

LNG Unlimited

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Aramco stays close to Air Products but shale-gas output to replace LNG

Saudis aim to be flexible amid rapidly evolving market conditions in international energy

LNG News Editor

Saudi Arabian Oil Company (Aramco), the world's largest seller of crude oil, appears to have dropped its LNG ambitions, though is continuing to partake in ambitious industrial gas projects backed by US LNG equipment-maker Air Products.

The Saudis and their oil and gas company additionally plan to boost natural gas production from the development of the biggest shale-gas basin in the Middle East.

Profit doubles

Aramco gave an overview of its activities as it reported that annual net income more than doubled to \$110 billion and confirmed plans to boost natural gas output by 50 percent.

Aramco's net income increased by 124 percent in 2021 compared with the net income of \$49Bln logged in 2020.

"The increase in net income reflects higher crude oil prices, stronger refining and chemicals margins and the consolidation of full-year results at SABIC (chemicals unit)," explained the company.

Aramco's earnings statement showed that free cash flow was \$107.5Bln compared with \$49.1Bln in the previous year.

The Dhahran-based company said it continued to prioritize a strong balance sheet and its gearing ratio at the end of 2021 was 14.2 percent compared to 23.0 percent at the end of 2020.

Aramco is way ahead of oil-producing rivals in terms of revenues and leads two Chinese majors, PetroChina and China Petroleum and Chemical Corp. (Sinopec),



Aramco has started to develop huge Jafurah shale gas basin

while ExxonMobil of the US is placed fourth.

Aramco declared a dividend of \$18.8Bln for the fourth quarter to be paid in the first quarter of 2022.

Capital expenditure in 2021 was \$31.9Bln, an increase of 18 percent from 2020, primarily driven by increased activities in relation to crude oil increments, the Tanajib Gas Plant and development drilling programs.

In addition, Jazan Integrated Gasification and Power Company, a joint venture consisting of Saudi Aramco Power Company (SAPCO), US LNG equipment-maker and industrial gas company Air Products, and ACWA Power signed agreements for the asset acquisition and project financing of \$11.8Bln relating to the Jazan Integrated Gasification Combined-Cycle power plant.

The project also includes an Air Separation Unit and certain ancillary assets from Aramco located in the Jazan Economic City.

"Our strong results are a testament to our financial discipline, flexibility through evolving market conditions and steadfast focus on our long-term growth strategy, which targets value growth for our shareholder," said Aramco President and Chief Executive Amin H. Nasser.

"Although economic conditions

have improved considerably, the outlook remains uncertain due to various macro-economic and geopolitical factors," explained Nasser.

Energy security

"But our investment plan aims to tap into rising long-term demand for reliable, affordable and ever more secure and sustainable energy," he stated.

"We recognize that energy security is paramount for billions of people around the world, which is why we continue to make progress on increasing our crude oil production capacity, executing our gas expansion program and increasing our liquids-to-chemicals capacity," declared the CEO.

The company also announced its growth strategy, which in its Upstream business includes continuing to raise crude oil Maximum Sustainable Capacity (MSC) to 13 million barrels per day by 2027, and potentially increasing natural gas production by more than 50 percent by 2030.

In November 2021, Aramco commenced development of the vast Jafurah unconventional gas field, the largest non-associated gas field in the Kingdom.

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LNG exporter Australia warned by regulator that East Coast natural gas supply crisis approaches

LNG News Editor

One of Australia's leading energy market regulators has said that the events in Ukraine had pushed global energy markets further into the unknown and that gas supply problems for Europe could get much worse and LNG exporter Australia is also on course for severe gas shortages.

"The tightness of global gas and LNG markets can be seen in the international price movements over the past two years," the Australian Domestic Gas Outlook conference in Sydney was told by Commissioner Anna Brakey of the Australian Competition and Consumer Commission, the main competition regulator of the Government of Australia.

Price surge

"LNG prices increased last year to record levels in both Europe and Asia, and coal and oil prices followed. Asian LNG spot market prices increased by 350 percent to March this year," said Brakey.

"Supply shortfalls are exceeding the ACCC's previous forecasts, particularly in Australia's southern states," she stated.



Conference speakers at the Australian Domestic Gas Outlook conference in Sydney: Anna Brakey Commissioner and Chair of the East Coast Gas Market Board of ACCC and Rob Wheals, CEO of APA Group, whose company is developing much-needed projects

While Australia is one of the main suppliers of LNG to China, Japan and South Korea, the country still has long-standing domestic gas market shortages.

It is currently developing three LNG regasification terminals to receive Australian West Coast LNG cargoes on the East Coast or as imports from other nations.

The Commissioner said that the ACCC's most recent gas inquiry report found that there was likely to be enough supply this year, but

the demand-supply outlook is finely balanced.

"We've updated our forecast since then, and while that revised version isn't quite as grim, it's still very concerning," she disclosed.

"We forecast a surplus of just 11 petajoules (PJ), or less than 3 percent of the forecast demand for the southern states," Brakey said.

"The North is forecast to have a surplus of 19 PJ, or just over 1 percent, so supply to the South could be boosted from the north if

necessary," she added. She then stated that the longer term outlook was even more concerning.

The ACCC expects natural gas shortfalls in the South from 2024, largely due to gas from the Cooper Basin being redirected into the state of Queensland. The southern states would therefore rely on gas being sent down from Queensland, or through an LNG import terminal, to avoid a shortfall.

"More concerning still is that by 2026 or 2027, we expect a shortfall over the whole East Coast," she revealed.

She added that the Australian East Coast shortfall has been caused, at least in part by further write-downs of proved and probable (2P) reserves, mainly by LNG producers in Queensland.

LNG imports

Domestic gas shortages mean that there is currently one floating LNG terminal scheduled to come on line by the end of 2023 at Port Kembla facility in New South Wales. Two others are planned elsewhere.

Government will accelerate seven natural gas projects and several by APA Group on East Coast

Australia, the largest LNG exporter to North Asia ahead of Qatar and the US, is now taking measures to underpin its own energy security by accelerating seven priority natural gas infrastructure projects and plans to give them government start-up funds to help protect Australia from potential global energy shortages and keep downward pressure on prices.

Under the Future Gas Infrastructure Investment Framework Expression of Interest process launched last year, an additional A\$50.3 million (US\$37M) will be invested as initial grants in seven priority projects, as well as key carbon-capture and storage projects.

Minister for Industry, Energy and Emissions Reduction Angus Taylor revealed the plan and said the government was working with industry to accelerate the "priority projects" to ensure Australia did not experience the "devastating impacts of a gas supply shortfall" as seen in Europe.

Support

"Our investment will help keep the lights on and homes heated in southern Australia, and support our industries and businesses to keep operating," stated Taylor ahead of the Southern Hemisphere winter season.

"Our National Gas Infrastructure Plan, highlighted the critical

need for more gas storage to provide greater supply flexibility during winter peaks, along with the need to get more northern gas to the south," he explained.

"That's why we are investing in seven priority projects as part of our gas-fired recovery, to make sure Australia has adequate supply and storage to avoid expected shortfalls in production in southern Australia that could emerge by 2024," declared the minister.

The seven infrastructure projects that support government priority actions and have been selected for "early works" support and funding.

They are: In the state of Victoria - the Southwest pipeline ex-

pansion project (APA Group) and the Heytesbury Underground Gas Storage project (Lochard Energy).

In state of Queensland: the Project Range project (APA Group) and the Surat Hub project (APA Group) and the Gas Infrastructure Hub project in the Bowen Basin (Transition Energy Corporation Pty Ltd).

Along the East Coast, the selected project is the East Coast Gas Grid Expansion Stage 2 (APA Group).

In the Northern Territory, a feasibility study will be started into the most efficient infrastructure to deliver natural gas from the Beetaloo sub-basin to the East Coast gas market.

FLNG player Kosmos ties up Ghana pre-emption

Kosmos Energy, the US-based shareholder in the floating liquefied natural gas joint venture offshore the West African nations of Mauritania and Senegal, has adjusted its shareholdings for the pre-emption rights of Tullow Oil plc of the UK after spending \$550 million to acquire shareholdings in oil and gas fields offshore Ghana from Occidental Petroleum of the US.

Kosmos, a specialist in Atlantic Margin exploration and production and based in Dallas, Texas, had agreed in October 2021 to acquire an additional 18 percent interest in the Jubilee field and an additional 11 percent stake in the Tweneboa, Enyenra and Ntomme (TEN) oil and gas fields offshore of Ghana.

Ghana National Petroleum Corp. (GNPC) was also acquiring stakes in the same fields from Occidental for \$200M and will be the main partner of Kosmos.

The new Kosmos focus on Ghana comes as FLNG projects being developed with UK major BP offshore Mauritania and Senegal continue to progress, centred on the Greater Tortue-Ahmeyim gas fields.

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

Kosmos explained that in Ghana after execution of definitive transaction documentation and receipt of required government approvals, Kosmos and Tullow have now concluded their pre-emption transaction.

For another shareholder PetroSA of South Africa, the process is ongoing and remained subject to execution of definitive agreements and required government approvals.

Oil and Natural Gas Corp. of India has new gas output to offset LNG

LNG News Editor

Oil and Natural Gas Corp. (ONGC) of India has delivered a natural gas field in the Krishna-Godavari basin in the Bay of Bengal offshore India's East Coast with the help of US engineering firm McDermott and the associated consortium.

Houston, Texas-based McDermott said it had successfully navigated the challenges of Covid-19 and the active monsoon season to deliver the U-Field for ONGC's KG-DWN 98/2 Block project.

Early finish

"Completing this season of the Bay of Bengal campaign to deliver the gas field for ONGC, combined with our previous achievement of early first gas in 14 months, demonstrated McDermott's ability to deliver complex subsea projects," said Samik Mukherjee, McDermott's Executive Vice President and Chief Operating Officer.

ONGC's KG-DWN 98/2 Block project is the largest and one of the most complex subsea projects in Asia, involving major subsea



India's Krishna-Godavari basin just keeps on giving

infrastructure installation in ultra-deepwater.

McDermott is delivering two gas systems for ONGC's gas block, the U-field and the R-field.

The project is being executed in a consortium with Larsen & Toubro Hydrocarbon Engineering (L&T HE) manufacturing the structures in India.

McDermott said that upon completion, the gas field is expected to significantly increase domestic production. It will additionally help meet India's increasing energy demands while further lowering reliance on LNG imports.

The project was delivered by a

large, India-based project team, embracing the Indian government's "Make-in-India" initiative.

"The opening of the U1-B (GX-06) well in the DWN-98/2 block is a major milestone that we can all be immensely proud of," said Subramanian Sarma, Director and Senior Executive Vice President (Energy) at L&T and Chief Executive of L&T HE.

"That we managed to achieve this despite extremely difficult project terrain and weather conditions even as a global pandemic raged on, speaks volumes of the resolve of the project teams," stated Sarma.

Algerian LNG exporter Sonatrach and Eni have Berkine Basin success

Sonatrach, the Algerian state energy company and LNG producer, has reported a "significant" oil and associated natural gas discovery with Italy's Eni in the Zemlet el Arbi concession of the Berkine North Basin in the Algerian desert.

Sonatrach said in a statement it had successfully completed with its partner Eni the drilling of the first well in the Zemlet El Arbi exploration area.

The Zemlet El Arbi concession is located in the prolific Berkine Basin and is located almost 300 kilometres (186 miles) southeast of Hassi Messaoud.

"During the production test, the well indicated the presence of 7,000 barrels of oil per day and 5

million standard cubic feet per day (140,000 cubic metres per day) of associated gas," explained Sonatrach.

"Sonatrach and Eni are working in close collaboration to accelerate the production phase of this new discovery through fast-track development," it added.

The HDLE-1 exploration well is located about 15 km from Bir Rebaa North field's existing processing facilities and was highlighted as a significant crude oil discovery with excellent petrophysical characteristics.

"HDLE-1 is the first well of an exploration campaign which provides for the drilling of five wells in the northern region of the

Berkine Basin," added Sonatrach.

Sonatrach and Eni said they would now pursue their "near field" exploration strategy ensuring "rapid development" of these new resources.

The Algiers-based company, whose two LNG liquefaction plants at Arzew and Skikda on the Mediterranean coast last year exported around 11 million tonnes per annum of LNG, said the production is scheduled for a start at the Zemlet El Arbi discovery for as early as the third quarter of 2022.

Preliminary estimates of the size of the discovery are around 140 million barrels of oil in place.



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NEWS BRIEFS

Rio Grande China deal

NextDecade Corp., the developer of the Rio Grande LNG project along the Brownsville Ship Channel, has executed a binding Heads of Agreement with China's Guangdong Energy Group Natural Gas Co., for the supply of LNG cargoes for a 20-year term. The Rio Grande project has ultimate plans and permits to produce up to 27 million tonnes per annum of LNG from five liquefaction Trains.

Sound Energy reports

Sound Energy, the UK company with natural gas assets in Morocco and a micro-LNG production project, reported progress on several fronts, including sales, finance and engineering. Sound Energy executed an \$18.0 million loan facility from Afriquia Gaz, the Morocco-based company which has also signed a 10-year, take-or-pay LNG sale and purchase and taken a stake in Sound Energy. The company is planning to develop a micro-LNG plant for the Tendirra 5-Horst gas well in its Tendirra production concession in eastern Morocco, near the Algerian border.

Peru LNG deliveries

Peru's LNG exports in March are heading for the North Asian markets of China and South Korea, according to data from energy company PeruPetro. Four vessels have left the Pampa Melchorita liquefaction plant on the Pacific Coast of Peru with three headed for South Korea on the 173,540 cubic metres capacity carrier "Megara", the 135,400 cubic metres capacity carrier "Madrid Spirit" and on the 173,400 cubic metres capacity vessel "Sevilla Knutsen".

TotalEnergies forced to defend itself against some wild accusations over corporate LNG and energy role in Russia

LNG News Editor

TotalEnergies, the leading European oil and gas company and liquefied natural gas developer in Africa and elsewhere, has been forced to defend itself against wild allegations over its business role in Russian LNG and energy.

The Paris-based major, led by Chairman and Chief Executive Patrick Pouyanné, issued a statement after the "serious and unfounded accusations of complicity in war crimes" were levelled against TotalEnergies.

Principles

The company has issued a statement on its principles of conduct regarding its Russian-related businesses to allow people to understand better how the company was in fact acting in a responsible manner as has been possible in the circumstances.

Considering the worsening conflict, TotalEnergies added that it was also now taking new steps.

TotalEnergies reaffirmed its firmest condemnation of Russia's military aggression against Ukraine, which has tragic consequences for the Ukrainian population and threatens peace in Europe.

To act responsibly, as a European company and in accordance with its values, TotalEnergies has defined clear principles of conduct for managing its Russian related business.

TotalEnergies said it would ensure strict compliance with current and future European sanctions, no matter what the consequences on the management of its assets in Russia, and gradually suspend its activities in Russia, while assuring its workforce's safety.

"TotalEnergies recalls that, contrary to remarks made by several commentators, it does not operate any oil and gas fields or any liquefied natural gas (LNG) plants in Russia," said the company.

The company explained that it



CEO Pouyanné and his company under fire from posturers

was a minority shareholder in a number of non-state-owned Russian companies: Novatek (19.4 percent), Yamal LNG (20 percent), Arctic LNG II (10 percent) and TerNefteGaz (49 percent).

"These companies are managed by their own staff with a limited number of secondees from TotalEnergies," said the company.

"TotalEnergies is also a 20 percent partner in the Kharyaga joint venture operated by Zarubezhneft," it added.

"The company did indeed contribute to the construction phase of these companies' projects but has no activity or operational responsibility on those sites," the company declared.

TotalEnergies stated that it had only 11 secondees in these companies as of February 24, 2022, and only three seconded expatriates are in Russia as of March 22.

"TotalEnergies has thus initiated the gradual suspension of its activities in Russia, while assuring its teams' safety. Similarly, TotalEnergies has decided to put on hold its business developments for batteries and lubricants in Russia," it said.

It will also provide no further capital for the development of projects in Russia.

"Concerning the Arctic LNG II project in particular, given the uncertainty created by technological and financial sanctions on the ability to carry out the Arctic LNG

II project currently under construction and their probable tightening with the worsening conflict, TotalEnergies has decided to no longer record proved reserves for Arctic LNG II in its accounts and will not provide any more capital for this project," it stated.

Sanctions

The company went on to explain that the current environment of European sanctions and Russian laws controlling foreign investments in Russia would prevent TotalEnergies from finding a non-Russian buyer for its minority interests in Russia.

"Abandoning these interests without consideration would enrich Russian investors, in contradiction with the sanctions' purpose. In addition, abandoning these minority interests held by TotalEnergies would have no impact on the companies' operations and revenues, since these companies have their own employees and are managed autonomously," it added.

In accordance with the EU's decisions to maintain at this stage Russian gas supplies, TotalEnergies said it would continue to supply Europe with LNG from the Yamal liquefaction plant within the framework of long-term contracts that it must honor as long as Europe's governments consider that Russian gas is necessary.

Pavilion Energy of Singapore names Alan Heng as CEO amid trading and bunkering expansion

LNG News Editor

Pavilion Energy, the Singapore natural gas and LNG company, has named Alan Heng as Group Chief Executive effective from April 2022 as the company continues to support Asian expansion in trading and bunkering activities.

Heng had been serving as Interim Group CEO, a position he held since the 26th August 2021 when he took over at the helm from Frenchman Frédéric Barnaud who had decided to step down.

Asia head

Heng had been Managing Director for Asia of Pavilion, which is a unit of Singaporean wealth fund Temasek.

He joined the company in 2013 and has been instrumental in developing its activities as Singapore became an LNG hub for trading and with its own import terminal on Jurong Island.



Heng was caretaker after Frédéric Barnaud's departure

Heng has more than 34 years of experience in the energy industry, including having held various management positions at US major ExxonMobil.

The Pavilion global energy business encompasses natural gas supply and marketing activities in Southeast Asia and Europe.

This involves LNG trading, ship-

ping and optimisation as well as energy hedging and financial solutions.

Pavilion additionally been a pioneer in helping to develop LNG bunkering for the maritime industry in the Asian city state.

The company has been backed by the Maritime and Port Authority of Singapore (MPA), which has

awarded three LNG bunkering supplier licences.

The last one was granted to French major TotalEnergies. Another licence holder is FueLNG Pte Ltd, a joint venture comprising Keppel Offshore and Marine and Shell Eastern Petroleum, and one is held by Pavilion.

FueLNG saw the debut of the first Singapore-owned LNG bunkering vessel, the 7,500 cubic metres capacity "FueLNG Bellina", which entered service in February 2021.

That vessel is operated for the Keppel-Shell venture in the port by the Japanese shipping company, Kawasaki Kisen Kaisha (K-Line).

Singapore has an LNG bunker supply capacity of up to one million tonnes per annum, offering clean marine fuel to LNG-powered vessels, thus reducing emission such as nitrogen oxides and greenhouse gases.

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Brunsbüttel to get some LNG supply from Shell

German LNG Terminal GmbH, the development company of the Brunsbüttel import facility on the Elbe River south of Hamburg, has signed a preliminary accord with Shell to acquire cargo volumes.

The memorandum of understanding (MoU) with Shell will commit the UK-based energy major to make a long-term booking of a substantial part of the Brunsbüttel terminal's capacity for the import of LNG.

"Both parties are currently working towards a binding agreement on the scope and duration of their partnership, and hope to complete it as soon as possible," said a statement.

Michael Kleemiss, Managing Director of German LNG Terminal, said the accord with Shell and noticeable market interest demonstrated the importance of building the facility at Brunsbüttel.

"We are looking forward to working with Shell as another partner in the coming years and will do everything in our power to drive planning and implementation forward rapidly," added Kleemiss.

"In doing so, the terminal will not only contribute to energy supply security in Germany, but also, in perspective, to the necessary climate-neutral energy supply," he added.

Fabian Ziegler, Managing Director of Shell in Germany, said he was delighted with the German supply deal.

"It is a key step in contributing to security of supply in Germany in the near term as well as more widely in Europe. LNG is the most flexible form of gas supply, which can adapt quickly to shifting trade patterns," explained Ziegler.

Korea's DSME increases orders to 14 with eight LNG carrier newbuilds

LNG News Editor

South Korean shipbuilder Daewoo Shipbuilding and Marine Engineering has won \$4 billion in orders so far in 2022, including eight LNG carriers, six containerships, one offshore platform and one depot maintenance order.

DSME added that the six containerships ordered this year have a specification for dual-fuel capability.

Americas

The latest DSME orders included three LNG carriers for the Americas after the company previously said there had been two LNG carrier orders worth 521 billion South Korean won (\$428M).

The yard has now added one more vessel for the order list from the Americas, taking the total for the region to 863.5Bln Korean won (\$710M).

"These LNG ships will be built at the Okpo Shipyard and delivered to the owner by the end of 2025," said DSME.

GasLog Ltd, the Greek LNG



The 'Global Sea Spirit' was built at the Okpo Shipyard

shipping company, has also ordered LNG carrier from DSME in 2022.

GasLog is currently expanding its fleet and has ordered four newbuild 174,000 cubic metres capacity vessels for delivery in 2024 and 2025.

DSME, which is the world's fourth largest shipbuilder, had an order backlog of \$10.86Bln because of increased demand for valued-added vessels, such as LNG carriers and very large containerships with dual-fuel propulsion.

The latest three LNG carrier orders for the Americas will be of 174,000 cubic metres capacity.

The yard added that they would also be equipped with the latest generation M-type Electronically Controlled, Gas Injection (ME-GI) propulsion system.

DSME said it was also fitting a more advanced re-liquefaction system.

"The yard's other smart energy saving systems, such as the Shaft Generator Motor and their Lubrication System, are representative of eco-friendly new technologies that can improve fuel efficiency and reduce carbon-dioxide and sulfur-oxide emissions," added the DSME statement.

GTT awarded LNG tanks order for Pacific International containerships

Gaztransport and Technigaz (GTT), the French designer of maritime liquefied natural gas storage and fuel tanks, has received an order from the Chinese Jiangnan shipyard for tank designs for four very large LNG-powered containerships on order for the leading Asian shipping company, Pacific International Lines.

Each vessel will be able to carry 14,000 20-foot equivalent units (TUE) containers and are scheduled to be delivered from the Chinese yard progressively from the second-half of 2024 through to the first half of 2025.

"The LNG fuel tank of each vessel will offer a capacity of 13,800 cubic metres and will be

fitted with the Mark III membrane containment system," said GTT.

"These tanks will include unique features to facilitate a potential conversion of these vessels to ammonia, giving PIL greater operational flexibility in case of changes in environmental regulations," added the French company.

In addition to the engineering services and on-site technical assistance, GTT explained that it would assist PIL through every step of their first LNG-fuelled project.

GTT said this would include commissioning of the LNG tanks, first LNG bunkering operations, as well as further specific LNG operations and maintenance of the vessels.

Moreover, GTT will provide LNG

training for the crews, supported by its proprietary G-Sim® training simulator, which replicates the future LNG operations of the vessels.

PIL will also benefit from GTT's HEARS® emergency response service with 24/7 technical assistance.

The vessels will also be fitted with the "GTT Digital" platform, a Smart Shipping solution for monitoring and optimising their operational performance as well as their environmental footprint.

"We are very pleased that PIL has selected our fuel tank and that the collaboration with Jiangnan continues with this new order," said Philippe Berterottière, Chairman and Chief Executive of GTT.

Adriatic LNG terminal provides new June-July 2022 open season bidding and pre-qualification

LNG News Editor

Adriatic LNG, the operator of the largest of three Italian regasification terminals, said it would launch the open season bidding at the end of May 2022 to allocate the regasification capacity available from the end of 2022 to 2047.

Adriatic LNG terminal is co-owned by units of ExxonMobil and QatarEnergy and recently stated it was ready to increase capacity to direct more natural gas to Europe.

Offering

The terminal is located 15 kilometres (9.3 miles) off the Veneto coastline and is a gravity-based structure.

The company said its website now contained more precise information on the LNG regasification capacity that will be offered through the open season 2022.

It shows the main provisions regulating access to services and capacity allocation, as well as details on the bidding phases and the eval-



Terminal is controlled by ExxonMobil and QatarEnergy

uation and allocation methodology.

The Adriatic terminal has been on line since autumn 2009 and is a private operator. It is co-controlled by ExxonMobil Italiana Gas and Qatar Terminal Ltd, a subsidiary of QatarEnergy, while Italian gas network operator SNAM has a 7.3 percent shareholding.

Available capacity

"Given the nominal LNG regasification capacity of 9 billion cubic metres per year and the capacity already booked, Adriatic LNG will make available to the market an LNG regasification capacity of approximately 147 Bcm for the next

25 years," it said.

"This is one of the most important auctions in the world for operators interested in acquiring long-term LNG regasification capacity," stated the company.

Adriatic LNG also explained that the 2022 open season would be developed in two phases.

An initial non-binding pre-qualification phase expected to take place in June 2022 and a second binding phase for the allocation of LNG regasification capacity in July 2022.

At the same time, Adriatic LNG intends to test the interest of the market operators on the possible

development of LNG regasification capacity above 9 Bcm, which could be for a further increase of 0.5 Bcm per annum of natural gas.

It would also look at the possible development of a Wobbe index correction service in order to receive LNG from even more supply sources.

With the first Open Season closed in December 2021, Adriatic LNG allocated capacity for an overall amount of around 2 Bcm of natural gas over a period of about three years.

"In markets heavily dependent on natural gas imports, Adriatic LNG's 2022 open season is, therefore, a tangible way for Italy and Europe to increase and diversify LNG imports, improving the competitiveness of the domestic natural gas market and ensuring greater security of energy supply," stated the company.

Adriatic LNG has so far handled more than 800 cargoes at its off-shore base.

Leading LNG trader Shell resubmits plans for North Sea natural gas field for energy security

Shell, one of the world's leading LNG traders with about 64 million tonnes per annum of sales, is increasing its UK offshore activities for its Integrated Gas division by re-submitting an amended environmental statement to the UK Oil and Gas Authority (OGA) for the Jackdaw natural gas and condensate field in the North Sea.

The Jackdaw field is in development Blocks 30/02a, 30/02d, and 30/03a on the UK Continental Shelf (UKCS) and located about 155 miles (250km) east of Aberdeen in 255 feet of water.

Drilling plan

The Shell plan is to drill four wells, install a new wellhead platform, and tie back a new pipeline about 18 miles (30km) to the ex-

isting Shearwater host platform where fluids will be processed before export via the Fulmar gas line and the Forties pipeline system.

Drilling, installation and commissioning are expected between 2023 and 2025.

The Jackdaw gas field will be developed with a not permanently attended well head platform.

Environmental impacts of the proposed project include the physical presence of vessels, the WHP and infrastructure, atmospheric emissions, discharges to sea, impacts on the seabed and the effects of underwater noise and production of waste.

Shell submitted its initial ES to the UK authorities at the start of May 2021 and issued the ES for public consultation on May 10,

2021. This latest statement was an update to the original statement for the Jackdaw project submitted in January 2020.

This ES, based on an assessment of significant adverse effects, found that the Jackdaw development would not cause any significant long-term adverse impact to the environment.

"Risks and impacts could be readily mitigated and controlled through robust design, effective operating practices and systems implemented by a highly trained workforce," it had said.

"Shell has a significant track record in the delivery and operation of offshore project developments in the North Sea and is committed to protecting the environment by carefully considering

the potential impact new developments may have during the planning of projects and throughout the lifetime of operations," it had added.

However, in October 2021 the UK Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) declined to sanction the project. It did not disclose the reason for the rejection.

Shell had noted that due to the challenge in identifying a viable development concept which carried the right balance of risk and investment the Jackdaw project has had a long history.

The field was discovered in 2005 and it was appraised between 2007 and 2012.