

German onshore LNG terminal starts building backed by experts

Project has formally started construction using Spanish regasification terminal expertise at Stade
LNG News Editor

A German onshore LNG import terminal project has formally started construction using Spanish regasification terminal expertise at Stade, on the Elbe Estuary between Hamburg and Cuxhaven.

The project called the Hanseatic Energy Hub has just held a ground-breaking ceremony at the site of the project and attended by executives of the venture and politicians.

Enagás, the Spanish LNG terminal owner, is backing the Stade LNG terminal along with the Hamburg-based terminals and storage company, the Buss Group GmbH along with the main customer, the multinational Dow chemicals group. Another shareholder is the Partners Group infrastructure fund.

Federal role

The Hanseatic Hub event speakers included the Chief Minister of the German state of Lower Saxony, Stefan Weil, and Jozef Síkela, the Minister of Industry and Trade of the Czech Republic, a member of the 27-nation European Union that will hold regasification capacity at the German facility.

"Following the first floating LNG terminal, Germany's first land-based liquefied natural gas terminal is now also being built in Lower Saxony," said Weil in reference to the Wilhelmshaven floating terminal on the state's North Sea Coast.

"Our federal state is playing a key role in the expansion of infrastructure to import energy," said Lower Saxony Minister Weil.



Hanseatic Energy Hub has ground-breaking ceremony at the site

The statement continued that besides the two German energy and utility companies, EnBW and SEFE GmbH, which have respectively booked annual capacities of 6 billion cubic metres and 4 Bcm at the Stade terminal, so has the Czech energy company ČEZ, which has secured long-term import rights for 2 Bcm per annum.

Czech Minister Síkela said his country was looking forward to receiving its own LNG supplies via the Stade onshore terminal.

"We are constantly working to ensure the best possible future for our energy industry in the Czech Republic," Síkela explained.

"Capacities for importing LNG from overseas are also an essential part of all this. After securing capacity in the floating LNG terminal in the Netherlands, we also managed last autumn in cooperation with ČEZ to secure capacity in the first German land-based terminal, Stade," he added.

Czech energy security

"In three years it will contribute to covering up to a third of today's Czech consumption. Thanks to the convenient location, the terminal can also contribute to the reduction of fees for transporting gas to the Czech Republic," Síkela stated.

Jan Themlitz, Chief Executive

of the Hanseatic Hub project at Stade said that "after six years of planning and permitting", the construction phase has now started.

"Privately initiated and funded we are benefiting from the vast experience of our shareholders. Partners Group is one of the largest private investors in the infrastructure sector and Enagás, Europe's leading LNG-terminal operator, will be assuming operational responsibility and is teaming up with Dow, the ideal industrial partner on the site in Stade," said Themlitz.

"As an initiator, the Buss Group has also played a key role in driving the project forward and bringing the shareholder-team together," the CEO added.

Spanish role

Técnicas Reunidas, the Madrid-based engineering company, will provide Spanish expertise in leading the construction consortium for the terminal with completion set for 2027.

A Spaniard, Alejandro Marjalizo, has additionally been appointed as the Chief Technical and Operations Officer of the project and is a member of the Hansiatic Hub Management Board, reporting directly to CEO Themlitz.

UNLIMITED AGENDA

CORPORATE



Aramco follows up US LNG deals with contracts of \$25Bln to increase gas output **2**

ENGINEERING

Wood chosen as lead consultant for Sunrise Timor Sea LNG study **3**

IMPORTS

Egypt to seek ethane imports from US made from shale gas to avert plant shortages **5**

TRANSACTIONS

New Fortress Energy agrees to sell small Florida LNG plant located in Miami **6**

PROJECTS

Texas LNG plant for Brownsville owned by Glenfarne Energy Transition advances **7**

UPSTREAM

While Saudis sign LNG deals with Texas they have again proved riches **8**

Saudi Aramco follows up US LNG deals with contracts worth \$25Bln to increase gas output

LNG News Editor

Saudi Arabian Oil Company (Aramco), which recently signed two US LNG accords in Texas, has awarded contracts worth \$25 billion to boost its own strategic natural gas production in the Middle East Kingdom.

The contracts relate to phase two development of the vast Jafurah unconventional gas field, phase three expansion of Aramco's Master Gas System, new gas rigs and ongoing capacity maintenance.

The Dhahran-based company has awarded 16 contracts, worth a combined total of around \$12.4 billion for phase two development at the Jafurah field.

"The work will involve construction of gas compression facilities and associated pipelines, expansion of the Jafurah Gas Plant including construction of gas processing trains, and utilities, sulfur and export facilities," said Aramco.

Part of the contracts will involve construction of the company's new Riyas Natural Gas



The Dhahran-based company held a signing ceremony

Liquids (NGL) fractionation facilities in Jubail.

Lump-sum awards

Aramco explained that another 15 lump-sum turnkey contracts, worth a combined total of around \$8.8Bln, had been awarded to commence the phase three expansion of the Master Gas System to delivers natural gas to customers across the Kingdom of Saudi Arabia.

The expansion, being conducted in collaboration with the Saudi Ministry of Energy, will increase the size of the network and

raise its total capacity by an additional 3.15 billion standard cubic feet per day of natural gas by 2028, through the installation of around 4,000 kilometres (2,485 miles) of pipelines and 17 new gas compression trains.

An additional 23 gas rig contracts worth \$2.4Bln have also been awarded, along with two directional drilling contracts worth \$612 million.

The company noted that 13 well tie-in contracts at Jafurah, worth a total of \$1.63Bln, had been awarded between December 2022 and May 2024.

"These contract awards demonstrate our firm belief in the future of gas as an important energy source, as well as a vital feedstock for downstream industries," said Amin H. Nasser, Aramco's President and Chief Executive.

"The scale of our ongoing investment at Jafurah and the expansion of our Master Gas System underscores our intention to further integrate and grow our gas business to meet anticipated rising demand," he stated.

"This complements the diversification of our portfolio, creates new employment opportunities, and supports the Kingdom's transition towards a lower-emission power grid, in which gas and renewables gradually displace liquids-based power generation," Nasser added.

Texas LNG contracts

The Saudi domestic natural gas expansion projects are advancing along with moves to secure global LNG volumes.

Gazprom outlines recovery path after losses as dividends scrapped amid Asia market expansions

Gazprom shareholders have just held their annual general meeting and despite Western sanctions wiping out profits in the past year and leading to a net loss, one of the world's largest gas companies has started rebuilding new markets to replace the European Union.

Gazprom shareholders firstly approved a decision not to pay dividends for the previous year at their AGM held on June 28, 2024.

Gazprom had posted a net loss attributable to shareholders under International Financial Reporting Standards (IFRS) for 2023 for the first time since 1999.

This amounted to 629 billion Russian roubles (\$7.3 billion).

Revenues had decreased to

8,541 trillion roubles (\$99.6Bln) last year from 11.673 trillion roubles (\$136.2Bln) in 2022.

Debt ratio

The ratio of net debts to gross earnings (EBITDA) rose to 2.96 from 1.07.

Gas production by the Gazprom group amounted to 355.23 billion cubic metres in 2023, which was 14 percent less than in the previous year.

Gazprom's natural gas output in 2022 had amounted to 412.6 Bcm, while in 2021 it totalled 514.8 Bcm.

Pipeline natural gas deliveries from Russia to the EU had amounted to about 200Bcm, covering 38 per-

cent of EU demand, before the Ukraine war and sanctions.

However, Gazprom explained how China alone would be taking around 48Bcm of the company's gas while other projects have been previously outlined to supply a gas hub in Turkey and to create another gas hub in Iran.

In his address to shareholders, Chief Executive Alexey Miller said that beginning of 2024, Gazprom had started implementing a project that would connect gas transportation systems in the West and East of Russia.

West-East infrastructure

"In early 2024, we began implementing a project that will connect

gas transportation systems in the West and East of the country," Miller explained.

"This will increase the flexibility of gas supply to Russian consumers and will create new opportunities for gasification," he added.

Miller said that Gazprom was continuing with full-scale gasification of cities and villages across Russia's regions.

"Gasification of the country's regions remains a priority for the development of the domestic gas market. Currently, 78 of Russia's constituent regional entities are supplied with natural gas," said the CEO.

GTT gets order from China for newbuild

Gaztransport and Technigaz (GTT), the French maritime LNG storage technology company, has received another order from the China Merchants Heavy Industry shipyard in the eastern province of Jiangsu for the tank design of a new LNG carrier as its orders stack up.

GTT said the order was for the tank design of a new LNG carrier on behalf of Danish ship-owner Celsius.

The Paris-based company said that it would design the tanks of this vessel, which will offer a total cargo capacity of 180,000 cubic metres, and will be fitted with the Mark III Flex membrane containment system.

GTT said that delivery is scheduled for the third quarter of 2027.

At the end of June 2024 GTT received a second wave of orders from Hudong-Zhonghua Shipbuilding for 10 more vessels as part of QatarEnergy's "Hundred Ships Programme" to handle the deliveries from multiple expansion projects in the Arabian Gulf.

That GTT order for 10 large LNG carriers brought to 18 the number of Qatari LNG vessels ordered from China with the new generation of storage tanks.

GTT said it would design the tanks for these 10 very large LNG carriers, which will each have five tanks with a total capacity of 271,000 cubic metres capacity.

The tanks will be fitted with the No. 96 Super-plus membrane containment system developed by GTT.

Delivery from GTT is scheduled between the first quarter of 2030 and the fourth quarter of 2031.

Wood chosen as lead consultant for Sunrise Timor Sea LNG study

LNG News Editor

UK-based engineering firm Wood Plc has been chosen as lead consultant for an independent study of the next big potential Asia-Pacific LNG export project, the Greater Sunrise Development using gas resources from the Timor Sea.

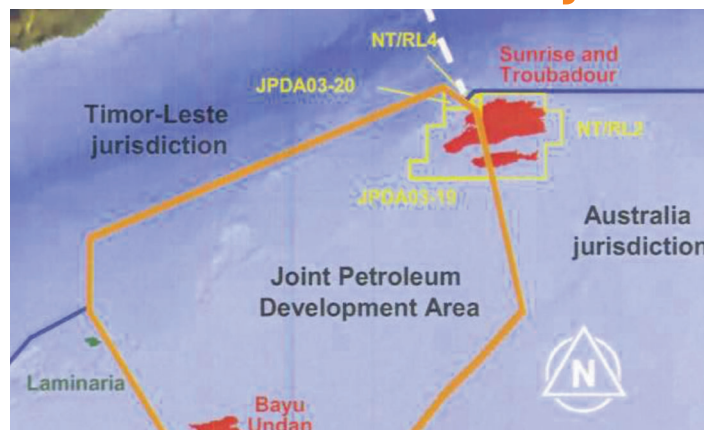
The independent study will be conducted on behalf of the Sunrise Joint Venture comprising the island nation of Timor-Leste and its energy company Timor GAP, Australian LNG producer Woodside Energy and minority shareholder Osaka Gas of Japan.

Gas fields

"Wood will deliver a comprehensive concept study for the Greater Sunrise Development, considering engineering, technology, financing, commercial structures, fiscal, environmental, health and safety and socioeconomic drivers including local content," Wood explained.

The study is expected to be completed no later than the fourth quarter of 2024.

"This is an important concept



Greater Sunrise Development using joint venture resources

study for the Greater Sunrise Development," said Azad Hessamodini, President of Consulting at Wood.

"We are delighted to support and deliver the work at pace to ensure the SJV has the impartial insights to advance this regionally significant project," Hessamodini added.

Wood noted that the firm has completed over 100 LNG feasibility studies globally, providing technical consulting and advisory services.

Talks between Woodside, the Australian government and Timor-

Este on the future of a Greater Sunrise LNG project have continued intermittently for years and now the project is moving forward.

The Greater Sunrise gas fields are located about 150 kilometres (93 miles) off Timor-Leste and 450km northwest of Darwin in Australia's Northern Territory.

The resources of the Sunrise and Troubadour gas fields that would be developed contain contingent resource (2C) of 5.3 trillion cubic feet of dry gas and 226 million barrels of condensate.

Gasunie issues expressions of interest in long-term gas storage

Gasunie, one of the main LNG importers in the Netherlands with global storage giant Vopak, said the company's EnergyStock subsidiary has issued a call for "expressions of interest" in long-term flexibility Dutch gas storages services.

The Gasunie unit's main facility is located in the north of the Netherlands and connected to the Dutch gas transmission network at the heart of the Dutch Title Transfer Facility (TTF) benchmark gas market.

Non-binding phase

"In this turbulent energy market, EnergyStock has experienced scarcity of gas storage services and a market demand for long-term

contracts," the company explained.

"In order to satisfy this demand and give market parties the opportunity to establish certainty in uncertain times, EnergyStock will offer long-term flexibility services for a duration of five to 10 years, with effect from Storage Year 2025," the statement from Gasunie explained.

"As a first step, EnergyStock invites interested market parties to formulate a non-binding 'Expression of Interest' for long-term flexibility services," said Gasunie.

"This process starts on July 2 and interested parties are asked to express their interest no later than 31 July 2024," it added.

In addition to long-term services, EnergyStock stated that it

would continue to offer short-term flexibility services, short lead time rights and interruptible services.

The EnergyStock natural gas is stored in six salt caverns at a depth between 1,000 metres to 1,500 metres and whose gas volume ranges from 5,000 megawatt to 10,000 MWh.

The technical lay-out consists of two tubings per cavern instead of one tubing that results in an exceptionally high injection and withdrawal rates.

Gas is injected into the caverns using electric compressors and is withdrawn using equipment for heating, pressure reduction and gas drying.



NEXUS OF CLEAN™

"Chart's vision is to be the global leader in the design, engineering and manufacturing of cryogenic process technologies and equipment for the Nexus of Clean™ — **clean power, clean water, clean food and clean industrials**, regardless of molecule."

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

JILL EVANKO / CEO / CHART INDUSTRIES

CLEAN CLEAN CLEAN CLEAN

 CHART DELIVERS CLEAN SOLUTIONS FOR



Power



Water



Food



Industrials



Learn more at chartindustries.com

NEWS BRIEFS

Australian gas warning

The Australian Competition and Consumer Commission (ACCC) has issued a warning to the nation on East Coast natural gas supplies and the trend for LNG exports. "The long-term supply outlook for gas makes shortfalls possible from 2027," said the report. "The East Coast gas market may experience gas supply shortfalls as early as 2027 unless new sources of supply are made available. The potential emergence of supply shortages is one year earlier than previously reported," the ACCC warned. The short-term outlook concluded that there was "sufficient gas" for the fourth-quarter of 2024 and early 2025. "There is expected to be enough gas to meet East Coast demand, even if all uncontracted gas of LNG producers is exported," the report added.

Singapore LNG fuel

FueLNG, the LNG bunkering company in Singapore, has completed its 200th ship-to-ship operation in the port of the Asian city state. The refuelling was conducted by 'FueLNG Venosa', which delivered 9,000 cubic metres of LNG fuel to the containership "CMA CGM Bahia" at the Raffles Reserve Anchorage in Singapore. "This vessel is part of a new generation of six CMA CGM containerships with an enhanced aerodynamic design," said the company, which is a joint venture between Seatrion Offshore and Marine and Shell Singapore. "With continued support from its industry partners, customers, and regulatory authorities, FueLNG aims to lead the way in providing cleaner energy solutions for the maritime sector," it added.

LNG nation Egypt to seek ethane imports from US made from shale gas to avert fertiliser shortages and to underpin farming

LNG News Editor

Egypt, the nation with oil and gas reserves and which imports and exports LNG, is now planning to secure large quantities of US ethane made from shale gas to avoid shortages of fertilisers and a food crisis because of an acute shortage of natural gas in the domestic market.

A consortium comprising five companies, led by Sidi Kerir Petrochemicals Co. (Sidpec), is striving to avert the further closure of chemical plants as happened during June 2024 because of natural gas shortages.

Sidpec said in a statement to the Egyptian Stock Exchange, which has two trading offices in the capital Cairo and the major port of Alexandria, the consortium would be seeking US ethane supplies for their plants.

Sidpec said it would hold a 25 percent stake in the joint venture company set up with an enterprise value of over US\$650 million.

Seven Egyptian fertilizer manufacturers reported a marginal to moderate impact on operations following the Ministry of Petroleum's decision to reduce natural gas supplies to fertilizer plants by 20 percent.

Fertiliser needs

Egypt produces about 23 million tons of different types of fertilisers, of which it consumes 10 to 12 million tonnes.

Sidpec is one of several major companies in the fertilisers and chemicals sector that had to halt production after suffering from short gas supplies that coincided with a worsening of regular blackouts that Egyptians have experienced over the past 12 months due



Ethane imports to Egypt to be sources in US Gulf Coast

to a surge in power consumption.

The consortium also includes Egyptian Ethylene and Derivatives Co. and Gama Construction Company with a 25 percent stake each, while Egyptian Petrochemicals Co. will hold a 15 percent stake, with Egyptian Natural Gas Co. holding the remaining 10 percent.

"Some 40 percent of the capital, which would be spread out over three phases, will be financed by shareholders with the other 60 percent financed through bank loans," the statement explained.

Supplies of the natural gas that helps Egypt generate electricity have been dropping at a time when an expanding population and urban development have been pushing up electricity demand.

When temperatures rise, air conditioning use drives up the nation's power consumption.

LNG exports

While Egypt exports LNG from two liquefaction plants, the Damietta and Idku plants located east of Alexandria, it imports natural gas by pipeline from the East Mediterranean Leviathan gas field.

Egypt also has offshore natural

gas fields, though more and more volumes are being diverted to meet domestic gas demand.

The Egyptians also depends on imported wheat, and in recent years the vast majority of these imports have come from Russia and Ukraine.

Analysts noted that imported grain provides half the flour that goes into a subsidised bread programme which feeds some 72 million Egyptians on a daily basis. This staple is a cornerstone of Egyptian diets.

In a development revealed in May 2024, Höegh LNG Holdings, the owner and operator of 13 LNG vessels including floating storage and regasification (FSRU) units, said an FSRU chartered to Australia would be deployed beforehand to Egypt to improve the Arab nation's energy security.

The "Höegh Galleon", which is under contract to Australian Industrial Energy (AIE), will be sub-chartered to Egyptian Natural Gas Holding Company (EGAS) for service in Egypt at the Gulf of Suez port of Ain Sokhna.

The "Höegh Galleon" will be located in Ain Sokhna for a likely period of 19-20 months, after which it is expected to be deployed to AIE's LNG terminal currently under development in Australia.

“A consortium comprising five companies ... is striving to avert the further closure of chemical plants”

New Fortress Energy agrees to sell small-scale Florida liquefaction plant located in Miami

LNG News Editor

New Fortress Energy Inc., the US LNG and power company that owns and operates facilities in five countries, has agreed to sell its small-scale liquefaction and storage facility in Miami in Florida.

The facility is being sold to a US middle-market infrastructure fund, which NFE declined to name along with the value of the transaction. NFE added that the transaction was expected to close in the third quarter of 2024 subject to customary terms and conditions.

The small-scale LNG liquefaction plant in Miami can process 100,000 gallons of natural gas every day for delivery to commercial, industrial and transportation customers throughout South Florida and the Caribbean.

The facility has three LNG storage tanks with a total capacity of around 1,000 cubic metres as well as two separate LNG transfer areas capable of serving both truck and rail.

Export permit

The facility is additionally authorized to export up to 60,000



Liquefaction plant processes 100,000 gallons of LNG a day

tonnes per annum of LNG to Free Trade Agreement and Non-FTA countries for a 20-year term that began on February 5, 2016.

"The Miami Facility is the inaugural asset of NFE and we are proud to have built this best-in-class infrastructure," said Wes Edens, Chairman and Chief Executive of NFE, listed on the Nasdaq global exchange.

"The sale highlights our commitment and execution of our asset sale program, allowing us to reduce debt and recycle proceeds into high return downstream projects," Edens added.

The Miami plant sale follows

NFE's decision in mid-June to push back the schedules for first LNG at its floating liquefaction plant offshore Altamira in the Gulf of Mexico. The first cargo is being shipped during July rather than June

Mexico cargoes

The FLNG production facility is located in Mexican waters of the Gulf of Mexico offshore the port of Altamira where there is already an onshore LNG import terminal.

NFE said that the work necessary to begin operations was complete and the company had also completed the full remainder of

pre-commissioning activities.

The FLNG facility has also received a positive ruling from the US Customs and Border Protection agency confirming that the transportation of LNG produced at NFE's FLNG unit can transport cargoes on non-US Jones Act qualified vessels.

As a result of this ruling, NFE will be able to sell and deliver LNG produced at its FLNG facility offshore Mexico to US locations, including the territory of Puerto Rico.

The progress on FLNG in the Gulf of Mexico comes amid advances in import and power projects in the South American nation of Brazil.

NFE has now commenced operations in Brazil at both of its LNG import terminals and has 2.2 gigawatts of power plants under construction.

LNG Journal Subscription Package

Your LNG Journal subscription includes broad coverage of LNG across the globe - from trade and shipments through to LNG prices, plus in-depth technical coverage. With over 20 years of LNG reporting experience, we remain the market leading source of information for decision makers in the LNG industry.

Subscription Contacts

For new subscriptions or general subscription queries contact:

Stephan Venter
venter@lngjournal.com
 +44 207 017 3407

To renew an existing subscription or to upgrade your package, contact:

Gabi Weck
gabi@lngjournal.com

Sign up now for an Online Subscription at only
 US\$1190; €920 or £830

Discount options are available for multi-users

Contact us for more information or to arrange a free trial

LNG Daily News
 Delivered to your inbox and online

LNG Journal
 The flagship LNG monthly

LNG Unlimited
 Your weekly summary of LNG news

LNG Market Tracker
 Weekly empirical insight into the LNG market

LNG North America
 Bi-monthly report on LNG in the US, Canada

LNG Fuelling
 In-depth look at LNG as a fuel

LNG Shipping News
 Bi-weekly coverage of LNG shipping

LNG China
 Bi-monthly review of LNG in China

LNG Monthly Markets
 Key developments in LNG markets

Gas to Power Journal
 Peakload Power and Energy Storage

NEWS BRIEFS

Zeebrugge LNG cargo slots

Belgian LNG operator Fluxys completed the subscription window for the Zeebrugge terminal from June 10 to July 1 by offering 24 additional long-term regasification slots for the period of 2027 to 2044.

"The outcome of the subscription window was positive with all offered capacity subscribed on the long term," said Fluxys. "In the context of the modified gas flows in Europe, Fluxys LNG has dedicated the past few years to optimising the utilisation of its infrastructure in Zeebrugge and to enhancing the scheduling of vessels by offering additional short-term capacity on top of the existing long-term base capacity of the LNG terminal," the company added.

Avenir in charter deal with Vitol

Avenir LNG, the London-headquartered global energy supplier for small-scale projects and gas carriers, has signed a Time Charter Party with Vitol International Shipping, a unit of the global commodities company.

The charter is for Avenir's first newbuild bunkering vessel ordered from China and with 20,000 cubic metres capacity.

"The time charter to Vitol will commence at delivery from the shipyard in China in the fourth quarter of 2026 and will serve a period of seven years with options to extend up to 10 years in total," Avenir explained.

Avenir in April 2024 ordered two 20,000 capacity LNG bunkering ships from the Sinopacific Offshore and Engineering Co. shipyard in Nantong for delivery in the fourth quarter of 2026 and the first quarter of 2027.

"This agreement with Vitol solidifies Avenir's position as a leading owner and operator of LNG bunker vessels," said Avenir.

The Avenir company is a joint venture set up by three Norwegian shipping lines, Høegh LNG, Golar LNG and London-based Stolt Nielsen Ltd.

The company said that the charter on the first newbuild demonstrates the markets confidence in Avenir's investment strategy as well as securing long-term sustainable cashflow for the group and shareholders over the next decade.

Avenir stated that the transaction with Vitol increases the company's third-party charter revenue backlog including options to over \$205 million.

"We are pleased to be partnering with Vitol to support their LNG bunkering business," said Jonathan Quinn, Managing Director of Avenir LNG.

Texas LNG Brownsville project of Glenfarne Energy Transition advances

LNG News Editor

Texas LNG Brownsville, the US Gulf Coast export project, said it was making solid advances in signing accords for all volumes available as it remains on track for a final investment decision.

"Texas LNG is on the verge of full sell out, and we look forward to finalizing our offtake partnerships in the near future," said Brendan Duval, Chief Executive and Founder of project's owner, the New York-based fund, Glenfarne Energy Transition.

Accords

The company said it had signed a non-binding accord with one unnamed company for free-on-board cargoes amounting to 500,000 tonnes per annum from the plant's total production of 4 MTPA.

Texas LNG added that it was in advanced negotiations with several potential off-takers for the remaining volumes of the project.

Glenfarne Energy Transition is the majority owner and managing member of Texas LNG.



Texas set to become global LNG export centre

Texas LNG has declared that it would begin construction in 2024 and commence commercial operations in 2028.

The Glenfarne Energy Transition LNG portfolio also includes the 8.8 MTPA Magnolia LNG export facility under development in Lake Charles, Louisiana.

Texas LNG signed a previous accord in March 2024 with the Singapore-based trading unit of global commodities firm Gunvor.

That Heads of Agreement was for a period of 20 years for volumes of 500,000 tonnes per annum.

The number of deals being concluded in 2024 are expected to pave the way for an FID.

The Federal Energy Regulatory Commission had previously approved construction of the Magnolia LNG plant proposed for a 115-acre site near the Calcasieu Ship Channel in Louisiana.

The Magnolia development was owned at one time by an Australian-listed company, LNG Ltd., that ceased trading amid financial difficulties and the assets were acquired by Glenfarne.

Kosmos Energy sees start-up of Winterfell development in GoM

Kosmos Energy, the Dallas-based company with LNG interests in the West African nations of Senegal and Mauritania and a specialist company for offshore Atlantic Margins exploration and production, has made a successful start-up of oil production at the Winterfell development in the Green Canyon area of the US Gulf of Mexico.

The Winterfell joint venture in which Kosmos has a 25.04 working interest, is a phased development with the initial two production wells of the first phase now online and ramping up production.

A third well is currently being drilled and is expected to be online by the end of the third quarter of 2024.

The three initial wells are expected to deliver gross production of around 20,000 barrels of oil equivalent per day.

Growth targets

"The start-up of Winterfell is another significant milestone for Kosmos as we continue to deliver the projects to achieve our growth targets by year-end 2024," said Kosmos Chairman and Chief Executive Andrew G. Inglis.

The Winterfell success comes as the Kosmos LNG operations in Senegal and Mauritania head towards production, adding to Atlantic Margins output from other projects offshore Ghana and Equatorial Guinea.

"With high margin barrels, low carbon intensity and a quick expected payback, Winterfell has the right characteristics for Kosmos's portfolio," CEO Inglis added.

Winterfell is a Miocene-aged field discovered in 2021 in water depth of around 5,400 feet (1,600 meters).

The field has been developed via a 13-mile subsea tieback to the host platform.

Following the successful drilling and completion of the first two wells and subsea hook-up in April 2024, delays in subsequent work resulted in first oil slightly later than initially anticipated.

While Saudis have signed LNG deals with Texas they have again proved they have much more

LNG News Editor

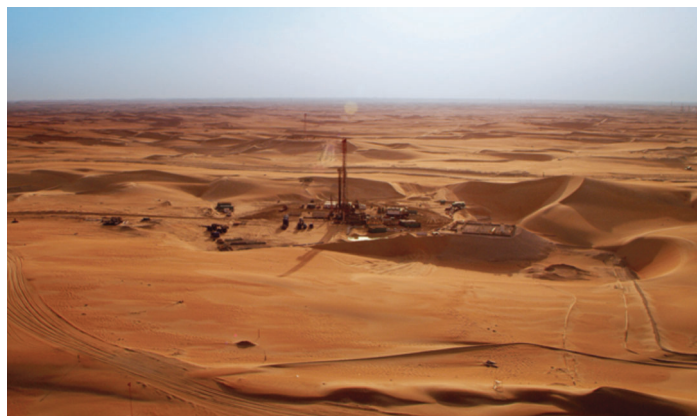
Saudi Arabia, the latest entrant into the LNG market with two supply contracts signed in Texas, has discovered seven more oil and gas fields in the Kingdom's Eastern Province and in the Empty Quarter.

Saudi Energy Minister Prince Abdulaziz bin Salman said Saudi Arabian Oil Company (Aramco) had just discovered "two unconventional oil fields, a reservoir of light Arabian oil, two natural gas fields, and two natural gas reservoirs" in recent weeks.

Two unconventional oil fields and one reservoir were discovered in the Saudi Eastern Province while the two natural gas fields and two gas reservoirs are in the Empty Quarter.

The "Ladam" unconventional oil field was discovered in the Eastern Province after the flow of very light Arabian oil in the Ladam-2 well at a rate of 5,100 barrels per day, accompanied by about 4.9 million standard cubic feet of gas per day.

In addition to having much more oil and gas than Texas, Aramco was still happy to sign to supply agreements with the Port



New natural gas and oil fields discovered in Empty Quarter

Arthur LNG project and the Rio Grande LNG joint venture.

Discoveries list

Outlining its own recent discoveries, Aramco added that the "Al-Farouk" unconventional oil field was discovered in the Eastern Province after Arab ultra-light oil flowed from the Al-Farouk-4 well at a rate of 4,557 barrels per day, accompanied by about 3.79 million standard cubic feet of gas per day.

The "Unayzah" reservoir was discovered in the "Mazalij" field in the Eastern Province, after Arab Light oil flowed from the Mazalij-62 well at a rate of 1,780 barrels per day, accompanied by about

0.7 million standard cubic feet of gas per day.

The "Al-Jahaq" resources were found in the Empty Quarter after natural gas flowed from the "Al-Arab-C" reservoir in Al-Jahaq-1 well at a rate of 5.3 million standard cubic feet per day, and from the "Al-Arab-D" reservoir in the same well at a rate of 1.1 million standard cubic feet per day.

The Empty Quarter is the largest continuous sand desert in the world and is almost the size of France, covering about 650,000 square kilometres of arid and inhospitable terrain - containing nothing but oil and gas.

The "Al-Katuf" field was dis-

covered in the Empty Quarter after natural gas flowed into Al-Katuf-1 well at a rate of 7.6 million standard cubic feet per day, accompanied by about 40 barrels per day of condensate.

The "Hanifa" reservoir was found in the "Asikra" field in the Empty Quarter after natural gas flowed in the Asikra-6 well at a rate of 4.9 million standard cubic feet per day.

LNG deals

Aramco has signed a second US LNG accord to receive volumes from another Texas export, the Port Arthur liquefaction joint venture in Texas being developed by Semptra Infrastructure, and has followed up on a deal signed earlier in June with the Rio Grande export project in the Port of Brownsville.

Semptra has signed a non-binding Heads of Agreement as part of a 20-year deal for Aramco to off-take 5 million tonnes per annum from the Port Arthur LNG Phase Two expansion.

The accord also contemplates Aramco taking a 25 percent participation in the project-level equity of Phase Two.

Australian LNG operator Santos sees shares surge on reports of takeover interest from Middle East

Santos Ltd, the Australian operator of two liquefied natural gas export plants and a main shareholder in Papua New Guinea LNG assets, has seen its shares surge on take-over speculation, involving some sector players including Abu Dhabi National Oil Company.

Santos shares jumped on the Australian Securities Exchange by around 5 percent on July 4 on reports that ADNOC was interested in acquiring Santos.

The shares in Santos rose as high as A\$8.00 per share, up from A\$7.65 per share, and valuing the company at A\$26 billion (US\$17.5Bn).

ADNOC was said to have been conducting preliminary evaluations of Santos as a possible acquisition target, according to investment bankers.

LNG plants

ADNOC is developing a second LNG export plant in Abu Dhabi with almost 10 million tonnes per annum of output.

Santos, based in Adelaide, operates the Gladstone LNG plant in Queensland as well as the Darwin plan in the Northern Territory where exports have temporarily ceased because feed-gas issues.

The existing Bayu-Undan field continues to produce lower volumes of gas for the Darwin LNG plant, though the gas was being supplied only to the domestic market and not to the liquefaction plant.

The Barossa gas and condensate project will backfill Darwin LNG in the years ahead and was almost 75 percent complete.

Previous merger talks

The PNG plant at Caution Bay, operated by ExxonMobil Corp., also has Santos as a major shareholder as does the PNG expansion pro-

ject, Papua LNG, which is run by TotalEnergies.

Santos was in takeover talks in 2023 with Australia's largest LNG exporter Woodside Energy but the merger discussions ended after they failed to agree terms for creating a A\$88 billion (US\$58Bn) LNG mega-company in the Southern Hemisphere.

Woodside is operator of the North West Shelf and Pluto LNG export plants in Western Australia and is a stakeholder in the Chevron-operated Wheatstone LNG facility.