

Koreans make project debut in Europe at LNG-chemical plant

DL E&C will provide the design and equipment procurement for ethane at RusGazDobrycha complex
LNG News Editor

A South Korean company has won a contract for a mega-scale gas and chemical plant in Russia, defeating European competitors for the building of the biggest complex of its kind with capacity to turn 45 billion cubic metres of natural gas into LNG and chemical products.

DL E&C will provide design and equipment procurement services for the ethane-cracking complex portion of the Gazprom-RusGaz-Dobrycha complex for processing ethane-containing gas at the Russian facility.

Combination

Gazprom-RusGazDobrycha are combining gas processing, liquefaction, and chemical complex for processing ethane-containing gas (CPECG) at the plant.

The complex includes a large-scale LNG plant which, with its capacity of 13 million tonnes of LNG per year and is designed to be the biggest such plant in north-west Europe.

Royal Dutch Shell had been a former partner in Baltic LNG, though formally pulled out of the venture in mid-2019 after Gazprom decided to switch part of the output for the chemical project.

A statement said the large investment was now under way to construct Russia's largest gas and chemicals complex at Ust-Luga, a port city bordering the Gulf of Finland.

DL Engineering and Construction specializes in engineering, procurement and construction and



Gazprom site for gas processing, liquefaction and chemicals

said the heart of the venture was the world's largest polymer plant on a single-line basis located 110 kilometres (68 miles) southwest of St. Petersburg.

The value of the contract is 1.6 trillion South Korean won (\$1.32 billion) and DL E&C said it would take total charge of design and equipment procurement.

Founded in 1939, DL E&C was the first construction company founded in modern day Korea and is the parent company of the DL Group, which consists of 13 affiliates and is based in the capital Seoul.

"This project is meaningful in that we won a big order in Russia, a market regarded as a high barrier to entry for Korean construction companies," declared Yoo Jae-ho, head of DL E&C's plant business division.

When completed, the Russian plant will be capable of producing 3 million tons of polyethylene, 120,000 tons of butane and 50,000 tons of hexane a year.

"With its proven hard-to-beat competitiveness, DL E&C looks forward to winning new contracts in Russia," stated the South Korean firm.

"It was the fruition of the company's hard work to open up new overseas markets," added DL E&C.

"DL E&C has given meaning to winning in the competition against

advanced European construction firms to get involved in the largest plant construction project in Russia," stated the Korean firm.

It explained that winning the contract in Russia now makes it a big player in the global petrochemical market and "proves its technological prowess" in the market.

"Now that it has hard-to-beat competitiveness, DL E&C looks forward to winning new contracts in Russia," said the company.

DL E&C said it had been involved in the basic project design of the Russian Baltic Complex project since December 2019.

Managing risks

The Korean company said its participation in basic design would be of help in foreseeing difficulties that could arise from the main construction stage.

"This will make it possible to manage overall project risks beforehand and also to complete the optimal detailed design that could maximize the efficiency and profitability of the project," said the Korean firm.

"DL E&C is paying attention to the potential of Russia as a way to diversify its market. It established a local firm in the country in 2015 to explore the market in earnest," it added.

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Australia keeps World No. 1 exporter in 2021 for LNG but position under threat from US and Qatar

LNG News Editor

Australian exports of liquefied natural gas hit a record high in 2021 to keep the nation in the World No. 1 spot of global exporters from its 10 liquefaction plants in the East and West coasts and in the Northern Territory.

The respected Australian consultancy, EnergyQuest, made the call based on shipping data during the year, including through December 2021.

Rise before fall

The report from EnergyQuest showed that exports from the Australian plants increased by 3.7 percent to 80.9 million tonnes compared with the 78.0MT exported in 2020 and were higher than the 77.6MT shipped in 2019 before the Covid-19 pandemic.

"In the current world of supply chain and shipping challenges, the steady increase in Australian LNG exports is a significant achievement," said EnergyQuest Chief Executive Graeme Bethune.

Reflecting higher exports and



Prelude FLNG hull is currently shut for safety checks

stronger international energy prices, EnergyQuest estimates that total 2021 LNG export revenue reached A\$48 billion (US\$34.5 billion), up 25 percent from the A\$36Bln logged in 2020.

"In 2021 Australia is again likely to rank as the world's largest LNG exporter," said EnergyQuest, citing its own data.

"Australia's 10 LNG projects have total production capacity of 89 million tonnes per annum, the world's largest. The other major global producer, Qatar, which does not release timely export statistics,

currently has lower total capacity of 77 MTPA," said the consultancy.

The report conceded that Australia's ranking was under threat from Qatar and also the US.

"Qatar plans to expand its capacity to 110 MTPA by 2026. New LNG expansion in the US, is likely to see Australia lose its top producer ranking in 2022," said the report.

"This will be an increasing challenge for Australian LNG producers wanting to contract new projects, or extend existing operations," added EnergyQuest.

"Significantly, it is likely that 2021 is close to the peak of Australian LNG production," added the Adelaide-based consultancy.

Most Australian LNG projects produced more in 2021 than in 2020.

"One highlight was that the Shell-operated Prelude floating LNG project recommenced regular production from early on the year and produced 2.2MT," it said.

"However, it was shut-down by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) in late November 2021 due to safety concerns," the report noted.

Australia is not only facing increasing competition from Qatar and the US but also from the natural decline in the gas fields feeding existing projects and the limited number of new projects.

Two new LNG projects were announced in 2021, the Santos Barossa project to back-fill Darwin LNG and the Woodside Scarborough gas field project for a second Train at Pluto LNG.

Japan Bank for International Cooperation helps LNG buyer JERA Co. expand in the Philippines

The Japan Bank for International Cooperation (JBIC) said it helped JERA Co. Inc., the largest Japanese utility and LNG importer, to acquire a 27 percent stake in Aboitiz Power Corp. of the Philippines for \$1.58 billion.

Aboitiz Power, listed on the Philippines Stock Exchange, is the holding company for the Aboitiz Group's investments in power generation, distribution and retail electricity services.

The company is one of the largest power producers in the Philippines with a balanced portfolio of assets located across the country and owns distribution utilities that operate in areas in Luzon, Visayas and Mindanao, including the

second-biggest and third-biggest private utilities in the country.

The JBIC loan agreement was signed at the end of December 2021 and amounted to \$630 million.

"The loan is co-financed with private financial institutions, bringing the total co-financing amount to approximately \$1.063Bln," said the bank.

JERA and Aboitiz Power first revealed their cooperation plans in September 2021 and are now exploring a number of areas of collaboration, including the potential joint development of LNG-for-power ventures and other power and new generation technology projects.

JERA and Aboitiz are also seeking to collaborate in fuel sourcing

and management of the LNG required for potential gas-fired power plants which can supplement intermittent renewable energy.

JBIC said its loan to JERA was intended to provide the funds necessary for acquiring part of the issued shares in Aboitiz Power.

Power backing

"It is a major power company owning and operating power plants with an approximate total net capacity of 4.6 gigawatts, including those under construction," said JBIC.

"JERA aims to achieve zero CO2 emissions from JERA's operations in Japan and overseas by 2050 under its 'JERA Zero CO2 Emis-

sions 2050' initiative," JBIC noted.

"By investing in Aboitiz Power, JERA intends to support a stable supply of energy in the Philippines and contribute toward decarbonization in the country," stated the bank.

JBIC stated that as Japan's policy-based financial institution, it will continue to support overseas mergers and acquisitions activities of Japanese companies and their overseas business expansion in collaboration with private financial institutions.

JERA as the largest Japanese LNG buyer has 35 million tonnes per annum of volumes and controls a fleet of 20 LNG carriers.

Gastrade and Greek gas firm in Balkan move

Gastrade SA, the Greek company developing an offshore LNG import terminal to serve eastern Greece and the Balkan nations, has ratified an agreement with the Greek national gas grid operator DESFA taking a 20 percent stake in the project.

The final share transfer agreement was signed in Athens by the founding shareholder and Gastrade Board Chairwoman Elmina Copelouzou and the Chief Executive of DESFA Maria Rita Galli.

The floating LNG terminal off the port city of Alexandroupolis is expected to be operational by early 2023.

The progress on the project came after the recent approval by the European Commission, based on the European Union merger regulations, for the acquisition of joint control of Gastrade and the Bulgarian gas grid company Bulgartansgaz.

"The construction of the Alexandroupolis terminal will actively contribute to the country's energy security, liquidity and efficiency and will strengthen Greece's strategic role in Southeast Europe, offering opportunities for new natural gas exports to the region," said a joint statement.

"This is a crucial European project of common interest, a priority for the EU as it strengthens security and diversifies the sources and routes of energy supply," the statement explained.

"In addition, the project promotes competition among gas suppliers and supports the creation of a transaction hub in the wider region of Southeast Europe, leading to lower prices that will benefit all end-users," it added.

Jordan starts tender process for Aqaba LNG and regas upgrade

LNG News Editor

The Kingdom of Jordan has started a tender process for the upgrading of the liquefied natural gas import terminal facilities at the Port of Aqaba amid economic expansion plans for the region including in tourism and trade.

The existing Aqaba LNG facility, known as the Sheikh Sabah Al-Ahmad Al-Jaber Al-Sabah Terminal, is connected to the Araba Gas Pipeline and consists of a Floating Storage and Regasification Unit (FSRU) with 170,000 cubic metres of capacity.

FSU plans

The aim of the project is to replace the existing FSRU with a floating storage unit (FSU) and some on-shore regasification and with modifications to the existing facilities.

It is hoped that the upgrade will reduce costs, increase competitiveness and efficiency and have the potential for gas exports through a tie-in point and a gas pipeline.

The start of the Jordanian tender process is the soliciting of an Expression of Interest (EOI) Letter



Agreements signed between Aqaba Development Corp. and Abu Dhabi Ports Group to boost economy and energy needs

from any parties and ship-owners who wish to participate in the pre-qualification stage.

The Aqaba Development Corp. (ADC) is overseeing the expansion and the tender documents state that it is "looking to construct an Onshore Regasification Unit (ORU) and lease a Floating Storage Unit (FSU), with or without the construction of an Onshore LNG tank" for storage.

"The conclusion of the current project studies will determine the final position on the most feasible and economic options for meeting the current and future demands of natural gas," said the statement

in an advertisement of the launch of the tender process.

The project's aim is to provide additional security of supply to the natural gas network as a secondary source through the implementation of an ORU, FSU and LNG-tanks solution.

The tender announcement was to solicit expressions of interest (EOI) for providing (through charter) the FSU vessel and the other services.

The deadline for receiving the pre-qualification documents in the manner described is January 31st, 2022.

Medgaz pipeline supplying Spain and Portugal gets compression boost

Sonatrach, the Algerian state energy company and LNG exporter, said it was putting into service on January 4 the compression system booster of the Medgaz natural gas pipeline from Algeria to Spain and Portugal.

Sonatrach Chief Executive Toufik Hakkar said the "turbocharging" would ensure the supply of Algerian gas to the Spanish and Portuguese markets in accordance with the contractual quantities and to respond to any requests for additional volumes.

"Algeria was able, through Sonatrach, to honor all its con-

tractual commitments with the Spanish side (10.5 billion cubic metres) via the Medgaz gas pipeline alone without the slightest problem," said the CEO.

"Regarding additional gas quantities, the Spanish customers have not requested any quantity beyond those provided for in the contracts to date, but if they do, Sonatrach is ready to negotiate the quantity, price and modes of transport," added Hakkar.

The Medgaz pipeline that has been in operation since 2011.

Medgaz is 757 kilometres (470 miles) in length and runs via Beni Saf in Algeria to Almeria

in southern Spain. "The capacities of Sonatrach to meet the Spanish demand are sufficient, whether through the pipeline or by LNG carriers," stated the CEO.

Sonatrach supplies about 14.5 Bcm of feed-gas to be exported as LNG from the Arzew and Skikda liquefaction plants on Algeria's Mediterranean coast.

Algeria had decided to give up, from November 2021, the operation of its second natural gas pipeline to Europe via Spain, the Maghreb-Europe Gas Pipeline (GME) traversing Morocco.



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Soliciting Expression of Interest (EOI) Letter from Parties/Ship-Owners to participate in the Prequalification Stage

All interested parties/ship-owners who have the technical and financial capabilities with appropriate and relevant experience to visit ADC's website (<https://www.adc.jo/>) to download the EOI form or submit a request to receive the EOI form to the below email addresses. Request for Qualification documents and questionnaire will be provided to all interested parties who submitted fully filled and signed EOI form to newIngru@adc.jo copying MDardasawi@adc.jo, oalbdour@adc.jo, and AGharram@adc.jo

Deadline for receiving the prequalification documents in the manner described in the RFQ is C.O.B. January 31st, 2022.

For further details and questions please do not hesitate to contact us via the aforementioned email addresses or via phone to +962-3-2039100 ext. 279

NEWS BRIEFS

Shell trade boost

Shell has updated its fourth-quarter 2021 earnings outlook and expects a boost from LNG trading. In the Integrated Gas division, including LNG, production was expected to be between 910,000 and 950,000 barrels of oil equivalent per day. LNG liquefaction volumes are expected to be between 7.7 million tonnes and 8.3MT. "Production and liquefaction volumes were impacted by unplanned maintenance, mainly in Australia," Shell added.

Montenegro project

The main utility company in the former Yugoslav state of Montenegro, Elektro Privreda Crne Gore (EPCG), has signed a memorandum of understanding with Singapore-based LNG Alliance on LNG-for-power with prospects of a project emerging and comprising an LNG import terminal and two gas-fired power plants. "EPCG is working intensively on building partnerships with credible partners, whose participation would enable the implementation of planned investments," said a statement.

Asian LNG strategy

Japanese LNG and energy engineering company JGC Holdings Corp. has renamed its subsidiary in Singapore JGC Asia Pacific Pte Ltd as a regional headquarters for five countries as the company pursues contract wins in LNG receiving terminals, gas-fired thermal power and other projects, including renewables. "The Singapore company will take on the new role of Asia-Pacific regional headquarters and serve as a base for project execution in Singapore and nearby countries, supporting activities in the Philippines, Indonesia, Vietnam and Malaysia," said JGC.

NextDecade investment decision delayed on Rio Grande LNG plant

LNG News Editor

NextDecade, the US developer of the Rio Grande LNG export project along the Brownsville Ship Channel, has confirmed that a final investment decision for the venture would again be delayed, this time until the second half of 2022.

The company disclosed the latest delay in a presentation to investors, though gave no reason for the latest hold-up.

Maximum

The Rio Grande project has ultimate plans and permits to produce up to 27 million tonnes per annum of LNG from five liquefaction Trains.

The \$15.8 billion project has been twice delayed since 2020 and was originally expected to start producing LNG in 2023.

NextDecade had extended pricing in the construction contract with US LNG engineer Bechtel Inc. and extended the validity until July 31, 2022.



Graphic of Rio Grande project with permits for five Trains

The Houston, Texas-based company had also previously moved to secure future deliveries of feed gas.

It closed a transaction from a previous agreement with Spectra Energy Transmission, a wholly owned subsidiary of Canadian pipeline company Enbridge Inc., for the sale of 100 percent of NextDecade's proposed Rio Bravo Pipeline to serve the Rio Grande plant.

NextDecade then signed a firm natural gas transportation service deal for the Rio Bravo Pipeline.

Rio Bravo agreed to provide the Rio Grande plant with feed gas on

the pipeline of a quantity sufficient to match the full operational capacity of each proposed liquefaction Train.

NextDecade agreed to buy back the pipeline stake if it failed to issue a full notice to proceed on the engineering contract prior to December 31, 2023.

The Rio Grande project has signed a lease agreement with the Brownsville Navigation District of Cameron County in Texas around 984 acres of land for the plant construction.

Dominion closes \$2bln sale of Questar Pipelines sale to Southwest Gas unit

Dominion Energy, a shareholder in the Cove Point LNG export plant in Maryland supplying Asia and Europe, has closed the sale of Questar Pipelines to Southwest Gas Holdings Inc. in a transaction valued at almost \$2 billion, including the assumption of \$430M of existing debt.

This transaction had first been entered into in early October 2021.

Questar Pipelines consists of Federal Energy Regulatory Commission-regulated and long-term contracted transportation and underground storage assets in the states of Utah, Wyoming and Colorado, together with related services and processing.

The buyer Southwest Gas distributes and transports natural gas to more than two million customers in Arizona, California and Nevada.

Southwest Gas said it had cre-

ated a new subsidiary named MountainWest Pipelines Holding to own the Questar units.

Southwest Gas, based in Las Vegas, Nevada, said that Questar would be rebranded under the MountainWest name during the first half of 2022.

MountainWest provides 2,160 miles of highly contracted interstate natural gas pipelines in the Rocky Mountain region.

Southwest Gas named Colleen Larkin Bell to lead the MountainWest unit as President. Larkin Bell will report to Karen Haller, Executive Vice President of Southwest Gas.

"We are very enthusiastic about the addition of MountainWest to the Southwest Gas Holdings family of assets," said John Hester, President and Chief Exec-

utive of Southwest Gas.

"Natural gas pipelines are essential to the nation's energy future, which includes alternative sources such as renewable natural gas," added Hester.

"MountainWest brings increased scale and diversification to our business portfolio, and will focus on adding value by accelerating growth opportunities and positioning the company as a leader in the evolving energy landscape," stated the CEO.

Dominion, based in Richmond, Virginia had previously agreed to terminate the planned sale of Questar to the Warren Buffet company, Berkshire Hathaway Energy, as part of a package that also included other assets such as the operatorship of Cove Point LNG.

QatarEnergy awards mega-offshore feed-gas project for LNG expansion to McDermott of US

LNG News Editor

QatarEnergy said that as part of its LNG expansion project it awarded the engineering, procurement, construction and installation (EPCI) contract for the offshore portion of its North Field feed-gas project to Houston, Texas-based firm McDermott Inc.

The expansion project will increase the state of Qatar's LNG production capacity from 77 million tonnes per annum to 126 MTPA, through the North Field East (NFE) and North Field South (NFS) development ventures with first LNG expected in 2025.

Scope

QatarEnergy explained that the scope for the contract includes 13 normally unmanned wellhead platforms topsides (eight for NFE and five for NFS), in addition to various connecting pipelines and the shore approaches for the NFE pipelines, beach valve stations and buildings.

The Qataris added that the



Contract reinforces Qatar's relationship with McDermott

jackets and the pipelines for the NFS Project will be subject to a separate tender which is expected to be awarded in the first half of 2022.

"The award of this major EPCI contract is a momentous milestone that demonstrates QatarEnergy's commitment to delivering our LNG expansion projects on time and to ensure the significant additional global LNG demand is

catered for in a timely manner," said Saad Sherida Al-Kaabi, Qatar's Minister of State for Energy Affairs and the President and chief Executive of QatarEnergy.

"This contract also reinforces our excellent relationship with McDermott," added Al-Kaabi.

"We are confident that the effective collaboration between QatarEnergy, Qatargas and McDermott will result in the safe and

successful delivery of the project according to plan," stated the CEO.

Al-Kaabi added that the QatarEnergy affiliate Qatargas, which has a proven history of delivering such major projects, has been entrusted with executing this mega project on behalf of QatarEnergy.

"I would like to take this opportunity to express my thanks and appreciation to Sheikh Khalid bin Khalifa Al-Thani, the CEO of Qatargas, and to both the Qatar-gas and QatarEnergy teams for their significant efforts and contributions that resulted in the successful and timely execution of this contract," Al-Kaabi declared.

The scope of the first phase of the expansion at the Ras Laffan production complex involves an additional four Trains, each with 8.0 MTPA of output.

Qatar has the southern portion of the North Field in Gulf waters and the other part is under the jurisdiction of neighbouring Iran.

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Chart wins stream of orders for liquefaction

Chart Industries, the US maker of LNG and industrial gases equipment for the energy transition, has just been awarded four liquefaction project orders from four different customers.

Chart said the orders for the smaller scale sector were worth more than \$120 million.

Additionally, the Atlanta, Georgia-based company has received releases on engineering work, amounting to limited notice to proceed, on two of the “Big LNG” export plant projects which are expected to proceed to final investment decision in 2022.

Highlights of the four liquefaction project awards include a hydrogen liquefier.

The 15-ton-per-day liquefier will be built in North America with a new hydrogen liquefaction customer.

“This is our fourth hydrogen-helium liquefaction order of the year in 2021 and with those four orders totalling approximately \$150M, covering three different geographies and three different customers,” Chart explained.

The orders also include a 60,000-ton BioLNG liquefaction train and associated equipment.

Chart added that the third order is for a BioLNG facility and associated station infrastructure for 20 BioLNG stations with an established European customer, Verbio.

The fourth order is for a utility-scale LNG liquefaction plant which is an integrated facility and the first in the nation with a hybrid (gas-electric) drive and for a customer in the Northeast US.

LNG bunkering vessel ‘Gas Vitality’ loads cargo French West Med supply

LNG News Editor

Elengy, the French LNG import terminal owner, and TotalEnergies said that France’s first LNG bunkering vessel, “Gas Vitality”, has loaded a cargo at the Fos Cavaou LNG terminal, located west of the Mediterranean port of Marseille.

The 18,600 cubic metres capacity newbuild received the fuel at Fos Cavaou in an operation overseen by Elengy, a subsidiary of the utility and energy group Engie.

Elengy boost

Elengy said that the first loading operation at Fos Cavaou involving the “Gas Vitality” also initiated the new small-scale LNG loading services now on offer at the terminal.

“With this new service, Elengy is offering 50 loading slots per year for loading small-scale LNG vessels of a capacity up to 40,000 cubic metres, under maximum conditions of safety and reliability,” said Elengy.

“The new Fos Cavaou service is well adapted to customer needs, ensuring optimal scheduling flexibility at a competitive price,”



The ‘Gas Vitality’ loaded at Fos Cavaou LNG terminal

added the company.

“The small scale LNG vessels loaded at Fos Cavaou terminal will supply the LNG-powered container ships, ferries and cruise ships that the Port of Marseille-Fos is preparing to welcome in the coming months,” it stated.

The “Gas Vitality” was constructed at Hudong-Zhonghua Shipbuilding in China and is the second bunkering ship joint venture between TotalEnergies subsidiary, TotalEnergies Marine

Fuels, and Japanese fleet operator Mitsui OSK Lines.

Classed by Bureau Veritas and operated by V.Ships France under the French flag, the “Gas Vitality” will be based in the Port of Marseille-Fos to serve the Western Mediterranean market.

There were now 26 LNG bunkering vessels in operation globally and the fleet is expected to grow to more than 40 units in the next few years.

Dutch LNG trucking fuel provider Rolande builds its station network

Dutch liquefied natural gas fuel provider Rolande said it recently opened its 20th filling station for LNG as it expands in the Netherlands, Belgium and Germany.

The Tilburg-based company said it now had a total of 13 Dutch LNG fuel stations as well as two in Belgium and recently opened its fifth fuel station in Germany.

“Large companies like Unilever and Ikea, are using more and more LNG haulage and when a truck in the Netherlands drives on LNG, chances are high that owner of the truck is a client of Rolande,” said the company.

In addition to building its LNG filling station network, Rolande has also opened its first bio-LNG

plant in Leeuwarden, the capital of the Friesland region.

The bio-LNG is made from organic waste like sludge and manure from cattle.

Rolande said it had made satisfying progress in the last 10 years as LNG has caught on as a vehicle fuel.

“From the first manual transmission LNG-trucks with little horsepower to trucks which are competitive to the current diesel truck,” said Rolande director Leila Mulder.

“We are really participating in the energy transition. Most of the times people talk about solar collectors and green energy, but the transport sector is also a very

important one,” stated Mulder.

Jolon van der Schuit, Chief Executive of Rolande, explained that the company’s biggest strength was focusing on the alternative that is both the greenest and the economically best option.

“A diesel truck costs €100,000 euro, an LNG truck costs about €20,000 to €30,000 more than that,” explained Van der Schuit.

“But LNG is cheaper than diesel. When you drive 80,000 to 100,000 kilometres a year, driving an LNG-fuelled truck almost costs the same as driving a diesel truck. When you drive more kilometres, LNG is even cheaper than diesel,” stated the CEO.



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Sinopec increases Tianjin North LNG terminal capability and reports shale-gas output rise

China Petroleum and Chemical Corp. (Sinopec), which recently signed supply deals with US liquefaction plant developer Venture Global, has put a second jetty into operation at the Tianjin North on-shore LNG import terminal guaranteeing supplies to the Chinese capital Beijing.

Sinopec said an LNG carrier had discharged a full load from the second jetty on December 29.

Berthing

The company added the double berthing at Tianjin North was the first “double jetty” in operation at a Chinese regasification terminal.

The new jetty is a part of the second expansion phase at the Tianjin facility, taking overall import capacity to 10.8 million tonnes per annum.

Sinopec said the Tianjin North terminal had received 21 cargoes since the start of the Northern



The first double berthing in China now at Tianjin North

Hemisphere winter season. The company would expect to have received about 20MT at all of its terminals during 2021, almost 20 percent more than in 2020.

These Sinopec facilities include the Beihai LNG terminal in Guangxi, the autonomous southern Chinese region bordering Vietnam, and the Qingdao terminal in eastern Shandong province.

Sinopec was the subject of two

LNG supply agreements with Arlington, Virginia-based Venture Global in November 2021.

A 20-year Sale and Purchase Agreement was signed for a total of 4 MTPA from Venture Global's Plaquemines facility being developed along the Mississippi River south of New Orleans.

In addition, Unipec, a Sinopec subsidiary, agreed to purchase 3.5MT from Venture Global's Cal-

casieu Pass plant near Lake Charles in Louisiana for a shorter duration once the plant starts up later in 2022.

Sinopec also gave an end-of-year update on the Fuling shale-gas field it operates in Southwest China's Chongqing municipality.

The company said Fuling had produced a record high of nearly 7.1 billion cubic metres of shale gas so far in 2021, an increase of over 7 percent year-on-year.

A statement said the field had supplied 1.1 Bcm since the start of November 2021.

Sinopec noted that the Fuling shale-gas field, discovered in 2012, had so far produced about 41.5 Bcm of gas.

The gas field recently added 104.9 Bcm of proven reserves, bringing its total proven reserves to nearly 900 Bcm, or 34 percent of China's proven shale-gas reserves.

Pavilion Energy signs LNG supply agreement with owners of new small-scale terminal in China

Pavilion Energy of Singapore has signed a supply agreement with a Chinese joint venture to send small-scale shipments to the eastern Zhejiang province south of Shanghai.

The Singaporean company said its Pavilion Trading and Supply subsidiary had signed the deal with Zhejiang Hangjiixin Clean Energy Co.

Under the agreement, Pavilion will send 500,000 tonnes per annum to Hangjiixin from 2023.

The Pavilion volumes will be delivered to the small-scale Jiaxing

import terminal in Zhejiang.

The Jiaxing terminal, with capacity to handle 1 MTPA of LNG, will be operated by Hangjiixin.

The Hangjiixin entity is a joint venture between city-gas distributors Jiaxing Gas, a pipeline natural gas operator, and Hangzhou Gas, the largest natural gas distributor in Zhejiang province.

“Pavilion Energy is very pleased to strengthen our partnership with Hangjiixin with the supply of LNG from our portfolio of diverse global sources,” said Alan Heng, Interim Group Chief

Executive of Pavilion Energy. “We look forward to working closely with each other on the successful implementation of this deal,” added Heng.

“Supplying small-scale LNG reinforces our commitment to enhance Singapore's position as a regional LNG hub and support growing demand for small-scale LNG in Asia,” he stated.

Pavilion Energy is a unit of the Singaporean wealth fund Temasek and has been leading the build-out of LNG bunkering in the region as well as arranging small-scale

supplies in Asia. The Chinese energy joint venture said it was delighted to secure the supply agreement with the Asian city state.

“The execution of this agreement will provide Hangjiixin's own terminal, the Jiaxing LNG terminal, with stable LNG resources, offer Hangjiixin's end-users more clean energy options in the long run and contribute to Hangjiixin's dedication to the reduction of carbon-dioxide emissions,” said Sun Lianqing, CEO of Hangjiixin Clean Energy.

“We look forward to closer collaboration between the two parties, a smooth performance of the agreement and multi-dimensional in-depth cooperation in the near future,” added Sun.



Supplying small-scale LNG reinforces our commitment to enhance Singapore's position as a regional LNG hub and support growing demand for small-scale LNG in Asia



- Alan Heng, Interim Group Chief Executive of Pavilion Energy.