Oil and Gas News Briefs Compiled by Larry Persily September 11, 2023

India's power-sector emissions exceed all of Europe for first time

(Reuters columnist; Sept. 6) - India's power-sector emissions from fossil fuels exceeded those of Europe's for the first time in April, May and June of this year, and are on course to permanently eclipse Europe's power pollution totals due to diverging trends in fossil fuel use. In Europe, cuts to coal and natural gas use alongside increases in renewable energy generation have trimmed total power emissions by 11% in the first seven months of the year from the same period in 2022, data from think-tank Ember shows.

At the same time, India's power emissions climbed 4.5% to new highs on the back of record use of high-polluting coal, which generates roughly 75% of India's electricity. Over the first seven months of 2023, Europe's total fossil-powered emissions amounted to 667 million tonnes of carbon dioxide and equivalent gases, Ember data shows, which exceeded India's 609 million tonnes. But India's monthly emissions were higher than Europe's from April through June, when Europe cut coal-fired power utilization to the lowest since at least 2015 as part of wide efforts to permanently curb fossil fuel reliance.

If Europe continues to pare fossil fuel use while India extends its heavy reliance on coal for power, India's power-sector emissions will likely consistently exceed all of Europe's within the coming years and emerge as a leading global source of climate-warming pollution. India's bout of emissions dominance offers a likely glimpse into future emissions trends, as India's needs for low-cost energy look set to keep climbing just as Europe's efforts to transition power away from fossil fuels gather further momentum.

Oil production cuts by Saudi Arabia and Russia drive up prices

(Bloomberg; Sept. 9) - When crude surges above \$90 a barrel and the leaders of Saudi Arabia and Russia get on the phone to congratulate each other on a job well done, oil consumers should take note. After half a year in the doldrums, the price of the world's most important commodity is on a tear as the biggest players in OPEC+ get serious about making sure supply doesn't exceed demand. The 1 million-barrel-a-day output cut the Saudis initially pledged solely for the month of July will now be in place until year-end, alongside a smaller export reduction from Russia.

It's not just the size of the global supply deficit likely to result — about 2.7 million barrels a day in the fourth quarter, according to Rystad Energy — that should worry consumers. It's the fact that the West's somewhat-estranged ally Riyadh, and its outright foe Moscow, are bound so firmly together in their push for higher prices. "Crude tightness

seems quite legitimate and quite real," said Greg Sharenow, managing director at Pacific Investment Management. "This certainly keeps oil markets on the boil."

Saudi Arabia is squeezing the market just as consumption surges. Global oil use reached a record 103 million barrels a day in June, according to the International Energy Agency. The following month, the kingdom reduced production to a two-year low of about 9 million barrels a day. Russia's extra cut is less than a third of the size of Riyadh's and applies to exports rather than production, but their combined effect is forcing consumers to run down their inventories to satisfy demand, driving up prices. Since July 1, the international crude benchmark price of Brent has risen about 20%.

Saudi, Russian oil production cutbacks push diesel prices higher

(Wall Street Journal; Sept. 6) - One corner of the global energy market is getting especially squeezed by Saudi Arabia and Russia's oil-production cuts: Diesel prices have climbed more than 40% in the U.S. and Europe since May, when surprise output cuts by Saudi Arabia and other members of the OPEC+ oil cartel took effect, Argus data showed. It's leading to higher pump prices and trucking costs in the U.S. and elsewhere in the West. It reflects the fact that heavier kinds of oil are better suited to making diesel, while others, such as lighter U.S. crude, are more readily turned into gasoline.

In the U.S., while the national average price for unleaded gasoline added 7 cents a gallon in August, according to AAA, the cost of diesel rose by 42 cents a gallon. "Diesel is more heavily affected because of the type of crude that's being taken out of the market," said Alan Gelder, vice president for refining, chemicals and oil markets in Wood Mackenzie's commodities research business. "Saudi's oil provides a higher yield for diesel than lighter crude oils. This loss adds further cost to the economy."

Europe is hardest hit because its refineries were designed for a steady flow of Russian oil. But these supplies have largely wound down because of sanctions in the wake of the Ukraine invasion. Russia's medium-sour crude is similar to Mideast oil, meaning Saudi oil has commonly been used as a replacement, analysts say. But the kingdom's output cuts have made this type of crude harder to obtain. "This issue is spilling into diesel markets everywhere," said Bjarne Schieldrop, chief commodities analyst at SEB.

The surge is bad news for consumers. Diesel powers trucks and trains that transport goods to end-users. Higher fuel costs can lead to elevated prices in stores, as companies pass them along to consumers.

Army Corps releases draft EIS on Dakota Access oil pipeline

(Reuters; Sept. 8) - The U.S. Army Corps of Engineers on Sept. 8 released a draft environmental impact statement for Energy Transfer's Dakota Access oil pipeline that evaluated but made no recommendation of five alternatives, including abandoning or rerouting the pipeline. A U.S. court last year ordered the federal government to undertake a more intensive environmental study of the 1,100-mile-long pipeline's route under a lake that straddles the border of North Dakota and South Dakota.

The Army Corps has not selected a preferred alternative and will make its selection after public and agency comments are received and a final EIS is prepared, the draft report said. The long-delayed draft EIS suggested alternatives include denying an easement and removing the pipeline through excavation or abandoning the pipeline in place. An easement was previously granted for the line to cross under a federally protected reservoir. The pipeline has continued to operate while the review is carried out.

Other alternatives considered in the draft EIS include granting an easement with the same conditions as the previous easement or with additional conditions. One alternative weighed the impact of rerouting the line, which would require current shippers on the pipeline to likely transport oil via trucks or railcars during the permitting and construction process. The pipeline, which can transport up to 750,000 barrels of oil per day from North Dakota to Illinois, has been the subject of a lengthy court battle between Native American tribes and pipeline operator Energy Transfer. It started operations in 2017.

Rising costs create turbulence for offshore wind farms

(Wall Street Journal; Sept. 7) - Offshore wind farms should be one of the best solutions to the climate crisis but are turning out to be a lousy business. Getting the struggling industry back on its feet will require a new approach from companies and politicians alike. The public face of the dilemma is Ørsted, a former oil and gas producer that became the world's largest offshore wind-farm developer. The Danish company's stock has lost more than \$10 billion, or a third of its market value, since warning last week that it may take balance-sheet impairments of up to \$2.3 billion on its U.S. projects.

Ørsted won contracts to develop wind farms off the coasts of Connecticut, New York and New Jersey in late 2018 and 2019. Since committing to sell the power from these projects at a fixed price, permitting delays, rising costs and higher interest rates have torched its expected returns. Ørsted hoped bonus federal tax credits in the climate bill for using locally produced components would paper over financial cracks, but now says its wind farms may not qualify. The company says it will abandon projects if it doesn't get more government support, and rivals are also rethinking their U.S. plans.

Shell and Avangrid face multimillion-dollar fines for calling it quits on offshore wind-farm developments in Massachusetts that they can no longer justify. There is trouble further up the supply chain, too. Siemens Gamesa and Vestas, which together make roughly 80% of all turbine blades and generator housings for projects outside China, are losing

money. Of all renewable energy projects, offshore wind may be the most vulnerable to rising interest rates as they take longer to build and have higher upfront costs.

States look to take over permitting from EPA for carbon sequestration

(Climate Wire; Sept. 8) – The Environmental Protection Agency is buried under a mountain of permit applications from companies that want to store carbon dioxide underground. In little more than a year, the list of permit applications from project developers seeking to inject carbon dioxide into rock formations for permanent storage has ballooned from 14 to 119, driven by generous new federal tax incentives, along with the fear of future regulation and the expectation of corporate climate commitments.

But the EPA has only approved two permits that have led to projects — both at Archer-Daniels-Midland's Decatur, Illinois, ethanol plant. The slow pace of permitting has frustrated project developers, lawmakers and carbon capture proponents. The way to clear the backlog, they argue, is for EPA to hand off its Safe Drinking Water Act permitting authority to a growing list of states that are willing to administer the permits themselves. Many have enacted state laws that they say would offer federal-like environmental protections as the carbon sequestration industry matures.

EPA has so far granted primary permitting authority — also known as primacy — for permanent carbon storage to North Dakota and Wyoming. In May, the agency proposed approving Louisiana's application for primacy, with a final decision is expected later this year, while Arizona, Texas and West Virginia are in the process of submitting applications, with more expected in the years ahead. Red Trail Energy, a North Dakota ethanol producer, waited years for the go-ahead from EPA. But the North Dakota Department of Environmental Quality approved the permit in less than five months.

B.C. community adds to growing list of bans on new gas hookups

(Calgary Herald; Sept. 5) - Chris Bowen is expecting sales of gas fireplaces to go up in smoke after Nanaimo, British Columbia, banned natural gas as the primary heating source in new homes in the city of about 100,000 residents. The general manager of Pioneer Fireplace said about 30% of his store's revenue comes from gas fireplaces, and while the Nanaimo ban doesn't target fireplaces because they're not primary heating, "in practical effect, it works like a ban."

"No one will put in a gas fireplace if they can't get a gas line to their house," he said. Bowen is calling on the provincial government to rethink the move away from gas laid out in the zero-carbon step code, a B.C. building code update that's being adopted by a growing number of municipalities ahead of the province's 2030 target. Along with Nanaimo, where the ban will take effect July 1, 2024, Saanich and Victoria are also

early adopters of the code, while Whistler, North Vancouver, West Vancouver, Squamish and Port Coquitlam have taken steps to combat emissions from new buildings.

In late May, a Vancouver committee rejected an all-out ban on new gas connections over cultural considerations of cooking food over a flame but moved toward reducing gas usage. The bans are controversial, with some saying they reduce resilience in an emergency, and others arguing they are one of the best ways to reduce municipal emissions. Bowen said many of his customers use their gas fireplaces for heating in emergencies. Electrical outages during coastal storms are not uncommon.

Shell expects continued investment in new LNG export projects

(Bloomberg; Sept. 6) - Shell is exploring a number of liquefied natural gas export projects in North America and Africa as the company expects strong demand for the fuel during the energy transition. "There needs to be continued investment," Cederic Cremers, executive vice president of LNG at Shell, said at the Gastech conference in Singapore. The company is considering plans for after its current slate of projects and investments — which include a facility in Canada — start up through 2030, he said. The Shell-led project in Kitimat, British Columbia, is expected to go online in 2025.

Gas demand is expected to continue to grow for quite some time in order to enhance energy security, curb consumption of dirtier coal and compliment intermittent renewable sources, Steve Hill, executive vice president of Shell Energy, said at the same conference. Russia's invasion of Ukraine last year upended gas markets around the world, triggering record-high prices and stoking worries about security of fuel supplies. Europe is rushing to replace Russian fuel with imported LNG, while nations across Asia are signing long-term gas supply deals to avoid future shortages.

LNG industry bets on demand longevity, but no sure thing

(Reuters columnist; Sept. 7) - The liquefied natural gas industry has changed its tune from saying it is a transition fuel on the path to net-zero emissions, to believing it is a part of the solution and will be necessary for decades to come. This optimism for LNG's future was very much in evidence at Gastech, the industry's largest global gathering, held this week in Singapore. LNG sees its future largely in Asia, the top-energy importing and consuming region and likely driver of global demand to 2050, the target date that many countries and companies have for achieving net-zero carbon emissions.

The LNG industry is making some pretty big bets, some of which will be difficult to win. LNG producers assume that renewable energies and new fuels won't be able to meet demand. And while there is potential for new fuels such as hydrogen and its derivatives

to come into the market, the LNG industry feels these will be too expensive and difficult to scale up in Asia, where countries are more concerned with keeping costs low.

The second bet is that the industry will be able to convince governments, companies and consumers that LNG is better than the dirtier alternative of coal-fired generation. The problem for the idea of LNG displacing coal is that this hasn't really been happening, with Asia's coal burn at record highs, although this is mainly a result of increased consumption in countries like China and India, which have vast domestic coal mining sectors. It's hard to see LNG being able to compete with coal on a cost basis.

The third and most challenging bet is that the LNG industry will be able to successfully deploy carbon capture and storage technologies at both a large enough scale and a low enough cost to make them viable. In some ways this is the key to LNG's longevity in a net-zero world, as only with CCS will burning gas come close to being carbon neutral.

LNG suppliers remain confident in China's long-term demand growth

(Reuters; Sept. 7) - Suppliers of liquefied natural gas are betting on China to drive demand for the fuel over the longer term despite last year's slowdown, as the country locks in multi-year supply deals. China's LNG imports hit nearly 79 million tonnes in 2021, putting it ahead of Japan as the world's top importer that year, but stringent COVID measures curbed spot demand in 2022, when shipments slipped to 63 million.

"We see China as a long, strong growth market," said Andrew Barry, vice president for global LNG marketing at ExxonMobil. However, an economic slowdown continues to curb China's spot LNG appetite. The country imported 39 million tonnes of LNG in the first seven months of 2023. "What happens in the near term, with demand reduced ... we're going to have to wait and see how that response plays out. We are cautiously optimistic that demand is going to come back. The infrastructure is there, demand will come," Barry said in an interview on the sidelines of the Gastech conference.

As China's economy grows and with peak emissions and net-zero goals of 2030 and 2060, respectively, China is likely to reach its commitment to source 15% of its primary energy from gas, said Anatol Feygin, chief commercial officer at Houston-based Cheniere Energy, the largest LNG producer in the United States. Gas accounted for 9% of China's energy mix in 2021, and the country has targeted raising that to 15% in 2030. Chinese importers have signed a slew of long-term deals from suppliers including Qatar and the U.S. in recent months, which Barry said gives a "huge amount of confidence."

Federal court rejects lawsuit against Louisiana LNG project

(The Advocate; Baton Rouge, LA; Sept. 7) - A federal appeals court has blocked an attempt by a pair of environmental organizations to nullify an Army Corps of Engineers permit for Driftwood LNG, the \$25 billion liquefied natural gas export plant proposed for near Lake Charles, Louisiana. Sierra Club and Healthy Gulf filed a federal lawsuit in July 2022 asking for a review of the permit, known as a "dredge and fill" permit regulated by Section 404 the Clean Water Act. The permits dictate how companies can dredge or fill material into U.S. waters, including wetlands.

The groups said the Corps of Engineers, in issuing the permit, failed to properly account for the project's potential harm to surrounding wetlands. However, in a ruling issued Sept. 6, a three-judge panel for the 5th U.S. Circuit Court of Appeals in New Orleans said the groups' "barrage of wholly meritless objections" did not pass muster.

The permit says construction crews can "clear, grade, excavate and place fill material" on site to build the plant on a 1,000-acre site on the west bank of the Calcasieu River. The court ruling relieves one less headache for Driftwood LNG, which faces uncertainty despite the start of site prep work. Tellurian, the Houston company behind Driftwood, revealed in August it had lost its last long-term customer for LNG after it had previously signed five such deals. Those long-term contracts are key for multibillion-dollar LNG projects to secure financing, which Driftwood LNG has failed to line up.

<u>Decision to block LNG by rail hurts proposed NJ export terminal</u>

(New Jersey Spotlight News; Sept. 8) - The proposal to build New Jersey's first liquefied natural gas export terminal at Gibbstown on the Delaware River was dealt another blow when a federal agency suspended a rule that would have allowed the fuel to be shipped to the port by rail. The project to move Marcellus Basin shale gas production to the coast for export has suffered repeated setbacks. The latest is the Pipeline and Hazardous Materials Safety Administration decision to block the Trump-era rule that lifted a long-standing national ban on the transport of LNG by rail.

The rule would have allowed the fuel to be shipped by train, as planned by the developer New Fortress Energy, from a town in northeast Pennsylvania to a planned marine terminal at the Gloucester County town where it would be loaded onto oceangoing tankers and sent overseas. But the agency last week suspended the rule until it writes a substitute, or until June 30, 2025, whichever comes first.

The decision is the latest blow to the plan, which has been fiercely opposed by activists on the grounds that the explosive cargo would endanger public safety in cities such as Camden and Philadelphia through which LNG trains would pass. Critics have also argued that the export of LNG — a super-cooled liquefied form of natural gas — would stimulate the production of the fuel from Pennsylvania's gas-rich Marcellus Shale as the world is trying to wean itself off fossil fuels in an effort to curb climate change.

Workers strike Chevron's two Australia LNG projects

(Reuters; Sept. 8) - Workers at Chevron's liquefied natural gas projects in Australia, which produce 5.1% of the world's supply of the fuel, went on strike Sept. 8 after mediation talks ended without a deal. Unions kicked off their job action with short work stoppages and bans on certain tasks, but plan to escalate to a total strike within two weeks if there is no deal. Until Sept. 13, workers will stop work for up to 11 hours in several blocks per day and refuse to perform certain tasks, including working overtime.

If there is still no deal by then, the unions will completely stop work for two weeks. A week of negotiations run by a federal mediator ended on Sept. 8 without agreement, and no further talks are planned for now. Chevron has said it would continue to take steps to maintain operations if any disruptions occur, without giving details. Australia is one of the world's largest LNG exporters, shipping out 80.9 million tonnes in 2022, according to the International Gas Union. The bulk of exports from Chevron's Gorgon and Wheatstone facilities head to Japan, followed by South Korea, China and Taiwan.

"We expect an unscheduled outage will likely deliver some short-term spot price volatility, given we believe the global LNG market remains finely balanced," said National Australia Bank analyst Baden Moore. "Duration of the outage will be critical." Based on preliminary calculations by data intelligence firm ICIS, the work stoppages through to Sept. 14 would see limited impact, with around 95,000 tons or 1½ cargoes worth of LNG output removed from the market. Escalations into a full-scale strike would see a wider-ranging impact on output.

Dubai-based company plans green hydrogen plant in Kenya

(Bloomberg; Sept. 7) - AMEA Power, a Dubai-based renewable-energy company, plans to build a green hydrogen facility in the Kenyan port of Mombasa in what would be a first for the East African country. AMEA, which is participating in a \$4.5 billion pledge by the United Arab Emirates to boost renewable energy in Africa, would start with a one-gigawatt electrolyzer at the site, Chairman Hussain Al Nowais said in an interview at the Africa Climate Summit in Nairobi on Sept. 6.

"Let's start with one gigawatt and see how the world is going before I start committing billions and billions of dollars," he said, adding that green hydrogen is an "evolving technology." Kenya is vying to join the race by African nations to harness renewable energy to power the splitting of water to create so-called green hydrogen, which could ultimately replace natural gas as a fuel. South Africa, Namibia, Mauritania, Morocco and Egypt are pushing forward with hydrogen plans.

The plant in Mombasa would use electricity generated from geothermal plants inland and will be based at the port to ease exports, Al Nowais said. The family-owned company is also exploring the possibility of setting up a hydrogen plant in Diibouti,

which is located close to the key shipping channel, the Suez Canal. That plant could use wind or solar power, Al Nowais said. AMEA agreed to help fund five gigawatts of renewable energy in Africa as part of the UAE pledge. That would involve \$1 billion in equity investments, and \$4 billion from project finance.