# Oil and Gas News Briefs Compiled by Larry Persily December 19, 2022

#### Price tag for Europe's energy crisis grows close to \$1 trillion

(Bloomberg; Dec. 18) - Europe has been hit by roughly \$1 trillion in surging energy costs from the fallout of Russia's war in Ukraine — and the deepest crisis in decades is only getting started. After this winter, the region will have to refill natural gas reserves with little to no deliveries from Russia, intensifying competition for tankers of imported liquefied natural gas. Even with more facilities to export and import LNG coming online, the market is expected to remain tight until 2026, when additional production capacity from the U.S. and Qatar becomes available. That means no respite from high prices.

While governments were able to help companies and consumers absorb much of the blow with more than \$700 billion in aid, according to the Brussels-based think tank Bruegel, a state of emergency could last for years. With interest rates rising and economies likely already in recession, the support that cushioned the blow for millions of households and businesses is looking increasingly unaffordable.

"Once you add everything up — bailouts, subsidies — it is a ridiculously large amount of money," said Martin Devenish, a director at consultancy S-RM. "It's going to be a lot harder for governments to manage this crisis next year." Government fiscal capacity is already stretched. About half of European Union member states have debt exceeding the bloc's limit of 60% of gross domestic product. The roughly \$1 trillion total cost, calculated by Bloomberg from market data, is a broad tally of more expensive energy for consumers and companies — some but not all of which was offset by aid packages.

## The year will be remembered for global energy crisis

(Reuters; Dec. 13) - For the energy industry, 2022 will be remembered as the year that Russia's invasion of Ukraine accelerated a global energy crisis. The invasion and subsequent Western sanctions heaped new pressures on oil and gas supplies already strained by the economic rebound from the pandemic. Top energy companies beat a hasty retreat from Russia and wrote off tens of billions of dollars in assets. Europe scrambled to make sure it could keep the lights on and residents from freezing to death.

Natural gas prices hit multi-year highs and oil nearly \$140 a barrel, not far from an all-time record, turbocharging a post-pandemic inflationary spiral that caused a cost-of-living crisis in many countries. The invasion and subsequent Western sanctions led to a breakdown in supply relationships that had existed for decades. Major world economies

scrambled to find energy sources. Governments pushed to accelerate the deployment of solar and wind, but also to buy coal. Climate change targets went on the back burner.

Governments spent billions of dollars to prop up utilities. South Africa experienced its worst power cuts in history. Sri Lanka, short on foreign cash, simply ran out of fuel. "It will be regarded as a seminal year, or really the beginning of a completely new system," said Francesco Starace, CEO of Italy's Enel, one of the world's largest power firms. "The year '22 and part of '23 we will all say, that's when all these consequential things took place. It's a year of breaking habits and changing very, very clearly."

#### **European buyers want price ceiling on gas from Norway**

(Natural Gas Intelligence; Dec. 12) - A combination of Norwegian gas and abundant LNG imports has helped the European Union avoid shortages as Russia has throttled its gas supply, but higher prices are fueling calls for more flexibility in future contracts with Norway. "Non-EU member Norway has become the top supplier of gas to Europe," said Rystad Energy analyst Mathias Schioldborg. "Higher demand from Europe and increased gas prices have incentivized Norwegian operators to scale up production."

Europe has managed to fill gas storage heading into winter with strong Norwegian supplies and LNG imports, which are on track to hit a record 122.73 million tonnes in 2022 compared to 78.70 million last year. Meanwhile, Norway has been exporting more than 10 billion cubic feet per day of gas via pipeline to EU members in recent months. However, Norway is facing criticism over the huge jump in its oil and gas profits this year. Norway is projected to take in roughly \$109 billion from the sector in 2022, or \$82 billion more than in 2021, according to Norway's Ministry of Finance.

Prime Minister Jonas Gahr Store said earlier this year that Norway is open to discussing potential long-term gas agreements, but said companies like state-controlled Equinor, rather than the Norwegian government, "have to be responsible for making short-term and long-term agreements with their clients in Europe." Equinor sells nearly 70% of Norway's gas production. Equinor has sold gas on the spot market and at prices linked to market benchmarks. As the price of European gas nearly tripled this year, buyers are asking for a price ceiling in contracts as they try to gain more control over soaring costs.

# **Germany inaugurates first LNG import terminal**

(Agence France-Presse; Dec. 17) - Germany on Dec. 17 inaugurated its first liquefied natural gas import terminal as the country scrambles to adapt to life without Russian energy. The rig in the North Sea port of Wilhelmshaven was opened by Chancellor Olaf Scholz at a ceremony on board the floating storage and regasification unit, known as an

FSRU. The ship arrived stocked with gas from Nigeria that could supply 50,000 homes for a year. The facility is set to begin deliveries into the pipeline grid on Dec. 22.

Germany plans to open four more government-funded LNG terminals over the next few months as well as a private terminal in the port of Lubmin. Together, the terminals could deliver more than 1 trillion cubic feet of gas a year in 2023, or a third of Germany's total gas needs — if Berlin can find enough LNG in the tight market. Germany had no LNG terminals and relied on cheap gas delivered through pipelines from Russia for 55% of its needs. But since Russia's war on Ukraine, gas supplies to Germany have dwindled and Berlin has been forced to rely on LNG imported at Belgian, French and Dutch terminals.

The government decided to invest in building its own LNG terminals as quickly as possible and has spent billions of euros on contracting FSRUs for the job. However, Germany has not yet signed a single major long-term contract to deliver LNG to its new terminals, relying on spot-market buys. A contract has been signed with Qatar for LNG for the Wilhelmshaven terminal, but deliveries are not set to begin until 2026. Suppliers want long-term contracts, while the German government is not keen to be locked into multi-year gas deals as it wants the country to become climate-neutral by 2045.

#### Price cap may not be the best way to solve Europe's natural gas pain

(Wall Street Journal commentary; Dec. 15) - European governments are squabbling over plans to cap natural gas prices. High energy bills are causing pain, but it might be for the best if they can't strike a deal. Energy ministers will meet again Dec. 19 after failing this week to agree to a cap on the wholesale price the European Union will pay for liquefied natural gas. Some countries including Germany and the Netherlands don't want a price limit, worrying it would make it harder for Europe to get supplies when it needs them most. Others want to protect consumers and industry from high prices.

Limiting how much the bloc will pay seems risky when supplies are so tight. The EU has been racing to boost its capacity to receive gas by sea to replace Russian pipeline flows that were cut in the summer. It should be able to import an additional 1.4 trillion cubic feet of natural gas as LNG in 2023 by expanding existing import terminals and leasing floating regasification vessels. But globally, only around half that volume of new supply is coming on stream next year, according to International Energy Agency estimates.

That means competition between Europe and Asia for LNG could be intense. The easing of Beijing's zero-COVID policy, or a particularly cold winter, could boost China's demand for LNG again. This year, China imported around 700 billion cubic feet of gas less than it did in 2021, according to the Oxford Institute for Energy Studies. That was helpful to Europe, which mopped up supplies, but it is unlikely to be repeated next year. Finding smart ways to cap use, rather than prices, needs to be Europe's policy focus.

#### Partners plan \$20 billion investment in offshore Norway oil and gas

(Reuters; Dec. 16) - Norwegian oil firm Aker BP and its partners will invest more than 200 billion crowns (\$20.46 billion) in 2022 money to develop several oil and gas fields offshore Norway in the coming years, the company said on Dec. 16. Aker BP and other oil firms working off Norway have rushed to submit new projects for approval by authorities to benefit from temporary tax benefits expiring this year.

Norway introduced the incentives in 2020 to support new investments in offshore developments as oil and gas prices dropped during the pandemic. Petroleum production is the Nordic country's top export industry. Aker BP, partly owned by BP, is the second-largest petroleum producer off Norway, after Equinor. The projects aim to develop a total of 1.1 billion barrels of oil equivalent in recoverable petroleum resources, with net 730 million of these to Aker BP, at a break-even price of \$35 to \$40 per barrel, it said.

Its largest project, Yggdrasil, aims to develop a group of oil and gas discoveries between the Oseberg and Alvheim fields in the North Sea, with estimated recoverable resources of 650 million barrels of oil equivalent. Total investments in that project, which also includes the Munin field, formerly called Krafla, stand at 115 billion crowns, with production expected to start in 2028. Yggdrasil is central to Aker BP's ambition to increase its oil and gas production to 525,000 barrels of oil equivalent per day in 2028 from just over 400,000 today. Norway's total production averages 4 million barrels.

## Partial restart of Keystone line allows flow to U.S. Midwest

(Financial Post; Canada; Dec. 15) - TC Energy has restarted a section of the main trunk of its Keystone pipeline from Hardisty, Alberta, to the U.S. Midwest, as well as a branch extending eastward to Illinois, following a large spill of crude into a Kansas creek last week. The company said in a statement late Dec. 14 that it had resumed flows on sections unaffected by the 14,000-barrel spill on Dec. 7. The affected portion of the pipeline won't be restarted until it is safe to do so and approved by the company's U.S. regulator, the Pipeline and Hazardous Materials Safety Administration, TC Energy said.

The company has not provided a timeline for a complete restart of the line, nor has it indicated what caused the failure that resulted in one of the worst onshore crude spills in the U.S. in nearly a decade. Producers and analysts had speculated that a partial restart would be possible since the spill is directly south of Keystone's junction in Steele City, Nebraska. However, the remaining outage will continue to hinder flows of crude oil to a key storage hub at Cushing, Oklahoma, and on to U.S. Gulf Coast refineries.

The disruption to operations on the 622,000-barrel-a-day pipeline is particularly frustrating for Canadian producers that were already contending with a growing price discount on Canadian heavy crude oil, compared with U.S. benchmark West Texas Intermediate. A combination of factors — from a shortage of refinery space and

plummeting prices for some refined products made from heavy oil, to the release of primarily sour barrels from the U.S. Strategic Petroleum Reserve — has caused the price of benchmark Western Canadian Select to fall over the past six months.

#### Keystone oil sands spill will be harder to clean up, advocates say

(National Public Radio; Dec. 17) - It's been over a week since TC Energy announced its Keystone pipeline leaked into Mill Creek in Washington County, Kansas. Nearly 14,000 barrels of oil spilled into the waterway as well as the land surrounding it. Environmental advocates say this is just the beginning to a cleanup that will likely take years. Many initial details, like the cause for the spill, are still not clear. What is known is the type of oil that was moving through the pipeline: tar sands oil, also called diluted bitumen.

This thick oil makes cleanup much more difficult, said Jane Kleeb, founder of Bold Alliance, and Anthony Swift, director of the Canada Project at the Natural Resources Defense Council. "When a tar sands disaster like this happens, it is worse than a traditional oil spill. Because tar sands is much more difficult, expensive and much more toxic to clean up. We know that this is going to take years," Kleeb said. She said she's been monitoring spills, particularly tar sands, also called oil sands, for 14 years.

The pipeline runs from Canada to Oklahoma. Bitumen doesn't flow through a pipeline efficiently, "so it is mixed with diluents to be readied for pipeline transportation as diluted bitumen," the American Petroleum Institute says. "It's a very thick substance that's almost peanut butter consistency," said Swift. Diluted bitumen "doesn't float the way conventional oil does. And most means of spill remediation in water bodies do rely on most of the oil staying on top of the water body," he said. On land, it causes major problems due to the bitumen's incredibly strong adhesive properties, Swift said.

## Permian Basin oil-drilling region hit by 5.4 earthquake

(Bloomberg; Dec. 17) - A key-oil producing region in Texas was rocked by a 5.4-magnitude earthquake on Dec. 16, rattling parts of the Permian Basin. The quake struck 13.6 miles northwest of Midland, about 3 miles underground, according to the U.S. Geological Survey. No injuries were reported. The Permian — the largest oil-producing region in the U.S. — sees more fracking than anywhere in the world. The practice uses water pumped into wells at high pressure to release hydrocarbons from the shale rock.

Residents reporting feeling the quake as far away as Lubbock and Abilene San Angelo, each more than 100 miles away. It's the second time the West Texas region has been hit by an earthquake in the past month. On Nov. 16, a quake hit near Mentone, which at the time was put at a 5.3-magnitude event.

An increase in the number and severity of quakes in fracking areas has led state officials in Texas and Oklahoma to order new procedures intended to reduce the frequency. Geologists have pointed to the reinjection deep underground of produced water that comes up with oil and gas production as the likely cause of earthquakes, as the high-pressure water injections likely lubricate and trigger existing fault lines.

### Western sanctions may be cutting into Russian oil exports

(Bloomberg; Dec. 15) - There are tentative signs that key Russian oil exports from a port in Asia are dipping, following G-7 sanctions targeting Moscow's petroleum revenues. Since Dec. 5, buyers of cargoes from Russia have only been allowed to access industry-standard insurance and an array of trade-critical services if they pay \$60 a barrel or less. Shipments of Russian crude from the Asian port of Kozmino are about above \$10 above that, meaning they need to make alternative arrangements.

But there are signs they might be struggling to do that. In the 10 days since the measures began, 4.4 million barrels have been loaded onto tankers at Kozmino, tanker tracking compiled by Bloomberg shows. That's exactly half the month-ago level and there's nothing due to load on Dec. 15. The crude in question is called ESPO, which stands for the initials of the pipeline that takes the oil from east Siberia to the Pacific.

People involved in trading the grade said it's too soon to be confident that the observed drop in flows reflects something structural. However, shipbrokers and traders said there are signs that sellers are struggling to secure tankers for cargoes purchased at more than \$60 a barrel. At least two large, well-known shipowners have stepped back from moving ESPO crude since Dec. 5, according to shipbrokers. Their absence has taken at least five tankers out of the regular pool of ships that move the grade. That leaves charterers to work with smaller independent owners still willing to handle the trade.

## **Delays at Russian shipyard building Arctic LNG carriers**

(Barents Observer; Norway; Dec. 16) – Russia's Zvezda shipyard that is building an iceclass fleet of carriers for the Arctic LNG-2 project will not be able to deliver the first ship until 2024 at the earliest, newspaper Kommersant reports. The first carrier was originally to be delivered in March 2023, and the subsequent ships later that year. The Zvezda yard in Vladivostok was granted a contract to build a total of 15 of the Arc7 carriers for Arctic LNG-2. Another six carriers were to be built by the South Korean DSME.

Zvezda started construction of the first of the 985-foot-long ships in June 2021. All of the vessels are designed for shuttling across the most icy parts of the Northern Sea Route, from the project terminal in Siberia to buyers in Asia. The deal between LNG plant operator Novatek and Zvezda was made despite the lack of experience in Russia to

build gas carriers. The new yard in the Russian Far East is owned by state oil company Rosneft and designed for construction of large tankers, ice-class ships and platforms.

Rosneft and its Zvezda partners have leaned heavily on skills from South Korea. But that came to a halt after Russia's attacked Ukraine. International sanctions imposed on Russia have hurt the yard. In May, the Koreans pulled out of the deal with Novatek, and Zvezda has had major problems with obtaining technology for its work. The news about Zvezda's delays come as Novatek insists it will begin LNG production in 2023, with later phases of the \$20 billion, 20-million-tonne project coming in subsequent years.

#### **Energy Department starts to replenish Strategic Petroleum Reserve**

(Bloomberg; Dec. 16) - The Biden administration is making good on a plan to replenish the nation's emergency oil reserves, starting with a 3-million-barrel purchase of crude. The purchase of barrels for February delivery follows a historic 180-million-barrel release of oil from the U.S. Strategic Petroleum Reserve to tame high gasoline prices amid Russia's invasion of Ukraine and other supply issues.

"This repurchase is an opportunity to secure a good deal for American taxpayers by repurchasing oil at a lower price than the \$96 per barrel average price it was sold for, as well as to strengthen energy security," the Energy Department said in a notice on Dec. 16 announcing the plan, as U.S. benchmark crude was trading around \$75 a barrel.

The Biden administration previously laid out a plan to repurchase oil for the approximately 700-million-barrel reserve when crude hit around \$70 a barrel. In addition, it is planning a roughly 2 million barrel oil exchange to meet emergency supply needs caused by the shutdown of TC Energy's Keystone pipeline, an administration official said Dec. 16. In an exchange, an entity — often a refiner — borrows from the SPR for a brief period due to extreme circumstances and later replaces it in full, along with a premium of an additional amount of oil, according to the agency's website.

# U.K. plans to spend on new transmission lines for wind power

(Bloomberg; Dec. 15) - The U.K. will trim regulations for new power grids to speed up construction of infrastructure vital to get more of the country's electricity from wind. The Office of Gas and Electricity Markets published a series of policy changes Dec. 15 that will help ramp up construction of £20 billion of power transmission on land as well as new connections offshore. The moves aim to help the country meet the target to more than triple its capacity of wind farms at sea to 50 gigawatts by the end of the decade.

While there are already sufficient offshore wind farm projects in planning that could meet that goal, the country's current energy grid is insufficient to move the electricity

from far flung points of generation to the population centers where it's needed. "The invasion of Ukraine highlights that this transition is now not just a matter of meeting Great Britain's net-zero targets, but also highlights the need to reduce our reliance on gas from a security of supply perspective," the report said.

To enable by 2030 the target of 50 gigawatts, the U.K. agency will create what it calls an "Accelerated Strategic Transmission Investment" regulatory framework to help fund large new infrastructure projects. The roughly £20 billion of transmission line investment under that framework also will benefit from trimmed down regulation.

#### Canadian LNG industry group down to just 4 members

(Globe and Mail; Canada; Dec. 15) - An industry group formed eight years ago to promote the promise of abundant Canadian exports of liquefied natural gas faces an uncertain future after its leader resigned and the number of LNG proposals shrank. Bryan Cox has left the Canadian LNG Alliance after nearly four years as the group's president and chief executive officer. He recently joined Calgary-based Petronas Energy Canada as the company's director of external affairs and policy.

When the alliance launched in 2014, it focused on touting more than 20 LNG proposals in British Columbia. But most proponents gradually dropped out over the years, saying that they were unable to make the economics work. The alliance has four remaining members. Founded as the BC LNG Alliance, the group changed its name to the Canadian LNG Alliance in 2020 as it broadened its scope by also highlighting proposals outside British Columbia. But LNG export plans in Quebec, New Brunswick, Nova Scotia, and Newfoundland and Labrador have been either cancelled or remain stalled.

The Shell-led LNG Canada export terminal, currently under construction in Kitimat, British Columbia, is scheduled to become Canada's first facility when shipments to Asia begin in 2025. Nothing else is under construction anywhere in Canada. In contrast, the first LNG export terminal in the Lower 48 states began operating in 2016. An additional six have opened since then and three more on the Gulf Coast are under construction.

# Carnival takes delivery of 8th LNG-powered cruise ship

(The Maritime Executive; Dec. 15) - Carnival has taken delivery of its eighth LNG-powered cruise ship, all of which have been delivered in the past five years. It also marked the 13th cruise ship fueled full-time by LNG to be delivered as the cruise industry continues to adopt liquefied natural gas as a cleaner fuel. There are as many as 27 additional LNG-fueled cruise ships on order for delivery by 2028, according to DNV, an adviser to the maritime industry.

On a percentage basis, the cruise industry is among the fastest adopters of LNG power. Carnival's AIDA brand was the first to introduce LNG-fueled cruise ships, followed by Costa, P&O and Carnival, as well as Disney Cruise Line and MSC Cruises, and now the first LNG ships are under construction for Royal Caribbean.

The latest LNG cruise ship to be delivered is the 1,132-foot-long, 5,200-passenger Arvia, built by Meyer Werft in Papenburg, Germany, for Carnival. It is the fourth LNG cruise ship delivered from Papenburg, with Meyer Werft building ships for the AIDA and P&O brands. They are also currently building an additional ship on the same platform, Carnival Jubilee, due for delivery in late 2023. The group's sister shipyard in Turku, Finland, has built four LNG cruise ships for Carnival. The Arvia is due to sail on its maiden voyage for P&O on Dec. 23 from England to the Canary Islands.