

LNG Review January 2021 - Recent issues and events -

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Introduction

According to trade statistics of countries, Japan and Korea decreased their annual LNG imports slightly in 2020 to 74.46 million tonnes and 40.19 million tonnes, respectively, while China imported 67.13 million tonnes, 11.5% more than it did in 2019. Although China imported more than 100 million tonnes of natural gas in 2020, its pipeline gas imports decreased by 4.9% to 34.53 million tonnes in 2020. The European region, including Turkey and the United Kingdom, imported 84 million tonnes, 4% less than one year ago, but more than Japan or China for two consecutive years. South and Southeast Asia, including India, imported nearly 50 million tonnes of LNG in 2020, 9% more than 2019.

Qatar and Australia were the largest LNG exporters in the world in 2020 with 77 - 78 million tonnes each. Australian LNG represented 40% each in Japan's and China's LNG imports, while its share in Korea was around 20%. Incremental global LNG supply in the year - as well as volumes to meet surging demand in Northeast Asia from late 2020 until early 2021 - were mostly provided by the third largest supplier - the United States. In November and December 2020, the country's LNG exports set two consecutive monthly records.

The demand surge and extremely high assessed spot LNG prices implications on mid- to long-term supply security, beyond short-term impacts. As flexible LNG volumes were diverted to Northeast Asia, some LNG buyers in other regions refrained from buying expensive cargoes or simply were unable to do so. The event will lead to discussions on future role of LNG and reliability of LNG supply in the markets directly affected, as well as future potential LNG markets.

In the United States, a permit application was submitted to the regulators for new natural gas storage facilities in Louisiana. This is an initiative to strengthen supply infrastructure in response to increasing LNG exports from the region. Another new project's regulatory application and a process to invite offtake reservation for yet another project were announced in January.

* The writer belongs to Gas Group, Fossil Energy and International Cooperation Unit. Some information pieces that some readers may consider very important may not be included due to different reasons.

[Asia Pacific]

CME Group announced on 6 January 2021 that four new Japanese electricity futures contracts and two new LNG futures contracts would be available for trading on 8 February 2021.

According to multiple media reports, a spot LNG cargo for delivery to a Japanese power company in the second half of January 2021 was sold at a level of mid-USD 30s per million Btu with a significant premium to spot levels because of very close proximity to the delivery period.

Mitsui OSK Lines (MOL) said on 29 January 2021 that it had bid farewell to its oldest LNG carrier, Senshu Maru. The vessel has been sent to India for recycling.

Keppel Offshore & Marine Ltd (Keppel O&M) announced on 4 January 2021 that it had delivered Singapore's first LNG bunkering vessel, FueLNG Bellina, to FueLNG. Built in Keppel O&M's Nantong shipyard, FueLNG Bellina is the second LNG bunkering vessel (LBV) and fifth dual-fuel vessel delivered by Keppel O&M.

Norway's CRYO Shipping announced on 27 January 2021 that the company bunkered LNG to the shuttle tanker, Altera Wave, in Malaysian waters in the Singapore Strait. The LNG bunkering of the 103,500-DWT ship was the largest LNG powered merchant ship to be supplied with LNG from a bunker vessel in Asia.

Thailand's PTT has started a test of LNG trading. A reexport cargo was shipped out from the Map Ta Phut LNG terminal in late January 2021.

TTCL of Thailand announced on 20 January 2021 that its TTCL Power Myanmar Co., Ltd (TPMC) subsidiary signed a power purchase agreement (PPA) with Electric Power Generation Enterprise (EPGE), state-owned enterprise under Ministry of Electricity and Energy (MOEE) of Myanmar for a 388 MW LNG-to-power project in Ahlone Power Plant, Yangon Region on 19 January 2021. The scope of the project also includes procurement, transport, storage and regasification of LNG. The project is developed with Sojitz, Shikoku Electric Power and INPEX, TTCL said.

bp announced on 25 January 2021 that the company had begun to directly supply gas customers in China with gas from LNG that it had imported into the country. The company claimed that this was the first time that bp had created a fully integrated gas value chain into China. The first cargo of gas delivered under bp's new terminal usage agreement at the Guangdong Dapeng LNG (GDLNG) terminal in Shenzhen, Guangdong, arrived on 24 January. Under the agreement, bp has 600,000 tonnes a year tolling regasification capacity at GDLNG. bp in 2020 signed gas supply agreements with ENN Group and Foran Energy. bp will supply each with 300,000 tonnes per year of pipeline gas, regasified from LNG, for two years from 2021. bp holds a 30% interest in GDLNG.

Sinopec said on 7 January 2021 that the first phase of Weirong Shale Gas Field of Southwest Sichuan province was completed in 2020 with annual production capacity of 1 bcm. At present, the daily gas production is 3.5 million cubic meters. The Weirong shale gas field is the country's first deep shale gas field with proven reserves of 124.7 bcm, located in Neijiang and Zigong Cities, at an average well depth of 3750 meters. 56 wells on 8 platforms have been deployed in the first phase. After the second phase completion in 2022, the annual production capacity of the gas field will reach 3 bcm.

China's CRRC Datong Company announced on 28 January 2021 that it had developed hydrogen fuel-cell hybrid locomotive. The locomotive has a design speed of 80 km/h and a continuous power of 700 kW.

CPC Corporation announced on Sunday 10 January 2021 that it had started receiving LNG from Cheniere Energy under a 25-year deal signed in 2018, and will get around 2 million tonnes in 30 cargoes annually. CPC said the vessel carrying the LNG, from the Corpus Christi, Texas, LNG plant, had arrived at the LNG terminal in Taichung. Chinese Taipei imported 18.36 million tonnes of LNG in 2020, a 7.8% increase year-on-year, according to its Customs Statistics.

Shell Energy India announced on 19 January 2021 inauguration of its first small-scale LNG supply infrastructure, a truck loading unit at its LNG terminal in Hazira. Total announced on 18 January 2021 the acquisition of a 20% minority interest in Adani Green Energy Limited (AGEL) from Adani Group.

Tokyo Gas Engineering Solutions (TGES) announced on 29 January 2021 that the company and Nippon Koei were awarded an order for Techno-Economic Feasibility Study, Engineering Services and Tender Management for selecting BOOT developer for a land-based LNG terminal in Matarbari, Cox's Bazar, Bangladesh from Petrobangla.

EnergyQuest released its Australian LNG Monthly for December 2020 on 19 January 2021, in which it noted disruptions to Gorgon, the fact that Prelude hadn't produced since early February, issues seen at Wheatstone with reduced production.

Australia's federal government announced on 21 January 2021 a new Heads of Agreement with Australia Pacific LNG (APLNG), Queensland Curtis LNG (QCLNG) and GLNG that the government claims would help secure competitive gas supply for the east coast market until 2023. The government said that it was also continuing with its commitments to unlock new gas supplies through the Strategic Basin Plans with the Beetaloo Basin Plan finalised and work progressing on unlocking gas in the North Bowen and Galilee Basin.

National Energy Resources Australia (NERA) unveiled on 31 January 2021 a network of regional hydrogen technology clusters. The development of a national hydrogen cluster was identified by the 2019 National Hydrogen Strategy as an important component

to scale up Australia's domestic industry to become a global hydrogen competitor.

Esso Australia (a subsidiary of ExxonMobil Australia) said on 28 January 2021 that it was nearing completion of its West Barracouta project, which will bring new gas supply to the Australian domestic market in 2021. The project in the Gippsland Basin will be tied back to existing Barracouta infrastructure in the Bass Strait.

Woodside announced on 29 January 2021 that Woodside Burrup and the North West Shelf (NWS) Project participants had finalised arrangements with the Western Australian Government enabling the supply of Pluto gas, via an interconnector pipeline, for processing at the NWS Project's Karratha Gas Plant (KGP). The arrangements follow the execution of a gas processing agreement in December 2020 between Woodside Burrup and the NWS Project participants to process approximately 3 million tonnes of LNG in aggregate and approximately 24.7 petajoules of domestic gas at KGP in the processing period (2022 - 2025). Woodside has also agreed with the State to market and make available an additional 45.6 petajoules of domestic gas from its existing NWS equity position from 2025.

Woodside announced on 18 January 2021 that Woodside Energy Trading Singapore and Uniper Global Commodities had agreed to amend the binding long-term sale and purchase agreement (SPA) announced in December 2019 to double the supply of LNG from Woodside's global portfolio to Uniper. Initial supply commencing in 2021 is now for a volume of up to 1 million tonnes per year, increasing to approximately 2 million tonnes per year from 2026. The majority of LNG supply from 2025 is conditional upon a final investment decision (FID) on the development of the Scarborough gas resource. Woodside and Uniper have also agreed to collaborate on potential carbon-neutral LNG. Woodside claims that it has secured long-term customers for over 40% of our expected Scarborough equity production.

Clean Energy Fuels Australia (CEFA) announced on 19 January 2021 that it had been acquired by I Squared Capital (ISQ). ISQ and CEFA have announced plans to invest up to AUD 500 million on assets providing low-carbon and renewable solutions. The initial focus will be on the Western Australian mining sector. The Energy Transition Platform will offer an integrated solution to remote mining customers to meet their evolving energy needs. This will include end-to-end logistics for LNG for power generation, innovative solutions for utilising LNG in place of diesel for heavy mine haul vehicles, re-deployable solar solutions which can adapt with the unique requirements of mining operations with shorter mine lives, and the transition towards green hydrogen. The Energy Transition Platform's first major project will be the Mid-West LNG Hub. The hub will have a production capacity of up to 100,000 tonnes of LNG per year, with first LNG production scheduled for the third quarter of 2021. CEFA has also secured a site for its second LNG Hub. Across these hubs, CEFA aims to build a cumulative production capacity of up to 200,000 tonnes of LNG per year.

Transborders Energy announced on 27 January 2021 that it had signed a multi-party and multi-project FLNG Solution Framework Agreement for deployment of Transborders' FLNG Solution on offshore gas resource opportunities with Add Energy Group; Kyushu Electric Power; Mitsui O.S.K. Lines (MOL); SBM Offshore; and TechnipFMC.

Santos, as operator of the Bayu-Undan Joint Venture, announced on 5 January 2021 a Final Investment Decision (FID) for the Phase 3C infill drilling program at the Bayu-Undan field in the Timor Sea, offshore Timor-Leste. The program comprises three production wells (two platform and one subsea) and will develop additional natural gas and liquids reserves, extending field life as well as production from the offshore facilities and the Darwin LNG plant. Production from the first well expected in 3Q 2021. Santos has a 68.4% interest and operatorship in Bayu-Undan and Darwin LNG which will reduce to 43.4% upon completion of a 25% sell down to SK E&S. The sell-down would complete once the Final Investment Decision on Barossa is taken in 1H 2021, the company said.

Chiyoda Corporation announced on 5 January 2021 that it had been awarded the design development and engineering of a new Floating, Storage, Regasification and Power Generation (FSRP) facility by Kumul Petroleum Holdings Limited (KPHL). The new FSRP facility will have capacity to generate 75 MW of power to be supplied to the local transmission grid, in addition to being able to load and store 140,000 m³ of LNG which can be offloaded to small-scale (SS) bulk cargo vessels and redistributed to smaller local power generation locations, and regasify and send gas via pipeline for local customers.

[North America]

According to the U.S. Energy Information Administration's (EIA) Natural Gas Monthly (NGM), in November and December 2020, U.S. LNG exports set two consecutive monthly records at 9.4 Bcf/d (5.868 million tonnes) and 9.8 Bcf/d (6.322 million tonnes), respectively, and set another monthly record in January 2021 at 9.8 Bcf/d.

The U.S. Department of Energy (DOE) announced on 8 January 2021 the issuance of a policy statement that removes the requirement for long-term LNG export authorization holders to seek separate short-term authorizations to export the same volumes approved for long-term exports. DOE Office of Fossil Energy (FE) announced on 15 January plans to make USD 160 million in federal funding available to help recalibrate the nation's fossil-fuel and power infrastructure for decarbonized energy and commodity production. The funding is aimed to develop technologies for the production, transport, storage, and utilization of fossil-based hydrogen.

ExxonMobil expressed on 28 January 2021 its support to the new administration's priority of reducing methane emissions as part of its plan to achieve the goals of the Paris

Agreement. The company said that achieving broad and durable impact requires uniform regulations. ExxonMobil said that it had advocated for policymakers globally to advance comprehensive, enhanced rules to reduce methane emissions in all phases of production. The company said that it supported the European Commission's Methane Strategy for the European Union.

The Interstate Natural Gas Association of America (INGAA) announced on 26 January 2021 a set of climate change commitments that outline in detail its mission to help address climate change, including working together as an industry towards reaching net-zero greenhouse gas (GHG) emissions from natural gas transmission and storage by 2050.

Sempra LNG's LA Storage on 29 January 2021 filed an application with the Federal Energy Regulatory Commission (FERC) seeking approval to construct a new salt cavern facility near Hackberry, Louisiana. The Hackberry Storage project includes four salt dome caverns. Sempra requested FERC to approve the project no later than 31 January 2022. The project - which could enter operations in the first quarter of 2024 - involves the conversion of three existing salt dome caverns, currently filled with brine, and the development of one new salt dome cavern. The total capacity of the four caverns will be 25.5 Bcf, composed of 20.03 Bcf (0.417 million tonnes) of working gas and 5.47 Bcf of base gas.

NextDecade Corporation announced on 29 January 2021 that the company had determined that the Galveston Bay LNG site in Texas City was not suitable for development of an LNG facility. NextDecade has informed the Federal Energy Regulatory Commission (FERC) of its intent to withdraw the project from FERC pre-filing proceedings. NextDecade said it was working on remaining commercial agreements needed to achieve a final investment decision (FID) on the Rio Grande LNG project in 2021.

Venture Global LNG has submitted a request to the Federal Energy Regulatory Commission (FERC) to initiate the pre-filing review process for its CP2 LNG project and associated feed gas pipeline, which it hopes to launch in 2025. Venture Global said that it was looking to build an LNG plant with a "peak capacity" of 24 million tonnes per year in Cameron Parish, Louisiana.

Commonwealth LNG, in association with Gunvor Group, announced on 18 January 2021 the launch of a formal process to solicit bids to reserve offtake from its planned 8.4 million tonne per year LNG facility in Cameron, Louisiana. LNG will be made available under tolling, free on board (FOB) or delivered at place (DAP) offtake agreements. Gunvor has committed to take up to 3 million tonnes per year of LNG offtake from the project. The project should achieve FID in the first quarter of 2022, with the first cargo expected in Q2 of 2025. Commonwealth plans to use a predominantly modular approach with major components being fabricated offsite.

FERC upheld on 19 January 2021 the State of Oregon's denial of a clean water permit for the planned Jordan Cove LNG plant and Pacific Connector feed gas pipeline. The decision comes 10 months after FERC approved the construction.

Air Products announced on 1 February 2021 that it had signed an agreement to provide its proprietary LNG technology, equipment and related process license and advisory services to the Energía Costa Azul (ECA) LNG export project. Air Products' facility in Florida will manufacture the coil wound heat exchangers (CWHE) for its AP-DMRTM LNG process technology. The LNG equipment will be able to produce three million tonnes per year.

[Middle East]

Eni and Sharjah National Oil Corporation (SNOC) announced on 4 January 2021 production start-up from the Mahani field, located in onshore Concession Area B of the Sharjah Emirate. The start-up was achieved in less than two years from contact signature and less than one year after discovery announcement. Eni holds a 50% stake in the concession with SNOC holding the remaining 50% acting as the operator.

McDermott International announced on 6 January 2021 that it had been awarded a contract from Qatargas to deliver front-end engineering and design (FEED) work for Qatar Petroleum's North Field South (NFS) project.

Qatar Petroleum launched its new Sustainability Strategy on 13 January 2021. The strategy stipulates deploying dedicated Carbon Capture and Storage (CCS) facilities to capture more than 7 million tonnes per year of CO₂ in Qatar. The strategy also acts as a clear direction towards reducing the emissions intensity of Qatar's LNG facilities by 25% and of its upstream facilities by at least 15%, and reducing flare intensity across upstream facilities by more than 75%. In addition it sets out a target to eliminate routine flaring by 2030, and limit fugitive methane emissions along the gas value chain by setting a methane intensity target of 0.2% across all facilities by 2025.

[Africa]

The Nigerian Content Development and Monitoring Board (NCDMB), the Nigerian National Petroleum Corporation (NNPC) and DSV Engineering on 29 January 2021 signed the Final Investment Decision (FID) for the construction of 10,000 tonnes/day methanol production plant by the Brass Fertiliser and Petrochemical Company Ltd (BFPCL). The facility would be the largest methanol plant in Africa and the first in Nigeria. According to the financing plan, the project is estimated to cost about USD 3.5 billion and aside the equity from NCDMB, NNPC and DSV, lenders include a consortium of Chinese banks led by the China Exim Bank, African Development Bank (AfDB), international commercial banks,

regional banks and African institutions.

Reganosa announced on 7 January 2021 that it had been awarded the contract to operate and maintain an LNG regasification terminal in Tema, Ghana. Both the storage (FSU) and regasification (FRU) units are floating. Tema LNG, backed by Helios Investment Partners and Africa Infrastructure Investment Managers (AIIM), is the first offshore LNG receiving terminal in sub-Saharan Africa. The terminal will employ the innovative combination of the FRU twinned with an existing LNG carrier to receive, store and regasify LNG. The purpose-built FRU, which was built by Jiangnan Shipbuilding, a subsidiary of China State Shipbuilding Corporation, left the Jiangnan shipyard at the end of November 2020 and arrived in Ghana on 7 January 2021. LNG will be supplied under a long-term contract with Shell.

Equinor announced on 29 January 2021 that it had decided to write down the book value of its Tanzania LNG project (TLNG) on the company's balance sheet by USD 982 million in fourth quarter 2020 results. Equinor will continue to engage with the government of Tanzania in negotiations on a framework that may provide a viable business case for TLNG in the future. Equinor is the operator with a 65% participating interest, along with ExxonMobil's working interest of 35%. TPDC (Tanzania Petroleum Development Corporation) has the right to participate with a 10% interest. Equinor made nine gas discoveries in Block 2 offshore Tanzania with estimated volumes of 20 Tcf of gas in place.

Saipem announced on 27 January 2021 that it had been awarded a front-end engineering design (FEED) contract by Renergen, a South African renewable energy company, for the downstream development of the Virginia Gas phase 2 project to produce LNG and liquefied Helium. Saipem will design the natural gas purification section, the gas liquefaction section using its proprietary technology Liqueflex™-N2, the products storages and offloading, and the associated utilities. The gas fields across Welkom, Virginia, and Theunissen in the Free State contain rich Helium concentrations. Liquid Helium will be exported abroad while LNG will be used in South Africa.

[Europe / Russia]

According to a joint analysis by Agora Energiewende and Ember "The European Power Sector in 2020", more electricity was generated from renewables than from fossil fuels in 2020 for the first time in Europe. Wind, solar, hydropower and biomass supplied 38% of the EU's electricity, according to the analysis. In 2020, one-fifth of EU electricity came from wind and solar power plants. While renewables nearly doubled, coal-fired power generation has halved since 2015 to only 13% of Europe's electricity in 2020. Electricity generation from natural gas fell by only 4% in 2020. The background to this uneven development is the

significant rise in the price of emissions certificates. The study also found that Europe's electricity was 29% less carbon-intensive in 2020 than in 2015, with the carbon intensity of European electricity generation reaching a record low of 226 grams of CO₂ per kilowatt-hour in 2020.

VINCI announced on 28 January 2021 that its construction subsidiaries had been awarded an EPC contract by National Grid to construct a 190,000 m³ LNG tank. The project is part of the programme to expand the capacity of the largest LNG terminal in Europe on the Isle of Grain. The works are set to continue until June 2025. VINCI has built about 20 LNG tanks worldwide over the past 15 years, including three which are still under construction: two in Russia (160,000 m³ each) and one in Canada (225,000 m³).

Titan LNG announced on 4 February 2021 that it had agreed with NYK Line to charter the LNG bunker vessel Green Zeebrugge. Previously known as the 'Engie Zeebrugge', NYK renamed the vessel after becoming the sole owner of the vessel. Titan LNG charters the Green Zeebrugge for several years from February 2021. The vessel will be used to supply LNG to larger LNG-fuelled vessels in the Amsterdam-Rotterdam-Antwerp (ARA) region. The Green Zeebrugge is added to the two already operational barges (FlexFueller's 001 and 002).

Total announced on 11 January 2021 the acquisition of Fonroche Biogaz, a company that designs, builds and operates anaerobic digestion units in France. Total plans to produce 1.5 TWh of biomethane a year by 2025 and 4 to 6 TWh (0.4 million tonnes) by 2030, it said.

Total and Engie announced on 13 January 2021 that they had signed a cooperation agreement to design, develop, build and operate the Masshyla project, France's largest renewable hydrogen production site at Châteauneuf-les-Martigues in the Provence-Alpes-Côte d'Azur South region. Located at Total's La Mède biorefinery and powered by solar farms with a total capacity of more than 100 MW, the 40 MW electrolyser will produce 5 tonnes of green hydrogen per day to meet the needs of the biofuel production process at the biorefinery, avoiding 15,000 tonnes of CO₂ emissions per year. The partners aim to begin construction of the facilities in 2022 with a view to production in 2024. The project has already applied for subsidies from the French (AMI) and European authorities (IPCEI, Innovation Fund).

Engie announced on 25 January 2021 that XPO Logistics had been selected by ENGIE Solutions, through its sustainable mobility subsidiary GNVERT gas, as distribution partner for the transport of LNG in France. GNVERT is the leading distributor of alternative fuels in France, including compressed natural gas (CNG), decarbonated CNG (BioCNG) and hydrogen, in addition to LNG. XPO will transport natural gas from the LNG terminal in the port of Fos-sur-Mer, near Marseille, to all ENGIE Solutions fuelling stations in the Great Southeast region. XPO expects to make the first LNG deliveries in October.

CMA CGM announced on 29 January 2021 that CMA CGM PATAGONIA, the

company's first 15,000 TEU LNG-powered vessel of a series ordered in 2019, had been launched at the CSSC Jiangnan shipyard. The ship will be delivered in mid-August 2021 and will be followed by four LNG-powered sisterships. The CMA CGM Group will have a fleet of 26 LNG containerships of various sizes by 2022.

Equinor announced on 28 January 2021 two EPCI (engineering, procurement, construction and installation) contracts with Subsea 7 Norway and Aibel, respectively, for the Northern Lights project. Subsea 7's contract is for pipelaying and subsea installations of a 100 km long pipeline that will transport CO₂ from the intermediate storage site at Energiparken in Øygarden to the injection well in the North Sea. Aibel's contract is for the Northern Lights subsea control system. The Northern Lights project is part of the Norwegian full-scale carbon capture and storage (CCS) project "Langskip" (Longship), supported by the Norwegian government. The project initially includes capacity to transport, inject and store up to 1.5 million tonnes of CO₂ per year. Once the CO₂ is captured onshore, it will be transported by newly designed ships, injected and permanently stored 2,600 meters below the seabed of the North Sea. The facilities are scheduled to be operational in 2024. Plans exist to increase the capacity to 5 million tonnes per year through additional phases of development and an increasing customer base.

Avenir LNG Limited announced on 8 January 2021 the launching of its third 7,500 m³ dual-purpose, LNG supply and bunkering vessel, Avenir Aspiration from Nantong CIMC Sinopacific Offshore & Engineering Co. Avenir Aspiration will undergo final outfitting before commissioning, and gas and sea trials in time for a mid-2021 delivery. Nantong CIMC Sinopacific Offshore & Engineering Co. is building an additional 7,500 m³ and two 20,000 m³-capacity LNG carriers all for delivery in 2021, bringing Avenir's total fleet to 6 specialised LNG vessels.

Eni announced on 25 January 2021 that its wholly-owned subsidiary Eni gas e luce would enter the Iberian energy market through its acquisition of Aldro Energía Y Soluciones SLU. Aldro Energía based in the northern Spanish region of Cantabria provides energy to 250,000 customers mainly located in Spain and Portugal, with an important focus on the small and medium-sized enterprises segment. Eni gas e luce, through its subsidiaries, already operates in France with Eni Gas & Power France, in Greece with Zenith and in Slovenia with Adriaplin.

LNG Croatia announced on 1 January 2021 that the first LNG carrier 'Tristar Ruby' had arrived at the FSRU 'LNG CROATIA'.

Gibraltar's port authority announced on 27 January 2021 that Shell had been awarded by the government a port operator licence for LNG bunkering.

Russia's Sovcomflot and Novatek announced that on 16 January 2021, LNG carrier

Christophe de Margerie reached Cape Dezhnev, completing its eastbound voyage carrying a cargo of LNG along the Northern Sea Route (NSR), for Yamal LNG, from the Port of Sabetta in the Russian Arctic to the Asia Pacific market.

NOVATEK announced on 29 January 2021 that the company and Uniper had signed a memorandum of understanding (MOU) to investigate and assess the possibilities of developing a hydrogen value chain. The two companies will develop an integrated hydrogen production, transportation and supply chain, including hydrogen supplies to Uniper's power stations in Russia and Western Europe. The MOU considers producing "blue" hydrogen from natural gas combined with carbon capture and storage as well as producing "green" hydrogen from renewable energy sources.

NOVATEK announced on 1 February 2021 that the company and Nuovo Pignone (Italy), part of the Baker Hughes Company, signed a Cooperation Agreement aimed at reducing carbon dioxide (CO₂) emissions.

Russia's Gazprom revealed on 26 January 2021 that 98 km (12%) had been built out of the 803 km section of Power of Siberia stretching from Kovyktinskoye to the Chayandinskoye field in Yakutia. In late 2022, the Power of Siberia gas trunkline is expected to receive gas from the Kovyktinskoye field. Kovyktinskoye is the largest field in eastern Russia with recoverable gas reserves amounting to 1.8 trillion cubic meters. Gazprom also announced on 6 January 2021 that in 2020 Sakhalin Energy shipped a record amount of LNG, or more than 11.6 million tonnes.

[South America]

Total announced on 14 January 2021 that the company and Apache Corporation had made a new oil and gas discovery at the Keskesi East-1 well, in Block 58 off the coast of Suriname. This follows previous discoveries at Maka Central, Sapakara West and Kwaskwasi. Total assumed operatorship of Block 58 on 1 January 2021, with a 50% working interest.

ACP (Panama Canal Authority) announced on 3 February 2021 that in January the canal registered a new record of transits and tonnage of LNG vessels in 58 ships totalling 6.74 million tons CP / UMS (volume unit of the Universal Tonnage System of the Panama Canal), compared to 54 transits in January 2020 and 6.23 million tons in November 2020. In January 2021, changes were implemented in the Transit Reservation System so that any space that is available for neopanamax vessels within 96 hours before transit is offered through an auction process. Since the modifications, the Canal has held 25 auctions for neopanamax vessels, of which nine have been awarded to LNG vessels. The canal transited three northbound (from Pacific to Atlantic) LNG vessels on 25 January, and four LNG ships, two northbound and two southbound (from Atlantic to Pacific), on 31 January.

Argentina's Federal Court of Campana suspended the closure of the Escobar regasification terminal, which had prevented imports of LNG since 16 October 2020, LANACION reported on 29 January 2021.

Gás Natural Açú, a joint venture of bp, Siemens AG and Prumo Logística, controlled by EIG Global Energy Partners, completed the receipt of the first cargo of LNG at its regasification terminal, in Porto do Açú, Brazil.

New Fortress Energy (NFE) announced on 13 January 2021 that it had entered into agreements to acquire Hygo Energy Transition (Hygo), a 50-50 joint venture between Golar LNG Limited and Stonepeak Infrastructure Fund II Cayman (G) Ltd., a fund managed by Stonepeak Infrastructure Partners, and Golar LNG Partners, LP (GMLP). With the acquisition of Hygo, NFE will acquire an operating floating storage and regasification unit (FSRU) terminal and a 50% interest in a 1500 MW power plant in Sergipe, Brazil as well as two other FSRU terminals with 1200 MW of power in advanced stages in Brazil. Hygo's fleet consists of a newbuild FSRU and two operating LNG carriers. NFE will also acquire GMLP's fleet of six FSRUs, four LNG carriers and a 50% interest in Trains 1 and 2 of the Hilli, a floating liquefaction vessel.

NFE announced on the same day that it had signed a Memorandum of Understanding (MOU) with Petrobras Distribuidora S.A. (BR) and CCETC Brasil Holding Ltda. (CCETC) to acquire 288 MW of 15-year power purchase agreements (PPAs) and intends to develop an LNG terminal and gas-fired power plant at the Suape Port in Brazil. BR and CCETC intend to sell to NFE 100% of their respective ownership in power generation companies Pecém Energia S.A. and Energética Camaçari Muricy II S.A., which hold PPAs totaling 288MW. NFE has also entered into an agreement to acquire CH4 Energia Ltda., which owns key permits and authorizations to develop an LNG terminal and up to 1.37 GW of gas-fired power at the Suape Port. The terminal and power plant in the port are anticipated to begin commercial operations by the end of 2022.

[Global issues]

GHGSat, a high-resolution greenhouse gas monitoring specialist company, announced that it had completed the launch of its third satellite, GHGSat-C2 (Hugo) on 24 January 2021. Each satellite is equipped with a state-of-the-art sensor that detects methane emissions from sources 100 times smaller, at a resolution that is 100 times higher, than any other commercial or state-funded satellite, GHGSat claimed.

Reference: Company announcements, Cedigaz News Report.

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