Oil and Gas News Briefs Compiled by Larry Persily February 14, 2022

IEA warns that supply shortfall could worsen as OPEC+ falls short

(S&P Global Platts; Feb. 11) - The oil market has "only a small cushion" due to dwindling spare capacity and shrinking stocks, the International Energy Agency said Feb. 11, cautioning that the supply shortfall could deepen if OPEC+ continues to struggle to raise output. "If the persistent gap between OPEC+ output and its target levels continues, supply tensions will rise, increasing the likelihood of more volatility and upward pressure on prices," the IEA said in its monthly oil market report.

On the global demand side, the Paris-based organization trimmed its growth forecast for 2022 to 3.23 million barrels per day but still expects demand to exceed pre-pandemic levels, averaging 100.58 million barrels per day. Its warning came with Dated Brent prices trading near seven-year highs of almost \$100 as the physical oil market has tightened considerably on resurgent demand and declining oil inventories.

One of the biggest reasons for the tighter market is because OPEC and its allies have struggled to meet their self-imposed output targets owing to outages, capacity and technical issues. The IEA called on those producers with spare capacity, like Saudi Arabia and the UAE, to pump more barrels to help ease the market. The IEA said it still expects the market to shift to a surplus in 2022 based on a production boost of 2 million barrels per day from non-OPEC+ producers and as OPEC+ fully unwinds its cuts, as it has pledged to do by later this year.

IEA says world has been using more oil than it thought, back to 2007

(Bloomberg opinion; Feb. 12) - Remember all that missing oil I wrote about last month? The discrepancy between where stockpiles ought to be (based on implied supply and demand balances) and the volumes that had actually been reported or measured? Well, those barrels are missing no more. As I feared, it turns out they've already been used — in the refineries and petrochemicals plants of China and Saudi Arabia. That means oil balances are a lot tighter than the International Energy Agency previously thought.

The IEA published its latest monthly report on Feb. 11, revising its historical oil demand numbers back to 2007. Yes, that's right, for the past 15 years the world has been using more oil than the primary monitoring agency that advises consumer nations thought. The changes aren't small. At 2.9 billion barrels over 15 years, the additional demand is equivalent to five times the U.S. Strategic Petroleum Reserve, or an entire year's worth of consumption in France, Germany, Italy, Spain, the U.K. and Mexico.

The 660 million barrels of surplus stockpiles that the IEA thought it saw a month ago have evaporated. The revisions mean that the agency now estimates global oil stockpiles fell below their end-2019 level by the start of 2022. That the market is tighter than forecasts indicated won't come as a surprise to those who have followed the rise in prices the past two years. How long prices continue on their upward path may depend on whether the U.S. shale patch or a revival of the Iran nuclear deal rides to the rescue.

Without production boosts, the market will have to be brought back into balance by demand destruction. High oil prices, which are helping to stoke inflation, will inevitably start to slow demand growth, but the farther prices rise, the harder they'll fall.

Threat of Russian invasion of Ukraine helping to boost oil prices

(The Wall Street Journal; Feb. 13) - The threat of a Russian invasion of Ukraine is shaking up a fragile global oil market, pushing prices closer to \$100 a barrel as traders calculate that other supplies will struggle to cushion the effect from any significant disruption in Russian fossil fuel exports. Demand for oil has outpaced production growth as economies slowly rebound from the worst of the pandemic, leaving the market with a small buffer to mitigate an oil-supply shock.

Russia is the world's third-largest oil producer, and if a conflict in Ukraine leads to a substantial decrease in the flow of Russian barrels to market, it would be perilous for the tight balance between supply and demand. Those dynamics have led traders in recent days to price in a sizable geopolitical risk premium, according to analysts. Crude oil prices, which haven't topped \$100 a barrel since 2014, jumped to an eight-year high on Ukraine concerns on Feb. 11.

"We are setting up for a period of turbulence," said Jason Bordoff, founding director of Columbia University's Center for Global Energy Policy. "The threat is more pronounced when energy markets are tight." Russia plays a large role in markets. It exports about 5 million barrels a day of crude, roughly 12% of global trade, and around 2.5 million barrels a day of petroleum products, about 10% of global trade, according to investment bank Cowen. About 60% of Russia's oil exports go to Europe; 30% go to China.

IEA says Saudi Arabia, UAE could produce more and calm markets

(CNBC; Feb. 11) - Saudi Arabia and the United Arab Emirates could help to calm volatile oil markets if they pumped more crude, the International Energy Agency said Feb. 11. The UAE and Saudi Arabia are the two oil producers with the most spare production capacity and could help to relieve dwindling global oil inventories that have been among factors pushing prices toward \$100 a barrel, deepening inflation worldwide.

"These risks, which have broad economic implications, could be reduced if producers in the Middle East with spare capacity were to compensate for those running out (of production capacity)," the Paris-based agency said in its monthly oil report. The IEA said effective spare production capacity could fall to 2.5 million barrels per day by the end of the year, held almost entirely by Saudi Arabia and, to a lesser extent, the UAE.

Supply and demand look balanced for the first quarter but are expected to flip into a surplus in the second quarter or second half of the year, said Toril Bosoni, head of the IEA's oil markets division. Yet, the need to refill depleted oil stocks, which in OECD countries have slumped to seven-year lows, means any immediate oversupply is unlikely. "We don't see it as a huge surplus looming over the market," she told reporters.

OPEC says global oil demand on a strong upswing

(Reuters; Feb. 10) - OPEC said Feb. 10 that world oil demand might rise even more steeply this year as the global economy posts a strong recovery from the pandemic, a development that would underpin prices already at a seven-year high. Meanwhile, the report from the Organization of the Petroleum Exporting Countries also showed that the group again in January undershot its pledged increase in oil production.

OPEC said it expects demand to rise by 4.15 million barrels a day this year, unchanged from its forecast last month, following a steep rise of 5.7 million in 2021. "Upside potential to the forecast prevails, based on an ongoing observed strong economic recovery with the GDP already reaching pre-pandemic levels," the report said. "As most world economies are expected to grow stronger, the near-term prospects for world oil demand are certainly on the bright side," OPEC said in a separate note on demand.

World consumption is expected to surpass 100 million barrels per day in the third quarter. On an annual basis, according to OPEC, the world last used more than 100 million barrels per day in 2019. The report also showed higher output from OPEC as the group and its allied non-members, known as OPEC+, gradually unwind their record output cuts put in place in 2020. OPEC+ has aimed to raise output by 400,000 barrels per day each month, but production has increased by less as some producers struggle to pump more. Seven of the 13 OPEC members had a drop in output in January.

Canadian oil exports out of U.S. Gulf Coast hit record in December

(Reuters; Feb. 10) - Canadian oil companies exported a record amount of crude out of the U.S. Gulf Coast at the end of 2021, a trend that should continue in coming months as tight international oil markets need the nation's heavy, sour crude. These barrels are arriving thanks to new pipeline connections and expansions that came online last year, and are meeting surging global demand that has pushed oil prices to seven-year highs.

Major producers, including the Organization of the Petroleum Exporting Countries and allies including Russia, are struggling to raise output, along with traditional providers of heavy crude like Venezuela and Mexico. By contrast, Canada's oil sands production is at a record 3.5 million barrels a day. Most of that is exported to use in the U.S., but a growing volume is transiting the country to the Gulf Coast, where it is re-exported.

In 2021, Canadian exports from the U.S. Gulf averaged more than 180,000 barrels per day, reaching nearly 300,000 in December, a record, said Matt Smith, Kpler's lead oil analyst for the Americas. That's up from 70,000 barrels per day in 2019 and 2020. The accelerated pace is expected to continue in 2022. The barrels are primarily going to big importers India, China and South Korea — in part to offset for the loss of barrels from Venezuela, which is under U.S. sanctions and dealing with years of underinvestment.

Oil supermajors ring up highest cash flow since 2008

(Bloomberg; Feb. 11) - The world's oil supermajors are pumping out cash as if crude was already trading at \$100 a barrel. BP, Shell, TotalEnergies, ExxonMobil and Chevron just generated the highest free cash flow since the start of 2008 — when oil first climbed above \$100 a barrel. Crude isn't that high yet, but spending is much lower, meaning there's more money to return to investors.

"Over the past decade, oil and gas companies have had to trim the fat," said Laura Hoy, an equity analyst at Hargreaves Lansdown. These leaner firms are benefiting the most from the current rally, especially as "elevated oil prices look like they're here to stay." The five supermajors mostly surpassed analyst expectations for fourth-quarter earnings, reporting combined free cash flow of \$37 billion, when Brent averaged almost \$80. That compares to \$40 billion in the first-quarter 2008, when the average was \$96.

It's quite a U-turn for an industry that was enduring ballooning debt and crashing prices as the coronavirus pandemic unfolded in 2020. At the end of that year, the five majors together lost almost \$19 billion. Yet companies spent much of 2020 aggressively cutting costs, announcing tens of thousands of layoffs and in some cases slashing dividends. That positioned them well for 2021, when the slump turned into a remarkable rally. All five firms are holding the line on spending. That means more surplus cash for investors.

Exxon-led project adds 220,000 barrels per day to Guyana capacity

(S&P Global Platts; Feb. 11) - Partners at the prolific ExxonMobil-operated Stabroek Block offshore Guyana have begun production from their Liza Phase 2 development, using a second floating production and storage vessel called Liza Unity, ExxonMobil and Hess Corp. said separately Feb. 11. No information was immediately available on the initial volume of barrels produced. The Liza Unity, moored in water about 5,400 feet

deep, is expected to reach its maximum capacity of 220,000 gross barrels per day of oil later this year, Hess and ExxonMobil said. It will be able to store about 2 million barrels.

The new development brings total production capacity to more than 340,000 barrels per day gross in only seven years since the country's first discovery, ExxonMobil said in its statement. The major has a 45% stake in the Stabroek block. Hess is a 30% partner in the block. The oil that is expected to be produced is lighter and sweeter than many other more carbon-intensive crude oil blends being produced in Latin America.

The first floating unit, the Liza Destiny, began producing in December 2019 and reached maximum capacity of 120,000 barrels per day in December 2020. Its production capacity is expected to increase to more than 140,000 gross this year following optimization work, Hess said. A third development at Stabroek is under construction to produce the Payara field, utilizing the Prosperity FPSO. It is on track for first oil in 2024, with production capacity of around 220,000 barrels per day gross.

Asia reacts to high oil prices with efforts to cut costs for consumers

(S&P Global Platts; Feb. 10) - The dramatic sprint of crude oil toward \$100 per barrel is prompting Asian importers to rethink supply strategy as well as their fiscal roadmap, which could result in an aggressive recourse to strategic reserves, changes to fuel subsidies and taxes, and a much bigger push toward energy alternatives. Although the oil demand outlook for top consumers China and India looks resilient following a lengthy period of pandemic turmoil, keeping the oil import bill in check is one of the top priorities in Asia at a time when governments are desperate to spend funds on economic revival.

"High oil prices will dampen demand and will undermine the fragile economic recovery if they continue to rise," said Lim Jit Yang, adviser for oil markets at S&P Global Platts Analytics. Platts Analytics expects Asian oil demand to grow by 1.5 million barrels per day in 2022, up from 1.2 million in 2021, as the impact of the Omicron variant on Asian oil demand is expected to be relatively less severe than the Delta strain, and with many countries moving toward reopening economies due to higher vaccination rates.

But Asian countries have so far been reluctant to release huge volumes from their strategic petroleum reserves as a cushion for high prices. "A few Asian countries have taken various measures to ease the impact of high prices on consumers, including introducing fuel subsidies in Japan and a reduction of fuel taxes in South Korea and India," Lim said. Japan is providing subsidies to refiners and oil product importers in the current quarter with the aim of curbing the price rise in the domestic market. South Korea lowered taxes on auto fuels by up to 20% for six months from November.

Europeans struggle with spiking energy costs

(The Associated Press; Feb. 11) - Mehmet Bogday's electricity bill was higher than the rent he pays for his Istanbul restaurant, and more than double what he paid a month ago. "This is unsustainable," said Bogday. "If it continues this way, we will have to lay off staff. If it continues this way, we won't be able to make this work. We'll either downsize, or close and go sit at home." Spiking prices are raising utility bills from Poland to the U.K., leaving people struggling and small businesses uncertain about their future.

In response, governments across Europe are rushing to pass aid to ease the hit. Nowhere is that squeeze felt more acutely than in Turkey, where inflation has soared to nearly 50% and exorbitant electricity bills are stirring protests and fears about how small businesses can survive. Like the rest of Europe, electricity generation in Turkey consumes fuels that have surged in price, including natural gas, whose supply is low.

As Europe's energy demand roared back from the depths of the coronavirus pandemic, it ran up against gas reserves sapped by a cold winter last year, a lack of renewable energy and Russia not selling as much gas as usual to Europe. In Britain, energy prices are set to go up by a record 54% — some 700 pounds (\$940) per year per household — starting in April. The government says customers will get a discount on their bills, to be repaid over the next few years, and most also will get money off another local tax.

Italian households are bracing for a record 55% increase in electricity and 42% in gas in coming weeks, regulators say. Polish regulators approved energy prices going up by 37% this year, pinching bakeries and other businesses to the point many had to close.

Tight global LNG supply unable to provide much help for Europe

(Globe and Mail; Canada; Feb. 10) - Europe is suddenly obsessed with liquefied natural gas, a source of imported fuel that could play a role in keeping the lights on if a Russian invasion of Ukraine triggers a sanctions battle. Energy-starved Europe is scouring the planet for LNG cargoes to build its gas reserves and try to stop already painful prices from climbing even more. But analysts say there is no way Europe would be able to find enough LNG to meet its need if Russia were to eliminate, or even reduce, gas exports.

"Even before the Russia-Ukraine geopolitical tension, the global LNG market was very tight," said Jack Sharples, a research fellow at the Oxford Institute for Energy Studies. LNG is largely a U.S., Qatari and Australian export show, and each of those countries is expanding production — a slow, capital-intensive process — to meet burgeoning demand. Europe has been the top export destination for U.S. LNG for two months, outpacing exports to Asia. But that could change if Asian storage tanks were to run low.

Eastern Asia is largely dependent on LNG, rather than pipeline gas, and it would not be too happy to see a lot of its shipments diverted to Europe. "This dependency on LNG

has traditionally led Asian buyers to pay a premium in order to secure cargoes ahead of European buyers," Sharples said. "Those Asian buyers will only allow cargoes to be redirected to Europe if they have sufficient volumes to meet their own needs first. ... If Asia can't spare some LNG, then Europe would be in trouble." While LNG production is increasing, most of the world's LNG plants are operating at capacity or close to it.

Tankers docked Feb. 12 at all seven operating U.S. LNG terminals

(Bloomberg; Feb. 12) - Tankers were docked or loading at all seven U.S. liquefied natural gas export terminals for the first time Feb. 12, making history and setting up record flows to the plants amid high prices and supply tensions in Europe. Although the tankers are expected to be docked at the same time for less than a day, demand from their loadings helped set a record 13.3 billion cubic feet of gas flows to U.S. LNG export terminals on Feb. 12 — about 13% of the nation's average daily production this winter.

Once the newest of the seven — the Calcasieu Pass plant in Louisiana — is in full service, the seven U.S. LNG export terminals will be able to draw as much as 13.9 billion cubic feet of gas per day, solidifying America's lead over Qatar and Australia as the world's top supplier of the power and heating plant fuel, figures from U.S. Energy Information Administration show. Out of the roughly five dozen U.S. LNG cargoes on the water, more than two-thirds are headed to Europe where low winter inventories and tensions between Russia and Ukraine have sent gas prices to record highs this winter.

Chinese firms positioning to become major traders in LNG market

(Reuters; Feb. 11) - Chinese firms are set to become a major trading force in the global liquefied natural gas market in coming years, thanks to liberalizations at home and recently signed long-term contracts for record amounts of U.S. LNG. Setting their sights beyond the domestic market, state-run Sinopec Corp., Sinochem, privately controlled ENN Natural Gas and China Gas are building up trading teams from Beijing to London.

China's push into the international LNG market comes two decades after it made a similar splash in oil trading, and will put its firms in competition with established players like Shell, TotalEnergies and Vitol. Fortunately, the pie is growing. By 2027, analysts forecast spot trade in LNG will be \$20 billion, more than double 2020. Last year, China's LNG imports soared by 18% to a record 79 million tonnes, overtaking Japan as the world's largest buyer. China's economic recovery from the pandemic was one factor, but the other was a market reform that allowed more firms to become importers.

The size of the contracts signed with U.S. suppliers should give Chinese traders ample amounts of LNG to sell on the global market after meeting domestic needs, said one Beijing-based trader. Late last year, Chinese firms signed up over 10 million tonnes a

year of U.S. LNG with Cheniere Energy and Venture Global, with supplies extending to the mid-2040s and provisions for flexibility in marketing destinations for most of the gas.

Chinese state energy major CNPC's new pipeline gas deal with Russia is also expected to boost spot-market LNG sales. "By having multiple pipelines from Russia, Central Asia, along with their still-growing domestic production, expanding LNG portfolio ... they (Chinese firms) will certainly have the ability to divert greater numbers of cargoes into the spot and short-term markets," said Tamir Druz, managing director at Capra Energy.

Alberta seeks compensation for canceled Keystone XL line

(The Canadian Press; Feb. 9) - Alberta is seeking \$1.3 billion in compensation from the U.S. government in the wake of President Joe Biden's cancellation of the Keystone XL oil pipeline permit. The provincial government said it has filed a notice of intent to launch a claim under legacy rules tied to the old North American Free Trade Agreement, or NAFTA. The proposed Keystone XL pipeline had been the subject of a decade-plus battle that pitted the energy industry against environmentalists.

Biden revoked the permit for Keystone XL shortly after his inauguration last year. Calgary-based TC Energy, the company behind the proposed pipeline, filed a similar claim in July seeking US\$15 billion, after formally canceling the project and taking a \$2.2 billion write-down. The Alberta government had invested in the project and was left on the hook for \$1.3 billion when it was canceled. The line, proposed in 2008, would have moved Canadian oil sands production to U.S. Gulf refineries and export terminals.

Japan's biggest oil and gas explorer plans decarbonization spending

(Reuters; Feb. 9) - Japan's biggest oil and gas explorer Inpex said Feb. 9 it will invest up to 4.4 trillion yen (\$38 billion) in growth areas over the next nine years, 1 trillion of which will be spent on decarbonization areas including hydrogen and ammonia. "As a pioneer in energy transformation, we aim to provide a stable supply of diverse and clean energy sources including oil and natural gas, hydrogen and renewable power," Inpex CEO Takayuki Ueda told a news briefing.

Under the new long-term business plan, Inpex plans to continue to invest in liquefied natural gas as a key growth fuel, while taking measures to trim carbon dioxide emissions. For oil, the Tokyo-based company will make selective investments and ensure early production and early cost recovery as the long-term demand outlook for oil is uncertain, Ueda said.

By around 2030, Inpex aims to boost its commercial production of hydrogen to more than 100,000 tonnes a year and inject 2.5 million tonnes of CO2 a year, using its carbon

capture and utilization and storage technology. It also plans to boost its renewable energy capacity to up to 2 gigawatts by 2030, mainly through offshore wind and geothermal power.

Wind-turbine makers suffer rising costs, supply chain misery, too

(Bloomberg opinion; Feb. 10) - Good luck finding an industry hit as hard by inflation and supply-chain upheaval as wind-turbine makers. Manufacturers like Vestas Wind Systems have been blown off course by a perfect storm of transport snarls and surging freight and raw material costs. Instead of raking in profits on demand for clean energy, the Danish firm is struggling to break even. Last week, loss-making European rival Siemens Gamesa Renewable Energy ousted its CEO — its second change at the top in less than two years. General Electric's renewables arm is also losing money.

A year ago, the turbine makers were flying high. A gush of money flowed into clean-tech stocks, and investors didn't have all that many wind-equipment firms to pick from. The three players listed above control about three-quarters of the onshore market. But as profit warnings piled up, the money flows faded and wind stocks plummeted. When you consider the size and complexity of a wind turbine, it's no wonder they're struggling: The rotors of high-spec onshore models span more than 525 feet and the central structure can weigh several hundred tons. The latest offshore turbine designs are even larger.

Almost 85% of a wind turbine's mass is made of steel, according to BloombergNEF. It's not hard to imagine what's happened to that bill of raw materials. Logistics is an even bigger headache. Due to the size and local rules, the process of assembling wind turbines is spread all over the world. That's a challenge when supply chains are running smoothly. But delivery times for some components has increased from five to nearly 50 weeks, Siemens Gamesa said this month. Delays add cost and can trigger customer penalty clauses, making the transportation and installation of towers costly endeavors.

France amps up climate change commitment to nuclear power

(The Wall Street Journal; Feb. 10) - French President Emmanuel Macron announced a plan to build six new nuclear reactors, betting on a technology that produces electricity with almost zero greenhouse gas emissions but faces questions about the cost of new projects. As part of the plan, Electricite de France, the country's state-controlled power company, reached a deal to buy part of the nuclear steam turbine business of General Electric, including several factories in France. The two sides didn't disclose a price.

The Macron government is making nuclear energy the cornerstone of the country's response to climate change. His Feb. 10 announcement is among the world's most ambitious reactor construction plans since the 2011 nuclear accident in Fukushima

dealt a blow to efforts to build new reactors worldwide. In addition to the six reactors, Macron said the government would study the construction of another eight reactors in France and launch a sweeping plan to bolster the country's nuclear construction industry. He set a target date of 2035 for the first of the new reactors to come online.

Macron is attempting to counter opponents of nuclear energy who have argued the technology isn't safe and is too costly to be part of the solution to the climate crisis. Across the Rhine, Germany is in the process of shutting down all its nuclear reactors. Belgium has said it would do the same. In the U.S., utilities are also shutting down reactors. France already relies on nuclear power to generate more than 70% of its electricity. But the average age of its fleet of reactors is 37 years old, putting pressure on authorities to bring a new generation on to the market in the coming years.

Report highlights cleanup risks of potential Portland tank farm spill

(Portland Mercury; Feb. 7) - A massive, earthquake-induced oil spill in Portland's Northwest industrial zone could cost upward of \$2 billion in damages and cleanup costs, a county and city report found. Regional officials are using this new data to build a case for why the oil tank owners should be liable for the costs while state legislators are proposing a bill to mitigate a possible disaster.

The Critical Energy Infrastructure (CEI) Hub is a six-mile tank farm located alongside the Willamette River in Northwest Portland. The 630 tanks hold more than 150 products, including gasoline, jet fuel and diesel, and are owned by 10 different energy companies. The CEI Hub can store at least 350 million gallons of fuel at any time and supplies more than 90% of Oregon's liquid fuels and all of the jet fuel for Portland International Airport.

A 2021 report from Multnomah County, Portland Bureau of Emergency Management, and consulting firm ECONorthwest found that, in the event of a major earthquake — like the overdue Cascadia Subduction Zone quake — the tanks could release from 94 million to almost 200 million gallons of fuel into the ground and Willamette River. An updated version of the report released Feb. 7 further details the impact the spill would have on human life, wildlife and infrastructure. The report estimates the combined cost of damages and cleanup related to the spill could range from \$359 million to \$2.6 billion.