



## **MAERSK'S LNG FOCUS LIGHTS UP SHIPPING'S FUELS DEBATE**

Danish liner giant AP Moller–Maersk is looking at how to access bio-LNG and e-LNG as it prepares to grow a new LNG dual-fuelled container ship fleet. In a session at the TradeWinds Shipowners Forum Germany 2024 at SMM week in Hamburg, Maersk head of fuel transition and infrastructure Sameer Bhatnagar said: “We have been in active discussions in sourcing e-methane and biomethane. “We expect that market to ramp up in the future and we would like to do our part in trying to catalyse it,” he said. “We are trying now to see if we can work with these prospective producers to get our hands on this for when the vessels come out.” Bhatnagar sidestepped directly commenting on Maersk’s future LNG dual-fuelled newbuildings. TradeWinds reported last week that the Danish company is lining up a huge tranche of up to 62 owned and chartered-in LNG dual-fuelled container ship newbuildings. However, he did mention that methane slip was an area of concern. The Maersk man was asked by TradeWinds technology editor Craig Eason, the session moderator, if the company would run its vessels on grey methanol if the green variety of the product is not available. Bhatnagar said the company wants to decarbonise, but it is also important for the crew to get experience with the new fuel and for the vessels’ new dual-fuelled engines to be tested in the real world. He said Maersk has realised over a period that it needs to diversify its fuelling choices. In an ideal world the company would see a balance between long-term offtake agreements for new fuels and spot rates reflecting the fossil market

right now, said Bhatnagar. Maersk is currently working with prospective partners to see what kind of deals can be done. “At the end of the day, we know the price is going to head downwards,” he added. But Rob Stevens, Topsoe’s sector lead for green fuels, said he does not see the price of methanol coming down, largely due to the scarcity of and competition for the biogenic CO<sub>2</sub> needed to produce it. Instead, he tipped blue ammonia produced in the US and Middle East as a “fantastic molecule to bring forward”. Friederike Hesse, co-founder and managing director at Zero44, said that currently biofuels are the most economically viable. But she said availability might be a problem. Knut Orbeck-Nilssen, chief executive at DNV Maritime, said the production of biofuels globally will be limited, with more people competing for them. For the long term, he declared himself “not that positive” on their availability, although he believes they could be an option in the short to midterm. Orbeck-Nilssen was more positive about onboard carbon capture, which he said could alleviate the pressure on the lack of green fuel availability. The DNV Maritime chief floated the idea of having “carbon capture corridors” for certain routes. Oistein Jensen, chief sustainability officer at Odfjell, said his company started to focus on energy efficiency years ago largely to bring down costs and is now 52% down from its 2008 benchmark. But he said it comes to a point where the company needs to look at the fuel, and customers in the tanker segment currently have no interest in sharing the cost. Jensen said it is not simply about industries competing but competition for the energy needed to produce them, which leads Odfjell to think about being as flexible as possible. He said the company’s next newbuildings will be zero-emission capable and able to run on either methanol or ammonia. Source: [www.tradewindsnews.com](http://www.tradewindsnews.com)

## **OSAKA GAS CARRIER PUT UP FOR SALE AS VETERAN VESSELS’ FUTURE IN FLUX**

A 24-year-old steam turbine LNG carrier controlled by Japanese utility Osaka Gas Co is being offered for sale as shipowners start to rethink the future of elderly vessels in this sector. Brokers said the 135,333-cbm LNG Jamal (built 2000) has been circulated for sale, with some buyers starting to eye the ship more closely. The vessel is listed under Japan’s NYK ownership, and some databases suggest a shared stakeholding. NYK manages the ship. The LNG Jamal joins other LNG steamships such as the 137,500-cbm, Moss-type vessel Ghasha (built 1995), which is controlled by Adnoc Logistics & Services. The Japanese-built ship is offered on a charter-free basis in Fujairah. In late July, TradeWinds reported that NYK had circulated its 149,700-cbm steamer Grace Cosmos (built 2008) for sale. The South Korean-built, membrane-type vessel is being offered for delivery at the end of this year or early in 2025 on a charter-free basis. Bids were due last month. Brokers said more shipowners are starting to look at possible sales options for their steam turbine tonnage as it redelivers from long-term contracts. One said: “For those redelivering now and from 2025 you can be quite certain that most will need to find a new home.” Steam turbine LNG carriers rank as small and inefficient when compared with the 174,000-cbm two-stroke newbuildings being delivered today. But as emissions regulations tighten, they are expected to be retired from the global fleet. Brokers are continuing to caution about the buying appetite for older LNG carrier tonnage from entities assumed to be linked to Russian

business that are prepared to offer premium prices for older steam turbine ships. They said taking these inflated offers could put sellers in breach of international sanctions. One said that two-tier pricing for second-hand steamships is evident in the market, with buyers prepared to pay levels in the low-to-mid \$30m range at one end and between \$60m and \$70m at the other. Three LNG steamships that were sold to a Dubai-based entity this year have each lifted a cargo from the US-sanctioned, new Russian LNG project Arctic LNG 2. They were the 138,000-cbm Pioneer Spirit (ex-LNG Pioneer, built 2005) and the Everest Energy (ex-Metagas Everett, built 2003) and the 137,231-cbm Asya Energy (ex-Trader IV, built 2002). In August, the US slapped sanctions on all three ships and warned companies to be cautious of dealing with overseas branches or subsidiaries of Russian financial institutions that do not appear to be sanctioned. Brokers have detailed that a fourth LNG steamship, the 149,700-cbm New Energy (ex-Neo Energy, built 2007), which took on a transhipped Russian cargo from the Pioneer in the Mediterranean last week, was sold earlier this year for \$79.8m. The vessel is listed on databases as having been transferred from Tsakos Shipping & Trading to Dubai-based Nur Global Shipping in June. Source: [www.tradewindsnews.com](http://www.tradewindsnews.com)

## **COOLCO IS WELL COVERED IN A 'COLDER' LNG CARRIER MARKET**

Idan Ofer's Cool Company is well positioned to weather a period of lower LNG carrier earnings before a recovery from next year. After a steady second quarter, the shipowner's Ebitda of \$55.7m was slightly above the Bloomberg consensus of \$55.5m. Analysts led by Frode Morkedal said: "While we believe the market for LNG carriers will be well supplied in the near-term, CoolCo's 80% contract coverage in 2025 provides earnings visibility in an expected softer market before liquefaction capacity accelerates into 2026." The investment bank is modelling long-term charter rates of \$90,000 per day for two-stroke ships, in line with CoolCo's recent 14-year contract with India's Gail. The analysts noted that the LNG carrier market has remained subdued over the summer. The spot rate for a two-stroke unit is \$72,500 per day. "While we expect to see a seasonal improvement in rates in the near term, remaining expected deliveries by year-end 2024 amount to 6% of the existing fleet and could provide supply-side pressure on rates," the analysts said. "However, depending on winter temperatures and potential floating storage opportunities, given that European inventories are full, charter rates could, in our opinion, reach stronger levels," they added. Tonnage pressure will grow in 2025, with 14.5% of the existing fleet scheduled for delivery next year. However, analysts argue that liquefaction capacity is set to accelerate from the second half of next year, "and an improved market outlook is thus on the horizon". This is reflected in the time-charter arena, with one-year fixes at \$75,000 per day and three-year deals attracting \$83,000. "Steam turbine vessels, at an average age of 20.6 years, currently account for 27.5% of the total LNG carrier fleet, and a softer 2025 could very well force some of those to the scrap yard," Morkedal and his colleagues said. The "buy" rating on CoolCo has been maintained, with a target price of NOK 150 per share, against NOK 127 in Oslo on Tuesday. Source: [www.tradewindsnews.com](http://www.tradewindsnews.com)

## **BW LNG SEALS JORDAN FSU CHARTER DEAL**

Oslo-based BW LNG, a unit of Singapore's gas shipping giant BW, has signed a 10-year charter deal with Jordan's National Electric Company (NEPCO) to deploy a floating storage unit (FSU) in Jordan. In addition, NEPCO will acquire ownership of the vessel at the end of the charter period, BW LNG said in a statement. The vessel, to be moored at Sheikh Sabah LNG terminal, Aqaba for 10 years, will play a "pivotal role" in strengthening Jordan's national energy security needs. The LNG carrier will undergo conversion to an FSU ahead of the charter and is expected to start operations during Q3-Q4 of 2026, according to BW LNG. The vessel is one of 34 vessels in BW LNG's fleet, which includes four floating storage and regasification units (FSRUs) and four newbuildings under construction. BW LNG did not provide the name of the vessel or the price tag of the contract. According to BW LNG's website, its fleet includes 10 old steam LNG carriers, which are likely candidates for the conversion. "We are pleased to work with the National Electric Power Company to provide a reliable long-term solution for energy security, powering electrical generation and industrial use," said Yngvil Åsheim, CEO of BW LNG.

### **Aqaba LNG terminal**

AG&P and its unit Gas Entec and local partners Issa Haddadin recently secured a contract from Aqaba Development Corporation to build an onshore regasification LNG terminal at the port of Aqaba in Jordan. The project's scope encompasses full engineering, procurement, construction, installation, and commissioning (EPCIC) of a 720 mmscfd onshore LNG regasification facility, marine works, jetty topside work and other associated components, South Korea-based Gas Entec said. Also, the LNG terminal is expected to be completed, commissioned, and delivered within 22 months. Gas Entec did not provide the price tag of the deal, but local reports in Jordan suggest the contract is worth \$125 million. Jordan currently imports LNG via the 160,000-cbm FSRU, Energos Eskimo, located in Aqaba. The country has chartered the FSRU until 2025, while Egypt also uses this unit to secure natural gas supplies. source:www.lngprime.com

## **SOUTH KOREA'S HD HYUNDAI MIPO TO BUILD LNG BUNKERING DUO**

South Korea's HD Hyundai Mipo has won a contract to build two liquefied natural gas (LNG) bunkering vessels for a European firm. HD Hyundai Mipo said on Thursday it will deliver these two vessels by November 2027. The vessels will have a capacity of 18,000 cbm. HD Hyundai Mipo said the price tag of the deal is 247.9 billion won. This equals about \$185 million or about \$92.5 million per vessel. Moreover, the shipbuilder noted that one of the two vessels is a conditional contract, and will be disclosed separately when it is finalized. HD Hyundai Mipo only said it will build the vessels for a European shipping firm, but it did not provide any further details regarding the deal. The shipbuilder delivered last year one 18,000-cbm LNG bunkering vessel to owner Pan Ocean and charterer Shell. Hyundai Mipo also handed over a 12,500-cbm LNG bunkering ship to Scale Gas, a unit of Spain's Enagas, and Peninsula. Shipbuilding sources told LNG Prime that Peninsula could be behind this deal with HD Hyundai Mipo for two vessels. The marine fuel supplier has been growing its LNG bunkering business since delivery of the 12,500-cbm Levante LNG last year. Including this new order, HD Hyundai Mipo's parent HD KSOE and its units won

orders this year for a total of 150 vessels worth \$16.97 billion, achieving 125.7 percent of its annual order target of \$13.5 billion. Besides these two LNG bunkering vessels, the orders include 8 LNG carriers and one floating storage and regasification unit (FSRU). [source:www.lngprime.com](http://source.www.lngprime.com)

## **CROATIAN FSRU GETS 100TH CARGO**

Croatia's Krk liquefied natural gas (LNG) terminal has received its 100th cargo since the launch of operations in January 2021. The 2020-built 173,400-cbm LNG carrier, BW Pavilion Aranthera, delivered the milestone cargo to the 140,000-cbm FSRU on Thursday, state-owned LNG Croatia said in a statement. BW Pavilion Aranthera's AIS data provided by Vessels Value shows the LNG carrier previously picked up the cargo at Sempra's Cameron LNG terminal in Louisiana. The Croatian FSRU mainly receives shipments from the US, but it also received cargoes from Qatar, Nigeria, Egypt, Trinidad, Indonesia, Algeria, and reloads from European terminals. Switzerland-based trading firm MET, which has regasification capacity rights at the Croatian LNG terminal until October 2032, said in a separate statement it had supplied this LNG cargo to the FSRU. Since the launch of operations in 2023, MET has delivered a "significant number" of LNG shipments to the FSRU, the firm said. The Krk LNG terminal has shipped more than 8.3 billion cubic meters of natural gas into the Croatian system, according to LNG Croatia. The LNG terminal regasified more than 13.7 million cubic meters of LNG and completed 398 truck loading operations. Due to high demand, LNG Croatia is currently working to boost the capacity of its FSRU-based Krk LNG terminal. Last year, a unit of Finland's Wartsila won a contract to supply one regasification module for the FSRU. Under the contract, Wartsila Gas Solutions is building the regas module with a maximum capacity of 250,000 m<sup>3</sup>/h. The firm awarded the module contract to China's CIMC SOE. The current three LNG regasification units have a maximum regasification rate of 451,840 m<sup>3</sup>/h. Following the upgrade, the Krk LNG facility will have a capacity of about 6.1 bcm per year in 2025. [source:www.lngprime.com](http://source.www.lngprime.com)

## **MAJOR LNG CARRIER DEAL TO SEE VESSELS INSTALLED WITH ALS**

Silverstream Technologies announced it has surpassed 200 orders for its air lubrication system (ALS), with its latest confirmed deal on board a set of new 271,000-m<sup>3</sup> Q-Max class of LNG carriers. The technology shears air from air release units in the hull to create a uniform carpet of microbubbles that coats the full flat bottom of a vessel, reducing the drag on the vessel, which in turn lowers thrust requirements and decreases the amount of engine power needed to propel a vessel. The result is decreased frictional resistance, cutting average net fuel consumption and GHG emissions by 5-10%. According to Silverstream, the system is fuel agnostic, effective in all sea states, and is applicable to all shipping segments. The mega LNG order was placed by state-owned LNG giant QatarEnergy months ago. The US\$6Bn order with China State Shipbuilding Corp will see the group's Hudong-Zhonghua subsidiary deliver 18 LNG carriers. The Silverstream System will be installed on board all 18 carriers. Silverstream's current orderbook includes 57 LNG carriers, spans nine vessel segments, and includes 20 repeat customers – seven major shipowners and 13 of the world's largest shipyards. The company also has 82 systems in operation

on board the existing fleet. Silverstream chief executive Noah Silberschmidt said surpassing 200 orders was “a significant milestone. This achievement demonstrates the meaningful impact we are making on the industry’s green transition. Our market-leading Silverstream System is fast becoming a standard choice on newbuild vessels and a leading retrofit option, improving vessel efficiency and sustainability.” Shifting regulations are strengthening the case for adopting vessel fuel-efficiency technology. Recent data points out 33% of the world’s ships are fitted with a form of energy-saving device by gross tonnage, but the number of vessels is only 8,700, compared with a global fleet of 110,500. LNG carriers could fall into the non-compliant categories (D and E) of IMO’s Carbon Intensity Indicator framework, largely because of the way in which they handle boil-off gas. Meanwhile, the EU’s Emissions Trading System is adding a progressive cost to emissions, increasing in scope from 40% of emissions in 2024 to 70% in 2025 and 100% in 2026. By sector, container ships have seen the highest clean technology uptake with over 48% of fleet capacity fitted with at least one solution, followed by tankers and cruise ships, both over 38%, and bulkers over 35%. Air lubrication systems are attracting growing interest from shipowners with 500 systems either in operation or set to be installed on newbuilds on order. Over the total lifetime of all its contracted vessels, Silverstream estimates its air lubrication technology will save its current customer base almost US\$5Bn in fuel costs and prevent the emission of more than 19M tonnes of CO<sub>2</sub>. Additionally, this CO<sub>2</sub> reduction is projected to save approximately US\$2Bn through existing carbon tax systems. source:www.rivieramm.com

## **GERMANY’S DET SAYS TO LAUNCH TWO FSRU TERMINALS BEFORE WINTER**

State-owned German LNG terminal operator DET still expects to launch its next two FSRU-based LNG import terminals in Stade and Wilhelmshaven by the end of this year, DET told LNG Prime on Wednesday. „We are working at full speed and getting closer to the point,“ a DET spokesman said. „We expect both terminals to go into operation before the winter,“ he said. DET currently operates the first Wilhelmshaven LNG terminal which features the 170,000-cbm Hoegh Esperanza and the LNG terminal in Brunsbüttel which features the 170,000-cbm Hoegh Gannet. This FSRU will move to a new dedicated jetty in the port. DET recently announced it has received in total of 100 LNG cargoes at its two FSRU-based LNG terminals in Wilhelmshaven and Brunsbüttel since January 2023. The company’s third LNG import facility in Stade features the 174,000-cbm FSRU Energos Force. In March, the 2021-built FSRU, owned by Apollo’s Energos Infrastructure, arrived at the AVG jetty in Stade. This FSRU recently returned to the jetty in Stade following the completion of dredging work in the area. DET said at the time the FSRU will be further prepared for commissioning, which is planned for the second half of the year. Once operational, the almost 300 meters long ship will feed up to 5 bcm of gas per year into the German gas network. Moreover, DET previously said it expects commissioning to start at its second terminal in Wilhelmshaven with a capacity of about 4 bcm per year during the second half of this year. Excelerate’s 138,000-cbm FSRU Excelsior arrived at the Navantia yard in El Ferrol, Spain last year for a planned stopover before its job in Wilhelmshaven. The FSRU is still located there. Unlike the

three other FSRU-based terminals, the jetty for the second Wilhelmshaven LNG terminal is located some 1.5 kilometres offshore Wilhelmshaven. In addition to these four facilities, private LNG terminal operator Deutsche ReGas just launched commercial operations at its FSRU-based LNG terminal in the German port of Mukran. This terminal with a capacity of 13.5 bcm is the largest LNG import facility in Germany and it features two FSRUs, Energos Power and Neptune. source:www.lngprime.com

## INDIA EYES BRUNEI LNG SUPPLIES

India is interested in buying liquefied natural gas (LNG) from Brunei to meet growing domestic gas demand. This was revealed on Wednesday by India's Prime Minister Narendra Modi during a banquet hosted by the Sultan of Brunei. According to a statement by the government of India, this is the first bilateral visit by an Indian Prime Minister to Brunei. Modi said the two countries are committed to strengthening their cooperation in economic, scientific, and strategic sectors. „Under the energy sector, we discussed the potential for long-term cooperation in LNG, “ he said. Modi did not provide further information regarding the LNG cooperation. Brunei has the 6.7 mtpa Brunei LNG export plant in Lumut, one of the world's oldest LNG export facilities. Shell and Mitsubishi have each a 25 percent share in the facility, while the Brunei government holds 50 percent. This facility mostly ships LNG to Japan. On the other hand, India currently imports LNG via seven facilities with a combined capacity of about 47.7 million tonnes. These include Petronet LNG's Dahej and Kochi terminals, Shell's Hazira terminal, and the Dabhol LNG, Ennore LNG, Mundra LNG, and Dhamra LNG terminal. The Chhara LNG import terminal in Gujarat should also receive its commissioning cargo later this year. During April-July, India took some 11.42 bcm of LNG, or about 8.5 million metric tonnes, up by 13.1 percent compared to the same period last year, according to the preliminary data from the oil ministry's Petroleum Planning and Analysis Cell. source:www.lngprime.com

## SANTOS TO SUPPLY 19 LNG CARGOES TO GLENCORE

Australian LNG player Santos will supply 19 liquefied natural gas cargoes to a unit of Switzerland-based energy trader Glencore under a new mid-term deal revealed on Wednesday. According to a statement by Santos, the contract is for up to 0.5 million tonnes of LNG per annum over a period of 3 years plus one quarter. Santos will deliver the LNG supplies to Glencore Singapore. The contract will start in the fourth quarter of 2025 with LNG being supplied from Santos' global portfolio of LNG assets on a delivered ex-ship basis. Santos managing director and CEO Kevin Gallagher said the contract with Glencore is an extension of their existing "strong" business relationship and a "great opportunity" for both Santos and Glencore to leverage their expertise in Asian LNG markets. "This oil-indexed contract along with the recently executed long-term LNG sales and purchase agreement with Hokkaido Gas in Japan demonstrates Santos' strong LNG portfolio position and customer relationships in the region," he said. He said there continues to be "extremely strong" demand in Asia for high heating value LNG from projects such as Barossa and PNG LNG. "Santos is committed to supporting the energy security of our valued customers across Asia," Gallagher added.

## Barossa

Santos recently said the Barossa gas project, which will supply feed gas to the Santos-operated Darwin LNG plant, is almost 80 percent complete and remains on target for first production in the third quarter of 2025. Back in 2021, Santos took a final investment decision for its \$3.6 billion Barossa project. Natural gas will be extracted from the Barossa field, located in Commonwealth waters about 285 kilometres offshore north-northwest from Darwin, and transported via a pipeline to the existing Darwin LNG facility. In November last year, the last LNG cargo produced from the Bayu-Undan gas field has sailed from the Santos-operated Darwin LNG plant in Australia's Northern Territory. The final LNG shipment from Bayu-Undan left the 3.7 mtpa Darwin LNG plant at Wickham Point on November 11. The Darwin LNG plant launched operations in 2006, and the facility is now being readied for the next 20 years, in preparation for the start of Barossa gas production in 2025. To prepare for Barossa gas, Santos is working on the Darwin LNG life extension project.

## PNG LNG, GLNG

Santos operates the 7.8 mtpa Gladstone LNG export plant on Curtis Island near Gladstone. The facility shipped 22 LNG cargoes during the second quarter, the same as in the second quarter last year and five less compared to the prior quarter. GLNG produced 1.33 million tonnes of LNG during the quarter, up from 1.26 million tonnes in the same quarter last year and down from 1.64 million tonnes in the prior quarter. During the second quarter, the ExxonMobil-operated PNG LNG project in Papua New Guinea shipped 27 cargoes of LNG, the same number of LNG cargoes as in the same quarter last year and in the previous quarter. Santos currently has a 42.5 percent stake in the LNG export plant in Caution Bay following the Oil Search merger, and it earlier this year agreed to amend the terms of sale of its 2.6 percent stake in the LNG project to Papua New Guinea's national oil and gas company Kumul Petroleum. ExxonMobil holds a 33.2 percent operating interest in PNG LNG which is able to produce more than 8.3 million tonnes of LNG annually, an increase of 20 percent from the original design specification of 6.9 mtpa. France's TotalEnergies and its partners, which include Santos, are also working on the Papua LNG export project in Papua New Guinea. Gallagher recently said the partners plan to take a final investment decision on the Papua LNG at the end of 2025. TotalEnergies has a 37.55 percent operating stake in the Papua LNG project, US-based ExxonMobil has 37.04 percent, Santos owns a 22.83 percent interest, and Japan's JX Nippon holds 2.58 percent. The project calls for the design of about 4 million tonnes per year of liquefaction capacity adjacent to the existing PNG LNG processing facilities and located 20 kilometres northwest of Port Moresby. source:www.lngprime.com

## **FIRST GEN SEEKS LNG CARGO FOR OCTOBER DELIVERY**

Power producer First Gen is seeking one spot LNG cargo for delivery in October to its chartered FSRU in the Philippines. The firm controlled by the Lopez family said it seeks to procure a single cargo of LNG via its unit First Gen Singapore on a delivered ex-ship (DES) basis, to be utilized by FGEN's existing gas-fired power plants in its complex in Batangas. The supplies will be delivered at Subic Bay Freeport in Zambales, Philippines and loaded into the the 162,000-cbm FSRU BW Batangas, it said.



Also, the selected bidder will deliver the LNG cargo of about 154,500 cbm from October 14 to October 18, 2024. First Gen expects to award the tender on September 16.

**Seventh tender**

This is the seventh tender the company issued since last year. Prior to this tender, First Gen launched tenders for delivery in May and July, while the fourth tender was not awarded as First Gen did not get firm commitment from Manila Electric regarding the costs of the LNG supply. Shell supplied the first LNG cargo for commissioning purposes to First Gen’s FSRU-based LNG terminal in August last year, while Trafigura and TotalEnergies supplied the second and the third cargo. A unit of China’s state-owned energy giant CNOOC supplied the fourth LNG cargo, while First Gen awarded the fifth LNG cargo to Japan’s Tokyo Gas for delivery in July. Japan’s city gas supplier and LNG importer Tokyo Gas and First Gen are partners and the Japanese company in May entered a deal to buy a 20 percent stake in First Gen LNG, a unit of First Gen and the operator of the FSRU-based terminal in Batangas. According to local media reports, First Gen has not yet received this cargo from Tokyo Gas. The reports say the FSRU is undergoing repair work at a yard in Subic Bay and the work is expected to be completed this month. First Gen has a portfolio of four gas-fired power plants with a combined capacity of 2,017 MW that have been supplied for many years with gas from the Malampaya offshore gas field.

It is now buying LNG to replace declining volumes from the Malampaya gas field. Besides spot LNG supplies, First Gen previously said it is also in talks to secure LNG deliveries in the medium to long-term. source:www.lngprime.com

**NORTH AMERICA’S LNG EXPORT CAPACITY TO MORE THAN DOUBLE BY 2028**



North America’s liquefied natural gas (LNG) export capacity is on track to more than double between 2024 and 2028, according to the US Energy Information Administration. The LNG export capacity will rise from 11.4 billion cubic feet per day (Bcf/d) in 2023 to 24.4 Bcf/d in 2028, if projects currently under construction begin operations as planned, the agency said in a report.

During this time, EIA expects developers in Mexico and Canada to place their first LNG export terminals into service and in the US to add to existing LNG capacity. By the end of 2028, the agency estimates LNG export capacity will grow by 0.8 Bcf/d in Mexico, 2.5 Bcf/d in Canada, and 9.7 Bcf/d in the US from a total of 10 new projects that are currently under construction in the three countries.

### **Mexico**

The agency noted developers are currently constructing two projects with a combined LNG export capacity of 0.6 Bcf/d—Fast LNG Altamira offshore on Mexico’s east coast and Energía Costa Azul on Mexico’s west coast. NFE’s Fast LNG Altamira consists of two floating LNG production units (FLNG), each with a capacity to liquefy up to 0.199 Bcf/d of natural gas, located off the coast of Altamira, in the state of Tamaulipas, Mexico. Natural gas from the US delivered via the Sur de Texas–Tuxpan pipeline will supply these units. The first LNG cargo from this facility was shipped in August 2024. Moreover, Sempra Infrastructure’s Energía Costa Azul LNG export terminal (0.4 Bcf/d export capacity) is located at the site of the existing LNG regasification (import) terminal in Baja California in western Mexico. Developers proposed an expansion of this project in Phase 2 by 1.6 Bcf/d. This project will be supplied with natural gas from the Permian Basin in the US. The agency said developers have also proposed other LNG export projects, all for Mexico’s west coast, including Saguario Energia LNG (2 Bcf/d capacity), Amigo LNG (1 Bcf/d capacity), Gato Negro LNG (0.6 Bcf/d capacity), Salina Cruz LNG (0.4 Bcf/d capacity), and Vista Pacifico LNG (0.5 Bcf/d capacity), with a combined capacity of 4.5 Bcf/d. However, none of these projects have reached a final investment decision or started construction, EIA said.

### **Canada**

Currently, three LNG export projects with a combined capacity of 2.5 Bcf/d are under construction in British Columbia on Canada’s west coast. Shell’s LNG Canada (1.8 Bcf/d export capacity) plans to start LNG exports from Train 1 in the summer of 2025, while Woodfibre LNG (export capacity 0.3 Bcf/d) targets the startup of LNG exports in 2027. Cedar LNG—an FLNG project with capacity to liquefy up to 0.4 Bcf/d—made a final investment decision in June 2024 and expects to start LNG exports in 2028. These projects will be supplied with natural gas from western Canada. In addition, the Canada Energy Regulator (CER) has authorized four LNG export projects, including an expansion of LNG Canada, with a combined proposed LNG export capacity of 4.1 Bcf/d, the agency said.

### **US**

In the US, five LNG export projects are currently under construction with a combined export capacity of 9.7 Bcf/d, the agency said. These include Venture Global LNG’s Plaquemine’s (Phase I and Phase II), Cheniere’s Corpus Christi Stage III, Golden Pass, owned by QatarEnergy and ExxonMobil, Next Decade’s Rio Grande (Phase I), as well as Sempra’s Port Arthur (Phase I). Developers expect to produce the first LNG from Plaquemine’s LNG and Corpus Christi LNG Stage III and ship first cargoes from these projects by the end of 2024, the agency said. source:www.lngprime.com

## **THE U.S. LAST YEAR WAS THE WORLD'S LARGEST LNG EXPORTER.**

Exports of U.S. liquefied natural gas bounced higher in August as output from the country's second-largest export facility rose following an outage and maintenance activities at other plants wound down, preliminary data from financial firm LSEG showed on Tuesday. Exports of the superchilled gas rose to 7.48 million metric tons (MT) in August, up from the 6.69 MT in July, which marked the second-lowest monthly exports of the year, the LSEG data showed. The U.S. last year was the world's largest LNG exporter. In August, Freeport LNG at times operated above nameplate capacity as it began to benefit from its debottlenecking work to add output beyond the plant's 15.3 MTPA capacity following an outage in July. The Texas company's operations were offline for a time last month after a shutdown ahead of Hurricane Beryl, which hit the Texas coast near Freeport as a Category 1 hurricane on July 8. The plant remained down for eight days and resumed operations on a phased basis. U.S. LNG producers continued to favor exports to Asia. A heat wave was driving Asian LNG prices while a well-supplied Europe was putting downward pressure on prices on the continent, Masanori Odaka, senior analyst at Rystad Energy, said last month. In August, 3.19 MT, or just under 43%, was supplied to Asia, a similar percentage but a slightly higher volume compared to the 2.9 MT shipped in July, LSEG ship tracking data showed. Europe remained the second-favored destination for U.S. exports, with 2.92 MT, or 39%, sold to the continent, surpassing the 36% supplied to the continent in July. Egypt, which continues to face a hot summer, imported 0.7 MT from the U.S. and Jordan imported 0.08 MT of the superchilled gas in August, LSEG data showed. Sales of LNG to Latin America were 1.08 MT, or just over 14%. The share was higher than the 11% sold to the region in July, LSEG data show. There were two cargoes that were out for orders with a total volume of 0.14 MT, ship tracking data showed. In August, Venture Global LNG's 20 MTPA Plaquemine's LNG facility signalled it was close to startup with the importation of LNG to cool its facility. When the Louisiana plant is fully operating, it will become the second-largest U.S. export facility and further cement the U.S. as the world's largest exporter of the superchilled gas.

Source: [www.naturalgasworld.com](http://www.naturalgasworld.com)

## **NEW FORTRESS ENERGY EARNS APPROVALS FOR NON-FTA LNG EXPORTS**

New Fortress Energy said September 3 it had received US Department of Energy (DoE) approval to export up to 1.4mn tonnes/year of LNG to countries without a free trade agreement from its first Fast LNG (Fast LNG 1) facility, recently commissioned offshore Altamira, Mexico. The non-FTA authorisation, which carries a term of five years, combines with FTA authorisations for the same volume to allow NFE to export Fast LNG 1 output to LNG markets and customers worldwide. The DoE authorisation was one of the first since a federal judge in July halted the Biden administration's pause on new non-FTA export applications. "This important authorisation cements NFE's position as a leading global vertically integrated gas to power company and enhances the marketability of our FLNG 1 asset," NFE CEO Wes Edens said. "NFE is now able to freely supply cheaper and cleaner natural gas to underserved markets across the world and further our goal of accelerating the world's

energy transition.” NFE produced first LNG from Fast LNG 1 in July, while a second Fast LNG unit, an onshore facility, is under construction near Altamira and is scheduled for completion in the first half of 2026. Source: www.naturalgasworld.com

## DEUTSCHE REGAS LAUNCHES COMMERCIAL OPS AT MUKRAN FSRU TERMINAL

German LNG terminal operator Deutsche ReGas has launched commercial operations at its FSRU-based LNG terminal in the German port of Mukran. Deutsche ReGas said in a statement the “Deutsche Ostsee” energy terminal has started “regular operations” on Monday. This follows the unloading of a US LNG cargo at the Mukran facility which features two floating storage and regasification units, Energos Power and Neptune. The 2021-built 174,000-cbm LNG carrier, Hellas Diana, owned by Latsco and chartered by Trafigura, delivered the LNG cargo from the Freeport LNG terminal in Texas. According to Deutsche ReGas, Hellas Diana unloaded its cargo at the Mukran terminal from Wednesday to Friday last week. “This was a world first for a concurrent LNG delivery into the two interconnected FSRUs (so-called triple banking),” the LNG firm led by Ingo Wagner and Stephan Knabe claims. The privately financed LNG terminal has a storage capacity of over 300,000 cubic meters of LNG and is the largest feed-in point of all German LNG terminals with a firm capacity of 16 GWh/h, Deutsche ReGas said. Around 15 percent of Germany’s total natural gas demand can be fed from the terminal into the OAL, NEL, and EUGAL gas pipeline system. The pipelines enable gas transport from the German Baltic coast onwards within Germany, Austria, and also to the neighboring Eastern European countries, it said.

### FSRUs

In July, Deutsche ReGas welcomed the second FSRU at its LNG import terminal in Mukran. The 2009-built 145,000-cbm, FSRU Neptune, arrived on July 3 at the terminal. The unit, which is 50 percent owned by Hoegh LNG and sub-chartered by Deutsche ReGas from TotalEnergies, left in May Germany’s industrial port of Lubmin, where it served the Lubmin terminal. Deutsche ReGas officially launched its Lubmin FSRU-based LNG import terminal, first private LNG terminal in Germany, in January last year. After leaving Lubmin, Neptune was located for about in a yard in Denmark to complete preparational work prior to its deployment at the Mukran LNG terminal on the island of Rügen. Deutsche ReGas launches commercial ops at Mukran FSRU terminal. Energos Power arrived in Mukran in February 2024 (Image: Deutsche ReGas / Christian Morgenstern). Prior to the arrival of Neptune, the Mukran terminal featured the 2021-built 174,000-cbm, Energos Power, owned by US-based Energos Infrastructure. In June last year, Deutsche ReGas signed a deal with the German government to sub-charter the FSRU delivered in 2021 by Hudong-Zhonghua. Deutsche ReGas took over the charter of Energos Power in October last year. Deutsche ReGas received the first LNG tanker at the Mukran facility in March this year as part of the commissioning phase. Neptune and Energos Power are located side-by-side at the berth 12 in the Mukran port.

## **Capacity**

In June, Deutsche ReGas invited market participants to express an interest in capacity at the Mukran FSRU-based facility from 2024 to 2027. However, a Deutsche ReGas spokesman recently told LNG Prime that the auctions could not take place due to technical difficulties on the PRISMA marketing platform. He said Deutsche ReGas plans to reschedule the auction in the second half of 2024. "Irrespective of these technical restrictions, some short-term capacities were successfully marketed," the spokesman said. Worth mentioning here, France's TotalEnergies and Switzerland-based MET previously booked capacity at the Lumbin FSRU terminal. MET booked 1 bcm per year and TotalEnergies took 2.6 bcm per year of the regasification capacity for a total of 3.6 bcm. source:www.lngprime.com

## **PERU LNG TERMINAL SENT FOUR CARGOES IN AUGUST**

Peru LNG's liquefaction plant at Pampa Melchorita has shipped four liquefied natural gas cargoes in August, the same number of shipments as in the previous two months. According to the shipment data by state-owned Perupetro, during August the 4.4 mtpa LNG plant sent two shipments to the UK and one shipment each to China and Japan. The shipments loaded onboard the LNG carriers Orion Jessica, Orion Bohemia, Barcelona Knutsen, and Paris Knutsen equal about 262,821 tonnes, the data shows. These four LNG cargoes loaded at the Peru LNG plant last month compared to just two cargoes in August last year when the plant was undergoing scheduled maintenance, while Peru LNG shipped four LNG cargoes in July and four LNG cargoes in June. The Peru LNG plant sent seven LNG cargoes in a row to the Dutch Gate LNG import terminal in the port of Rotterdam since the end of May and until mid-July, the Perupetro data previously showed. Before these shipments, Gate received a cargo from Peru in September 2023 and has never received more than two cargoes shipped from the Peru LNG facility in a row. LNG giant Shell holds 20 percent in Peru LNG and offtakes all the volumes. Shell also has long-term regasification capacity booked at the Gate facility owned by Gasunie and Vopak. US-based Hunt Oil holds a 50 percent operating stake in the Pampa Melchorita LNG plant, while MidOcean Energy and Marubeni have 20 percent and 10 percent, respectively. MidOcean Energy, the LNG unit of US-based energy investor EIG, completed in April its previously announced purchase of the 20 percent stake in Peru LNG from a unit of South Korean conglomerate SK.

### **Peru LNG plans to boost number of shipments this year**

Peru LNG increased its exports last year compared to the year before, and it also expects to boost the number of shipments in 2024. The terminal loaded 55 vessels in 2023, compared to 51 vessels in 2022. It expects to load 60 vessels in 2024. According to Peru LNG's 2022 annual report, the plant loaded more than 60 vessels only in 2016 and in 2017. In 2021, 38 vessels berthed to load LNG at the plant, 55 vessels in 2020, 58 vessels in 2019, 57 vessels in 2018, 64 vessels in 2017, 70 vessels in 2016, 56 vessels in 2015, 60 vessels in 2014, 57 vessels in 2013, 53 vessels in 2012, 55 vessels in 2011, and 23 vessels in 2011 when operations began.source:www.lngprime.com

## **BULGARGAZ SEEKS FIVE LNG CARGOES**

Bulgaria's Bulgargaz, a unit of state-owned Bulgarian Energy Holding, is seeking liquefied natural gas (LNG) cargoes for delivery during the upcoming autumn-winter season. Bulgargaz launched three tenders for five LNG cargoes. During October 2024, the company is seeking one LNG cargo of about 150,000 cbm on a DES (delivery ex-ship). The delivery window is October 4 and the main delivery point is the Alexandroupolis FSRU-based facility in Greece, while the alternative is an LNG terminal in Türkiye, according to Bulgargaz. Moreover, Bulgargaz is seeking two LNG cargoes, each of about 150,000 cbm, for delivery during November and December this year. One cargo will be delivered during November 23-31 and the other during December 23-30, 2024. The delivery points are the same. During January-February 2025, Bulgargaz is seeking two LNG cargoes, each of about 150,000 cbm, for delivery to the Alexandroupolis FSRU or an LNG terminal in Türkiye. The delivery windows are January 24-31 and February 21-28, 2024.

### **Türkiye and Greece**

Prior to these tenders, Bulgargaz awarded a tender to Türkiye's Botas to supply one LNG cargo in June. The two firms previously signed a capacity deal which allows Bulgargaz access to Turkish LNG import terminals and the grid. The duration of the agreement is 13 years and includes a gas transfer of up to 1.5 billion cubic meters per year. Bulgargaz and Botas are currently renegotiating the terms of the deal, Bulgargaz said in a statement on August 15. On the other hand, Gastrade, the operator of the FSRU-based LNG import terminal off Alexandroupolis, recently told LNG Prime that the unit has completed final tests following an issue with the project's pipeline. "The COD (commercial operation date) is still planned for October 1, 2024, to coincide with the start of the next gas year," the company said. Gastrade's shareholders include founder Copelouzou, DESFA, DEPA, Bulgartransgaz, and GasLog. Bulgartransgaz has a 20 percent share in the LNG terminal, while Bulgargaz previously booked capacity at Gastrade's FSRU-based LNG import project. source:www.lnprime.com

## **GASGRID: INKOO FSRU CAPACITY 50 PERCENT BOOKED IN 2025**

Finland's gas system and LNG terminal operator Gasgrid said companies have booked 50 percent of the offered regasification capacity at the Inkoo FSRU-based terminal in 2025. In July, Gasgrid's unit Floating LNG Terminal Finland offered in total of 22 terminal slots of 950 GWh each for calendar year 2025. Applicants needed to submit their terminal capacity requests by August 15, 2024. According to a statement by Gasgrid issued on Monday, 11 of these slots were reserved. As per the terminal rules, the process will proceed to the scheduling of the slots reserved for 2025, which will be a "market-driven process" in cooperation with the terminal customers. Once the schedules are confirmed, Gasgrid will publish the exact program and at the same time open the remaining spot slots for booking, according to Rasmus Hellman, commercial manager at the Inkoo LNG terminal. He said the company aims to make the announcement as soon as possible, but following terminal rules, no later than November 25, 2024. "At this stage, reservations have been made according to the number of slots and only at the

scheduling stage will we see how the reserved slots will be scheduled for next year. The terminal hopes that the slots will be evenly distributed throughout the year,” Hellman added.

### **95 percent capacity booked in 2024**

In May this year, Gasgrid said that companies have booked 95 percent of the offered regasification capacity at the terminal in 2024. Excelerate Energy’s 150,900-cbm FSRU Exemplar, which serves the Inkoo terminal under a charter deal, has a regasification capacity of more than 5 bcm per year. Finnish state-owned energy firm Gasum and Eesti Gas, a unit of Estonian investment firm Infortar, delivered LNG cargoes to the FSRU during the winter period. Finland relied on LNG imports via the FSRU and the small Hamina LNG terminal to meet domestic demand for households, industry, and power since the Balticconnector gas pipeline between Finland and Estonia suffered a rupture and was shut down in early October 2023. In April, the Balticconnector offshore gas pipeline, owned by Gasgrid and Estonian gas system operator Elering, resumed commercial operations. source:www.lngprime.com

### **JAPAN’S K LINE TAKES DELIVERY OF LNG-FUELED PCTC**

Japan’s shipping giant K Line has welcomed a new LNG-powered pure car and truck carrier (PCTC) into its fleet. The vessel in question is the 7,000-ceu Nereus Highway built by China Merchants Jinling Shipyard (Jiangsu), according to a statement by K Line. K Line said this is the first vessel of two it ordered at the Chinese shipbuilder back in September 2021. The 199.9 meters long and 38 meters wide ship features the latest dual-fuel electronic control engine, “7X62DF-2.1 iCER” by WinGD, which will reduce methane slip when using LNG fuel, the firm said. LNG fuel is expected to reduce emissions of carbon dioxide (CO<sub>2</sub>), by 25 percent to 30 percent, emissions of sulfur oxide (SO<sub>x</sub>) by almost 100 percent, and emissions of nitrogen oxide (NO<sub>x</sub>) by about 75 percent, compared to conventional vessels using heavy fuel oil, K Line said. K Line previously said it aims to have about 40 LNG-powered vessels in its fleet by 2030, as part of the company’s plans to slash emissions. Earlier this year, the firm took delivery of its first capesize bulk carrier equipped with a dual-fuel diesel engine that utilizes LNG as its primary fuel. Besides LNG-fueled vessels, K Line also has a large fleet of LNG carriers. According to its latest financial report, the firm had 46 LNG carriers in its fleet, including 44 owned vessels, as of the end of June this year. source:www.lngprime.com

### **SHELL SEALS LONG-TERM LNG SUPPLY DEAL WITH BOTAS**

UK-based LNG giant Shell has signed a long-term LNG supply deal with Türkiye’s state-owned natural gas and LNG firm Botas. Türkiye’s Energy Minister Alparslan Bayraktar announced the deal during a ceremony held in Ankara on Monday. Under the 10-year deal, Botas will receive 40 LNG cargoes per year, or up to 4 billion cubic meters of LNG, Bayraktar said. The agreement includes an option for Botas to receive the shipments at European terminals, outside Türkiye. The supplies will start in 2027. Botas said in a separate statement the deal will enable the company to expand its LNG capacity and use its terminal and pipeline infrastructure to assist Türkiye to diversify its gas resources and become a major regional gas hub. The agreement

was signed by Abdulvahit Fidan, Botas chairman and general manager, and Tom Summers, senior VP of Shell LNG Marketing and Trading. Shell CEO Wael Sawan was also present at the ceremony.

### **US and other volumes**

Shell said in a statement later Monday the LNG supplies will come from its US and global portfolio. The company plans to grow its LNG business by 20–30 percent by 2030, compared with 2022, Shell is operator or shareholder in a diverse portfolio of LNG plants located around the world. The company sold 33.28 million tonnes of LNG during the first half of this year, a rise of 1 percent compared to 33 million tonnes in 2023. During the January–June period, Shell's liquefaction volumes rose 1 percent to 14.53 million tonnes.

### **Botas LNG deals**

Botas has been very active lately in signing supply deals, while the firm also agreed to buy one FSRU. In May, Botas signed a deal with US energy giant ExxonMobil to buy LNG from the latter. Under the agreement, Türkiye plans to receive up to 2.5 million tons of LNG per year for 10 years, Botas said. In April, Botas also signed a 10-year SPA with state-owned producer Oman LNG. Under the deal, Oman LNG will supply Botas with 1 mtpa of LNG, starting in 2025. Prior to this, Botas and Algeria's LNG producer, Sonatrach, extended their LNG supply deal for three more years. Botas will continue to buy 4.4 billion cubic meters (bcm) LNG per year, or about 3.2 mtpa, from Botas for three more years until 2027. Botas operates the Marmara Ereglisi onshore terminal in Turkey, as well as the FSRU-based Dortyol facility and the FSRU-based Saros terminal. The company recently agreed to buy the 2020-built 180,000-cbm FSRU, Vasant 1, which serves the Saros terminal, for \$399 million. There is also one other FSRU operating in Türkiye at the privately-owned Etki terminal in Aliaga, Izmir, while Egegaz operates the Izmir Aliaga LNG facility. Türkiye increased its LNG import capacity to boost its energy security and to become an international gas hub. In April last year, Bulgaria's Bulgargaz received the first LNG cargo via Türkiye from the US as part of a deal it signed with Botas. Botas and Bulgargaz signed the deal in January, allowing the latter access to Turkish LNG import terminals and the grid. source:www.lngprime.com

## **VIRES ENERGY DROPS FSRU PLANS, PUTS FOCUS ON DEVELOPING LNG POWER PLANT**

Vires Energy, a unit of A Brown, has dropped plans to build an FSRU-based LNG import terminal in Batangas, Philippines. The firm aims to source natural gas from third parties to supply its planned LNG power plant. Back in April 2021, Vires Energy has secured approval from the Philippines' Department of Energy to develop its LNG-to-power project in the Philippines, located in Batangas on the main island of Luzon. In addition to the FSRU, Vires Energy's project in Barangay Simlong, Batangas included a 1.6km subsea gas pipeline from the unit to a 500-MW floating power plant. In November 2021, Vires Energy awarded a contract for its LNG-to-power project. A consortium of Seanergy Singapore and London Marine Consultants worked as the project's owner's engineer to cover up to the commissioning stage.



### Leveraging existing gas infrastructure in Batangas

A Brown (ABCI) said in a stock exchange filing that its subsidiary, Vires Energy (VEC) has given notice on August 30 to the Department of Energy withdrawing the notice to proceed issued for the LNG terminal and regasification facility. “VEC has decided, given recent industry developments, to forego constructing an LNG terminal and instead adopt the third-party access (TPA) model, which involves the purchase of gas from third-party gas sources through long-term gas supply agreements,” the company said. According to ABCI, it has been determined that the adoption of the TPA model will give the “optimal approach” for the VEC project moving forward. This model will leverage existing gas infrastructure in the Batangas area to support the development of new power plants and will also shorten the time when power generation can happen since VEC will no longer need to construct an LNG terminal, the company said. “VEC, therefore, will redirect its focus towards power generation and the pre-development of a 2x450MW LNG combined cycle power plant,” it said. This project is currently in the planning stages and will be constructed on a 15-hectare onshore site replacing the initially proposed floating power plant design, according to ABCI. “The withdrawal of the NTP, therefore, will not prejudice the LNG project and will instead be a step forward on the development of the project,” it said. “The Vires Energy site in Barangay Simlong is strategically located along the Batangas Bay and is currently evaluating the best way to connect to the existing gas pipelines to access gas from third-party LNG terminals and indigenous gas supply from Malampaya,” the company added.

### LNG import in Philippines

The Philippines has several LNG import facilities on the table as the Malampaya gas field becomes less reliable in producing and providing sufficient fuel supply for the country’s existing gas-fired power plants. In April last year, Singapore’s LNG firm AG&P kicked off commissioning activities at the first import terminal in the Philippines following the arrival of the 137,500-cbm FSU Ish at the terminal’s jetty in Batangas Bay. The LNG import facility features the converted FSU, which AG&P chartered from Adnoc for a period of up to 15 years. Besides PHLNG, First Gen’s Batangas FSRU-based LNG import terminal is also operational and has received several spot LNG cargoes up to date. BW LNG’s 162,000-cbm FSRU BW Batangas arrived in Batangas in June 2023 to start serving First Gen’s terminal. Shell supplied the first LNG cargo for commissioning purposes to First Gen’s FSRU-based LNG terminal in August last year, while Trafigura, TotalEnergies, and CNOOC supplied the second, the third cargo, and the fourth cargo respectively. First Gen awarded a contract to a unit of Japan’s Tokyo Gas to supply the fifth cargo. [source:www.lnprime.com](http://source:www.lnprime.com)

### **EXXONMOBIL’S ROVUMA LNG MOVES TO FEED STAGE**

US energy giant ExxonMobil and its partners have launched the front-end engineering design (FEED) phase for their Rovuma LNG onshore terminal in Mozambique. Frank Kretschmer, president of ExxonMobil Mozambique, confirmed this via his LinkedIn account last week. “This milestone represents a crucial step towards developing what will become the largest LNG project in Africa and one of the continent’s most substantial investments,” he said. He said the 18 mtpa Rovuma LNG project, sourced

from Mozambique’s abundant offshore natural gas fields, is designed for “both efficiency and flexibility”. “The updated electric LNG concept will incorporate 12 modular units, each capable of producing 1.5 million tons of LNG annually,” he said. “This approach ensures increased capacity, enhanced value for all stakeholders, and reduced greenhouse gas emissions,” Kretschmer said. Kretschmer did not provide further details. Last month, Mozambique’s President Filipe Nyusi announced that ExxonMobil plans to decide on its Rovuma LNG onshore terminal in Mozambique by 2026. Nyusi met with ExxonMobil’s upstream president Liam Mallon to discuss the onshore LNG project in Cabo Delgado. Mozambique Rovuma Venture (MRV) is the operator of the deepwater Area 4 block in the Rovuma basin off Mozambique that would feed the planned LNG export plant on the Afungi peninsula from the Mamba reservoirs. The joint venture is owned by Eni, ExxonMobil and CNPC, and holds a 70 percent interest in the Area 4 exploration and production concession contract. In addition to MRV, Galp, Kogas, and Empresa Nacional de Hidrocarbonetos each hold a 10 percent interest in Area 4. ExxonMobil is leading the construction and operation of the liquefaction and related facilities on behalf of MRV, and Eni is leading the construction and operation of the upstream facilities.

**FEED phase expected to take around 16 months**

According to a separate statement issued by the partners, this FEED phase is expected to take around 16 months and is the last step before a final investment decision (FID). The statement also did not reveal the contractors for the FEED phase. Technip Energies CEO Arnaud Pieton recently confirmed that “there is a FEED competition ongoing in Mozambique and we are one of the two contenders.” LNG Prime contacted Technip Energies to comment on the Rovuma LNG FEED, but we did not receive a reply by the time this article was published.

**Delayed project**

Back in 2019, the JV awarded a contract for the engineering, procurement and construction for the Rovuma LNG onshore production complex to a consortium made up of JGC, Fluor, and TechnipFMC (JFT). This award enabled the start of activities for the Rovuma LNG project, but the project has been delayed for years due to the Covid-19 pandemic and security concerns, and the partners did not take a final investment decision. However, ExxonMobil, Eni, and their partners resumed the development of the giant project said to be worth more than \$22 billion. In the meantime, Mozambique also became an LNG exporter. In 2022, Eni’s 3.4 mtpa Coral Sul FLNG located offshore Mozambique shipped its first cargo of liquefied natural gas. This project receives supplies from the Coral South reservoir in Area 4 and Eni and its partners are planning a second floating LNG producer as well. TotalEnergies is also working to restart work on its giant \$20 billion Mozambique LNG export project after it declared force majeure on the project in April 2021 and withdrew all personnel from the site due to new attacks.

source:www.lngprime.com

**SHELL, GAIL INK LNG CARRIER CHARTER DEAL**

LNG giant Shell has entered a charter deal with India's largest gas utility GAIL for one liquefied natural gas carrier. GAIL revealed the signing of the charter deal for one Shell LNG carrier via its social media on August 29. The deal was signed by Satyabrata Bairagi, GAIL's executive director for shipping and international LNG, and Richard Dickins, LNG freight trading team leader at Shell LNG marketing and trading, on August 27 in New Delhi. "This is yet another milestone in the expansion of GAIL's shipping fleet," GAIL said. The company did not provide the name of the vessel or any other details regarding the charter deal. LNG Prime invited Shell to comment on the contract. Shell manages a large fleet of LNG carriers. Back in 2021, Shell Tankers (Singapore), a unit of Shell, announced charter deals, for in total 24 174,000-cbm LNG carriers with several owners. Shell probably sub-chartered one of its 174,000-cbm LNG carriers to GAIL. Earlier this year, LNG carrier operator CoolCo has entered a 14-year charter deal with GAIL for one of the company's two newbuild LNG carriers currently under construction in South Korea. CoolCo will deliver the 174,000-cbm, Kool Panther, to state-owned GAIL in the Gulf of Mexico, with the time charter starting in early 2025. The expected charter rate for this deal could be in the "low \$90,000" range per day, based on CoolCo's backlog increase. GAIL is an end user for LNG and sells regasified LNG to customers in the fertilizer, city grid, power, refinery, and petrochem sectors, amongst others in India. The firm owns and operates a network of over 16,000 km of natural gas pipelines in India. It holds a stake in India's largest LNG importer, Petronet LNG, and the company buys volumes under long-term LNG deals, including from the US and Qatar. [source:www.lngprime.com](https://www.lngprime.com)

**CHINA'S HUIZHOU LNG TERMINAL GETS COMMISSIONING CARGO**

Chinese state-owned power utility Guangdong Energy has received the commissioning cargo at its Huizhou LNG terminal. The 145,700-cbm Maran Gas Coronis, owned by Maran Gas and Nakilat, has delivered 64,000 tons of LNG from the UAE to the LNG import terminal on August 30, Guangdong Energy said in a statement. Guangdong Energy said the vessel is expected to stay at the Huizhou LNG receiving terminal for seven days. The utility will use these LNG supplies for commissioning of the facility, including cooling down the storage tanks. Guangdong Energy announced the construction start of the LNG import project worth about \$1 billion in July 2021. Germany-based TGE Gas Engineering, a unit of China's CIMC, said in January this year that three 200,000-cbm Huizhou LNG tanks have reached mechanical completion. The first phase includes the three LNG tanks and related facilities for connecting, unloading, gasification and export, and one LNG jetty with a capacity of up to 266,000 cbm. The project has a capacity of 4 mtpa, according to Guangdong Energy. This is Guangdong Energy's first wholly owned LNG terminal. The utility also has stakes in the Yangjiang LNG peak shaving storage project and in CNOOC's Zhuhai LNG terminal in Guangdong. Chinese companies are heavily investing in LNG terminals. The country is the world's largest importer of LNG. During January-July this year, China imported 43.83 million tonnes of LNG, a rise of 11.9 percent year-on-year, according to customs data. [source:www.lngprime.com](https://www.lngprime.com)

## **RMK COMPLETES EUROPE'S LARGEST INLAND LNG BUNKERING BARGE**

Türkiye's RMK Marine has completed what it says is Europe's largest inland waterway LNG bunkering barge. The shipbuilder built the barge for owners Victrol and Sogestran and charterer Shell. RMK Marine said in a social media post last week the 8,000-cbm, Energy Stockholm, "is ready to be delivered to its operator." It did not say when it expects to deliver the vessel. RMK Marine built the vessel for LNG Shipping, a joint venture of Belgium's Victrol and France's Sogestran. The joint venture will own and operate this vessel, while UK-based LNG giant Shell will charter it for operations in the ports of Zeebrugge, Antwerp, Rotterdam, and Amsterdam. RMK held a launching ceremony for the vessel on July 7, 2023. The JV changed the vessel's name as during the keel-laying ceremony in March 2023, the partners announced the vessel as LNG Erasmus. RMK said the vessel has a dual-fuel propulsion, able to use cargo boil-off gas. "She will be the first LNG bunker barge to use battery technology and shore power, which will help reduce its greenhouse gas emissions," it said. Italy's Gas & Heat supplied the tanks and cargo handling system for the new vessel designed by the International Naval Engineering Consultants, while MAN delivered the dual-fuel engines. [source:www.lngprime.com](http://www.lngprime.com)

## **NFE'S ALTAMIRA LNG PROJECT GETS NON-FTA APPROVAL FROM US DOE**

New Fortress Energy's LNG project off Altamira, Mexico has secured approval from the US DOE to ship LNG cargoes produced from US natural gas to non-free trade agreement nations.

NFE's 1.4 mtpa Fast LNG 1 asset recently shipped its first cargo of LNG. Back in September 2022, NFE Altamira FLNG, a unit of NFE, filed an application with the DOE requesting long-term, multi-contract authorization to export US-sourced natural gas to Mexico, and after liquefaction in Mexico, to re-export the volumes as liquefied natural gas (LNG). NFE's unit requested authorization to both FTA and non-FTA nations. On March 3, 2023, DOE granted the FTA portion of the application. The Biden administration and the DOE announced in January this year that the DOE will temporarily pause review and approval of all new and pending applications for export authorization to non-FTA countries while DOE updates its assessment process. The DOE has not issued non-FTA approvals since then. The regulator said in its order dated August 31 it has "not found an adequate basis to conclude that NFE Altamira re-exports of US-sourced natural gas as LNG from Mexico for delivery to non-FTA countries will be inconsistent with the public interest." DOE granted the non-FTA portion of the application in the full volume requested: 145 Bcf/yr of natural gas, or 0.40 Bcf/d. "Nonetheless, because the record is incomplete, we cannot assess all impacts for the requested export term ending on December 31, 2050, and thus conclude that a five-year export term is appropriate at this time," it said. "When DOE has a more complete record on which to evaluate NFE Altamira's initial request for an export term through 2050, DOE will reevaluate the export term upon NFE Altamira's request to amend this order filed no sooner than two years from the date of this order," it said. Including this order, and the vacatur of previous long-

term non-FTA export authorizations, there are currently 40 final non-FTA authorizations from the lower-48 states in a cumulative volume of exports totaling 46.45 Bcf/d of natural gas, or about 17 trillion cubic feet (Tcf) per year, the DOE said.

### **Altamira LNG**

NFE recently resumed LNG production at its Fast LNG 1 asset off Altamira after completing scheduled maintenance. This planned outage followed the first LNG cargo which occurred on August 9. NFE loaded a partial cargo onboard the 138,000-cbm Energos Princess. The Wes Edens-led firm said this cargo will be delivered to NFE's La Paz, Mexico terminal. According to its AIS data provided by VesselsValue, Energos Princess was on Tuesday located offshore Mexico's Pacific coast and it appears to be heading to La Paz. NFE's proprietary Fast LNG design pairs the latest advancements in modular liquefaction technology with jack up rigs or similar offshore infrastructure to enable a faster deployment schedule than traditional liquefaction facilities. The company previously said the FLNG project adds more than \$2 billion of infrastructure to its asset base. NFE sent its liquefaction rig Pioneer II on September 26, 2023, to Altamira to start serving the FLNG project. Prior to this, NFE's utilities and accommodation rig, Pioneer III, arrived off Altamira, as well as the gas treatment rig. The FLNG project consists of three rigs, Pioneer I, II, and III. Besides the three rigs, the 160,000-cbm Penguin FSU serves the project as a floating storage unit. In addition to this project, NFE recently closed its previously announced \$700 million loan for its second FLNG unit which it aims to install onshore in Altamira. source:www.lngprime.com

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