

# Oil and Gas News Briefs

## Compiled by Larry Persily

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#### **Report says climate pact greatly reduces need for new LNG supply**

(Reuters; Dec. 9) - Only a fraction of proposed new liquefied natural gas supply projects worldwide will be needed to meet demand by 2040 under measures aimed at curbing global warming below 2 degrees Celsius, a report by international energy consultancy Wood Mackenzie said Dec. 8. Under a climate pact to cut global warming, nations have committed to a long-term goal of limiting the average temperature rise to below 2C above pre-industrial levels and to pursue efforts to limit it even further to 1.5C.

Wood Mackenzie said tougher government measures to curb warming will increase renewables investment and energy efficiency, putting gas demand under pressure. Green hydrogen fuel, extracted from water with electrolysis powered by renewable electricity, will become a major competitor to gas toward the end of 2040 and will reach a 10% share of total primary energy demand by 2050. This will be a challenge for companies considering final investment decisions on new LNG projects, the report said.

"In a 2-degree world," Wood Mackenzie principal analyst Kateryna Filippenko said, only about 5.12 trillion cubic feet of additional gas supply a year as LNG — about 106 million tonnes — would be needed in 2040 compared to three times that volume in the firm's base-case outlook. The base-case scenario implies 3C warming. In contrast to last year's record level of FIDs for new LNG plants, this year's oil and gas price drops have forced companies to delay decisions and write down investments in existing plants.

#### **Older refineries fall victim to less demand, newer facilities**

(The Wall Street Journal; Dec. 6) - A decade ago, Australia had seven refineries. Now it has four. Soon, it could have just one. COVID-19 is accelerating a rash of global refinery shutdowns in the world's richest economies. Companies are closing facilities or considering doing so as they reckon with anemic fuel demand and growing competition from newer, more efficient fuel-making facilities in Asia and the Middle East.

Eleven refineries from the U.S. to Japan have said this year that they intended to close. Three have announced partial shutdowns, and at least another five are on the chopping block, according to analytics firm IHS Markit. The thinning out is part of a global shift in fuel-making away from wealthier countries, where demand is in long-term decline and there are many older, smaller refineries. Newer, larger facilities in countries such as China generally are able to produce fuels for less, benefitting from growing regional markets and shipping their products overseas.

More than 1.7 million barrels a day worth of refining capacity in countries such as the U.S. and Japan has disappeared or is poised to do so in 2020 and 2021, as China, India and the Middle East add more than 2.2 million barrels a day worth of fuel-making capability, according to the International Energy Agency. The pandemic has been brutal for refiners, which have seen the margins they generate turning oil into fuel fall to their lowest level in more than a decade during the third quarter, according to the IEA. The global shakeout underway reflects an expectation that the effects will be lasting.

### **U.S. blacklist could make it harder for China's offshore drilling**

(Asia Times Financial; Dec. 5) – As President Donald Trump nears the end of his term, he is pulling no stops to hit back at China using what little time he has remaining in office. The latest salvo for the firebrand president came Dec. 3 when his administration added China's top chipmaker, SMIC, and state-run China National Offshore Oil Corp. (CNOOC), to its growing blacklist of "Communist Chinese Military Companies."

The Department of Defense alleges that both firms operate as civilian enterprises but are directly or indirectly controlled by the Chinese military and as such could be working on its behalf. The use of such a list is mandated by a 1999 law requiring the department to compile a catalog of companies "owned or controlled" by the People's Liberation Army. However, the department only compiled such a list this year. Some 35 Chinese firms to date have now been placed on the list from numerous sectors, ranging from telecommunications, aerospace, technology, construction, chemical, and now energy.

CNOOC is the smallest of China's three state-run oil majors but is the country's largest offshore oil and gas developer. CNOOC's state-of-the-art deep-sea drilling rig, the \$1 billion Haiyang Shiyou 981, usually spearheads this aggressive geopolitical and energy push. A problem for CNOOC is its overreliance on U.S. offshore exploration and production technology, considered the best in the world, to drive that offshore push. A lack of needed technology to help CNOOC further its development could hinder its pursuits, just as Beijing scrambles to increase its offshore oil and gas reserves.

### **China will help Iraq by prepaying for crude deliveries**

(Bloomberg; Dec. 8) - Iraq is poised to sign a multibillion-dollar contract with China ZhenHua Oil, a bailout from Beijing for the cash-strapped government that will receive money upfront in exchange for long-term oil supplies. The crash in oil demand and prices has hammered Iraq's budget, and the government has been struggling to pay salaries. The deal is the latest example of China, through state-controlled trading companies and banks, lending to struggling oil producers such as Angola, Venezuela, and Ecuador, with repayment in the form of oil barrels rather than cash.

The Iraqi agency in charge of petroleum exports, SOMO, picked ZhenHua, according to sources. Iraq's cabinet must still approve the deal, according to one of the sources. Under the terms of a letter SOMO sent to oil traders last month, the winning bidder will buy 4 million barrels of oil a month. They will pay upfront for one year of supply, which at current prices would bring in over \$2 billion, according to Bloomberg calculations. The deal runs for five years — but the upfront payment is only for one year.

Major producers have taken a hit from this year's coronavirus-triggered crash in crude. But Iraq, where oil accounts for almost all government revenue, is in a worse position than most. Its gross domestic product will contract 12% this year, more than of any other OPEC member under a production quota, according to International Monetary Fund forecasts. The government is struggling to pay teachers and civil servants, many of whom have taken to the streets in recent months to protest. In a prepayment deal, the buyer effectively becomes a lender to the country. The barrels are security for the loan.

### **Multistate commission approves LNG terminal in New Jersey**

(WHYY public radio; Philadelphia; Dec. 9) - Plans for a new half-billion-dollar cargo and liquefied natural gas export terminal on the Delaware River in South Jersey were greenlighted by the Delaware River Basin Commission on Dec. 9. But opponents said they will challenge the project in federal court, and they have gained the support of Hollywood stars like Leonardo DiCaprio and Mark Ruffalo. Pennsylvania's shale gas is so abundant and cheap right now, producers need to find new markets overseas.

Delaware River Partners, a subsidiary of New York City-based New Fortress Energy, wants to build the terminal on the site of a former DuPont dynamite manufacturing plant. The plan is to pipe gas from Pennsylvania's Marcellus Shale to a new liquefaction plant in Bradford County. The part of the plan that scares a lot of people is the transport. LNG would be shipped 200 miles south on the I-95 corridor by truck and/or rail through some of the most densely populated areas of the East Coast to the marine shipping terminal.

The company secured a special permit from the U.S. Pipeline Hazardous Material Safety Administration to move the LNG by rail. The permit allows two 100-car trains to transport the gas each day. It's the longest permitted LNG rail route in the country. Last summer, the Trump administration issued an executive order that allows LNG by rail through the normal permitting process rather than the previous requirement for a special permit. Fifteen state attorneys general, including those in Pennsylvania, New Jersey, and Delaware, challenged the move, saying it put people's lives at risk.

The Delaware River Basin Commission is comprised of the governors of New York, New Jersey, Pennsylvania, and Delaware along with a federal representative. The plan includes a 1,300-foot-long pier and a second wharf to receive and export goods including

fuels, automobiles and bulk cargo. The vote was 4-0, with one abstention. The LNG terminal has the support of some powerful state lawmakers and building trade unions.

### **Higher prices help boost U.S. liquefaction volume to new record**

(S&P Global Platts; Dec. 7) – U.S. feed gas deliveries to liquefied natural gas export plants hit a new record of almost 11.5 billion cubic feet on Dec. 5 as Asian import prices continued to show strength heading into the peak winter-demand period, S&P Global Platts Analytics data showed. Cheniere Energy's Sabine Pass terminal in Louisiana was operating at capacity, driving the latest advance.

The Platts Japan-Korea Marker spot price for LNG delivered into Northeast Asia has continued to find strength over the past month, closing Dec. 7 at \$8.328 per million Btu. That's more than a fourfold increase from JKM's historic low on April 28 at \$1.825, amid the worst market impacts from the coronavirus pandemic.

Aggressive spot-market procurement and bidding for supply in the Pacific Basin highlights how some players have been caught short due to unexpectedly prolonged and intense congestion for U.S. LNG cargoes at the Panama Canal, according to Platts Analytics. LNG suppliers are continuing to respond to the uptick in demand and prices, with the U.S. now exporting at historically high volumes. Platts Analytics expects year-on-year Asia Pacific demand growth to continue through the winter.

### **Cheniere loads first cargo from newest LNG train at Corpus Christi**

(Reuters; Dec. 8) - Cheniere Energy loaded its first cargo from the third liquefaction train at its Corpus Christi plant in Texas, according to the company's Twitter account and shiptracking data on Dec. 8. Cheniere, the largest LNG producer in the United States, said in a tweet that the train's commissioning cargo was also the plant's 200th cargo. The first two trains started operations in 2018 and 2019, respectively. Upon completion of the third unit, the plant's liquefaction capacity will total 15 million tonnes per year.

Though initial start-up is underway, the company said last month it expected "substantial completion" of the third train in the first quarter of 2021. Corpus Christi is Cheniere's second U.S. Gulf Coast LNG export terminal. Its first, at Sabine Pass, Louisiana, started operations in 2016 and has grown to five trains, with a sixth unit under construction and scheduled for completion in 2022, giving the terminal the capacity to produce up to 30 million tonnes per year. The combined capacity of Sabine Pass and Corpus Christi ranks Cheniere among the world leaders in LNG production.

## **Australian gas producer strikes 10-year LNG deal with Mitsubishi**

(Sydney Morning Herald; Dec. 7) - Santos, one of Australia's largest gas producers, has inked a 10-year agreement with a unit of Japan's Mitsubishi to supply liquefied natural gas from its A\$5 billion (US\$3.7 billion) Barossa project north of Darwin. In a significant development ahead of making a final investment decision, Santos said it would supply Mitsubishi subsidiary Diamond Gas International with 1.5 million tonnes of LNG per year from the project, representing 80% of Santos' share of the operation's expected output.

The companies also finalized an agreement to jointly consider opportunities for "carbon-neutral" cargoes of LNG from Barossa. This could include collaborating with Santos on its plans for a carbon-capture and storage project at Moomba in South Australia — trapping carbon dioxide emissions before they are emitted into the atmosphere and stashing them underground. Kevin Gallagher, Santos managing director, said the agreement is a significant step toward the company deciding on giving the go-ahead for Barossa. A final investment decision is targeted for the first half of 2021.

Santos said its Moomba carbon-capture and storage project would have the capacity to store 1.7 million tonnes of carbon dioxide a year in depleted gas reservoirs. Santos and Mitsubishi's carbon-neutral plan could also involve exploring opportunities for hydrogen energy, which burns cleanly and emits only water and is touted as growth technology in the energy sector, particularly as some of the world's biggest-emitting economies including Japan, China, and Korea this year announced goals to become carbon-neutral.

## **India taking advantage of low spot prices for LNG**

(S&P Global Platts; Dec. 8) - India's growing interest to buy LNG based on spot prices may start to alter its import landscape in 2021, prompting producers to rethink supply strategies, while India's gas demand could see double-digit growth as residential and industrial consumption revive. A part of that growth will hinge on gas policy reforms New Delhi is pursuing — removing price caps on domestic gas output, introducing a unified pipeline tariff structure, and bringing the fuel under a nationwide goods and services tax.

In addition, the market will be watching how pricing of cargoes evolves. State-owned Petronet's maiden LNG spot deal based on an Indian LNG spot price in September has taken the country closer to signing its first term deal based on spot markers, reflecting growing interest to move away from traditional oil-price-linked deals and toward LNG market-based pricing. The Indian spot-LNG price marker plummeted to a record low of \$1.763 per million Btu on April 23, but has since recovered to \$6.464.

"India took significant advantage of the low spot price environment in 2020 as imports hit an all-time high in February as COVID-19 related demand destruction started

impacting Northeast Asia," said Jeffrey Moore, manager for Asian LNG Analytics at S&P Global Platts Analytics. "However, spot prices should once again be relatively competitive versus legacy contract prices linked to oil, and India is expected to continue to take advantage of this dynamic," he said.

### **Natural gas shortage forces Trinidad to turn down LNG production**

(Argus Media; Dec. 8) - Trinidad and Tobago's faltering LNG production will decline further in 2021 when 20% of the country's liquefaction capacity undergoes an indefinite "turnaround" because of a natural gas shortage. The Atlantic LNG terminal's Train 1 will not be completely shut down in January, but the turnaround will put it "in an operations-ready mode for all of 2021 and into 2022," Energy Minister Franklin Khan said Dec. 4. The terminal, which started operations in 1999, includes four liquefaction trains with a combined capacity of 15 million tonnes of LNG per year.

BP, which supplies all the gas for Train 1, said its infill drilling had failed to deliver at forecast levels to ensure supply. "We are in some sensitive negotiations ... with upstreamers to supply gas to Train 1," Khan said. BP and Shell are the top shareholders in the Atlantic LNG plant in southwestern Trinidad. They are also the Caribbean country's leading gas producers. Train 1 needs 250 million cubic feet of feed gas per day to operate efficiently, the energy ministry said. "The length of the turnaround will be determined by the speed at which the gas can be identified," it said.

LNG production in January-September was down 9.6% from the corresponding 2019 period, according to energy ministry data. Overall gas production of 3.21 billion cubic feet per day January-September was down 11.2% from a year ago. The different ownership structure of each of Atlantic's four trains has complicated feedstock allocation since Trinidad's gas production started to decline a decade ago.

### **Australia leads effort to capture CO2 and inject it under seabed**

(Reuters; Dec. 7) - An Australian company has lined up the country's national science agency and Japanese firms to work on a plan to capture carbon dioxide, then liquefy and transport it to a site offshore Australia to be injected under the seabed. The push comes as the Australian government recently named carbon capture and storage as one of five priority technologies it would fund in an A\$18 billion (US\$13 billion) plan to help cut carbon emissions.

Transborders Energy, leading the deepC Store project, said Dec. 7 it wants to capture carbon emissions from liquefied natural gas plants and other industrial facilities in Australia and the Asia Pacific. If studies and engineering work go ahead on target, the

project could start burying CO<sub>2</sub> after 2027, Transborder's CEO Daein Cha said. "We want to advance the project while government funding is available," he said.

Using technology it developed for small-scale floating LNG production, Transborder's wants to set up a floating facility off Australia which could inject 1.5 million tonnes a year of CO<sub>2</sub> under the seabed. Cha did not say how much deepC Store would cost, but said his benchmark is the Northern Lights project, a similar project led by Norway's Equinor in the North Sea, which is expected to cost US\$788 million. That figure does not include the cost of building facilities to capture and liquefy CO<sub>2</sub> for transport.

### **Japan commits to spending billions to boost hydrogen fuel**

(Nikkei Asia; Dec. 8) - Japan will boost the amount of power it plans to generate using hydrogen, looking to burn about 10 million tonnes annually by 2030, equivalent to the output of more than 30 nuclear reactors. The target is being set to allow Japan to reach net-zero carbon emissions by 2050, a goal set in October by Prime Minister Yoshihide Suga. While the plan is to use solar and wind energy to reduce Japan's carbon footprint, the output of those sources varies with weather, so other power would still be needed.

If noncarbon-emitting hydrogen can be used as a fuel, greenhouse gas emissions can be cut even further. In addition, excess power generated from renewable sources when weather conditions are optimal can be used to produce stores of hydrogen. The effort will be supported by 2 trillion yen (\$19.2 billion) in new funding, as well as tax incentives for targeted capital spending. One barrier to boosting hydrogen consumption is the high cost, running almost 10 times more, per cubic meter, than liquefied natural gas.

To reduce the cost of hydrogen to around that of LNG, the government estimates that the future annual consumption goal needs to reach 5 million to 10 million tonnes. The aim is to spur hydrogen-fueled electric power generation as well as accelerate the adoption of fuel-cell vehicles. This will be combined with expansion of renewable energy and reduced reliance on coal and other fossil fuels to meet the 2050 emissions goal.

### **Japan starts policy reviews to reach carbon-neutral target of 2050**

(S&P Global Platts; Dec. 8) - Japan's Ministry of Economy, Trade and Industry on Dec. 8 launched a series of oil and gas policy reviews to help meet its 2050 carbon-neutral target while ensuring stable energy supply for the country's oil and gas sectors. The discussions at the petroleum and gas subcommittee at METI's advisory committee for natural resources and energy is the latest among policy reviews for the country's aim to achieve carbon neutrality by 2050.

Japan, the world's fifth-largest emitter of carbon dioxide, has also said it aims to reduce greenhouse gas emissions by 80% by 2050 under its commitment to the Paris Agreement. "Following the declaration [by the premier], we understand that industry is accelerating their efforts for the 2050 carbon neutrality," Ryo Minami, METI's director-general of oil, gas, and mineral resources, told the subcommittee.

While noting that oil and gas account for about 90% of Japan's primary energy, Minami said: "We need to think about ways to achieve the 2050 carbon-neutral target, while ensuring stable energy supply for oil and gas sectors. ... This means we will need to draw a blueprint for highly advanced and strategic transition," he added.

### **Record traffic along Russia's Northern Sea Route**

(Reuters; Dec. 9) - Ships sailing through the Arctic region's busiest lane along the Siberian coast have made the highest number of trips on record this year as a quicker-than-expected melting of ice enabled more traffic, data showed. The Arctic has warmed at least twice as quickly as the rest of the world over the past three decades, and shipping activity has picked up along the Northern Sea Route.

Analysis by the Centre for High North Logistics at Norway's Nord University Business School showed there were 62 transits through the Northern Sea Route in the winter period to Dec. 9, versus 37 for all of 2019. "We see favorable ice conditions in this navigation season as one of the reasons for the growth," the center's Sergey Balmasov told Reuters. The number of ships using the route rose to 331 vessels in year-to-date numbers, versus 277 for all of 2019, CHNL data showed.

The trade is driven by commodities producers — mainly in Russia, China, and Canada — sending iron ore, oil, liquefied natural gas, and other fuels through Arctic waters. The United Nations shipping agency last month approved a ban on the use of heavy fuel oil in the Arctic, but the move was criticized by green groups which said loopholes would allow many vessels to keep sailing without enough regulatory control.

### **PipeChina makes spare capacity available at LNG import terminals**

(Argus Media; Dec. 8) - State-controlled Chinese pipeline operator PipeChina has released details of spare import capacity availability at its six operational LNG import terminals for the coming year. PipeChina has scheduled the amount of import capacity available for third-party access each month in 2021. It has made a total of 6.4 million tonnes of annual capacity available.

The largest amounts of spare capacity are at terminals located in less-developed regional gas markets, such as the Beihai and Hainan facilities. But available slots are



much more limited in the high-demand region of Guangdong province, where the Diefu and Yuedong terminals are located.

Legacy term contracts signed by terminals' previous operators, state-controlled energy firms CNOOC, Sinopec and PetroChina, require the original annual delivery program to take priority when PipeChina allocates capacity. Window slots are tighter in the winter, especially December, when term supplies are needed to meet peak demand in the colder season.