

LNG Review February 2020 - Recent issues and events - Hiroshi Hashimoto*

Introduction

Signs of bearishness in the LNG industry were observed on February 2020. The new coronavirus is expected to slash gas demand in China and then Japan. The author estimates that the cumulative demand reduction in China would be more than 3 million tonnes of LNG equivalent for the first three months of the year.

It is still too early to assess the quantitative impact the Japanese market. But even before the coronavirus crisis, Japan's LNG import in January 2020 was 7.513 million tonnes, smaller than the same month in 2012 for thirteen straight months and smaller than the same month one year earlier for four straight months.

The five biggest international upstream - also the biggest in the LNG industry - majors reported their respective 2019 performances, which all included decline in profits, compared to one year earlier.

In terms of gas production, the Energy Information Administration (EIA) of the United States expects in its STEO (Short-term Energy Outlook) dry gas production in the country to fall from an estimated 95.4 Bcf/d in January to 92.5 Bcf/d in December 2020 and in 2021 to stabilize at an annual average of 92.6 Bcf/d (703 million tonnes per year), a 2% decline from 2020 (94.2 Bcf/d), which would be the first decline in annual average natural gas production since 2016.

Some players may respond to their favourable conditions in the market. Some LNG importers in India issued a string of tenders seeking to buy tens of cargoes on the short-term basis.

[Asia Pacific]

JKM™ for March 2020 delivery slid down to a record low, close to USD 3.5 (per million Btu), on Monday 3 February, the lowest in the history as a front-month delivery price (undercutting the previous record in May 2009), followed by levels below USD 3 from Friday

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

the 7th day to the middle of February. The prices for April delivery have also been at low levels, mostly under USD 3 since Thursday 6 February.

Hiroshima Gas, Tokyo Gas, and Tokyo LNG Tanker (TLT) signed an LNG transportation agreement. Some of the LNG procured by Hiroshima Gas and Tokyo Gas from Sakhalin, Russia will be transported at the same time on LNG carriers owned and managed by TLT for a period of eight years from FY2020 to FY2027.

NYK concluded a contract with Shin Kurushima Dockyard to build a second LNG-fuelled pure car and truck carrier (PCTC). The vessel is scheduled to be delivered in 2022 and will become NYK's second LNG-fuelled PCTC, following the first to be delivered later in 2020.

Mitsui O.S.K. Lines (MOL) and Daewoo Shipbuilding & Marine Engineering (DSME) obtained "Approval in Principle (AIP)" from Bureau Veritas for the design of a new cold energy use regasification system, "Cryo-Powered Regas", for Floating Storage and Regasification Unit (FSRU). The two companies had also agreed on joint development of technologies and solutions for the digitalization of FSRU.

Wärtsilä will deliver the equipment for two power plants in Myanmar before the end of February 2020. Each plant will feature eight gas engines delivering a combined output of 146 MW. The projects will be owned by a consortium between China National Technical Import and Export Corporation (CNTIC) and Myanmar's VPower Group.

According to NDRC (National Development and Reform Commission), China's natural gas production, import, and consumption during January 2020 were 16.66 bcm (+8.4% year-on-year), 13.35 bcm (-1.6%), and 29.65 bcm (+3.4%), respectively. The latter figure does not agree with the one from the Chongqing Petroleum and Gas Exchange revealed in the middle of February on a 1% y-o-y decline in consumption in January.

China's LNG importers are reportedly considering force majeure declarations on cargo deliveries, according to people. Some sellers rejected such a force majeure notice from a buyer of LNG in China, sources said.

China National Petroleum Corporation (CNPC), Korea's SK Group, and Shandong Weihai Nanhai New District signed contract to develop an LNG receiving terminal and gas-based cogeneration projects in Weihai.

Atlantic Gulf & Pacific (AG&P) and ADNOC Logistics and Services (ADNOC L&S) signed an agreement for the conversion, supply, operations and maintenance of a floating storage unit (FSU) at AG&P's new LNG import facility in Karaikal Port in Puducherry. Commercial operations are expected to commence by the end of 2021. ADNOC L&S will provide a Japan-built, Moss-type containment vessel as FSU for the project from its fleet of eight LNG ships.

The RIL-BP joint venture completed the cessation of production in a planned manner,

from the D1 D3 field in Block KG D6 (KG-DWN-98/3), off the east coast of India. The D1 D3 field was India's first deepwater gas field to be put on production in April 2009. The joint venture extended the life of production from the D1 D3 Field from 2015 for almost five years. The JV has committed investments towards monetizing reserves from three projects - R cluster, Satellite cluster and MJ fields. The first-gas from these fields is expected in mid-2020.

The Australian Renewable Energy Agency (ARENA) announced AUD 1.28 million in funding to Australian Gas Networks Limited (AGN), part of Australian Gas Infrastructure Group (AGIG), to establish the Australian Hydrogen Centre (AHC) which will investigate blending hydrogen into natural gas pipelines in South Australia and Victoria. AHC will also be supported by the South Australian and Victorian Governments, as well as AusNet Services, ENGIE and Neoen.

ARENA announced AUD 995,000 in funding to Yara Pilbara Fertilisers to support a feasibility study for the production of renewable hydrogen and ammonia. Yara will collaborate with ENGIE to deliver the feasibility study.

According to ACCC's Gas Inquiry 2017-25 Interim Report, domestic prices in the east coast gas market remain high and there is significant uncertainty about future supplies. The report found that beyond 2020 there is significant uncertainty about whether future demand can be met. Between 30 June 2017 and 30 June 2019 Queensland LNG reserves were written down by more than 4,400 PJ (80.85 million tonnes).

Woodside and BHP agreed to align their participating interests across the WA-1-R (Scarborough) and WA-62-R (North Scarborough) titles, resulting in Woodside holding a 73.5% interest and BHP holding a 26.5% interest in each title. The Scarborough field contains an estimated contingent resource (2C) dry gas volume of 11.1 Tcf (100%; 8.2 Tcf Woodside share, calculated using deterministic and probabilistic methods). Woodside targets a final investment decision in 2020 for the Scarborough development and first cargo in 2024.

According to Shell, cargos were temporarily suspended at the Prelude facility.

PETRONAS LNG signed a 12-year Time Charter Party (TCP), with an option to extend for another 12 years, with Kawasaki Kisen Kaisha (K Line) for two mid-sized new build LNG vessels of approximately 79,960 m³ each in capacity. The vessels will be constructed in Shanghai, China, and expected to be delivered in the second quarter of 2022. These identical vessels will be dedicated to serving PETRONAS' long term LNG delivery commitment to Shanghai under the new LNG supply agreement with Shenergy.

Petronas' second floating LNG vessel (PFLNG Dua) set sail to Rotan Gas Field, 140 km offshore Kota Kinabalu, Sabah, from Korea. The PFLNG Dua is expected to complete its journey in approximately two weeks. The vessel can produce 1.5 million tonnes per year of LNG and will be one of the world's first floating deep-water LNG vessels capable of reaching

remote, stranded and marginal gas reserves, located up to 1,500 m water depth. The PFLNG Dua was delivered by Petronas, together with its partners, JGC and Samsung Heavy Industries (SHI), the consortium responsible for the engineering, procurement, construction, installation and commissioning of the floating LNG facility.

INPEX signed memorandums of understanding (MOUs) with PLN and Pupuk, each concerning the long-term domestic LNG and pipeline natural gas supply from the Abadi LNG Project. Discussions will commence regarding sales and purchase agreements for the long-term LNG and natural gas supply from the Project including (a) LNG to natural gas-fired power plants operated by PLN and (b) natural gas (150 million standard cubic feet per day) to a coproduction plant, which Pupuk plans to construct.

[North America]

According to "Natural Gas Monthly" by the Energy Information Administration (EIA, United States), the country's dry natural gas production and consumption in 2019 were 33,667 Bcf, or 700 million tonnes of LNG equivalent, and 31,015 Bcf, or 6.45 million tonnes, increasing by 10.1% and 3.1%, respectively from 2018.

The Office of Fossil Energy (FE) of the Department of Energy (DOE) gave notice of a proposed policy statement, proposing to extend the standard 20-year term for authorizations to export natural gas from the lower-48 states to countries with which the United States does not have a free trade agreement (FTA). Under the Proposal, existing non-FTA authorization holders could apply to extend their export term through 2050, on a voluntary opt-in basis; existing applicants could amend their pending non-FTA application to request an export term through 2050, on a voluntary opt-in basis; and DOE would issue all future non-FTA export authorizations with a standard export term lasting through 2050, unless a shorter term is requested by the applicant.

The American Petroleum Institute (API) released a new economic analysis on dire economic consequences of a ban on federal leasing and hydraulic fracturing (or fracking).

Dominion Energy announced a significant expansion of the company's greenhouse gas emissions-reduction goals, establishing a new commitment to achieve net zero emissions by 2050. The company had previously committed to cut methane emissions from its natural gas operations by 50% between 2010 and 2030 and carbon emissions from its power generating facilities by 80% between 2005 and 2050. Dominion has cut carbon emissions approximately 50% since 2005 and reduced methane emissions by nearly 25% since 2010. Under the net zero framework, the company is committing to decrease methane emissions by 65% by 2030 and 80% by 2040, from 2010 levels. Furthermore, the company has committed to invest in carbon-beneficial renewable natural gas (RNG) projects that will

capture an amount of methane from United States farms.

The Federal Energy Regulatory Commission (FERC) issued a letter authorizing Cameron LNG, LLC to commence service for liquefaction and export activities from the second liquefaction train (Train 2) at its LNG export facility in Hackberry, Louisiana.

According to Sempra's 2020 results report, the Port Arthur LNG project continues to advance with a final investment decision targeted for third quarter 2020. In January, Sempra LNG signed an Interim Project Participation Agreement (IPPA) with Saudi Aramco following a heads of agreement (HOA) in May 2019 for the potential purchase of 5 million tonnes per year of LNG and a 25% equity investment in the project. In December 2018, Port Arthur LNG entered into an agreement with Poland's PGNiG for the sale and purchase of 2 million tonnes per year of LNG. Port Arthur LNG filed an application with FERC for authorization to construct and operate an Expansion Project. The expansion will include two liquefaction trains. Each of the two trains will be capable of producing 6.73 million tonnes per year.

Tellurian extended its Memorandum of Understanding (MOU) with Petronet LNG pursuant to which Petronet intends to negotiate the purchase of up to five million tonnes per year of LNG from the Driftwood project, with an equity investment in Driftwood Holdings.

NextDecade and Enbridge entered into an agreement where Enbridge will acquire Rio Bravo Pipeline Company from NextDecade. NextDecade will continue to be responsible for the development, financing, construction, and operations of its Rio Grande LNG export facility. NextDecade will retain its rights to the natural gas firm transportation capacity on the Rio Bravo Pipeline for a term of at least 20 years to supply the LNG export facility. The Rio Bravo Pipeline is designed to transport up to 4.5 billion cubic feet per day of natural gas from the Agua Dulce supply area to NextDecade's Rio Grande LNG project in Brownsville, Texas. In November 2019, the Federal Energy Regulatory Commission (FERC) issued an order authorizing the siting, construction, and operation of NextDecade's Rio Grande LNG project and the Rio Bravo Pipeline. In January 2020, FERC issued a final order on rehearing for the Rio Grande LNG project and the Rio Bravo Pipeline.

Venture Global LNG announces that Venture Global Plaquemines LNG and Électricité de France (EDF) entered into a 20-year Sales and Purchase Agreement (SPA) for 1 million tonnes per year from the LNG export facility in Plaquemines Parish, Louisiana. EDF will purchase LNG on an FOB basis for a 20-year term starting from the commercial operation date of the Venture Global Plaquemines LNG facility. The 20 million tonne per year Plaquemines facility utilizes an identical configuration to the company's Calcasieu Pass LNG project, under construction in Cameron Parish, Louisiana. Plaquemines LNG has previously sold 2.5 million tonnes per year under a 20-year SPA to PGNiG. The project has received its final authorizations from both FERC and DOE.

Liquefied Natural Gas Limited (LNGL) announced that it has entered into a Bid Implementation Agreement (BIA) with LNG9, a Singapore-based private company, pursuant to which LNG9 will make an offer to acquire all of the issued ordinary shares of LNGL.

DOE announced the issuance of four long-term orders authorizing the export of LNG from four proposed LNG export projects in Texas: Annova LNG (0.99 Bcf/d = 7.52 million tonnes per year), Rio Grande LNG (3.61 Bcf/d = 27.42), and Texas LNG (0.56 Bcf/d = 4.25), in Brownsville; and Corpus Christi LNG's Stage III in Corpus Christi (1.59 Bcf/d = 12.08). The Federal Energy Regulatory Commission authorized the siting, construction, and operation of these export projects on 21 November 2019.

Texas Railroad Commission released its first report on flaring in the state. Over the past decade, oil and gas production has grown dramatically in Texas. Along with the growth has come an increase in the practice of natural gas flaring, as some oil wells that produce associated gas do not have access to the systems required to capture that gas. The analysis was performed to evaluate the nature of potential changes to regulation and the potential impacts of those changes. Texas flaring levels - and flaring intensity - are notably lower than the rest of the world, and strikingly lower than new production in the rest of the world.

New Fortress Energy (NFE) announced that it signed a long-term supply agreement for the purchase of 27.5 million MBtu (0.533 million tonnes) per year of LNG, or approximately 8 cargoes a year, at a price indexed to Henry Hub through January 2030.

FERC voted against approving the proposed Jordan Cove LNG export project in Oregon, citing the need for more time to review Oregon permit denials for the project.

Natural gas production in North Dakota reached 3.1 billion cubic feet per day (Bcf/d) in November 2019, a more than ten-fold increase compared with January 2010 levels. In the first 11 months of 2019, North Dakota flared about 20% of its natural gas production, or 0.56 Bcf/d, which is 40% higher than in 2018. Increases in natural gas production are primarily related to associated gas produced from oil wells in the Bakken formation.

Apache Corporation said in its fourth quarter 2019 results that it is abandoning its Alpine High shale play with more than USD 3 billion writedown related to the project.

LOC Group signed a multi-year contract with LNG Canada to provide Marine Warranty Surveyor (MWS) services and Vessel Quality Assurance. LOC will oversee the transportation of more than 200 modules being shipped to the construction site, from fabrication facilities in Asia.

Woodside's financial statements for 2019 will recognise a non-cash impairment of USD 720 million (after tax) in relation to the Kitimat assets in Western Canada. Woodside will continue to evaluate development opportunities. The impairment reflects increased uncertainty, particularly in the timing of the development of the upstream Liard resource.

BC Ferries continues to roll out its Clean Futures Plan and has awarded Remontowa Shipbuilding S.A. of Gdansk, Poland a contract to build an additional LNG-fuelled vessel scheduled to go into service in the Southern Gulf Islands in 2022. This vessel will be identical to the three Salish Class vessels built by Remontowa for BC Ferries in 2016.

FortisBC filed an initial project description with regulators to begin the federal impact assessment and provincial environmental assessment processes for the Tilbury Phase 2 LNG Expansion Project, involving a new tank that could triple the site's storage capacity and additional liquefaction equipment to produce LNG for marine bunkering or bulk export by ship. Construction could start as early as 2022 and be complete by 2028. The Tilbury LNG facility is already producing LNG for marine customers and for customers overseas.

TC Energy approved two new expansion projects on its wholly-owned natural gas pipeline systems. The 2023 NGTL Intra-Basin System Expansion will deliver natural gas from the Western Canadian Sedimentary Basin (WCSB) to markets within Alberta on the NOVA Gas Transmission (NGTL) System, while the Alberta XPress project will see the expansion of the ANR Pipeline (ANR) to provide a seamless path for Canadian production to access growing LNG export and other markets along the United States Gulf Coast.

Sempra Energy said in its fourth quarter 2019 results that a final investment decision (FID) for the Energía Costa Azul (ECA) LNG project in Baja California, Mexico, is expected in the first quarter of 2020, as TechnipFMC had been selected as the engineering, procurement and construction (EPC) contractor. ECA LNG expects to sign a lump-sum, turn-key EPC contract for Phase 1 of the project in the coming days, Sempra said.

New Fortress Energy (NFE) plans an LNG receiving terminal in Pichilingue, Baja California Sur, Mexico.

[Middle East]

The United Arab Emirates (UAE) announced the discovery of shallow gas resources in place within the area between Saih Al Sidirah and Jebel Ali in the Emirates of Abu Dhabi and Dubai respectively.

The Abu Dhabi National Oil Company (ADNOC) announced the award of two contracts for the construction of offshore facilities for the Dalma Gas Development Project located about 190 km northwest of Abu Dhabi city. The Dalma project is a key part of the Ghasha ultra-sour gas concession. Both contracts are expected to be completed in 2022.

Bahrain's government, Tatweer Petroleum, and Eni signed a Memorandum of Understanding (MOU), which is expected to enhance collaboration in the energy sector, including renewable energy, LNG supply and exploration. In the LNG sector, the collaboration will target a more sustainable and efficient energy mix to meet Bahrain's future

energy needs.

Qatargas announced the signing of a Sale and Purchase Agreement (SPA) with Shell to deliver 1 million tonnes per year of LNG to Kuwait, commencing in 2020. The volumes will be provided from Qatargas 4 joint venture between Qatar Petroleum (70%) and Shell (30%).

[Africa]

Eni signed agreements with the Egyptian General Petroleum Corporation (EGPC), the Egyptian Natural Gas Holding Company (EGAS) and Naturgy, which pave the way for the restart the Damietta liquefaction plant in Egypt by June 2020. The liquefaction plant's owner is SEGAS, which is 40% owned by Eni through Unión Fenosa Gas (50% Eni and 50% Naturgy). The plant has been idle since November 2012. The participation of Unión Fenosa Gas in the Damietta plant (80%) will be transferred 50% to Eni and 30% to EGAS. The resulting shareholding of SEGAS will therefore be Eni 50%, EGAS 40% and EGPC 10%.

Sound Energy plans to pursue a micro LNG production plan for the TE-5 Horst field in Morocco, targeting first LNG delivery during 2021. The Company is in discussions with industrial customers and distributors in Morocco regarding the long-term offtake of LNG.

Nigeria Liquefied Natural Gas (NLNG) has signed a deal with Galp Trading SA for the supply of one million tonnes per year of LNG, NLNG said.

Kosmos Energy and its partners signed a Sale and Purchase Agreement (SPA) with BP Gas Marketing Limited for 2.45 million tonnes per year of LNG from Phase 1 of the Greater Tortue Ahmeyim project for up to 20 years. Partners in the cross-border Greater Tortue Ahmeyim project, located offshore Mauritania and Senegal, include SMHPM, Petrosen, BP, and Kosmos.

Worley was awarded two master service agreements (MSAs) by Total to provide services to the Mozambique LNG Project. Worley will provide in-and-out of country services, including engineering, consulting and specialist engineering for delivery of onshore and offshore (subsea) facilities.

[Europe / Russia]

The Natural & bio Gas Vehicle Association (NGVA Europe) released statistics and numbers about gas vehicle registrations and fuelling station development in 2019. While there are 50% more LNG stations in Europe compared to 2018, LNG powered heavy-duty vehicle registrations nearly tripled since the same year.

The European Commission is preparing a strategy to curb methane emissions from the oil and gas industry. But the timing is uncertain.

The European Parliament voted to approve the Projects of Commons Interest (PCI)

that will channel EU funding into new fossil fuel infrastructure. Energy projects on the 4th PCI list are eligible to receive up to 50% of funding from the EU through the Connecting Europe Facility (CEF). 55 new gas projects are included.

OGCI Climate Investments announced the formation of a consortium of OGCI members - BP, Eni, Equinor, Shell and Total, with BP as operator - to accelerate the development of the Net Zero Teesside project to deliver the United Kingdom's first zero carbon cluster. The project has an ambitious yet achievable potential start-up date of the mid-2020s. The project will decarbonise local industry by building a transportation and storage system to gather industrial CO₂, compress it and store it safely in a reservoir under the North Sea. The transportation and storage infrastructure will encourage new investment in the region from industries that wish to store or use CO₂. In addition, a combined cycle gas turbine (CCGT) facility with carbon capture technology will provide low carbon power as a complement to renewable energy sources and underpin the investment in the infrastructure.

BP set a new ambition to become a net zero company by 2050 or sooner. Five aims to get BP to net zero include: 1. Net zero across BP's operations on an absolute basis by 2050 or sooner. 2. Net zero on carbon in BP's oil and gas production on an absolute basis by 2050 or sooner. 3. 50% cut in the carbon intensity of products BP sells by 2050 or sooner. 4. Install methane measurement at all BP's major oil and gas processing sites by 2023 and reduce methane intensity of operations by 50%. 5. Increase the proportion of investment into non-oil and gas businesses over time.

Ofgem launched a Decarbonisation Action Plan. The plan sets out nine actions. Ofgem publish an Electric Vehicle Strategy. Britain will see changes to the way homes and businesses are heated. This might include using hydrogen boilers or electricity to power heat pumps, and may see more customers connected to heat networks.

Knutsen NYK Offshore Tankers (KNOT) announced that it was awarded a contract to build two 124,000 DWT LNG fueled shuttle tankers, to be built by Daewoo Shipbuilding & Marine Engineering (DSME) shipyard in Korea with delivery mid-2022 and to operate in North Sea under time-charter contract for a maximum 10 years period. The deal represents the third and fourth long-term time-chartered shuttle tankers between ENI and KNOT Group.

In December 2019, Shell signed separate agreements for four LNG carriers with affiliates of Knutsen LNG, two LNG carriers with Korea Line Corporation and two LNG Carriers with Global Meridian Holdings Limited. The 174,000 m³ carriers will be built by Hyundai Heavy Industries and Hyundai Samho Heavy Industries.

Dubai-based Tristar Group signed a four-year contract with BP to provide LNG shipping services.

Groningen gas extraction will go even further in 2020 under the safety advice of the

state mining regulator SSM. It appears that a further reduction in extraction is possible in 2019/2020 gas year from the expected 11.8 bcm to 10 bcm. The required gas extraction in the coming gas year 2020/2021 is 9.3 bcm. In the gas year 2021/2022, extraction then drops to around 3 bcm. From the spring of 2022, extraction can go to zero. After that, the field will only be needed for a few years as a reserve to guarantee security of supply for extremely cold situations.

A consortium of Gasunie, Groningen Seaports and Shell Nederland announced that they intend to launch the NorthH2 project: the production of green hydrogen using renewable electricity generated by a mega offshore wind farm, 3 to 4 GW in 2030. It has the ambition to grow to about 10 GW around 2040. Green hydrogen production, initially in the Eemshaven and later possibly also offshore, is expected to be around 800,000 tonnes per year by 2040. NorthH2 envisages the construction of very significant wind farms in the North Sea. The first ones could be ready in 2027 and will be used for green hydrogen production.

Elengy acquired Total's shares in Fosmax LNG, the company that owns the LNG terminal at Fos Cavaou. Elengy now owns 100% of its three LNG terminals: Fos Cavaou, Fos Tonkin and Montoir-de-Bretagne. Until now Fosmax LNG was owned 72.5% by Elengy and 27.5% by Total Gaz Electricité Holding France (TGEHF).

Qatar Terminal Limited (QTL), a subsidiary of Qatar Petroleum (QP), and the French LNG terminal operator Elengy entered into a long-term agreement for LNG receiving, storage and regasification services at the Montoir-de-Bretagne LNG Terminal. QTL will subscribe to the equivalent of almost 3 million tonnes per year of the terminal's throughput capacity for a term up to 2035.

Uniper subsidiary Liqvis and Echo Tankstellen are joining forces to help expand the LNG filling station network in Germany. The first joint site set to be realized will be the Esso truck stop in Seligweiler near Ulm. The companies aim to establish LNG on the market as an alternative fuel for heavy goods vehicles and to help develop the associated infrastructure into a closed network. The Echo network comprises around 1000 filling stations operating under the brand name Esso. Liqvis has operated two LNG filling stations in Germany since 2017 and is expected to have six sites where trucks can refuel with LNG by the end of 2020. The Ulm Seligweiler filling station that is currently being planned together with Echo will be added in 2021.

DNV GL launched a new online bunkering platform to take operators seamlessly from order through to delivery. FuelBoss offers ship owners, operators and suppliers a single common platform for nomination, scheduling, spot inquiries and business intelligence. LNG suppliers Gasum, Cryo Shipping and Nauticor are amongst the confirmed pilot customers.

Møkster Shipping was awarded a new contract by Equinor for their dual fuel PSV

«Stril Pioner». The firm contract period is 8 months with options thereafter.

The European Investment Bank (EIB) signed a SEK 445 million (€41.75 million) loan agreement with the Municipality of Ystad. The port in the southern-Swedish town is a busy connection point to the Polish Port of Świnoujście and the Danish island of Bornholm. The financing will be used to expand the quays to accommodate new, more environmentally friendly, LNG vessels of over 240 meters in length, which will start operating in 2021.

Repsol is orienting its strategy to become a net zero emissions company by 2050. The company assumed new crude oil and gas price scenarios, which entails an adjustment of €4.849 billion in the accounting value of the Group's assets. This has impacted the 2019 net income, which was -€3.816 billion.

Polskie LNG signed a contract for the extension of the existing Lech Kaczyński in Świnoujście LNG regasification terminal with additional SCVs (Submerged Combustion Vaporisers). The capacity will be increased by 50% to 7.5 bcm per year. The contractor for the extension project was a consortium of PORR and TGE.

Gazprom and the Government of Belarus signed a protocol outlining the pricing procedure for natural gas supplies to Belarus in 2020.

Yamal LNG announced that it has shipped 30 million tonnes of LNG since the commencement of the project in December 2017. The Arc7 ice-class tanker "Nikolay Yevgenov" loaded the 411th cargo. The facility is currently exceeding the design capacity of 16.5 million tonnes per year. In 2019, the first full year of simultaneous operation of all three liquefaction trains, Yamal LNG produced 18.4 million tonnes of LNG, exceeding the plant's design capacity by 11% or 1.9 million tonnes.

Gazprom Gazenergoset Geliy (the company authorized to implement the Helium Tank Logistics Center investment project) plans to purchase gas-powered vehicles to transport liquid helium from the Amur Gas Processing Plant (GPP). The infrastructure for producing LNG and refueling these trucks will be set up by Gazprom Gazomotornoye Toplivo. The first 18 LNG-powered trucks that will transport helium in special containers are expected to be delivered in 2021.

0.84 bcm of natural gas was transported through the Eastern Route of the pipeline between Russia and China from the start of operation in December 2019 to 25 February 2020.

The keel-laying ceremony was held for Chaika LNG («Чайка-СПГ»), the first passenger ship in Russia to be powered by LNG, in Republic of Tatarstan. The vessel, which can accommodate at least 170 people, is expected to be launched as early as in 2020.

[South America]

Centrica and Centrais Elétricas de Sergipe S.A. (CELSE) collaborated to commission

the first private LNG import terminal in Brazil. On 4 February 2020, Centrica-chartered vessel, the Singapore Energy, delivered 95,000m³ of LNG by a ship-to-ship operation to the Golar Nanook Floating Storage and Regasification Unit (FSRU) located 8.5 km off the coast. The FRSU is connected by pipeline to CELSE's Usina Termoelétrica (UTE) Porto de Sergipe I combined-cycle gas-fired power plant, the largest in Latin America.

KN (Klaipėdos Nafta) has been appointed as the operator of an LNG terminal in the Brazilian Port of Açu, owned by Gas Natural Açu (GNA), a joint venture among Prumo Logística, BP and Siemens. The initial term of the agreement is for a 13-year operational period following the completion of the terminal. The terminal is due to start operations in 2020 for the commissioning of GNA's Thermal Power Plant, UTE GNA I.

New Fortress Energy (NFE) announced that it signed a 25-year Power Purchase Agreement (PPA) with Nicaragua's electricity distribution companies. NFE will construct a natural gas-fired power plant with a capacity of approximately 300 MW near Puerto Sandino. NFE will supply gas to the plant via an offshore LNG receiving terminal. NFE is expected to provide more than 21 Tbtu (0.4 million tonnes) per year over 25 years.

Trinidad and Tobago canceled an agreement with Venezuela for the joint development of a natural gas field straddling their maritime border. Trinidad and Tobago and Barbados signed a unitization agreement for the exploration of hydrocarbon resources which straddle the maritime boundary.

[Global issues]

Global energy-related carbon dioxide emissions stopped growing in 2019, according to IEA. This was primarily due to declining emissions from electricity generation in advanced economies.

SEA/LNG's 'View from the bridge' 2019/20 report notes that the infrastructure to support LNG has grown significantly. LNG can be delivered to vessels at 93 ports with a further 54 ports in the process of facilitating LNG bunkering investments and operations.

Global demand for LNG grew by 12.5% to 359 million tonnes in 2019, according to Shell's latest annual LNG Outlook. The outlook expects equilibrium to return, driven by continued demand growth and reduction in new supply coming on-stream until the mid-2020s. Global LNG demand is expected to double to 700 million tonnes by 2040.

Reference: Company announcements, Reuters, Bloomberg, Cedigaz News Report.

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