

LNG Unlimited

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France and Belgium cope with changes in LNG and gas markets

Engie increases regulated domestic sales tariffs and Fluxys plans for rising LNG demand at Zeebrugge
LNG News Editor

France's Commission de Régulation de l'Energie (CRE) has given the go-ahead for a further increase in the cost of imported natural gas, leading to an immediate jump in regulated domestic sales tariffs as costs rise for utilities all over Europe.

"This development results from the historic increase in natural gas prices on the world market, which is reflected in Engie's supply costs, as well as those of all natural gas suppliers," said the Paris-based company.

Functioning

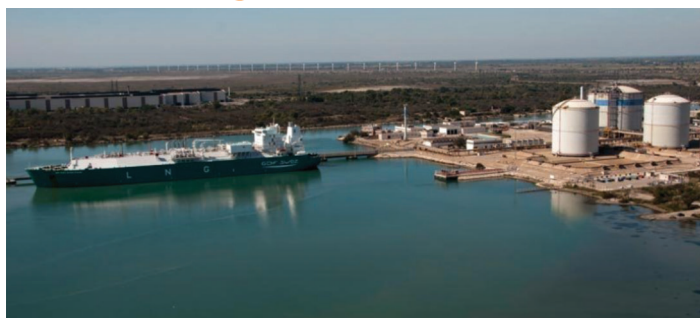
The CRE was created in March 2000 to ensure that the electricity and gas markets in France function smoothly, for the benefit of end consumers and in line with energy policy objectives.

European Union utilities themselves have been paying much more in the wholesale power market. For the French the actual Trading Region France (TRF) price on September 28 was at €74.768 per megawatt hour, the equivalent of \$25.65 per million British thermal units.

This French wholesale power price is 58 percent higher than a month ago when it was at the equivalent of \$16.15 per MMBtu on August 28.

"Faced with this exceptional situation, the monthly change in the regulated tariff for the sale of natural gas (TRVG) is 12.6 percent, including tax on October 1," said Engie.

"This change results from the application of the regulated tariff



French terminals are operated by Elengy within Engie Group

formula concerning the costs of supply, defined in the order of 28 June 2021 relating to regulated tariffs for the sale of natural gas by the Regulated Tariff Department of Engie," explained the utility.

The CRE says the regulated rates rise will affect around 3M of France's 10.5M residential gas consumers, of which 2.77M are with Engie.

On July 1, 2023, French regulated tariffs will disappear under the 2019 Energie-Climat law and consumers will need to choose from the offers of commercial providers.

In Belgium, the gas transmission and Zeebrugge LNG terminal operator Fluxys increased first-half net profits as ship traffic remained strong and truck-trailer LNG loadings almost doubled.

While regulated turnover declined by around 2.2 percent to €277.9 million (\$324.7M) versus €284.2M in the first half of 2020, the company's net profits rose by just over 4 percent to €38.3M compared with €36.6M in the prior-year period.

Fluxys reported that shipping traffic at the LNG terminal remained strong, at a similar level to that of the busy first half of 2020.

"The number of large vessels that docked for trans-shipments was lower while significantly more small ships came to load LNG,"

said Fluxys. Fluxys said the first half of 2021 saw a sharp increase in demand for LNG as a low-carbon fuel for ships and trucks.

"The LNG terminal loaded a total of 3,200 LNG trailers, almost double the number loaded in the same period the previous year," said Fluxys.

"The number of loading operations is expected to increase to around 6,000 this year," it added.

Fluxys explained that taking into account the current utilisation rate, the existing truck-loading bays at the LNG terminal were gradually approaching their maximum capacity.

"As there is considerable market interest in booking even more loading slots in the future, four extra truck-loading bays are being built," said the company.

"They will ensure that the market can continue to rely on sufficient loading capacity to meet growing demand. The new truck-loading bays are scheduled to be commercially available in 2024," Fluxys declared.

Storage costs down

On the storage front, a tariff reduction was worked out in consultation with the market and CREG and the costs of storage services have been reduced by 30 percent since July 2021.

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Japanese utility JERA to participate in LNG and infrastructure developments in the Philippines

LNG News Editor

JERA Co. Inc., the largest Japanese utility and liquefied natural gas importer, has decided to acquire a 27 percent stake in Aboitiz Power Corp. for \$1.58 billion to partner with the major utility in the Philippines as the Asian nation builds out LNG and gas-fired power projects.

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.

Key supply areas

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.

"JERA and Aboitiz Power are exploring a number of areas of collaboration including the potential joint development of power pro-



Aboitiz is adding to Filipino portfolio of battery storage

jects including LNG-to-Power and collaboration on new generation technologies," said a statement.

"JERA has also signed a memorandum of understanding with Aboitiz Power to collaborate in fuel sourcing and management of the LNG required for potential LNG power plants which can supplement intermittent renewable energy," stated JERA.

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

The company is Japan's biggest fossil-fuel generator being owned jointly by Tokyo Electric Power Co. and Chubu Electric, the two

largest power companies.

The joint venture company currently operates and provides fuel for a total of 26 power plants in Japan and imports LNG into 11 of Japan's network of 37 terminals.

The move by JERA in the Philippines followed the announcement in September 2021 that with partner Tokyo Gas, the company had sold a combined 50 percent stake in a Mexican-based company operating five gas-fired power plants, including one close to the Gulf of Mexico LNG import terminal at Altamira.

The Mexican company, MT Falcon Holdings, owns the natural gas combined-cycle power plants located in northeast Mexico and

Tokyo Gas and JERA have sold their respective 30 percent and 20 percent stakes.

Each power plant has had long-term power purchasing agreement with Mexico's state-owned Federal Electricity Commission.

Both JERA and Tokyo Gas entered into sale and purchase agreements with Actis GP LLP, a London-based private equity firm with investments in global energy infrastructure.

The JERA asset sale to Actis GP is expected to be completed by the end of March 2022.

JERA said on its Aboitiz acquisition that the power group aims to expand power generation capacity to 9.2 gigawatts and achieve a 50:50 clean energy and thermal capacity mix by 2030 to meet the increasing demand for electricity in the future, while promoting renewable energy in the Philippines.

"At the same time, JERA is working to eliminate CO2 emissions from its domestic and overseas businesses by 2050 under its 'JERA Zero CO2 Emissions 2050' objective," said the Japanese company. ■

US LNG equipment-maker Air Products signs \$12Bln deals for Saudi gasification and power

US LNG equipment-maker and industrial gases company Air Products has signed a \$12-billion project financing and assets agreement for a gasification and power venture for Jazan Economic City with partners Saudi Arabia Oil Company (Aramco) and Saudi firm ACWA Power.

The venture was formed in 2018 to enhance the overall value of the Jazan refinery with the integrated gasification combined-cycle power to transform the Jazan Province by positioning Jazan for foreign direct investment.

"The consortium is expected to increase job opportunities and transfer the most advanced technologies in this field to the King-

dom, and enable Saudi talent to employ this technology for the first time," said a statement.

The US company, based in LeHigh Valley, Pennsylvania is also the leading supplier of LNG equipment for the majority of plants operating worldwide.

Recent Air Product orders have been for Qatar's LNG production expansion, Sempra Energy's Costa Azul LNG export terminal project in Mexico and the currently delayed Mozambique onshore project in Cabo Delgado province.

Air Products, Saudi Aramco and ACWA Power said they finalized a definitive agreement on asset transfer and to proceed with the

air separation unit (ASU), gasification and power venture in Jazan.

Aramco via its subsidiary Saudi Aramco Power Company (SAPCO) has a 20 percent share in the venture, Air Products 46 percent, ACWA Power 25 percent and the US company's subsidiary Air Products Qudra 9 percent.

The venture is purchasing the ASUs, gasification, syngas clean-up, utilities and power assets from Aramco and will own operate the facility under a 25-year contract for a fixed monthly fee.

Aramco will supply feedstock to the venture and it will produce power, steam, hydrogen and other utilities for Aramco.

The venture serves Aramco's Jazan Refinery, a megaproject to process 400,000 barrels per day of the crude oil to produce the main products such as ultra-light sulphur diesel, gasoline and other products.

"With the completion of these definitive agreements, all parties under the joint venture expect asset transfer and funding to occur during the month of October 2021," the statement added.

"We are very proud to announce the finalization of the definitive agreements for this complex transaction and now move forward," said Air Products Chairman, President and Chief Executive Seifi Ghasemi. ■

Indian LNG imports fall while offset by domestic gas

Indian liquefied natural gas imports declined amid a surge in cargo prices and the fall was offset by higher domestic natural gas production as the nation slowly recovered from the Covid-19 pandemic.

Shipments to India's network of seven regasification terminals, mostly concentrated on the West Coast, amounted in August came to 2.12 million tonnes, or around 30 cargoes, down 3.4 percent from the 2.20MT received in August 2020, according to preliminary monthly data from the Indian Ministry of Petroleum and Natural Gas.

Analysts said industrial demand was still recovering as India continued its Covid-19 vaccination programme.

The cumulative LNG imports amounted to 9.64MT for the current fiscal year of five months from April to August 2021, up by 0.7 percent on the 9.57MT posted in April to August 2020.

Increasing domestic natural gas production has more than offset the fall in LNG imports.

Gross production of natural gas for the month of August 2021 was 2.92 billion cubic metres, which was higher by 20.2 percent compared with 2.43 Bcm of output in August 2020.

New gas production wells have recently come on stream in the Krishna-Godavari Basin in eastern India from projects involving the Indian group Reliance Industries and UK major BP.

However, India is having to pay much more for its LNG cargoes than it did a year ago.

In the April-August fiscal year so far the total cost of LNG for the country came to \$4.2Bln, up from the \$2.5Bln total logged in the first five months of the previous fiscal year.

Petronas brings fire under control at Bintulu and output unaffected

LNG News Editor

Malaysian energy company Petronas has reported a fire at its main onshore liquefied natural gas production plant at Bintulu, located in the eastern state of Sarawak on the island of Borneo.

"A fire broke out at the Petronas LNG complex in Bintulu on 28 September 2021 at approximately 4.15pm," said Petronas, whose main customers are in Japan, China and South Korea.

Outside of processing

"The incident occurred at the sea-cooling water outfall channel located outside PLC's process area," explained the company.

"The plant's emergency response team was immediately mobilised to the scene and successfully extinguished the fire by 4.41pm," it added.

Petronas said that five contractor personnel sustained injuries in the incident and were



Bintulu plant's emergency team quickly tackled the blaze

immediately taken to hospital.

The company said that the five injured were later discharged from hospital after treatment.

"All relevant authorities have been informed and an investigation is being carried out to determine the cause of the incident," said Petronas.

The Bintulu LNG complex has nine production Trains with a combined nameplate capacity of around 25 million tonnes per annum.

However, Malaysia's overall output declined about 9 percent last year to 23.85 MTPA.

Japan receives around 10 MTPA from Petronas, followed by China with around 6.5MTPA and South Korea 5 MTPA. This includes volumes from two floating LNG plants in Malaysian waters producing around 3 MTPA.

Other customers include Thailand, Taiwan, Pakistan and Myanmar.

Höegh Partners reorganizes loan on FSRU deployed in Indonesia

Höegh LNG Partners, the US affiliate of Höegh LNG Holdings now partnered with the infrastructure unit of US investment bank Morgan Stanley, has reorganized part of its finances on a floating storage and regasification unit deployed in Indonesia and the subject of a dispute with the former charterer.

Höegh LNG Partners has entered an accord for the commercial tranche of the loan on the Indonesian floating terminal, "PGN FSRU Lampung", to allow for more time to conclude an overall refinancing.

"The lenders have agreed to defer the maturity date of the commercial tranche from September 29, 2021 until January 14, 2022," said Höegh LNG Partners.

"Subject to commitment let-

ters and a term-sheet for a refinancing of the commercial tranche being in place by December 29, 2021, the maturity date will automatically be further deferred to March 29, 2022," it added.

Höegh LNG Partners said that notwithstanding the outcome of previously announced notice of arbitration served by the charterer on August 2, 2021, both parties have been continuing to perform their respective obligations under the lease and maintenance agreement for the "PGN FSRU Lampung".

Indonesian state-owned gas company, PT Perusahaan Gas Negara (PGN), a unit of national oil and gas company Pertamina, is the charterer in question and has

entered the arbitration process.

The vessel is the subject of a 20-year charter deal with PGN and is deployed off the southeast coast of Sumatra.

Höegh LNG Partners received a letter at the end of July from PGN saying it would start arbitration to "declare the charter null and void, and/or to terminate the charter, and/or seek damages" because of dissatisfaction over some issues.

The partnership has maintained that based on an initial legal review, it believed the charterer's position was without merit.

In the meantime, the "PGN FSRU Lampung" has continued to operate pursuant to the terms of the charter.



Power Play AWARDS

Presented by ExxonMobil

Congratulations to the 2021 Power Play Award Winners!

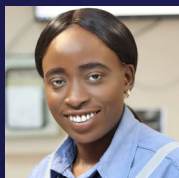
At ExxonMobil LNG, we salute the winners of the 2021 Power Play Awards. With the third annual Power Play Awards, we continued to celebrate the achievements of remarkable professionals in the LNG industry from around the globe.

This year, the Power Play Awards celebrated professionals in four categories: The Rising Star, The Ambassador, The Pioneer and the Conqueror. The four winners exemplified and exceeded all the characteristics sought after for their respective award categories.

The 2021 Power Play Awards winners are:

THE RISING STAR

Presented to an outstanding female professional, age 35 or younger



Dr. Tolulope Ijirona

Instrumentation Engineer at Nigeria LNG Limited, Nigeria

THE AMBASSADOR

Given to a professional who displays positive energy and collaborative leadership while inspiring those around them

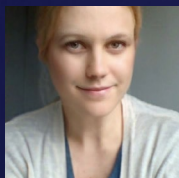


Candace Jimerson

Senior Director of Commercial LNG Operations at Golden Pass LNG, United States

THE PIONEER

Awarded to a professional who has delivered outstanding business results or innovation and technology leadership



Sandra Antonovic

Chief Operating Officer at Reflex Marine Ltd, United Kingdom

THE CONQUEROR

Recognized a female professional who has overcome challenges in the workplace, particularly in light of the 2020 pandemic



Hilary Ware

Senior Vice President, Chief Human Resources Officer at Cheniere, United States

Congratulations to these four deserving Power Play Award winners and to everyone nominated in this year's event! Each of your stories was impressive and inspiring.

Learn more about the Power Play Awards at [exxonmobil.com/Power-Play/Power-Play-Awards](https://www.exxonmobil.com/Power-Play/Power-Play-Awards)

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NEWS BRIEFS

Qatar deal with China

Qatar Petroleum entered into a long-term sale and purchase agreement with China National Offshore Oil Co.'s trading and marketing unit for the supply of 3.5 million tonnes per annum of LNG over a 15-year period starting in January 2022. The SPA was signed during a virtual ceremony involving Saad Sherida Al-Kaabi, Qatar's Minister of State for Energy Affairs and who is also President and Chief Executive of Qatar Petroleum, and Wang Dongjin, the Chairman of CNOOC. "We are pleased to further build upon our strong relationship with CNOOC with the signing of this new long-term LNG supply agreement," said Al-Kaabi.

Perth Basin supplies

Beach Energy has entered into a preliminary supply accord with UK major BP's Singapore trading arm for all of Beach's volumes from the Waitsia Gas Project in the onshore Perth Basin of Western Australia being developed with Japanese partner Mitsui. Beach Energy said the heads of agreement contained all material terms and conditions for BP purchasing all of Beach's 3.75 million tonnes per annum from the second half of 2023.

Gazprom notes Greek data

Russian pipeline natural gas supplier to Western Europe, Gazprom, has celebrated the 25th anniversary of its supply contract with European Union nation Greece, which is currently planning a floating LNG import project offshore the port of Alexandroupolis and has imported cargoes since 2000 to the existing onshore terminal at Revithoussa, west of Athens.

Australian LNG earnings set for surge to A\$50Bln from A\$30Bln because of array of oil-linked supply contracts

LNG News Editor

Export earnings from Australia's 10 liquefied natural gas export facilities with nameplate capacity of 88 million tonnes per annum are expected to surge to A\$50 billion (US\$36Bln) in the current fiscal year from A\$30Bln last year as oil-linked contract prices surge.

The figures are in the Quarterly Resources Report from the Australian Government and also show that 75 percent of Australian shipments, mostly to Asia, are linked to the crude oil price and the remaining 25 percent are short-term or spot cargo deals.

Expansion

"The Asia-Pacific region remains the key driver of import growth, with an impressive 12 percent year-on-year expansion in the first half of 2021," said the report.

"Export growth has been dominated by North America, largely due to the 50 percent rise in liquefaction capacity since the beginning of 2020, with mixed export performance from other regions," added the report.

Exports from the Asia-Pacific have largely been flat, and the Middle East has seen only moderate growth.

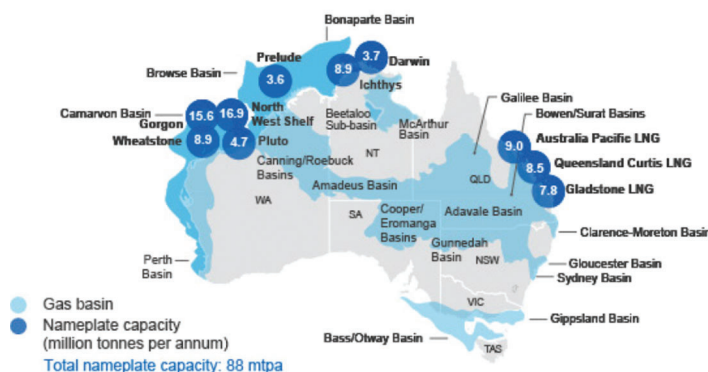
"In the first half of 2021, global LNG trade grew by almost 5 percent year-on-year, as the global economy showed a strong recovery from the Covid-19 pandemic," said the report.

"A number of extreme weather events also raised demand, as the Northern Hemisphere built inventories after a bitter winter, followed by a hot Asian summer and sustained droughts in South America that affected hydro generation," it added.

Trade rising

The report noted that global LNG trade is expected to increase by 2 percent in 2021, driven by contin-

Australia's LNG projects and gas basins



Asia-Pacific LNG leader's plants and natural gas resources

ued import growth in the Asia-Pacific region, and export growth in North America.

Trade is then expected to increase by 7.8 percent in 2022 and 1.5 percent in 2023.

"Asian LNG spot prices and oil-linked contract prices are expected to moderate in 2022 and 2023, as the LNG market remains well supplied and oil prices stabilise above US\$65 a barrel," according to the report.

Australian export volumes are forecast to increase by 5.4 percent to 82MT in 2021-2022 and 0.9 percent to 83MT in 2022-2023 as technical issues are resolved at the Prelude FLNG and Gorgon LNG plants.

Australia supplies 22 percent of global LNG. Its main Asian customers are the main consumers of LNG with Japan buying 21 percent, China (19 percent), South Korea (12 percent), India (7 percent) and Taiwan (4 percent).

"In 2021, it is expected that China will import 74MT of LNG, to become the world's largest LNG importer," stated the report.

"Demand for gas is continuing to grow in China, increasing about 20 percent over the outlook period, driven by the industrial and residential sectors and ongoing gas-to-coal switching," it added.

China's 14th Five Year Plan indicates that gas will play an important role in the country's

energy transition to meet its 'carbon-neutral by 2060' pledge.

Japan imported 38.6MT of LNG in the first half of 2021, marginally higher year-on-year, as the economy recovers from the effects of Covid-19.

"However, Japanese LNG demand generally remains on a downward trend, and Japan is predicted to lose its position as the top global LNG importer to China during 2021," said the report.

Following the announcement of a net zero by 2050 target in October 2020, Japan released a draft 6th Strategic Energy Plan in July 2021, which details provisional power generation mix targets for 2030.

"The draft plan incorporates a large swing towards nuclear and renewables generation, with the share of gas proposed to decline from 37 percent to 20 percent," the report noted.

Korea

South Korea's LNG demand is seen increasing due to coal-to-gas switching.

"Overall, Korean imports fell 4.8 percent to 40MT in 2020. Demand is recovering in 2021, with strong 23.2MT of usage in the first half of 2021, driven by the ongoing economic recovery and the continued trend of coal-to-gas switching," the report explained.

Eni of Italy starts up Cabaça North project offshore LNG nation Angola as licences won

LNG News Editor

Eni of Italy has achieved the start-up of the Cabaça North project offshore Angola as the southwest African nation has also just awarded nine onshore licences to 14 companies for blocks in the Congo River basin and a basin further to the south.

Milan-based Eni, which is also a shareholder in the Angola LNG project using associated gas from offshore oil fields, said it started production from Cabaça North in Block 15/06 of the Angolan deep offshore via the Armada Olombendo Floating Production Storage and Offloading (FPSO) vessel.

Example

"The start-up of Cabaça North is yet another example of how Eni Angola keeps creating value on Block 15/06 through its infrastructure-led exploration strategy, generating a pipeline of fast-track subsea tie-backs," said Eni.

The Cabaça North development, with an expected peak production rate in the range of 15,000 barrels of oil equivalent per day, will increase and sustain the plateau of the Armada Olombendo, a zero-discharge, zero-process flaring FPSO with an overall capacity of 100,000 barrels equivalent per day.

This is the second start-up achieved by Eni in Angola in 2021 after the Cuica block early production was achieved in July 2021.



Armada Olombendo FPSO vessel operating offshore Angola

A third start-up is expected within the next few months, with the Ndungu field in the Western area of Block 15/06.

Block 15/06 is operated by Eni with a 36.84 percent share. Sonangol Exploration and Production (36.84 percent) and SSI Fifteen Limited (26.32 percent) compose the rest of the joint venture.

Angola is the second-largest oil producer in Sub-Saharan Africa and uses associated gas to produce LNG as a clean energy source at its liquefaction plant, operated by the main shareholder, the US major Chevron Corp.

Shareholders

The other shareholders with Chevron, Eni and Angola's state-owned Sonangol are BP of the UK and France's TotalEnergies.

The Angola LNG plant is located 350 kilometres north of the capital Luanda in Soyo, at the mouth of the Congo River, and is

one of the world's most modern LNG processing facilities.

A pipeline network of over 500 kilometres delivers gas from offshore oil fields to the Soyo plant designed to process 1.1 billion cubic feet of natural gas per day and produce 5.2 million tonnes per annum of LNG.

In addition, Angola's energy regulator, the National Agency for Petroleum, Gas and Biofuels (ANPG), has awarded nine onshore exploration and production licences, mostly to domestic bidders.

The companies are mostly headquartered in the capital Luanda.

Three licences were awarded for the Lower Congo Onshore Basin in the north of the country and six licences for the Kwanza Onshore Basin further south.

There were 14 different bidders and all received stakes in at least one basin.

The companies in the list are Alfort Petroleum, Brite Oil and Gas Ltd, state-owned Sonangol Exploration and Production, Somoil, Africa-focused Intank Group with offices in the UK and the US, Monka Oil, Miti Energy, Upite Oil Co., Omega Risk Solutions, Prodoil, Angola Integrated Services, Grupo Simples, Prodiaman Oil Services and Service B.

The three Lower Congo Onshore Basin blocks and winners are:

Block Con 1 operator Somoil with a 40 percent stake; shareholders Intank Group (40 percent), Monka Oil (10 percent) and Omega Risk Solutions (10 percent).

Block Con 5 operator Miti Energy (50 percent); Prodoil (15 percent), Prodiaman Oil Services (11.67 percent), Upite Oil Co. (11.67 percent) and Service B (11.67 percent).

Block Con 6 operator Mineral One (35 percent); jointly with Somoil (35 percent), Angola Integrated Services (20 percent) and Prodoil (20 percent).

The six onshore Kwanza Onshore Basin winners are:

Block Kon 5 operator Miti Energy (60 percent); Sonangol E&P (20 percent), Monka Oil (10 percent) and Grupo Simples (10 percent).

Block Kon 6, operator Grupo Simples (50 percent); and with Miti Energy (50 percent).

Block Kon 8 operator Alfort (50 percent); with stakeholders Grupo Simple (20 percent), Miti Energy (20 percent) and Monka Oil (10 percent).

Block Kon 9 operator Angola Integrated Services (60 percent); Grupo Simples (10 percent) and Brite Oil and Gas Ltd (20 percent).

Block Kon 17 operator Miti Energy (60 percent); Brite Oil and Gas (20 percent) and Mineral One (20 percent).

Block Kon 20 operator Miti Energy (50 percent); with Brite Oil and Gas (50 percent).

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Gasum opens key station in Trondheim

Gasum, the state-owned Finnish company and the largest Nordic LNG supplier and developer, has opened a new natural gas filling station in Trondheim in Norway as it continues to build out the network linking towns, regions and nations with clean fuel outlets for vehicles.

“The station has an ideal location in the middle of a logistic hub for heavy-duty traffic. It integrates Gasum’s gas filling station network in the Oslo region together with northern parts of Sweden such as Östersund and Umeå,” said Gasum.

The Gasum facility offers LNG and compressed natural gas (CNG) in response to the growing demand for low-emission fuels in Norway.

The exact location of Gasum filling station is Østre Rosten 108, 7075 Tiller. The station is public and is open to all trucking companies seeking vehicle fill-ups.

“The new station is ready to serve both logistic companies operating in the region and long-haul traffic from Oslo through Trondheim all the way to Sweden,” explained Gasum.

“The station is located in the Heggstadmoen logistic hub and is an integral part of Gasum’s expanding Nordic gas filling station network,” said the company.

“In its current state, the network of stations already enables the market growth of gas in the heavy-duty segment,” it added.

The new gas filling station is part of a cooperation agreement between Gasum and the Norwegian retail chain Coop.

It will also be used to supply Coop with renewable biogas for its transport partners and help reduce emissions from heavy-duty trucks.

Kinder Morgan unit starts building Indiana renewable natural gas plants

LNG News Editor

Kinetrex Energy, a company acquired by US pipeline giant and LNG stakeholder Kinder Morgan Inc., has started the construction of three renewable natural gas production facilities to make RNG from waste in the state of Indiana.

The three sites are located at the Twin Bridges Landfill in Danville, the Prairie View Landfill in Wyatt and the Liberty Landfill in Monticello.

Sourced

Upon completion, they are expected to produce a total of 3.5 billion cubic feet each year of RNG, derived from sources such as organic waste in landfills, wastewater treatment plants and agricultural operations.

By capturing methane produced from the decomposition of organic waste, the RNG production process also reduces or eliminates greenhouse gas emissions.

Kinder Morgan said commercial operations are expected to begin in the fall of 2022, pending re-



Company acquired by Kinder Morgan is established player

quired permits and certifications.

The Kinder Morgan Kinetrex unit expects to invest \$146 million to construct the RNG facilities, which it will operate to process gas purchased from Wabash Valley Power Alliance (WVPA) Waste Management, owner of the landfills.

WVPA is a not-for-profit electric generation and transmission cooperative based in Indianapolis.

The G&T provides wholesale electricity to 23 retail electric distribution cooperatives in Indiana, Illinois and Missouri.

Collectively, these cooperatives

supply electricity to more than 321,000 homes, schools, farms and businesses.

Kinetrex, also based in Indianapolis and which was an affiliate of the Parallel 49 equity fund before being acquired by Kinder Morgan in July 2021, also has an interest in the largest RNG facility in Indiana.

“Once operational next year, total annual RNG production from the four sites is estimated to be over four billion cubic feet,” said KMI.

Le Havre advances as bunkering site with re-fuelling of polar ship

The French port of Le Havre has entered the liquefied natural gas era by hosting the bunkering of the latest LNG-powered newbuilt polar explorer vessel, “Le Commandant Charcot”, owned by cruise liner operator La Compagnie du Ponant.

The latest addition to the Ponant fleet will offer the farthest reaches of the Arctic and Antarctic regions to luxury travellers with a ship using the cleanest maritime fuel available.

Le Havre has also become an LNG bunkering site as the second-largest commercial port and the largest container port in France.

The Polar cruise liner “Le Commandant Charcot” is named after

the renowned French polar scientist and explorer Jean-Baptiste Charcot and is the first hybrid-electric polar exploration ship powered by LNG.

The ship is the first passenger ship equipped with high-pressure membrane LNG tanks offering up to two months of autonomy on natural gas, greater flexibility in its bunkering and operations and guaranteeing enhanced safety.

“The ship ‘Le Commandant Charcot’ paves the way for new and more environmentally friendly natural gas propulsion methods and helps to meet the carbon-dioxide reduction targets set out in the Paris Agreement.” said Hervé Gastinel, Chief Execu-

tive of Ponant. Gastinel noted that reducing emissions is crucial and “Le Commandant Charcot” will operate on LNG, which is “currently the most environmentally friendly” maritime fuel available.

Switching to LNG in the shipping sector removes completely sulfur oxides and particle emissions and reduces nitrogen-oxide emissions by up to 85 percent.

LNG also emits at least 20 percent less CO₂ when compared to traditional maritime fuels.

The fuel for the Le Havre bunkering operation was provided by Finnish natural gas and LNG distribution company Gasum.



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US and Mexican LNG operator Sempra moves on after California settlement for Aliso Canyon leak

LNG News Editor

Southern California Gas Co. (SoCalGas), based in Los Angeles and owned by the Louisiana Cameron LNG plant operator, Sempra Energy, has agreed to pay around \$1.1 billion in three settlement agreements stemming from the methane leak in 2015 at the SoCalGas Aliso Canyon natural gas storage facility.

"The first agreement is subject to obtaining roughly 97 percent participation among approximately 36,000 individual plaintiffs and court approval of the settlement allocation process, among other conditions," said San Diego-based Sempra.

Plaintiffs

"The second and third agreements involve settlement with a class estimated to include at least 23,000 properties and the dismissal of the named plaintiffs in a putative business class action, both of which are subject to court approval," explained Sempra.

In addition to operating the



Regulators cleared SoCalGas to resume Aliso activity

Cameron liquefaction plant at Hackberry on the Gulf Coast, Sempra is also transforming its Costa Azul LNG terminal on the Pacific Coast of Mexico into an export plant.

The Aliso Canyon storage settlement comes as Sempra is in the midst of a restructuring.

The Cameron and Costa Azul plants and various power and pipeline assets in Mexico and elsewhere will be grouped into a new Sempra North American LNG and gas platform called Sempra Infrastructure Partners.

"These Aliso Canyon agreements will help the community

and our company work toward putting this difficult chapter behind us," said Scott Drury, Chief Executive of SoCalGas.

"In the years since the leak, SoCalGas has worked alongside regulators, technical experts, and our neighbors to enhance safety at all our underground storage facilities," added Drury.

"As a result, our storage facilities operate by what regulators and experts have called some of the most rigorous safety standards in the country," he stated.

A court in 2019 approved a separate \$119.5M settlement between SoCalGas and various state

agencies in relation to the leak.

The Los Angeles City Council in May 2021 urged California Governor Gavin Newsom to initiate an accelerated plan to close the storage facility.

State regulators had cleared SoCalGas to resume injections at Aliso Canyon in mid-2017.

However, SoCalGas has stated that the Aliso Canyon storage continues to play a vital role in the resiliency of California's energy system, supporting intermittent solar and wind supply.

California has set a goal of achieving a fossil-free power generation mix by 2045 and is building out more solar and wind power as well as emission-free buildings while promoting electric automobiles.

The Democratic Party-run state has always rejected large-scale LNG imports or transfers, though continues to suffer major natural gas, power and water shortages blamed on planning policies dictated over the years by environmental activists.

US seen as 'effectively abandoning' Marcellus Shale as resource with end of PennEast pipeline

The US front-month New York Mercantile Exchange natural gas price soared to seasonal record heights before expiration as the nation saw the cancellation of one of the key infrastructure projects, the PennEast Pipeline, linked to future demand in the US Northeast for natural gas from the Marcellus Shale Basin.

The PennEast Pipeline has been cancelled following repeated regulatory and legal setbacks that have increasingly complicated other natural gas infrastructure projects across the country.

Greenfield projects

PennEast was one of just two greenfield pipeline projects pend-

ing in the Appalachian Basin as US opponents of hydrocarbons and related infrastructure increasingly isolated Marcellus Basin large-scale shale gas marketing attempts.

The Nymex October Henry Hub contract increased for a third straight session because of the ongoing worldwide energy supply crunch.

The October contract increased more than 56 cents and settled at \$5.706 per million British thermal units. The November Nymex hit \$5.731 per MMBtu before rising on September 28 to \$6.150 per MMBtu.

The proposed PennEast Pipeline would have helped utilities deliver lower-priced clean energy to households and businesses across

New Jersey and Pennsylvania.

The investment would have amounted to \$1 billion underwritten by the five companies involved: NJR Pipeline Company, South Jersey Industries Midstream, Southern Company Gas, Spectra Energy Partners and UGI Energy Services.

Opponents

The companies started their regulatory attempts in 2014 and the pipeline was originally scheduled to become operational in 2019.

Two-thirds of the route was to run through Pennsylvania and one-third through New Jersey.

However, the project has been scrapped because of unrelenting delays led by the State of New Jer-

sey itself and allied environmental activist organizations such as the New Jersey Conservation Foundation and other groups like the Delaware Riverkeeper Network and the New Jersey Sierra Club.

The Interstate Natural Gas Association of America (INGAA) issued a statement regretting the end of the project.

"Every winter consumers in the Northeast and across the country are reminded of the need for additional natural gas infrastructure. In New Jersey alone, 75 percent of residents rely on natural gas to heat their homes," said Amy Andryszak, President and Chief Executive of the Interstate Natural Gas Association.

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