# LNG Review November 2023 - Recent issues and events - #95 Hiroshi Hashimoto\*

### Introduction

Japan's INPEX CORPORATION announced in late November 2023 that it had joined OGMP 2.0 (the Oil & Gas Methane Partnership 2.0, an oil and gas industry's methane emission reporting and mitigation programme), following similar announcements from Thailand's PTTEP (PTT Exploration and Production) earlier in the same month and Malaysia's Petronas in November 2022. As INPEX is the first Japanese company and an early operator of an LNG project in Australia to join OGMP2.0, potential reactions of other Japan companies (trading companies and major utilities) participating in the upstream (gas and oil) and LNG liquefaction sectors, as well as Australian LNG companies, are attracting attention.

ExxonMobil's decision to join OGMP2.0 in late November was also significant.

In November 2023, long-term LNG sales agreements were concluded for 8 million tonnes per year in the global LNG market. As a result, cumulative volumes committed under long-term deals made in 2023 have surpassed 73 million tonnes per year, equivalent to those volumes contracted in 2022.

Of the 8 million tonnes per year in November 2023, 4 million tonnes per year has been sold from LNG production projects in the United States, representing a half of the total.

QatarEnergy's 3-million-tonne-per-year and 27-year sales and purchase agreement with China's Sinopec packaged with an equity partner deal regarding the North Field South (NFS) expansion project was also one of the deals in November 2023. This follows earlier deals with Sinopec - a 4-million-tonne-per-year and 27-year SPA in November 2022 and an equity partnership deal in April 2023 regarding the North Field East (NFE) expansion project.

Cheniere Energy advanced its Sabine Pass Expansion (SPL Stage 5) project in November 2023 through an SPA with China's Foran Energy, a long-term IPM (Integrated Production Marketing) supply agreement with Canada's upstream company ARC Resources and an SPA with Austria's OMV.

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### [Asia Pacific]

Japan's INPEX announced on 29 November 2023 that it had joined OGMP 2.0 as the first Japanese company to do so.

JERA Co., Inc. announced on 29 November 2023 measures to address the heavy-load winter season (December 2023 - March 2024). In the announcement, the company said that on 24 November 2023 it received METI's (Ministry of Economy, Trade, and Industry) approval as an authorized supplier under the Strategic Buffer LNG framework. Between December 2023 and February 2024, JERA will secure one cargo of SBL per month to be supplied as requested by the ministry.

According to a statement from Korea's Ministry of Trade, Industry and Energy (MOTIE) on 7 November 2023, power companies met with MOTIE and said that they could meet power demand in winter 2023/2024, highlighting the outlook on LNG supplies.

Korean's Hyundai Heavy Industries (HHI) announced on 14 November 2023 a twovessel LNG carrier order at a total cost of USD 530 million in a statement to the country's stock market regulator. HHI will deliver the vessels to an African shipping company by February 2028.

China's Ministry of Ecology and Environment published on 7 November 2023 its plan to tackle methane issues. China pledged to "effectively improve" its monitoring and supervision systems for methane in its five-year plan period through 2025, and to "significantly improve" those systems in 2026-2030. The country will curb "flaring" at oil and gas wells, while targeting methane leaks at coal mines to be closed up, according to the plan. While the plan does not include targets for reducing methane, it envisions capturing and using more of those emissions as fuel.

The United States and China published on 14 November 2023 a 25-point joint statement on climate issues. The statement includes China's commitment to include methane in its 2035 NDC, and for the United States and China to convene a "Methane and Non-CO2 Greenhouse Gases Summit" on the sidelines of COP28.

According to China's National Bureau of Statistics (NBS) on 15 November 2023, the country's natural gas production during the first ten months of the year was 189.6 bcm, up by 6.1% year on year.

PipeChina announced on 9 November 2023 that it had started the capacity slots booking at its seven LNG terminals, including long-term slots between 3 and 20 years and annual slots from April 2024 to March 2025. PipeChina announced on 10 November 2023 that its Tianjin LNG terminal Project Phase II's second phase was put into operations.

SINOPEC (China Petroleum & Chemical Corporation) announced on 3 November 2023 that the company had officially put China's first and also the world's largest LNG storage tank of 270,000 cubic meters into service at its Qingdao LNG Receiving Terminal.

Thailand's PTTEP (PTT Exploration and Production Public Company Limited) announced on 16 November 2023 that it had signed the memorandum of understanding (MoU) to participate in the OGMP 2.0.

The Philippines' First Gen Corporation (FGEN) announced on 16 November 2023 that the company had concluded its international tender for an LNG cargo by awarding a contract to Trafigura Pte Ltd. Trafigura will supply an LNG cargo within the required delivery window of 25 November to 25 December 2023, on a Delivered Ex Ship (DES) basis to FGEN's wholly-owned subsidiary, First Gen Singapore Pte. Ltd (FGEN Singapore).

Indonesia's PGN (PT Perusahaan Gas Negara), a unit of Pertamina, revealed on 7 November 2023 that it had declared force majeure on its LNG supply deal with Gunvor Singapore.

Indonesia's Pertamina announced on 14 November 2023 that it had signed an agreement with ExxonMobil to develop an offshore carbon capture and storage (CCS) facility in the Java Sea.

Pakistan LNG revealed on 24 November 2023 that its one-cargo DES buy tender for an 8 - 9 January 2024 delivery window had seen bids from Oman's OQ Trading, Vitol, QatarEnergy, and Trafigura.

Excelerate Energy, Inc. announced on 8 November 2023 that it had signed a long-term LNG sale and purchase agreement (SPA) with the Bangladesh Oil, Gas & Mineral Corporation (Petrobangla). Excelerate will deliver 0.85 million tonnes per year of LNG in 2026 and 2027 and 1 million tonnes per year from 2028 to 2040.

Australia's Ministers for Climate Change and Energy and Resources announced on 27 November 2023 that the government had secured up to 300 PJ (7.5 bcm) of extra gas supplies for the country's east coast market to 2030. The commitments for supply agreed with Australian gas producer Senex Energy and the Australia Pacific LNG (APLNG) project totals around two years of east coast industrial use, the ministers said.

Australia's Santos and Tokyo Gas announced on 21 November 2023 that they were joining forces to produce e-methane in Australia and ship it to Japan. First production of e-methane is targeted for 2030 with 60 thousand tonnes per year.

Origin Energy stated on 28 November 2023 that it had stopped cargo loadings at the APLNG (Australia Pacific LNG) facility after an LNG vessel experienced a power outage at the facility. Origin revealed on 1 December that the vessel had departed. The vessel was moved to safe anchorage for further repairs by the ship's owner, led by Gladstone Ports and Marine Safety Queensland in conjunction with the Australian Maritime Safety Authority. In total, three LNG cargoes were unable to be loaded during the event.

Origin Energy announced on 30 November that its Board had rejected a Revised Proposal from Brookfield Asset Management relating to the initial takeover proposal of Origin's energy business.

According to Woodside's INVESTOR BRIEFING DAY 2023 on 8 November, the fabrication of the Pluto Train 2 modules in Batam in Indonesia is well advanced with 44 of the 51 modules currently under construction. The company recently awarded the EPCM contract for the Pluto Train 1 modifications to process Scarborough gas. The Scarborough floating production unit (FPU) is progressing well with fabrication of the hull and topsides in China, supporting the first LNG target of 2026.

Woodside revealed on 6 November 2023 that it paid AUD 3.7 billion in taxes and royalties to the Australian Commonwealth and State governments in the first half of 2023.

The Australian federal government's Environment Protection (Sea Dumping) Amendment (Using New Technologies to Fight Climate Change) Bill passed the Senate on 13 November 2023 with the support of the Coalition. The bill is expected to pave the way for Santos to develop its proposed Bayu-Undan CCS project which is crucial to its plans of the Barossa gas field development.

Australia's Santos noted on 15 November 2023 the decision of the Federal Court of Australia ruling pipelay activities can commence on an 86 km section of pipeline for the Barossa Gas Export Pipeline (GEP). The announcement said that as per the ruling, no activity would occur south of kilometre point 86 (KP86). The Court has set 4 December 2023 as the date of commencement of the hearing of the application seeking to restrain Santos from continuing the pipelay until it revises its environmental plan after re-consultation with relevant persons, and NOPSEMA accepts a revised plan.

Santos announced on 22 November 2023 that it had entered into a collaboration agreement with Abu Dhabi's ADNOC in the area of carbon capture and storage (CCS).

Australia's Woodside Energy said on 22 November 2023 that the Timor-Leste Government had granted the Sunrise Joint Venture the green light to start work on a concept study for the development of the Greater Sunrise fields.

# [North America]

The United States and eleven countries have formed a working group to advance efforts to measure greenhouse gas emissions across the natural gas supply chain to cut global output of the pollution blamed for climate change, the Energy Department said on 15 November 2023. The MMRV Working Group aims to advance efforts to measure, monitor, report and verify emissions of methane, carbon dioxide and other greenhouse gases. Participants are: Australia, Brazil, Canada, Colombia, East Mediterranean Gas Forum, European Commission, France, Germany, Italy, Japan, Norway, Korea, United Kingdom and the United States.

The U.S. Department of Energy's, Office of Fossil Energy and Carbon Management

(FECM) launched on 17 November 2023 a new report called the Natural Gas Imports and Exports Monthly, replacing the LNG Monthly and the Natural Gas Imports and Exports Quarterly Reports.

Cheniere Energy, Inc. announced on 2 November 2023 that Cheniere Marketing, LLC had entered into a long-term LNG sale and purchase agreement (SPA) with Foran Energy Group Co. Ltd. Foran has agreed to purchase approximately 0.9 million tonnes per year of LNG for 20 years from Cheniere Marketing on a free-on-board (FOB) basis for a purchase price indexed to the Henry Hub price, plus a fixed liquefaction fee. Deliveries will commence upon the start of commercial operations of the second train (Train 8) of the Sabine Pass Liquefaction Expansion Project (SPL Expansion Project) in Louisiana.

Cheniere Energy, Inc., Cheniere Energy Partners, LP, and Canada's ARC Resources Ltd. announced on 29 November 2023 that Sabine Pass Liquefaction Stage V, LLC (SPL Stage 5) and ARC Resources U.S. Corporation had entered into a long-term IPM (Integrated Production Marketing) gas supply agreement. ARC Resources has agreed to sell 140,000 million Btu per day of natural gas to SPL Stage 5 for a term of 15 years, commencing with commercial operations of the first train (Train 7) of the Sabine Pass Liquefaction Expansion Project. SPL Stage 5 will pay ARC Resources an LNG-linked price for its gas, based upon the TTF price, after deductions for a fixed regasification fee, fixed LNG shipping costs and a fixed liquefaction fee. The IPM agreement is subject to, among other things, a positive FID (Final Investment Decision) with respect to Train 7. The LNG associated with this gas supply, approximately 0.85 million tonnes per year, will be marketed by Cheniere Marketing International LLP. This represents the second long-term IPM agreement between Cheniere and ARC Resources. Cheniere also announced that Cheniere Marketing had entered into an LNG SPA (sale and purchase agreement) with OMV Gas Marketing and Trading GMBH. Cheniere will supply OMV with up to 12 LNG cargoes per year, or approximately 0.85 million tonnes per year of LNG, at a TTF-linked price from late 2029. The LNG will be sold to OMV on a DES (delivered ex-ship) basis at the Gate LNG Terminal in the Netherlands.

Cheniere Energy said on 2 November 2023 that the Corpus Christi Stage 3 project continued to progress ahead of plan and the company expected the first LNG production from Train 1 by the end of 2024.

Sempra said on 3 November 2023 that the company was working on Cameron Phase 2 value engineering with Bechtel, expecting the work to be completed by the end of the year. The company said that the target was to make a final investment decision in 2024.

The U.S. Court of Appeals for the Fifth Circuit vacated on 14 November 2023 a TCEQ (Texas Commission on Environmental Quality) air permit granted to Sempra Infrastructure's Port Arthur LNG.

Freeport LNG said on late 13 November 2023 that it had restarted all three trains

after all three tripped and went offline early on the morning due to issues with power supply, according to a filing with the state environmental regulator. Freeport LNG said on 30 November that it had restarted its Train 1 following a trip.

Venture Global LNG sent a letter on 10 November 2023 to United States and EU (European Union) officials, responding to letters by bp, Edison and Shell filed to the officials. In the letter, Venture Global claims that the earlier communications by the European companies "falsely claim that Venture Global is engaging in misconduct and refusing to honor its contractual commitments to its long-term customers in order to engage in profiteering".

Venture Global LNG on 28 November made a request to FERC (Federal Energy Regulatory Commission) to place utility services into operation at the Calcasieu Pass LNG plant.

Glenfarne Energy Transition, LLC announced on 9 November 2023 that its Texas LNG, a four million tonnes per year LNG export project to be constructed in the Port of Brownsville, Texas, had selected Baker Hughes to supply gas compression technology equipment, including electric motor drives. As part of the partnership between Baker Hughes and Texas LNG, Baker Hughes also has a framework agreement to make a strategic Pre-FID investment in the project's late-stage development. The first LNG exports from Texas LNG are expected to be shipped in late 2027 or early 2028.

Delfin Midstream Inc. and Gunvor Group Ltd announced on 27 November 2023 that Gunvor Singapore Pte Ltd had entered into an SPA (long-term LNG Sale and Purchase Agreement) with Delfin LNG LLC. Delfin LNG will supply 0.5 - 1.0 million tonnes of LNG per year to Gunvor on an FOB (free-on-board) basis at the Delfin Deepwater Port for a minimum duration of 15 years.

Commonwealth LNG announced on 28 November 2023 that it had entered into an MOU (Memorandum of Understanding) with OnStream CO2 LLC, a joint venture between Carbonvert Inc. and Castex Carbon Solutions, LLC, for a CCS (carbon capture and storage) solution at Commonwealth's 9.3 million tonne per year LNG facility under development in Cameron, Louisiana. Commonwealth LNG expects to reach an FID (final investment decision) in the first half of 2024.

According to the U.S. EIA (Energy Information Administration), more than 20 Bcf/d (150 million tonnes per year) of natural gas pipeline capacity under the jurisdiction of FERC or the Railroad Commission of Texas is under construction, partly completed, or approved to deliver natural gas to five LNG export terminals that are under construction.

FERC and NERC (North American Electric Reliability Corporation) issued a joint statement on 6 November 2023 that they remained concerned about the potential loss of the Everett Marine Terminal (Everett) in New England and the consequences that it might have

for the reliability and affordability of the region's energy supplies.

 $\label{thm:expansion} Exxon Mobil revealed on 29 \ November 2023 \ that \ the company \ had \ made \ the \ decision \ to \ join \ OGMP \ 2.0.$ 

Canada's Pieridae Energy Limited announced on 8 November 2023 that it had initiated a process to sell its Goldboro subsidiary and associated assets, relating to its east coast LNG plan.

New Fortress Energy (NFE) said on 8 November 2023 that it had completed sailaway, installation and first gas for its first FLNG asset offshore Altamira. The first LNG and Commercial Operations Date (COD) is expected by the end of the fourth quarter of 2023.

# [Middle East]

Abu Dhabi's ADNOC said on 14 November 2023 that the company planned to expand its production capacity of the three-train LNG plant on the Das Island from the current level of 6 million tonnes per year to 6.9 million tonnes per year by 2028. The LNG 2.0 project includes: Electrification of LNG trains to reduce GHG emissions; Debottlenecking LNG trains: and Ethane extraction and export.

ADNOC said on 10 November 2023 that the company was advancing towards an FID (Final Investment Decision) for a project in Ruwais to establish one of the world's lowest carbon intensity LNG production facilities. Located in Al Ruwais Industrial City, the project features two 4.8 million tonnes per year LNG trains operating on renewable and nuclear energy.

QatarEnergy and Sinopec (China Petrochemical Corporation) announced on 4 November 2023 the signing of a partnership agreement for the North Field South (NFS) expansion project. The two companies also signed an SPA (sales and purchase agreement) for 3 million tonnes per year of LNG from the NFS project to Sinopec's receiving terminals in China over 27 years. QatarEnergy will transfer a 5% interest to Sinopec in a joint venture company that owns the equivalent of 6 million tonnes per year of LNG production capacity in the NFS project. The partnership agreement is the second of its kind with Sinopec, following a similar one signed in April 2023, which marked Sinopec's entry as a shareholder in one of the North Field East (NFE) joint venture companies that own the NFE project. The latest SPA follows another SPA signed in November 2022 for the supply of 4 million tonnes per year of LNG for 27 years.

TotalEnergies announced on 2 November 2023 that the company had signed an amendment to extend its partnership with Oman LNG. TotalEnergies is extending beyond 2024 its interest in Oman LNG, by ten years, and in Qalhat LNG, by five years.

Oman LNG announced on 20 November 2023 the signing of a Sales and Purchase Agreement with bp to supply 1 million tonnes per year of LNG from 2026 for nine years.

# [Africa]

Algeria's SONATRACH announced on 22 November 2023 that the company and Turkey's BOTAŞ had signed an agreement on the sale and purchase of LNG. The two parties agreed, in particular, to extend their cooperation for a period of 03 years.

Shell announced on 21 November 2023 discovery in North East El-Amriya block in Egypt's Mediterranean Sea. Shell Egypt has completed the drilling of the first well in its three-well exploration campaign, Mina West, located in the block.

The office of the Nigerian presidency said in a statement on 21 November 2023 Nigerian and German companies had a plan to reduce gas flaring in Nigeria and turn the captured gas into LNG to supply Germany with up to 1.2 million tonnes per year of LNG. Riverside LNG of Nigeria and Johannes Schuetze Energy Import of Germany agreed an MOU (memorandum of understanding) on the project, which could see supplies of up to 0.85 million tonnes per year for Germany as soon as 2026, according to the statement.

Kosmos Energy said on 6 November 2023 that the delivery of first gas from the Tortue LNG project offshore Senegal and Mauritania had the potential to slip into the second quarter of 2024. Golar LNG Limited announced on 19 November 2023 that the FLNG Gimi had departed Singapore's Seatrium Shipyard for the Greater Tortue Ahmeyim (GTA) hub. The voyage is expected to take around 60 days, including refuelling stops in Mauritius prior to rounding the Cape of Good Hope and in Namibia prior to its arrival.

Tanzania's Energy Ministry of Energy announced on 10 November 2023 that the country and Uganda on 9 November signed a bilateral agreement to construct a pipeline, that would transport natural gas from Tanzania's southern regions to Uganda.

### [Europe / Surrounding regions]

The European Council and the European Parliament announced on 15 November 2023 that they had reached a provisional political agreement on a regulation on tracking and reducing methane emissions in the energy sector. Notably on imports of energy sources, the Council and the Parliament agreed on three implementation phases. The first phase will focus on data collection and the creation of a methane emitters global monitoring tool and a super emitter rapid reaction mechanism. In the second and third phases, equivalent monitoring, reporting and verification measures should be applied by exporters to the EU by 1 January 2027, and maximum methane intensity values by 2030.

Czech ČEZ announced on 23 November 2023 that it had contracted 2 bcm per year of long-term capacity at the German LNG terminal Stade. The terminal under construction near Hamburg will be commissioned by operator Hanseatic Energy Hub in 2027.

Germany's Uniper announced on 26 November 2023 that it was notified on 24

November 2023 of an award against a subsidiary in arbitration proceedings under the rules of the International Chamber of Commerce which began in early 2021. The proceedings between the Uniper subsidiary and a European energy company relate, inter alia, to the pricing provisions of a long-term agreement for the supply of LNG, concluded prior to the spin-off of Uniper in 2016 and which has since expired. A payment to the opposing party of an estimated EUR 550 million related to the retroactive re-pricing of the long-term agreement would be due under the terms of the award.

Spain's gas network operator Enagás said in a note to customers on 10 November 2023 that the flexibility of LNG tanker deliveries to Spain could be reduced because of high tank stock levels after recent storms.

Spain's power company Endesa announced on 20 November 2023 that it had been ordered by the International Court of Arbitration of the International Chamber of Commerce (ICC) to pay USD 570 million to an LNG producer as the result of an arbitration dispute over the pricing of long-term supplies. Endesa said the payment was a "retroactive price adjustment."

Spain's Enagás announced on 28 November 2023 that the European Commission had adopted the Delegated Act on Projects of Common Interest (PCI) which included the H2Med corridor, the first axes of the associated Spanish Hydrogen Backbone Network and two underground hydrogen storage facilities. The list of PCIs will be submitted to the Council and the European Parliament for approval in early 2024.

The European Commission announced on 16 November 2023 that it had decided to refer Poland to the Court of Justice of the European Union for imposing restrictive requirements on companies engaged in the cross-border trade of natural gas under its national gas storage legislation.

Poland's GAZ-SYSTEM announced on 14 November 2023 that it had concluded agreements (Term Sheet) with two shipowners that set out the framework conditions for the delivery and use of the first FSRU vessel (Floating Storage Regasification Unit) to serve as a regasification terminal in the Gulf of Gdańsk. Regasification services are planned to start in early 2028. Mitsui O.S.K. Lines (MOL) and BW LNG were selected.

Poland's Gaz-System announced on 17 November 2023 that on 27 October, the submission phase for binding offers filed by participants registered in the GAZ-SYSTEM's Open Season FSRU 2 procedure was closed. The procedure did not result in binding orders at a sufficient level to proceed with the implementation of the FSRU 2 project. The development of the first FSRU project continues.

The U.S. Treasury issued 2 November 2023 a new round of technology sanctions on Russia, including Limited Liability Company Arctic LNG 2. Mitsui & Co., Ltd. announced on 3 November that the company would examine the impact of the sanction and would take

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appropriate measures.

The European Parliament adopted on 9 November 2023 a resolution calling for a full

closure of the EU market to Russian fossil fuels and a full ban on Russian LNG and LPG

imports. While the resolution represented the majority opinion of lawmakers in the

European Parliament, it did not mean a legally binding ban.

[South America]

Brazil's Petrobras released its 5-year plan on 24 November 2023, including a target

of USD 102 billion in investment, increasing 31% from the previous 5-year plan. Exploration and production activities represent 72% the total at USD 73 billion.

New Fortress Energy Inc. (NFE) announced on 6 November 2023 that it had

executed an agreement to charter the Floating Storage and Regasification Unit (FSRU)

Energos Winter from Petrobras starting in December. The FSRU will be immediately

deployed to Terminal Gas Sul (TGS), NFE's newest LNG import terminal in Santa Catarina.

McDermott announced on 28 November 2023 that it had received a limited notice to

proceed for an EPCI (engineering, procurement, construction and installation) contract from

Shell Trinidad and Tobago Limited for the Manatee gas field development project, located

off the east coast of Trinidad and Tobago. Subject to Shell taking an FID (final investment

decision), the project scope is for the design, procurement, fabrication, transportation,

installation, and commissioning of a wellhead platform, offshore and onshore gas pipelines.

Reference: Company announcements, Cedigaz News Report.

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