LNG Review March 2025 - Recent issues and events - #111 Hiroshi Hashimoto*

Introduction

Japan imported 12.52 million tonnes of LNG during the first two months of 2025, a 3.15% increase year-on-year, while China's LNG import during the same two months in 2025 decreased by 19.1% year-on-year to 10.60 million tonnes. Although China imported 9.71 million tonnes of pipeline gas during the first two months of 2025, or 9.1% more than the same period one year earlier, China's total natural gas import was 7.7% smaller than that of the same period of 2024 at 20.31 million tonnes. Total LNG import in the four big LNG markets in Northeast Asia - Japan, Korea, China and Taiwan - was 34.17 million tonnes during the first two months of 2025, or 8.57% smaller year-on-year.

U.S. Department of Energy (DOE) granted conditional approval for LNG exports to non-FTA countries (countries that do not have a free trade agreement with the United States, including Japan) for a project each on 14 February and 19 March. DOE's final authorizations would be granted after pending construction applications are approved by FERC (Federal Energy Regulatory Commission) in several months. DOE also granted extensions of export commencement deadlines to a project under construction and a project that has already an export licence but has not started construction.

The US Court of Appeals for the District of Columbia Circuit on 18 March reaffirmed validity of FERC's approvals of construction and operation of two LNG export projects, reversing its August 2024 decision to vacate the approval in response to the October requests by the projects for a rehearing.

The LNG project in Louisiana that has been acquired by Australia's Woodside is making progress in engineering and commercial aspects. While progresses have been observed for these future LNG export projects in the U.S. Gulf region, two projects nearing completion of construction are advancing toward operations. The first LNG export project on the West Coast of Canada is expected to begin facility cooldown and commissioning activities soon.

CPC Corporation, Taiwan, signed on 20 March an LOI (Letter of Intent) with Alaska Gasline Development Corporation (AGDC) regarding the Alaska LNG project. Soon after agreements were signed for Glenfarne to become majority owner of the project company. The project prioritizes the development of the

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long-distance pipeline infrastructure needed to deliver gas to the Alaska's own energy market. While marketing activities are expected to continue to entice Asian LNG buyers and potential project participants, focuses of interest would be on project management with the expected large initial costs and the harsh construction environment in the arctic areas, as well as terms and conditions for project participation and LNG offtaking, and what supports from the United States and Japanese authorities would be explained and implemented.

[Asia Pacific]

According to announcements from Tokyo Gas Co., and engineering company Wärtsilä, an inauguration ceremony was held on 27 March 2025 for the 97.8 MW Sodegaura Power Station installed in the site of the Sodegaura LNG receiving terminal.

According to China's National Bureau of Statistics, China's natural gas production during the first two months of 2025 increased by 3.7% year-on-year to 43.3 bcm. According to China's NDRC (National Development and Reform Commission), the country consumed 69.94 bcm of natural gas during the first two months of 2025, 3.4% less than the same period of 2024.

Woodside Energy Group Ltd announced on 17 March 2025 that Woodside had signed a long-term SPA (sale and purchase agreement) with China Resources Gas International Limited (China Resources) for the supply of LNG to China. The SPA provides for the supply of 0.6 million tonnes of LNG per year over 15 years on a DES (delivered) basis, commencing in 2027. The SPA is Woodside's fourth agreement for long-term LNG sales into Asia signed since the start of 2024. This marks the first time Woodside on a standalone basis has signed a long-term sale agreement with a customer in China.

China's NDRC (National Development and Reform Commission) and NEA (National Energy Administration) announced on 28 February 2025 a draft rule on natural gas and oil infrastructure for public comments. The Article 25 of the draft rule reads: gas supply companies should form a gas storage capacity of no less than 5% of their annual gas supply. Companies that assume the main responsibility for the construction of oil and natural gas trunk pipelines should form a gas storage capacity of no less than 5% of the total annual gas supply of major domestic gas supply companies. All provinces (autonomous regions and municipalities) shall coordinate and organize local people's governments at or above the county level to establish emergency reserve capacity that is no less than 5 days of the average daily natural gas consumption of the respective administrative region in the previous year, and organize city gas operating companies to establish a gas storage capacity that is no less than 5% of their annual gas consumption."

IHI Group announced on 17 March 2025 that a consortium of IHI Plant Services

Corporation (IPC) and Taiwan's CTCI Corporation had been awarded an EPC (engineering, procurement, and construction) contract from CPC Corporation, Taiwan, for four above-ground, double-domed LNG tanks, with a storage capacity of 180,000 kiloliters each at CPC Kaohsiung Intercontinental LNG Terminal. This project is scheduled to be completed by late 2030. The LNG storage tanks are a key part of CPC's investment in setting up a storage and transport terminal for its petrochemical and refinery products at Taiwan's southern shore.

Trading company Vitol announced on 4 March 2025 that the company had signed an LNG SPA (sale and purchase agreement) with LNGPH and the integrated LNG power facilities of South Premiere Power Corporation (SPPC) and Excellent Energy Resources, Inc. (EERI). Vitol will supply up to 0.8 million tonnes per year of LNG for 10 years starting in 2025. The LNG will be delivered to the LNGPH Terminal in Batangas, Philippines.

Excelerate Energy, Inc. announced on 14 March 2025 that the company and Petrovietnam Gas Joint Stock Corporation (PV Gas) had signed an MoU (Memorandum of Understanding) to collaborate on securing LNG sourced from the United States as early as 2026. The two parties will also evaluate PV Gas' LNG supply requirements and define a joint strategic framework through which Excelerate and PV Gas can execute LNG sourcing.

Ministry of Industry and Trade of the Socialist Republic of Vietnam said on 14 March 2025 that PetroVietnam Gas Corporation (PVGas) had signed MOUs (Memorandums of Understanding) with ConocoPhillips and an MOU (memorandum of understanding) with Excelerate Energy on long-term LNG purchase and sale agreements.

Vietnam's PetroVietnam Gas Corporation (PVGas) announced on 26 March 2025 that PV GAS held discussions with Malaysia's PETRONAS. The companies discussed potential cooperation opportunities.

Singapore's Sembcorp Industries on 13 March 2025 provided an update on the Gas Sales Agreement (GSA) signed by Sembcorp Gas Pte Ltd, with West Natuna Exploration Limited, Empyrean Energy PLC and Coro Energy Duyung (Singapore) Pte. Ltd. The GSA was subject to regulatory approvals as a condition precedent. As regulatory approval in Indonesia has not been obtained, the GSA will accordingly be terminated.

Shell announced on 1 April 2025 that Shell Eastern Trading Pte. Ltd. had completed the previously announced acquisition of 100% of the shares in Pavilion Energy Pte. Ltd. Pavilion Energy operates a global LNG trading business with contracted supply volume of 6.5 million tonnes per year. The acquisition includes Pavilion Energy's portfolio of LNG offtake and supply contracts, regasification capacity, and LNG bunkering business. On 18 June 2024, Shell announced the signing of an agreement to acquire Pavilion Energy from Carne Investments Pte. Ltd., an indirect wholly-owned subsidiary of Temasek: Pavilion Energy's portfolio comprises about 6.5 million tonnes per year of long-term sale and supply LNG contracts. It also includes long-term regasification capacity of approximately 2 million tonnes

per year at the Isle Grain LNG terminal (United Kingdom), regasification access in Singapore and Spain, as well as the time-charter of three M-type, Electronically Controlled Gas Injection (MEGI) LNG vessels and two Tri-Fuel Diesel Electric (TFDE) vessels. It also has an LNG bunkering business with its first vessel deployed in early 2024. Pavilion Energy's pipeline gas business in Singapore was not included as part of the transaction and has been transferred to Gas Supply Pte Ltd (GSPL), a wholly-owned subsidiary of Temasek. Pavilion Energy's 20% interest in blocks 1 and 4 in Tanzania are not included in the transaction. Shell, via its BG acquisition, holds the first LNG importing license to Singapore, supplying nearly a quarter of the country's natural gas needs.

Thailand's drybulk shipowner Precious Shipping Public Company Limited, revealed in a filing to the Stock Exchange of Thailand (SET) on 21 March 2025 that Precious Shipping (Singapore) Pte. Limited (PSSP) had entered into a Joint Venture Agreement in Malaysia with Emstraits Navigation Sdn. Bhd. (ENSB) and Lianson Fleet Group Berhad (LFG). The Nusantara Maritime joint venture will be primarily engaged in shipowning, ship operations, leasing and maritime services in the LNG, LPG and crude tanker segments.

Australia's Viva Energy announced on 31 March 2025 that it had engaged LNG consultant Poten & Partners to secure an FSRU (Floating Storage and Regasification Unit) for its proposed LNG terminal in Geelong, Australia. The new terminal demands a vessel with a capacity between 160,000 m₃ - 180,000 m₃ of LNG. Viva Energy is awaiting regulatory approval for its plans to construct the LNG terminal adjacent to its oil refinery in Geelong. An environmental impact assessment from the Victorian State Government is anticipated in April 2025, setting the stage for Viva Energy to make an FID (Final Investment Decision) by the end of 2025. If greenlit, the terminal is slated to commence operations in 2028.

Shell Australia Pty Ltd received on 5 March 2025 an approval for its environmental plan (EP) from the Australia's offshore regulator NOPSEMA (National Offshore Petroleum Safety and Environmental Management Authority) for the installation and cold commissioning activities at the Crux field off the coast of Western Australia. The project is identified as the primary source of backfill gas supply to the Prelude FLNG (Floating Liquefied Natural Gas) facility.

[North America]

U.S. Chamber of Commerce announced on 6 March 2025 that a study had been released by S&P Global demonstrating the significant economic and environmental benefits of U.S. LNG exports. It also documents the enormous benefits of building natural gas pipelines to serve Northeast states. The phase 2 study also sheds new light on the economic harm to consumers caused by the lack of natural gas pipelines serving Northeast states. The study found that expanding pipeline capability between the Marcellus region and New York

and New England would reduce natural gas prices by 27% in Boston and 17% in New York. The analysis also found that U.S. LNG exports help reduce global greenhouse gas emissions. The study found that if pending U.S. LNG projects were to be halted, 85% of the lost volume would be replaced by higher emissions alternatives such as coal, oil, and pipeline gas from Russia and Algeria. Moving forward with those projects would avoid up to 780 million tonnes of greenhouse gas emissions through 2040.

EPA (U.S. Environmental Protection Agency) announced on 12 March 2025 31 actions of deregulation, including reconsideration of mandatory Greenhouse Gas Reporting Program (GHG Reporting Program) and reconsideration of wastewater regulations for oil and gas development.

The Federal Reserve Bank of Dallas released on 26 March 2025 Dallas Fed Energy Survey. Activity in the oil and gas sector increased slightly in first quarter of 2025, according to oil and gas executives responding to the survey. Data were collected from 12 to 20 March, and 130 energy firms responded. Of the respondents, 88 were exploration and production firms and 42 were oilfield services firms. The company outlook index decreased 12 points to -4.9, suggesting slight pessimism among firms. Meanwhile, the outlook uncertainty index jumped 21 points to 43.1. One support service firm commented that "In a strange twist to the administration's hope for more domestic oil and gas production, higher steel tariffs may result in fewer wells completed due to higher completion costs."

FERC (Federal Energy Regulatory Commission) approved on 10 March 2025 an expansion at the Corpus Christi LNG, which would add two midscale trains to the Corpus Christi expansion project. The first seven trains are under construction.

Cheniere Energy, Inc. announced on 17 March 2025 that Substantial Completion of Train 1 at the Corpus Christi Stage 3 Liquefaction Project (CCL Stage 3) was achieved on 16 March 2025. Commissioning is complete and Cheniere's EPC (engineering, procurement and construction) partner, Bechtel Energy, Inc. has turned over care, custody, and control of Train 1 and associated systems to Cheniere. Full notice to proceed on CCL Stage 3 was issued to Bechtel by Cheniere in June 2022, with first LNG production from Train 1 achieved in December 2024 and the first cargo loaded in February 2025. CCL Stage 3 consists of seven midscale trains, with an expected total production capacity of over 10 million tonnes per year of LNG. Upon substantial completion of all seven trains of CCL Stage 3, the expected total production capacity of the Corpus Christi liquefaction facility will be over 25 million tonnes per year of LNG.

Sempra announced on 31 March 2025 several strategic actions to advance its ongoing commitment to simplify the company's portfolio and recycle capital in support of strong growth in its Texas and California utilities. Sempra intends to sell certain energy infrastructure assets in Mexico, as well as a minority stake in Sempra Infrastructure Partners.

The sales proceeds are expected to be recycled into the company's five-year capital campaign, with a focus on its United States utilities. Sempra Infrastructure is targeting the sale of Ecogas México, S. de R.L. de C.V. (Ecogas), which holds three utility franchises and provides natural gas distribution service to Mexico's Mexicali, Chihuahua and La Laguna-Durango regions. Ecogas is the fifth largest distribution network in Mexico with more than 5,000 kilometers of distribution pipelines serving natural gas to more than 600,000 residential, commercial and industrial consumers. The company is also initiating a process to sell a minority interest in Sempra Infrastructure. The proposed sale follows Sempra's previous divestiture of a 20% non-controlling interest in 2021 to Kohlberg Kravis Roberts & Co. L.P. That transaction was followed by a second sale of a non-controlling interest of 10% in 2022 to the Abu Dhabi Investment Authority. Since that time, Sempra Infrastructure has continued to increase its market value through the expansion of its LNG franchise. For instance, Energía Costa Azul LNG Phase 1 continues to target the commencement of commercial operations in spring of 2026, and construction at Port Arthur LNG Phase 1 remains on time and on budget with Trains 1 and 2 expected to come online in 2027 and 2028, respectively. The company continues to advance development of Port Arthur LNG Phase 2. Sempra Infrastructure is under active commercial discussions with world-class companies for participation in the Phase 2 development project, which is anchored by a non-binding HoA (Heads of Agreement) for LNG offtake and a proposed equity investment with a subsidiary of Saudi Aramco, as well as a fixed-price EPC (engineering, procurement and construction) contract with Bechtel Energy. The company is targeting an FID (final investment decision) in 2025, pending the execution of definitive commercial agreements, obtaining permits and securing financing, among other factors. Taken together, these initiatives are designed to: (1) Divest non-core assets in support of recycling proceeds into new investments in the company's Texas and California utilities; (2) Strengthen the company's balance sheet, while efficiently funding growth and improving the quality and affordability of services; and (3) Reward Sempra's owners with improved visibility to consistent growth in earnings and cash flows and long-term value creation. The sales transactions referenced in the latest announcement are expected to be completed over the next 12 - 18 months.

DOE (U.S. Department of Energy) approved on 5 March 2025 an LNG export permit extension for Golden Pass LNG Terminal LLC. The approval will grant additional time to begin LNG exports from the Golden Pass LNG plant under construction in Texas.

Venture Global Calcasieu Pass, LLC on 25 March 2025 requested FERC (Federal Energy Regulatory Commission) authorization to place in-service the remainder of the facilities for the Project: Power Island, Pre-Treatment, LNG Storage, Boil-Off Gas ("BOG"), and Marine Facilities.

Venture Global announced on 6 March 2025 plans for a brownfield expansion at its

Plaquemines LNG facility in Louisiana. The planned expansion will consist of 24 trains, expanding the capacity by 18 million tonnes per year to over 45 million tonnes per year at Plaquemines.

Venture Global, Inc. reported on 6 March 2025 financial results for the quarter and full year that ended on 31 December 2024. Venture Global is launching the FID (final investment decision) process for CP2, according to the announcement.

DOE (U.S. Department of Energy) and Venture Global announced on 19 March 2025, respectively, that Venture Global had received approval from DOE to export LNG to non-FTA countries for its CP2 LNG project in Cameron Parish, Louisiana. DOE said that the latest authorization conditionally grants CP2 authorization to export LNG to non-FTA countries. DOE expects to issue a final order to CP2 LNG in the coming months.

NextDecade Corporation and Baker Hughes announced on 11 March 2025 that they had entered into a framework agreement whereby NextDecade plans to utilize Baker Hughes' gas turbine and refrigerant compressor technology (Equipment Packages) and enter into contractual services agreements to perform maintenance work for these Equipment Packages for Trains 4 through 8 at the Rio Grande LNG Facility. NextDecade expects to make an FID (final investment decisions) and commence construction on Trains 4 and 5 and related infrastructure at the Rio Grande LNG Facility, subject to, maintaining requisite governmental approvals, finalizing and entering into EPC contracts, entering into appropriate commercial arrangements, and obtaining adequate financing to construct each train and related infrastructure. NextDecade is developing and beginning the permitting process for Trains 6 through 8, which are wholly owned by NextDecade and are cumulatively expected to increase the company's total liquefaction capacity by 18 million tonnes per year.

The US Court of Appeals for the District of Columbia Circuit (DC Circuit Court) on 18 March 2025 reaffirmed validity of FERC's (Federal Energy Regulatory Commission) approvals of construction and operation of Rio Grande LNG and Texas LNG export projects, reversing its August 2024 decision to vacate the approval in response to the October requests by the projects for a rehearing. The court remanded the cases to FERC, which may or may not reconsider the DC Circuit Court's requirements to conduct new supplementary environmental impact statements. NextDecade is ". . . pleased with today's revised Court judgment, which ensures construction at the Rio Grande LNG Facility will not be impacted by the Court."

FERC (Federal Energy Regulatory Commission) announced on 28 March 2025 that the staff of FERC had prepared a draft supplemental environmental impact statement (EIS) to address the 6 August 2024 opinion issued by the U.S. Court of Appeals for the District of Columbia Circuit regarding the Commission's environmental review of the Rio Grande LNG Terminal and Rio Bravo Pipeline Project (Rio Grande LNG Project). The court remanded the

Commission's 21 April 2023 Order that approved the project. FERC staff continues to conclude that project impacts on communities with environmental justice concerns would be disproportionate and adverse. However, FERC staff continues to conclude that approval of the projects would result in less than significant impacts, with implementation of the environmental conditions set forth in the Commission's prior authorizations for the project, and the additional mitigation measures recommended in the draft supplemental EIS. The draft supplemental EIS comment period closes at 5:00pm Eastern Time on 19 May 2025.

FERC (U.S. Federal Energy Regulatory Commission) issued a letter on 14 March 2025 to Louisiana LNG Infrastructure LLC to grant permission to work on electrical grounding cable and non-firewater underground piping for portions of the plant outside battery limits.

FERC (Federal Energy Regulatory Commission) announced on 28 March 2025 that the staff of FERC had prepared a draft supplemental environmental impact statement (EIS) to address the 6 August 2024 Opinion issued by the United States Court of Appeals for the District of Columbia Circuit regarding the Commission's environmental review of the Texas LNG Project. FERC staff conclude that project-related impacts on communities with environmental justice concerns would be disproportionate and adverse. However, these impacts would be less than significant. FERC staff continues to conclude that approval of the project would result in less than significant impacts, with implementation of the environmental conditions set forth in the Commission's prior authorizations for the project, and the additional mitigation measures recommended in the draft supplemental EIS. The draft supplemental EIS comment period closes at 5:00 pm Eastern Time on 19 May 2025.

DOE (U.S. Department of Energy) approved on 10 March 2025 an LNG export permit extension for Delfin LNG LLC, granting additional time to commence exports from the project proposed for offshore Louisiana. The issuance marks the fourth LNG-related approval from DOE by the new administration, following an export approval to Commonwealth LNG on 14 February, an order on rehearing removing barriers for the use of LNG as bunkering fuel announced on 28 February, and an approval providing the Golden Pass LNG terminal more time to commence exports issued on 5 March. Delfin, majority-owned by Fairwood Peninsula, Talisman Global Alternative Master, L.P. and Talisman Global Capital Master, L.P., is seeking to reach an FID (final investment decision) in 2025 and have construction begin on its offshore FLNGV (floating liquefied natural gas vessel). The latest order extends the commencement date for Delfin's export authorization to 1 June 2029.

The Maritime Administration of the United States issued on 21 March 2025 a license authorizing to Delfin LNG, LLC, to own, construct, operate, and eventually decommission a deepwater port, to export LNG. The Delfin LNG, LLC deepwater port facility will transport

LNG from the Federal waters off the coast of Cameron Parish, Louisiana.

Germany's SEFE Securing Energy for Europe and Delfin Midstream Inc. announced on 25 March 2025 that they had signed an HOA (Heads of Agreement) for the long-term supply of 1.5 million tonnes per year of LNG for at least 15 years on an FOB (free-on-board) basis. The LNG will be sourced from FLNG (floating LNG) vessels that Delfin is deploying offshore Cameron, Louisiana, on the Gulf Coast. The brownfield deepwater port that Delfin is developing requires additional infrastructure investment to support up to three FLNG vessels producing up to 13 million tonnes per year of LNG.

DOE (U.S. Department of Energy) announced on 28 February 2025 an order that removes barriers for the use of LNG as marine fuel to power vessels. The order issued by DOE modifies a prior order issued to JAX LNG under the previous administration that asserted new oversight for the use of LNG to power marine vessels, also known as LNG bunkering. By issuing an Order on Rehearing, DOE is modifying an order originally issued in December 2024. The modified order clarifies that DOE is withdrawing the exercise of its jurisdiction under the Natural Gas Act (NGA) for ship-to-ship transfers of LNG for marine fuel use at a U.S. port, in U.S. waters, or in international waters. The only bunkering-related activity that will continue to be considered an export is when there are ship-to-ship transfers of U.S. LNG when the receiving ship is located in the territorial sea of a foreign country, including foreign ports. DOE has left unchanged its authorization to JAX to export LNG via ISO container.

Abaxx Technologies Inc., a financial software and market infrastructure company announced on 24 March 2025 the first over-the-counter (OTC) trade of an LNG cargo indexed to Abaxx LNG futures. Two Asia-based counterparties have agreed to trade an LNG cargo to be exported from the Gulf of Mexico (GOM) with the transaction price indexed to Abaxx GOM LNG futures.

Williams Companies said on 12 March 2025 that power-intensive data centres already were straining the electric grid, but that surging demand could be reliably met by abundant natural gas. The company said that electric load from data centres was going to grow threefold by 2030. Infrastructure constraints are hurting decarbonization efforts, despite abundant sources of natural gas and rising demand, according to the company. Over the past 10 years, natural gas demand grew by 43% in the United States while interstate transmission capacity only increased by 25% and natural gas storage deliverability capacity barely budged with 2% growth, according to the company. That is showing up as big differentials between locations, according to the company. Permitting reform to streamline and identify clear processes and authorities needs to take place in order to expand infrastructure effectively to meet demand both domestically and globally, according to the company.

U.S. Senator Dan Sullivan (R-Alaska) celebrated President Donald Trump's

endorsement of the Alaska LNG Project as a top priority of his new administration in the President's joint address to Congress. Recently, the senator has spoken directly with the President on several occasions about the project and gave him the comprehensive document called, "America's Gasline." "My administration is also working on a gigantic natural gas pipeline in Alaska, among the largest in the world, where Japan, Korea and other nations want to be our partner with investments of trillions of dollars each," Trump said. Sullivan said, "It's not going to happen overnight, but the fact that we have the President and his entire cabinet fully putting their shoulder into this was quite remarkable."

Alaska Governor said on 14 March 2025 that exports of LNG could begin by 2030 or 2031 and Alaska was talking to potential buyers in Taiwan, Korea, Japan and Thailand.

Taiwan's Ministry of Economic Affairs said on 20 March 2025 that CPC Corporation, Taiwan, had signed an LOI (Letter of Intent) with Alaska Gasline Development Corporation (AGDC) to purchase LNG and invest in the Alaska LNG project.

Glenfarne Group, LLC and the Alaska Gasline Development Corporation (AGDC) announced on 27 March 2025 that Glenfarne Alaska LNG, LLC and AGDC had signed agreements for Glenfarne to become majority owner of Alaska LNG and lead its development to construction and operations of the entire project. Alaska LNG is designed to deliver North Slope natural gas to Alaskans and Alaska utilities and export up to 20 million tonnes per year of LNG. AGDC is divesting 75% of 8 Star Alaska, a subsidiary AGDC created to hold and manage all Alaska LNG project assets, to Glenfarne. Glenfarne assumes the role of Alaska LNG's lead developer and will lead all remaining development work of Alaska LNG from FEED (front-end engineering and design) through to an FID (final investment decision). AGDC remains a 25% owner of 8 Star Alaska. Alaska LNG's three subprojects are an 807mile 42-inch pipeline, the LNG export terminal in Nikiski, Alaska, and a North Slope-based CCS (carbon capture) plant to remove and store 7 million tonnes per year of carbon dioxide. In light of declining gas production from Cook Inlet, phase one of the project will kick off immediately, prioritizing the development and an FID of the pipeline infrastructure needed to deliver North Slope gas to Alaskans as rapidly as possible. Following the FID, the State of Alaska will retain a 25% share in 8 Star Alaska and have the option to invest up to 25% in any or all of the three 8 Star Alaska subprojects.

Japan's Minister of Economy, Trade and Industry met with the Governor of Alaska to exchange views on the areas of economy and energy on 28 March 2025.

The Governor of Alaska issued a statement on 27 March 2025 pointing that "The North Slope holds 35 trillion cubic feet of proven natural gas, with another 200 trillion in potential deposits. Pipeline access to these deposits would offer Japan a reliable, affordable and strategically sensible power source while strengthening American energy security and the U.S.-Japan relationship."

APA Corporation, Lagniappe Alaska, LLC, an Armstong company, and Oil Search (Alaska), LLC, a subsidiary of Santos Limited, announced on 17 March 2025 preliminary results of the Sockeye-2 exploratory well in Alaska's North Slope. Apache holds a 50% working interest, operator Lagniappe and partner Santos each hold 25%.

ARC Resources Ltd. announced on 11 March 2025 that it had entered into a long-term SPA (sale and purchase agreement) with ExxonMobil LNG Asia Pacific. EMLAP will purchase all of ARC's LNG offtake from the Cedar LNG Project - 1.5 million tonnes per year - at international LNG pricing. The Agreement commences with commercial operations at the Cedar LNG Facility, expected in late 2028, and continues for the term of ARC's liquefaction tolling services agreement with Cedar LNG Partners LP.

Canada's Cedar LNG announced on 21 March 2025 that the Minister of Energy and Natural Resources announced a contribution agreement under the Strategic Innovation Fund (SIF) of up to CAD 200 million for the Cedar LNG Project. Cedar LNG made an FID (Final Investment Decision) in June 2024, making Canada's first Indigenous majority-owned LNG facility a reality. Since FID, marine terminal and pipeline right-of-way clearing was initiated and is near completion. Marine terminal and pipeline construction is anticipated to commence in Q2 2025, with peak construction expected in 2026. The development of the FLNG (floating LNG) is underway in Korea. The project's anticipated in-service date is expected in late 2028.

[Middle East]

Saudi Arabia's Aramco said on 4 March 2025 that it was targeting the production of up to 2.5 million tonnes per year of blue ammonia by 2030, subject to the availability of commercially viable long-term offtake projects, down from 11 million tonnes per year previously. In March 2024, Aramco completed its acquisition of a strategic minority stake in MidOcean Holdings II, L.P., formally entering the global LNG market. This was followed by additional investments in MidOcean, which included the funding of MidOcean Energy's purchase of additional interests in Peru LNG. The partnership represents Saudi Aramco's first international investment in LNG.

[Africa]

Eni and Vitol announced on 19 March 2025 that Vitol would acquire interests in certain assets owned by Eni in Côte d'Ivoire and the Republic of Congo. Vitol will acquire a 25% participating interest in the Congo LNG project in the Republic of Congo, where Eni has a 65% participating interest. The Congo LNG project started exporting LNG in February 2024. Congo LNG produces 1 BCM per year of LNG; with the second phase of the project, which will start at the end of 2025, gas exports from the Republic of Congo will rise to 4.5 BCM per

year, according to the announcement.

Commodity trading company Vitol announced its 2024 volumes on 24 March 2025. LNG volumes grew 10% to 19.4 million TOE (15 million tonnes of LNG). In 2024 Vitol acquired Biomethane Partners in the United States, which captures methane from waste landfill, injecting it into the gas grid. Vitol has recently agreed with Eni to invest in producing assets offshore West Africa. This will take Vitol's total production to 110 kboepd, including almost 1 million tonnes of equity LNG, according to the announcement.

EXIM (Export-Import Bank of the United States) announced on 19 March 2025 that the Board of Directors of EXIM on 13 March unanimously approved the second amendment of a 2019 direct loan of up to USD 4.7 billion to support the export of U.S. goods and services for the development and construction of the Mozambique LNG project. The transaction had been on a four-year pause.

TotalEnergies said on 26 March 2025 that TotalEnergies welcomed the announcement made on 4 March by the Attorney General of Mozambique who confirmed that a criminal investigation had been opened into those allegations of human rights abuses raised by media outlets in 2024 that would have been committed by members of Mozambique's Defence and Security Forces in the Afungi Peninsula in the Cabo Delgado province around the summer of 2021.

XRG, Abu Dhabi ADNOC's investment company, announced on 28 March 2025 that it had completed its acquisition of Galp's 10% interest in the Area 4 concession in Mozambique's Rovuma Basin, announced in May 2024. The acquisition includes stakes in the operational Coral South Floating LNG (FLNG), the planned Coral North FLNG and Rovuma LNG's onshore development projects. Coral South FLNG has a capacity to produce 3.5 million tonnes per year of LNG. Coral North FLNG, with an imminent FID (final investment decision), would produce an additional 3.5 million tonnes per year of LNG offshore. Both offshore projects are led by Eni. The onshore Rovuma LNG Phase 1 Project, led by ExxonMobil, is expected to complete its FEED (front-end engineering design) phase in 2025 based on an innovative modular electric drive design to reduce the carbon intensity of its anticipated 18 million tonnes per year of LNG production.

[Europe / Surrounding regions]

The European Commission proposed on 5 March 2025 to extend by two years its mandate to have all national gas inventories filled by 90% by 1 November. The proposal allows for adjustments as it is "inviting EU countries to consider current market conditions and introduce flexibility when deciding on measures to refill storage facilities this summer, allowing them to fill their storage facilities throughout the season at optimal purchase conditions."

European Commission announced on 4 March 2025 that a new mid-term matching round to coordinate joint gas purchasing, through the AggregateEU mechanism, would be launched by the Commission on 12 March. It will enable buyers to express their demand for a 5 year period covering July 2025 until October 2030. Buyers and sellers who wish to participate have until 10 March to register on the PRISMA platform. In previous matching rounds, buyers and sellers could indicate a preferred terminal in the EU for the delivery of LNG. Buyers and sellers can also indicate their preference to have the LNG delivered FOB (free-on-board).

Eurogas, Europe's gaseous energy trade association, announced on 24 March 2025 that Eurogas and 55 organisations engaged in the global renewable gas supply chain had called on the European Commission to address barriers preventing their full recognition.

Shell announced on 25 Marsh 2025 that it would grow LNG sales by 4%-5% per year through to 2030, grow top line production across its combined Upstream and Integrated Gas business by 1% per year to 2030, sustain its 1.4 million barrels per day of liquids production to 2030 with increasingly lower carbon intensity.

Ireland's government approved on 4 March 2025 to proceed with the development of a State-led strategic gas emergency reserve. The emergency reserve will be in the form of an FSRU (Floating Storage and Regassification Unit), to be owned on behalf of the State by the system operator, Gas Networks Ireland (GNI).

Netherlands' Gasunie announced on 13 March 2025 that Gasunie and Petrogas Transportation B.V. (Petrogas) planned to investigate how the Petrogas pipeline installed under the North Sea could be reused for the transport of green hydrogen. The research focuses on the feasibility of reuse and possible repurposing of the pipeline for the offshore hydrogen project Demo 1. This is a demonstration project initiated by the Ministry of Climate Policy and Green Growth for the construction of a 20 to 50 MW electrolysis plant for the production of green hydrogen in the North Sea and its landfall in the North Sea Canal Area.

Titan Clean Fuels announced on 17 March 2025 that Titan and Mitsui O.S.K. Lines (MOL) had completed the first LNG and liquefied biomethane (bio-LNG) bunkering operation for MOL's vehicle carrier fleet. On Sunday 16 March, Titan's Alice Cosulich LNG bunkering vessel delivered 500 tonnes of bio-LNG and 400 tonnes of conventional LNG to the Celeste Ace vehicle carrier at the Port of Zeebrugge's International Car Operators (ICO) terminal.

Germany's Das Bundesverwaltungsgericht (Federal Administrative Court) in Leipzig decided on 27 March 2025 that the approval of the Lüneburg State Trade Supervisory Office of 1 November 2023 for the construction and operation of a land-based LNG terminal including two storage tanks in Stade (Hanseatic Energy Hub) on the Lower Elbe is valid. The court dismissed a lawsuit filed by German NGO BUND in March 2024 concerning the

permitting approval until 31 December 2043.

TotalEnergies and Germany's RWE announced on 12 March 2025 an agreement with RWE to supply 30,000 tonnes per year of green hydrogen to the Germany's Leuna refinery for fifteen years from 2030.

Germany's BASF announced on 17 March 2025 that the largest proton exchange membrane (PEM) electrolyzer had started operation at the Ludwigshafen site. The electrolyzer has a connected load of 54 megawatts and the capacity to supply the main plant with up to one metric tonne per hour.

Equinor, Shell and TotalEnergies announced on 27 March 2025 an FID (final investment decision) to progress phase two of the Northern Lights development. The second phase will increase the project transport and storage capacity from 1.5 million to more than 5 million tonnes per year of CO₂ from 2028.

Italy's OLT Offshore LNG Toscana announced on 14 March 2025 that FSRU Toscana would be in operation until the end of 2044, as a result of the extension of the useful life of the Terminal. In 2024, while the Terminal was in the shipyard to carry out the extraordinary maintenance intervention, OLT also carried out a set of works aimed at extending the useful life of FSRU Toscana, after which RINA (Italian Naval Registry) issued the declaration certifying the extension of the useful life of the Terminal for an additional 20 years, ensuring operability and reliability until 2044.

Italy's Snam announced on 28 February 2025 that the FSRU (Floating Storage and Regasification Unit) BW Singapore had completed its mooring manoeuvre about 8 kilometres offshore Ravenna at the former Petra offshore platform. In the past few days, a tender call was published to identify the party that would deliver the first LNG cargo to the BW Singapore for commissioning activities to be delivered in March.

Italy's Snam announced on 3 March 2025 that Snam, through its subsidiary Stogit, had completed the acquisition of 100% of Edison Stoccaggio's share capital from Edison. Following the transaction, Snam's total storage capacity will rise to around 18 bcm.

According to "Liste des points prévus à l'ordre du jour des prochaines réunions de la Commission" of 4 March 2025, the European Commission has removed a plan to announce "Roadmap towards ending Russian energy import" previously scheduled on 26 March 2025.

The European Council, in which EU leaders met for a special session on 6 March 2025, calls on the European Commission, Slovakia and Ukraine to intensify efforts towards finding workable solutions to the gas transit issue, while taking into consideration the concerns raised by Slovakia.

Poland's ORLEN and Ukraine's Naftogaz announced on 7 March 2025 that they had agreed on the terms of cooperation in the supply of natural gas to Ukraine. As part of the cooperation memorandum, ORLEN and Naftogaz also signed a gas supply contract for 100

million cubic metres of gas. The gas will be sourced from an LNG cargo to be delivered to the terminal in Klaipėda, Lithuania.

Russia's Gazprom «Газпром» said that Gazprom recorded a new record of daily gas supplies to China via the Power of Siberia «Силе Сибири» on 3 March 2025.

[South America]

Hong Kong's CK Hutchison Holdings Limited announced on 4 March 2025 that the BlackRock-Til Consortium (BlackRock Inc., Global Infrastructure Partners and Terminal Investment Limited) and CK Hutchison had reached in principle agreements whereby the BlackRock-Til Consortium would acquire: HPH's (Hutchison Port Holdings) 90% interests in Panama Ports Company operating the ports of Balboa and Cristobal in Panama; and CK Hutchison's 80% effective and controlling interest in subsidiary and associated companies owning, operating and developing a total of 43 ports comprising 199 berths in 23 countries.

The Panama Canal is considering an idea to build a pipeline to ship LPG to bring gas from the United States to Japan, according to the canal administrator, with the capacity to move up to a million barrels per day (bpd). The canal authorities see moving gas through Panama as a top priority.

According to Golar LNG Limited on 27 February 2025, Golar entered into definitive agreements for the deployment of an FLNG in Argentina in July 2024, followed by a notice reserving FLNG Hilli for the 20-year charter in October. Pampa Energia joined the SESA (Southern Energy S.A.) project with a 20% equity stake in November 2024, followed by Harbour Energy in December 2024 with a 15% equity stake and YPF with a 15% equity stake in February 2025. Pan American Energy (PAE) remains with a 40% equity stake and Golar with its 10% equity stake. SESA will be responsible for sourcing Argentine natural gas to the FLNG, chartering and operating FLNG Hilli and marketing and selling LNG. Following the end of FLNG Hilli's current charter in July 2026 offshore Cameroon, FLNG Hilli will undergo vessel upgrades. Operations in Argentina are expected to commence in 2027.

bp Trinidad and Tobago announced on 27 March 2025 that it had sanctioned the Ginger gas development and achieved exploration success at its Frangipani well. Ginger will become bpTT's fourth subsea project and will include four subsea wells and subsea trees tied back to bpTT's existing Mahogany B platform. First gas from the project is expected in 2027. Drilling at the Frangipani exploration well identified multiple stacked gas reservoirs within the same geological structure. Options are currently being evaluated to move the discovery forward at pace. bp Trinidad and Tobago has a 100% working interest in both Ginger and Frangipani.

Excelerate Energy, Inc. announced on 27 March 2025 that it had entered into an agreement with New Fortress Energy Inc. (NFE) under which Excelerate will acquire NFE's

business in Jamaica. Excelerate will acquire the assets and operations of the Montego Bay LNG Terminal, the Old Harbour LNG Terminal, and the Clarendon combined heat and power (CHP) co-generation plant.

[Global issues]

Drewry Maritime Research said on 3 March 2025 that Drewry expected several LNG carriers to be scrapped much faster than expected earlier.

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