

LNG Review April 2024 - Recent issues and events - #100

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Introduction

While China imported 19.78 million tonnes during the first three months of 2024, 25% larger than the same period of 2023, Japan decreased its LNG import by 7% to 17.68 million tonnes. China imported 32.79 million tonnes of natural gas in the first quarter of 2024, including pipeline gas and LNG, up by 23% year-on-year. The country produced 63.2 bcm of natural gas, up 5.2% year-on-year.

The world traded 105 million tonnes of LNG during the first three months of 2024, increasing 3% year-on-year. The European Union and the United Kingdom combined decreased their LNG imports by 10% to 26 million tonnes. On the other hand, Southeast and South Asia imported 16 million tonnes, up 38% year-on-year. The United States exported 22 million tonnes of LNG during the first quarter, 9% more than it did a year earlier, followed by Australia and Qatar.

With relatively comfortable supply and demand balance after the Northern Hemisphere winter months, spot LNG and gas prices in Asia and Europe for near-month delivery were around USD 9 - 10 per million Btu during the month of April.

In Oman, four 10-year LNG sales deals from the existing Oman LNG venture with delivery starting in 2025 were announced in April 2024. In addition, an investment decision was announced in the month on a new project to install a regional LNG bunkering hub in the sultanate.

QatarEnergy announced in late April 2024 a deal to order 18 newbuild QC-Max LNG carriers with cargo capacity of 271,000 m³ each from a Chinese shipbuilding corporation, as well as time charter party deals with three Chinese shipowners for nine of the QC-Max 18 vessels.

Cheniere Energy filed an application in early March 2024 with the U.S. Department of Energy requesting long-term authorization to export LNG from its planned Sabine Pass Stage 5 project. It represents the first such application of non-FTA LNG export since the pause of approval process was announced in January 2024.

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[Asia Pacific]

Kyushu Electric Power Co., Inc., NYK Line, ITOCHU ENEX CO., LTD., and Saibu Gas Co., Ltd, as well as KEYS Bunkering West Japan Corporation (KEYS) established by the four companies announced on 12 April 2024 completion of the first ship-to-ship LNG bunking in the Western Japan.

China imported 32.79 million tonnes of natural gas in the first quarter of 2024, including pipeline gas and LNG, up by 22.8% from 26.695 million tonnes a year earlier. China imported 19.78 million tonnes of LNG during the first three months of 2024, 25% larger than the same period of 2023. According to China's Statistics Bureau, the country produced 63.2 bcm of natural gas, increasing by 5.2% year -on-year, during the first three months of 2024.

BASF announced on 5 April 2024 that it had signed a 15-year contract with ENN Energy to purchase natural gas for its Zhanjiang Verbund site.

JERA Co., Inc. announced on 16 April 2024 that the company and Singapore's Energy Market Authority (EMA) had signed an MoU (Memorandum of Understanding) to cooperate on mutually beneficial areas in LNG procurement and supply chains for Singapore and Japan.

Daphne Technology announced on 16 April 2024 that it would deploy its PureMetrics™ system aboard an LNG carrier chartered by Trafigura and managed by Latsco LNG LLC. According to the announcement, the system directly measures and reports real-time tonnes of GHG emissions, rather than reporting based on fuel consumption estimates.

Vietnam's PV GAS (Petrovietnam Gas Corporation) in a letter of 8 April 2024 announced the launch of LNG business by tank truck from 15 March 2024. PV GAS has put Thị Vải LNG Terminal into operation. PV Gas announced on 9 April 2024 that it signed a contract to sell nearly 70,000 tonnes of LNG to EVN on 29 March. The LNG will be supplied to Phú Mỹ 3 Power Plant in the period of April-May 2024. PV Gas said on 30 April 2024 it might take an LNG cargo every 20 days after taking two deliveries in April.

Philippines' First Gen Corporation (FGEN) announced on 15 April 2024 that it had concluded its international tender for an LNG cargo by awarding a contract to CNOOC Gas and Power Trading & Marketing Limited (CNOOC). CNOOC will supply an LNG cargo to be delivered in May 2024 on a DES (Delivered Ex Ship) basis to FGEN's subsidiary, First Gen Singapore Pte. Ltd.

TotalEnergies announced on 22 April 2024 that it had signed an agreement with Sapura Upstream Assets Sdn Bhd (SUA) to acquire its 50% interest in Malaysian independent gas producer SapuraOMV Upstream Sdn. Closing is expected in the second half of 2024. This agreement follows a first agreement signed with OMV on 31 January 2024, for the acquisition of its 50% interest in SapuraOMV. TotalEnergies would own 100% of SapuraOMV. SapuraOMV's main assets are its 40% operated interest in block SK408 and

30% operated interest in block SK310, both located offshore Sarawak in Malaysia.

Mitsui O.S.K. Lines, Ltd. (MOL) announced on 5 April 2024 the 29 March launch of commercial operation by FSRU (floating storage and regasification unit) (Jawa Satu) for the Jawa 1 LNG-fired power plant in Indonesia. MOL owns the FSRU through PT Jawa Satu Regas (JSR), jointly established by PT Pertamina (Persero), Marubeni Corporation, Sojitz Corporation, and other partners.

India's GAIL plans to increase Dabhol, Maharashtra, LNG terminal capacity to 12 million tonnes per year by 2030. The terminal has a nameplate capacity of 5 million tonnes per year but operates at about 2.9 million tonnes per year as it remains idle during the monsoon season. The company is building a breakwater infrastructure. GAIL is also drawing up plans for new LNG import terminals. Of the seven LNG terminals in the country, four operate below 25% capacity and another two below 40%. Just one terminal at Dahej, India's oldest and largest, operates above 95%.

Beach Energy Ltd provided on 8 April 2024 update on the Waitsia Stage 2 development. Waitsia Gas Plant first gas is expected by early-CY2025 (previously mid-CY2024), with a planned three-month ramp-up of production thereafter. Beach says it continues to utilise commercial arrangements to enable LNG cargo liftings prior to completion of the Waitsia Gas Plant. In addition to the LNG cargo lifted in December 2023, Beach expects to lift one more LNG cargo in FY24 (by June 2024).

MidOcean Energy, a global LNG company formed and managed by EIG, announced on 1 April 2024 a strategic investment by Mitsubishi Corporation.

Australia's Woodside Energy said on 19 April 2024 that the Scarborough Energy Project was 62% complete, excludes the Pluto Train 1 modifications project, at the end of the first quarter 2024 and targeting first LNG cargo in 2026.

According to Australia's Santos, the Barossa Gas Project is 70.6% complete and the Darwin LNG life extension project is 39% complete. The Bayu-Undan field continues producing gas being delivered into the Australian domestic market.

Woodside Energy announced on 17 April 2024 that the Sunrise Joint Venture (SJV) participants, comprising TIMOR GAP (56.56%), Operator Woodside (33.44%), and Osaka Gas Australia (10.00%), had awarded the Greater Sunrise Concept Study contract to Wood Australia Pty Ltd. The study will consider the key issues for developing, processing, and marketing gas with a focus on delivery of gas to Timor-Leste for processing and LNG sales or the alternative of delivery of the gas to Australia.

Papua New Guinea's Kumul Petroleum Holdings Limited announced on 17 April 2024 that for the first time it was directly marketing LNG on the spot market from its share of product from the PNG LNG project. The deal is to sell a cargo of LNG on FOB terms to PetroChina International Corporation Limited after a tender process held in February.

TotalEnergies said on 8 April 2024 that the Papua LNG project would need to keep working with contractors to obtain commercially viable EPC contracts and requires more work to reach an FID (final investment decision). The project plans to review the structure of some packages and open the competition to an enlarged panel of Asian contractors. The FID of Papua LNG project is expected in 2025.

[North America]

According to April 2024 Short-Term Energy Outlook of the U.S. Energy Information Administration (EIA), EIA expects U.S. LNG exports to average 12 Bcf/d in 2024, a 2% increase compared with 2023. In 2025, LNG exports increase by an additional 2 Bcf/d (18%).

DOE (U.S. Department of Energy) updated its economic and environmental impact analyses of LNG exports on 18 April 2024 at a House Hearing. DOE says it is working as quickly as it can and planning for a 60-day comment period. Together with the public comment process, DOE estimates that the update will be completed by the end of the first quarter of 2025.

BRG (Berkeley Research Group) published on 16 April 2024 a report that provided an integrated analysis of methane (CH₄) and carbon dioxide (CO₂) emissions across leading fuel supply chains for power generation in thirteen European and Asian end markets. The report was produced for LNG Allies (The USLNG Association).

The National Petroleum Council (NPC) on 23 April 2024 approved two reports that provide recommendations to help the United States advance its climate goals and align regulatory, policy, and technology development for a lower carbon future.

According to a notice posted on the Federal Register on 19 April 2024, the Office of Fossil Energy and Carbon Management (FECM) of the Department of Energy (DOE) gives notice of receipt of an application, filed by Sabine Pass Liquefaction, LLC and Sabine Pass Liquefaction Stage V, LLC on 1 March 2024, and supplemented on 21 March 2024. Sabine Pass Stage 5 requests long-term authorization to export LNG.

TotalEnergies said on 8 April 2024 that the company had agreed to acquire the 20% interest held by Lewis Energy Group in the Dorado leases operated by EOG Resources (80%) in the Eagle Ford shale gas play.

DOE's (U.S. Department of Energy) FECM has given notice of receipt of an Application, filed on 22 April 2024, by Venture Global Plaquemines LNG, LLC, requesting blanket authorization to export LNG that has been previously imported into the United States from foreign sources in an amount up to the equivalent of 6 billion cubic feet of natural gas for a period of two years beginning 22 July 2024.

Glenfarne Energy Transition LLC announced on 23 April 2024 that Texas LNG Brownsville LLC had signed a second HOA (Heads of Agreement) with EQT Corporation for

natural gas liquefaction services for an additional 1.5 million tonnes per year of LNG over 20 years. This transaction expands Texas LNG's total HOA volume with EQT to 2 million tonnes per year. Texas LNG plans to commence commercial operations in 2028.

Delfin LNG, LLC's request to MARAD (Maritime Administration) to issue Delfin a license to own, construct, and operate a deepwater port off the coast of Louisiana under the Record of Decision (ROD) issued on 13 March 2017 was declined on 22 April 2024, as widespread changes had been made to the project since the 2017 ROD.

Gulfstream LNG asked FERC (Federal Energy Regulatory Commission) on 17 April 2024 to start the environmental pre-filing review for its LNG export project in Louisiana. Gulfstream LNG expects to receive FERC authorization in 2027 and launch the project in 2030. Gulfstream LNG plans to build a three-train plant with a capacity of 4 million tonnes per year in Plaquemines Parish, Louisiana. DOE (Department of Energy) granted a long-term license in June 2023 to Gulfstream LNG to export LNG to FTA nations.

Pembina Pipeline Corporation and its partner the Haisla Nation announced on 4 April 2024 progress on the Cedar LNG project, including securing long-term commercial offtake support and issuing a Notice to Proceed (NTP) to EPC contractors. A 20-year take-or-pay liquefaction tolling services agreement with a fixed toll has been signed with ARC Resources Ltd. for 1.5 million tonnes per year. Pembina has executed an identical bridging agreement with Cedar LNG for 1.5 million tonnes per year. An FID is expected by the middle of 2024. ARC Resources announced on 4 April 2024 that it has entered into a long-term liquefaction tolling services agreement with Cedar LNG Partners LP.

Baker Hughes announced on 5 April 2024 that it was awarded an order from Black & Veatch to supply Cedar LNG in Canada with electric driven liquefaction technologies. Black & Veatch said on 11 April 2024 that the company in partnership with Samsung Heavy Industries (SHI) had received full notice to proceed from Cedar LNG LP partners to begin constructing Cedar LNG's floating liquefaction facility. Chart Industries, Inc. announced on 15 April 2024 that it had been chosen to supply critical liquefaction equipment to the Cedar LNG project.

The Impact Assessment Agency of Canada (the Agency) and British Columbia's Environmental Assessment Office (the EAO) are working for review of the initial phase of the Summit Lake PG LNG proposed by JX LNG Canada Ltd. Commercial operations for Phase 1 are expected to commence in 2028. The LNG is expected to be transported in ISO containers.

[Middle East]

QatarEnergy announced on 29 April 2024 that it had signed an agreement with China State Shipbuilding Corporation (CSSC) for the construction of 18 QC-Max size LNG vessels. The new vessels, with a capacity of 271,000 cubic meters each, will be constructed at China's

Hudong-Zhonghua Shipyard. QatarEnergy also announced time charter party (TCP) agreements with three Chinese ship owners for nine new QC-Max LNG vessels.

Oman LNG announced on 16 April 2024 an SPA (Sales and Purchase Agreement) with Japan's JERA for 0.8 million tonnes per year of LNG for 10 years from 2025. Oman LNG announced on 17 April 2024 an SPA with Shell International Trading Middle East Limited for up to 1.6 million tonnes per year of LNG for 10 years from 2025. Oman LNG announced on 19 April 2024 an SPA with BOTAS Petroleum Pipeline Corporation for 1 million tonnes per year of LNG for 10 years from 2025. Oman LNG announced on 22 April 2024 an SPA with TotalEnergies for 0.8 million tonnes per year of LNG for 10 years from 2025.

TotalEnergies and OQ, the Oman National Oil Company, announced on 22 April 2024 an FID (final investment decision) of the Marsa LNG project (TotalEnergies (80%) and OQ (20%)) of 1 million-tonne-per-year capacity to be built in the port of Sohar. The LNG production is expected to start by first quarter 2028 and is primarily intended to serve the marine fuel market (LNG bunkering) in the Gulf.

[Africa]

TotalEnergies said on 8 April 2024 that the company and Algeria's SONATRACH had signed an MOU (Memorandum of Understanding) with the aim of concluding a hydrocarbon contract in the northeast Timimoun region.

[Europe / Surrounding regions]

ACER (European Union Agency for the Cooperation of Energy Regulators) said on 19 April 2024 in its Market Monitoring Report (MMR): EU LNG demand is likely to reach its peak in 2024; In 2023, EU imported 18 bcm of Russian LNG, mostly via long-term supply agreements signed before 2022.

The European Parliament on 10 April 2024 adopted a provisional political agreement with EU countries on a new law to reduce methane emissions from the energy sector. The new regulation is the first piece of EU legislation aimed at cutting methane emissions and covers direct methane emissions from the oil, fossil gas and coal sectors, and from biomethane once it is injected into the gas network.

Fluxys Belgium announced on 26 April 2024 that Fluxys hydrogen had been appointed as "HNO" - Hydrogen Network Operator for the development and management of a hydrogen transmission grid in Belgium. Fluxys hydrogen plans, develops and operates the open-access hydrogen network with an ambition to offer capacity to transport 30 TWh of hydrogen a year by 2030.

Germany's Deutsche Energy Terminal said on 11 April 2024 that the port of Brunsbüttel had started building a dedicated jetty which would host the FSRU Hoegh Gannet.

Germany's Deutsche ReGas announced on 3 April 2024 that it had ended the LNG shuttle services transportation between the Seapeak Hispania FSU (floating storage unit) and the regasification ship Neptune in Lubmin. Deutsche ReGas is initiating the first step towards relocating the Neptune from Lubmin to the new "Deutsche Ostsee" energy terminal in Mukran. The relocation work in Mukran will take place at the beginning of the summer.

Shell Deutschland GmbH announced on 18 April 2024 that it had launched what it said would be the largest bio-LNG production plant in Germany. The new plant is located at Shell's Energy and Chemicals Park Rheinland near Cologne.

Germany's Netze BW announced on 23 April 2024 that it had carried out a test to inject up to 30% hydrogen in the natural gas network in Baden-Württemberg.

Spain's Endesa said on 16 April 2024 that the LNG carrier Attalos would visit the El Musel terminal to load an "additional volume of LNG to be delivered to its next destination."

Italy's Snam announced on 3 April 2024 that it had exercised its pre-emption right to increase its stake in the Adriatic LNG regasification. Upon closing of the transaction, the corporate capital of Adriatic LNG shall be held by VTTI, a Dutch energy infrastructure company, at 70% and Snam at 30%.

Mitsui O.S.K. Lines, Ltd. (MOL) announced on 25 April 2024 that it had signed a Time Charter Party (TCP) Agreement for an FSRU (Floating Storage and Regasification Unit) for a project in Gdańsk with the Polish Gas Transmission System Operator, GAZ-SYSTEM S.A. The FSRU will be constructed by HD Hyundai Heavy Industries shipyard in Korea and is expected to be completed in 2027.

[South America]

EIG's MidOcean Energy announced on 23 April 2024 the completion of its previously announced agreement to acquire SK Earthon's 20% interest in Peru LNG. PLNG's assets comprise a natural gas liquefaction plant with 4.45 million tonne per year processing capacity, a 408 km-long pipeline, two 130,000 m³ storage tanks, a 1.4 km-long marine terminal and a truck loading facility.

[Global issues]

IGU (International Gas Union) released on 23 April 2024 its 2024 Global Wholesale Gas Price Survey report. The share of spot LNG rose in 2023 to 38% (3% YoY), with the overall share, in LNG imports, of Gas-on-Gas pricing rising to just under 50%. The total volume of globally imported GOG priced gas via LNG and Pipeline reached 57%.

Reference: Company announcements, Cedigaz News Report.

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