advance to guard against falling prices and to smooth out fluctuations for the benefit of Swiss energy suppliers and their customers.



A Swiss innovation is the use of solar panels in the Alps

To protect buyers and sellers, collateral is required on long-term power supply contracts.

These funds are returned to the company as soon as the contract has been fulfilled, for example, when the agreed volume of power has been supplied.

The amount of funds depends largely on the electricity price level.

Collateral margins

When prices increase, so do the collateral requirements. Collateral margins are calculated on each trading day and are normally due on the following day.

However, the extreme price increases of recent months, particularly in recent weeks, have led to a massive rise in liquidity requirements across the European energy sector.

"In this challenging environ-

ment, Axpo once again benefits from its broad diversification in terms of geographical markets and range of business activities," it added.

"Compared to September 2021, electricity wholesale prices have increased 10-fold, with price fluctuations reaching new records in the past few days," said Axpo.

"This extreme situation and its continuing unpredictability have had far-reaching impacts on the liquidity requirements of all market players," Axpo explained.

Axpo said the Swiss Federal Council and Finance Ministry approved this request on September 5.

Axpo and other European electricity companies hedge their own production several years in advance.

"This is a widespread and internationally recognised hedging

strategy which Axpo applies conservatively, selling the electricity produced by its Swiss power plants," said the company.

Power purchases

Axpo pointed out that its customers also benefit as Swiss transmission grid operators with multiple end-users, large industrial operations, or Small and Medium Enterprises (SMEs) can secure a guaranteed energy supply at a predictable price through long-term Power Purchase Agreements.

During the current situation, Axpo customers that have concluded such agreements benefit from comparatively low, stable prices and do not have to purchase electricity at today's record highs.

Axpo Chief Executive Christoph Brand explained that while in the short-term the company was confronted by challenges of "an historic energy crisis" Axpo's long-term outlook remained positive.

"We have therefore made the responsible, proactive decision to apply for this additional financing," stated Brand.

"By taking this action, we want to ensure that the company can continue to make its vital contribution to Switzerland's security of energy supply, even if the highly uncertain market situation intensifies further as we approach the winter half-year," he added.

Axpo's Swiss electricity mix consists of hydropower, biomass and nuclear energy.

Axpo has also expanded its renewables base in Spain, Italy and Poland with a total output of 4 gigawatts.

The company has also realised further projects in France, where it is among the leaders in the development and construction of solar plants with Urbasolar in Montpellier.

In wind power, Axpo's subsidiary Volkswind completed more new facilities in France during 2022.

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POSCO recovers in aftermath of typhoon

South Korean steelmaker and LNG importer POSCO has been engaged in damage restoration work after a typhoon and was planning to re-start the Pohang steel complex as the gas-fired power plant using regasified LNG is returned to normal capacity.

LNG imports for POSCO come into the Gwangyang LNG import terminal, owned by the steel-maker.

“Due to the typhoon damage, underground facilities in many areas of the steelworks were flooded,” stated POSCO.

POSCO said a fire was also caused by a gas release at the steel plant caused by a power outage due to the typhoon.

“Extensive draining of underground facilities was needed and the local Fire Department supported the work with eight large water pumps, while three Korean shipbuilding companies, including Hyundai Heavy Industries, provided a total of 78 water pumps and emergency generators,” explained POSCO.

“During the Chuseok (harvest festival) holiday, employees of the Pohang steel mill, as well as employees of the Gwangyang Works, were supporting recovery and all maintenance within the Works will be completed within the holiday period,” the company added.

The Pohang facility using regasified LNG power was built as the government at that time sought to make the nation an industrial superpower.

The Gwangyang LNG terminal was commissioned in 2005 with more than 3 million tonnes per annum of capacity. It was the first LNG facility in the country not controlled by Korea Gas Corp.

US oil and gas assets holder Devon signs FLNG partnership with Delfin

LNG News Editor

Delfin Midstream, the US liquefied natural gas developer, and US oil and gas exploration and production company, Devon Energy, have entered into an LNG export partnership.

The companies agreed to a strategic investment deal and a Heads of Agreement that would give Devon up to 2 million tonnes per annum of liquefaction capacity.

Offshore Louisiana

The Delfin floating LNG project is based on the deployment of vessel-borne liquefaction facilities with other moored production and storage vessels and recently asked the Federal Energy Regulatory Commission to extend the deadline for the onshore completions of the venture to the 28th of September 2023.

The Delfin developers have already been awarded a deepwater port licence by the US Maritime Administration (MARAD) and the project has been approved by the US Coast Guard.

Delfin is additionally seeking to construct, operate and maintain certain onshore metering, com-



Devon Energy CEO Rick Muncrief delighted with deal

pression, and piping facilities located onshore in Cameron Parish in Louisiana.

Delfin, based in Houston, Texas, said the HOA provided the framework for finalizing a definitive long-term tolling agreement representing 1 MTPA of liquefaction capacity in Delfin's first FLNG vessel offshore Louisiana, with the ability to add an additional 1 MTPA in Delfin's first or a future FLNG unit.

In addition to providing Devon with up to 2 MTPA of total liquefaction on a long-term basis, the HOA also provides opportunities for additional future equity investments in Delfin.

Devon is a leading independent E&P company in the US with a pre-

mier multi-basin portfolio and a world-class acreage position in the Delaware Basin of West Texas and southern New Mexico.

“Our decision to invest in Delfin was the result of a thorough process intended to create additional pricing diversification for our natural gas portfolio and deliver a sustainable and capital efficient return for our shareholders,” said Rick Muncrief, Devon's President and CEO.

“Devon has a strong track record of finding best-in-class midstream and downstream solutions for our production and we are excited to partner with Delfin to meet the need for safe, clean and reliable energy,” stated Muncrief.

Singapore trading arm of Australian producer Woodside signs US deal

Commonwealth LNG, the US developer of an export plant in Cameron Parish in Louisiana, and the Singapore trading unit of Australian liquefaction plants operator Woodside Energy, have signed two binding LNG Sale and Purchase Agreements while Woodside also signed an accord to supply cargoes to Uniper of Germany.

The US SPAs are for the supply to Woodside of up to 2.5 million tonnes per annum of LNG over 20 years from Commonwealth's export facility.

Woodside said that first US deliveries are expected to commence in mid-2026.

The SPAs will become fully effective upon the satisfaction of customary conditions including an affirmative final investment decision on the project.

“We're very pleased to have Woodside involved in our project,” said Commonwealth Executive Chairman Paul Varello.

“Woodside is known throughout the LNG industry for its keen technical capabilities and commercial agility,” he added.

“These SPAs establish Woodside as a cornerstone customer in the development of Commonwealth LNG,” Varello stated.

Woodside Chief Executive Meg

O'Neill said the agreements provided the basis for a long-term partnership with Commonwealth LNG.

“The agreements secure for Woodside low-cost LNG volumes in the Atlantic Basin in a period of expected strong demand as Europe seeks alternatives to Russian pipeline gas,” she declared.

Woodside's Singapore subsidiary then entered into a flexible long-term SPA with Uniper Global Commodities, the unit of the Germany utility, for Woodside to supply LNG from its global portfolio into Europe, for a term up to 2039, commencing in January 2023.



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Australia-listed Energy World Corp. hopes to advance with Philippines and Indonesia projects

LNG News Editor

Energy World Corp., the Australian-listed developer of LNG and power projects in the Philippines and Indonesia, has apologised to shareholders for the slow progress and pointed out that just by almost standing still the assets had gained in value.

The company is developing four projects that it believes are now uniquely positioned to participate in the global energy shift and expected increased demand in Asia.

Efforts promised

The EWC-led ventures are a Philippines LNG import hub, a Philippines power business, an Indonesian LNG production project and an Australian gas and LNG business.

The annual review and earnings report was signed by Director Stewart William Elliott and he acknowledged the views of some shareholders.

"Whilst I understand and share shareholder frustrations that the projects have taken longer to develop than we anticipated, I am now confident that we can move



Partly completed LNG Hub at Pagbilao in Quezon province

quickly to complete our projects in the Philippines and Australia," said Elliott.

"Indonesia will follow once we have clarity on LNG distribution arrangements," he explained.

"I also recognize the criticism that we do not communicate with the market as frequently as many would like. This has been in part because we have been limited in what we could report from delays as a consequence of certain events outside our control (such as a forestry issue, and delays in a substation both now resolved)," added Elliott.

"We believe the work we have completed at a cost of over US\$1.4 billion has created infras-

tructure projects of significant regional importance and that as we bring them into production their value will be recognized and unlocked," Elliott declared.

The company said that assets under construction had increased in value by \$57.6 million during the financial year.

Sengkang LNG in Indonesia had added \$18.2M to its value relating to construction progress and capitalised interest.

The Philippines Power Project was worth \$22M more because of more building and interest.

The Philippines LNG Hub Terminal had added \$6.3M to its value for the same reasons, while the Gilmore LNG and other project in

Australia were worth \$11.1M more.

EWC said revenues for the year amounted to \$146.0 million, a 2.3 percent decrease from the \$149.4M posted in fiscal 2021.

Net profit increased from \$1.8M to \$18.9M, representing a number of one-off developments that occurred during last financial year which were previously disclosed.

"In Indonesia, the revenue from gas sales decreased by \$12.4M due the previously mentioned disposal of a 49 percent participating interest, effective March 2021," said EWC.

"The revenue from power increased by \$8.8M compared to fiscal 2021 due to the recovery from the impact of Covid-19 on power demand in South Sulawesi," it added.

EWC said that while in the Philippines there were several LNG import and floating regasification facilities being developed, none had been brought into operation, and only two are as advanced as EWC's partly completed onshore project on Pagbilao island in Quezon province.

Rotterdam's Gate LNG terminal proceeds with open season to test interest and issues details

The Dutch Gate LNG import terminal in Rotterdam, a joint venture between Dutch utility Gasunie and global storage company Royal Dutch Vopak, is proceeding with its open season to gauge market interest in an additional 4 billion cubic metres per annum of capacity.

As a first step, the operating company, Gate Terminal BV, is inviting market parties to formulate non-binding expressions of interest (EOI).

Procedure

Following signature of a confidentiality agreement (for which Gate will provide the draft) parties can indicate in a free format their non-binding but "bona fide" inter-

est in capacity at the Gate facility.

"The EOI should at least mention the required capacity (maximum 4 Bcm per year), required duration (at least 10 years), required start-up date (between 1 April 2026 and 1 April 2028) and the required ultimate date by which the condition precedent is an investment decision," explained Gate Terminal.

The company added that participating in this non-binding phase is a requirement to participate in the binding phase which is tentatively scheduled from Monday 14 November 2022 until Friday 16 December 2022.

Gate Terminal said that allocation rules would be announced

prior to the binding phase.

Conditions

"Each party will bear its own costs associated with the open season. No rights can be derived from participating in the process," it added.

The company may also change the process as long as no binding throughput contracts are in place.

Annual capacity is currently 12 Bcm on a firm basis and in addition 4 Bcm on an interruptible basis is available in the future.

There are also moves under way to increase the truck-loading capacity at the Rotterdam facility.

Gate Terminal has said that in 2022 the number of truck-loading

operations had been higher each month than in the corresponding months of 2021.

This resulted in congestion and as a mitigation Gate Terminal has used its spare truck-loading bay.

In addition to LNG carrier deliveries, Gate Terminal also offers a portfolio of other services including back-loading services for LNG vessels, ranging from small bunker vessels to large LNG carriers and the loading of LNG containers.

The Rotterdam terminal started operations in 2011 and analysts note that expansion in the Netherlands has been slower than other facilities around Europe.

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US LNG exports to rise by year-end

The US Government expects higher-than-average Henry Hub natural gas prices as demand remained high and inventories low while shipments from the nation's LNG export plants would increase by 17 percent in the fourth quarter of 2022 compared with the previous three months as Freeport LNG resumes operations in November and Cove Point LNG has a scheduled closure in October.

Spot Henry Hub natural gas prices would continue to climb this winter to reach a monthly average of \$9.10 per million British thermal units in January 2023, according to the Energy Information Administration's short-term outlook.

"That price will be the highest inflation-adjusted monthly average price since 2008," stated the EIA.

The agency forecasts that US LNG exports would average 11.7 billion cubic feet per day during the fourth quarter of 2022. "We also forecast LNG exports will average 12.3 Bcf per day in 2023," said the report.

The EIA said that factors that would affect the volume of LNG exports in the coming months included a planned outage at the Cove Point plant in Maryland in October 2022 and Freeport LNG in Texas resuming partial operations by mid-November or late November as repair work continued after the June fire at the facility.

US consumption of natural gas is expected to average 86.6 Bcf per day in 2022, up 3.6 Bcf per day from 2021, driven by increases across all consuming sectors.

However, the EIA said it expected consumption to fall by 1.9 Bcf per day in 2023 because of declines in the industrial and electric power sectors.

Alexandroupolis FLNG chooses Italian and Greek project expertise

LNG News Editor

Registro Italiano Navale (RINA), the Italian maritime classification society, and the Italian Asprofos oil and gas design consultancy, have been awarded a contract to help manage the deployment of a floating LNG terminal being developed in eastern Greece to supply the Balkans region.

RINA, based in the port of Genoa, and Greek consultancy Asprofos, have secured a contract to provide project management consultancy (PMC) services for the Alexandroupolis Independent Natural Gas System (INGS) venture, controlled by the Greek Company Gastrade SA.

Main shareholders in Alexandroupolis FLNG project include Gastrade Chairwoman Elmina Copelouzou, Greek shipping company GasLog, Public Gas Corporation of Greece (DEPA) and the Bulgarian gas company Bulgartransgaz.

The project is aimed at increasing security and diversification of gas supplies in the whole region of Southeast Europe.



GasLog FSRU will be stationed in the north-east of the Aegean Sea and about 17.6km from coastal town of Alexandroupolis

It will consist of a permanently moored floating storage and re-gasification unit (FSRU) and a pipeline system of 28 kilometres connecting the floating unit to the Greek National Natural Gas Transmission System (NNGTS).

The FSRU will be stationed in the north-eastern part of the Aegean Sea and about 17.6km from the coastal Greek town of Alexandroupolis.

The GasLog vessel will have a storage capacity of 153,500 cubic metres, a nominal gas send out rate of 625,000 cubic metres per hour and a peak gas send-out rate

of up to 944,000 m³ per hour.

A statement noted that the Alexandroupolis project is being financed through the joint venture's own resources with co-financing from public funds, the National Bank of Greece and shareholder equity.

Public funds

Public funds will be provided through the Greek Public Investment Programme, partly through national participation and partly through the European Regional Development Fund (ERDF).

Germany chooses consortium to develop nation's fifth LNG FSRU

The German government has selected a consortium to jointly develop and deploy a fifth floating import facility offshore the leading European Union economy for liquefied natural gas to replace Russian pipeline gas volumes.

Development company Tree Energy Solutions (TES), along with the German utility E.ON and French power player industry player Engie, were chosen by German Federal Ministry of Economics and Climate Protection to have another floating storage and re-gasification unit on line in 2023.

US supplied

The fifth FSRU in Germany will have an annual importing capacity

of about 5 billion cubic metres to replace 5 percent of the nation's annual consumption of natural gas and to accelerate the process of energy independence.

Engie is responsible for chartering of the FSRU on behalf of the consortium and for part of its LNG supply.

The FSRU, which will be chartered from US FLNG specialist Excelerate Energy of Houston, Texas, will put another vessel at the North Sea port of Wilhelmshaven.

The German Federal Minister for Economic Affairs and Climate, Robert Habeck, said that by importing LNG the country would make itself "less dependent" on imports of Russian gas.

"All steps that free us from the uncertainty of Russian imports as quickly as possible are more necessary than ever in these times. At the same time, we are accelerating the import of green hydrogen in parallel, making Wilhelmshaven an important landing point for safe and sustainable energy in Europe," he said.

The EU firm TES has an ambitious plan to build what it calls the "largest Green Energy Hub in Europe to convert large amounts of renewable electrons from sunny and windy locations into green hydrogen and affordable, renewable gas" at the German port.



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

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Clean Energy Fuels performs first bunkering in California for LNG-powered Pasha Hawaii ship

LNG News Editor

Clean Energy Fuels Corp. the California-based supplier of liquefied natural gas made from waste to 540 filling stations across the US and Canada and to commercial customers, supplied fuel for the first bunkering with LNG of shipping group Pasha Hawaii's new LNG-powered containership, the "George III".

This was the first LNG bunkering of a container ship on the US West Coast.

Partners

Clean Energy said it worked with World Fuel Services and West Coast Clean Fuels to supply the ship with over 300,000 gallons of the clean fuel.

Pasha Hawaii's "George III" is 774-foot containership operating between Long Beach and Oakland in California and Honolulu in Hawaii.

It is the first of three LNG-powered ships that the domestic shipping company is putting into service.



Pasha Hawaii's new LNG-fuelled vessel the 'George III'

The three ships are expected to consume 105 million gallons of LNG fuel over the next five years.

"The air quality around the Ports of Long Beach and Los Angeles is some of the worst in the country because of in large part the very dirty marine fuels that have been traditionally used by containerships," said Andrew J. Littlefair, President and Chief Executive of Clean Energy.

"The move by Pasha to add ships that operate on clean-burning LNG is one the most forward-thinking and environmentally-progressive actions taken in the maritime industry," added Littlefair.

"We congratulate Pasha on their first successful bunkering operation and look forward to many more as Pasha continues to add the other LNG-powered ships to their fleet," he declared.

Clean Energy noted that LNG-powered ships achieve 99.9 percent reduction in diesel particulate matter and sulfur oxide emissions, 90 percent less nitrogen oxides and a 25 percent reduction in carbon dioxide compared to ships running on traditional fuels.

The LNG that powers the Pasha Hawaii container ships is supplied by the Clean Energy plant in Boron,

California, the only one of its kind in the state.

Because of the increase in demand for LNG by Pasha and others, Clean Energy is in the process of expanding its Boron LNG plant by adding a third production Train, which will increase capacity by 50 percent when completed.

The "George III" is scheduled to bunker every second week at the Port of Long Beach.

The second Pasha ship to operate on LNG, the "Janet Marie", is expected in late 2022. The third Pasha ship is expected to be deployed in mid-2023.

Commissioning

Before the LNG-powered vessel arrived at the Port of Long Beach, Clean Energy supported Pasha in the commissioning of the ship.

Clean Energy worked at the shipyard in Brownsville, Texas, to cool down the ship's LNG storage tank to cryogenic temperature and then performed two bunkering operations to load LNG into the ship tanks.

LNG bunker prices move to records in Rotterdam while orders still rise for LNG-fuelled ships

European maritime classification society DNV said that there was still momentum in orders for LNG-fuelled vessels from ship owners in the month of August even as LNG bunker prices hit record levels in ports such as Rotterdam in the Netherlands.

The DNV report said there were currently 827 confirmed LNG-powered ships and 229 additional LNG-ready ships, while LNG bunkering infrastructure was continuing to be developed worldwide.

Advances

DNV said that car carriers broke through the 100 confirmed ships line to 104 and containerships moved above the 200 ships mark

to 209. That's as LNG priced in fuel oil terms at Rotterdam hit record levels of around \$4,545 per tonne on September 2 versus about \$3,255 per tonne on August 1.

Among other emissions-reducing fuels, Ultra Low Sulfur Fuel Oil (ULSFO) at the Dutch port declined slightly during the period and was priced on September 2 at around \$990 per tonne compared with \$1,010 per tonne in mid-August.

According to the latest figures from DNV's Alternative Fuels Insight (AFI) platform, 13 LNG vessels were added in August.

However, the increase on the database will only be 11 additional orders, as the electrification of

the Norwegian ferry sector continues, evidenced by two more ferries being retrofitted for pure battery operations and thus moving to another category.

The total order figure for the year to date has therefore reached 173, with the last month seeing a mix of smaller and larger vessels ordered.

Perfect snapshot

"This month's update is a perfect snapshot of the current alternative fuels trend, and clear evidence of the diversified fuel mix predicted.," explained Martin Wold, Principal Consultant in DNV's Maritime Advisory business.

"Electrification will continue to

happen, where technically feasible, meaning for small ships and on short crossings," said Wold.

"LNG remains the preferred low carbon solution, despite current gas pricing which we must assume will prevail for some time," he added.

"We are also witnessing the start of the diversification into methanol fuel on trades where there is sufficient confidence that supply can be made available on a reasonable time scale. For regional and international trading ships LNG and methanol is likely to be the short- to mid-term preference going forward," stated Wold.