

Oil and Gas News Briefs

Compiled by Larry Persily

October 14, 2024

Harvard study questions viability of hydrogen as a fuel

(Wall Street Journal; Oct. 8) - A Harvard University study casts doubt on the viability of hydrogen as a fuel in the U.S. The researchers say the costs of producing, moving and storing the gas are higher than for using fossil fuels and then removing carbon from the atmosphere afterward. The study, published Oct. 9 in the scientific journal *Joule*, says for every ton of carbon dioxide it now reduces, green hydrogen costs between \$500 and \$1,250. But carbon capture and storage prices currently range between \$100 to \$1,000 a ton, making it more viable to simply extract atmospheric carbon dioxide instead.

“It has to be cost competitive,” said Roxana Shafiee, a researcher at the Harvard University Center for the Environment who led the study. Hype around hydrogen, in particular green hydrogen which is made through renewable energy, has slowed this year, as rising costs and low interest from energy producers and industry have delayed or stopped a number of projects. Policymakers had seen the gas, which can be burned to create the high temperatures needed to produce materials like cement and steel in an environmentally friendly way, as a “Swiss Army knife” of clean energy, Shafiee said.

While hydrogen demand is growing, the International Energy Agency noted most of the potential production is still in the planning stage, and that “for the full project pipeline to materialize, the sector would need to grow at an unprecedented compound annual growth rate of over 90% from 2024 until 2030, well above the growth experienced by solar PV during its fastest expansion phases.” The IEA added that “unclear demand signals, financing hurdles, delays to incentives, regulatory uncertainties, licensing and permitting issues and operational challenges” were the main barriers to growth.

President of oil-rich Guyana pledges free college, cash to households

(Associated Press; Oct. 11) - Guyanese President Irfaan Ali announced several perks ahead of national elections next year, including free college tuition and a one-time cash payment of nearly \$1,000 for every household in the oil-rich South American country. Ali also promised to cut power bills by half and increase the monthly minimum wage from \$350 to \$500 next year as he addressed Parliament during Oct. 11, noting that the recently wealthy nation of nearly 800,000 people can afford to help residents more.

During a press conference after the session, Vice President Bharrat Jagdeo said Guyana’s budget can easily absorb the one-time cash grant to the country’s estimated 264,000 households. “We have a \$22-billion-dollar economy now,” he said. Guyana was

once one of the poorest countries in South America despite large reserves of gold, diamonds and bauxite. But it has been awash in money after a consortium led by ExxonMobil discovered major oil deposits in May 2015 off the country's Atlantic coast.

Production began in December 2019, with an output of some 645,000 barrels a day expected to soar to 1.3 million by 2027. In 2022, Guyana's GDP grew by more than 60%, the highest real GDP growth worldwide that year, according to the International Monetary Fund. Free college education had been in place since the mid-1970s but was discontinued in the early 1990s under pressure from the IMF. The offer of free university tuition is one of several new measures to tackle the high cost of living, Jagdeo said.

Chinese miner plans large project to turn coal into oil products

(Bloomberg; Oct. 9) - China's biggest coal miner has announced it will build another massive project to supply feedstock for petrochemicals makers and help clear a prospective surplus of the fossil fuel. China Energy Investment Corp. said it will spend 170 billion yuan (\$24 billion) to build an integrated plant in the northwestern region of Xinjiang that will turn coal into oil products. As is expected of all such projects, the facility will be powered by renewable energy — although its inputs (coal) and outputs (oil products) will be anything but clean. The first phase is slated to come online in 2027.

The facility in Hami city is the latest in a series of coal-to-oil developments greenlit in recent years in the mining hubs of Xinjiang, Shaanxi, Ningxia and Inner Mongolia. Hami alone has indicated it will approve 300 billion yuan's worth of projects in its five-year plan through 2025, which could consume 152 million tons of coal by 2030. For all of its rapid deployment of clean energy, China remains by far the world's largest coal producer and continues to push output to records, which hit 4.7 billion tons last year.

But the fuel's main use in generating electricity has reached a turning point after being surpassed for the first time by solar and wind installations. Moreover, President Xi Jinping has said consumption needs to start falling from 2026 to meet the nation's climate goals, which has led coal miners to seek other avenues for their product. One problem is that China's petrochemicals industry is in a funk, the victim of its breakneck expansion just as consumption has faltered due to a weak economy. Coal-to-oil profits fell 53% in 2023, according to the China Petroleum and Chemical Industrial Federation.

China's trucking fleet continues switch to natural gas

(Australian Financial Review; Oct. 14) - Cheap natural gas is spurring Chinese truckers to switch to rigs powered by the fuel, damping the country's appetite for oil and contributing to a "catastrophic" sales drop for the China unit of one of the world's largest truck makers, Germany's Daimler Truck. While the country's rapid adoption of electric

cars has been in the spotlight, significant change has also been taking place in China's freight industry.

Analysts said the swift rise of natural gas-powered trucks, particularly heavy-duty vehicles of 14 tonnes and above, has helped thrust China past peak diesel demand and moved it closer to reaching peak oil. "Diesel demand peaked earlier than we expected," said Sun Yang, a liquefied natural gas analyst at OilChem, who estimates this happened as early as 2018. "The speed at which LNG has replaced diesel in heavy-duty trucks has been very fast."

China's diesel use is forecast to fall 4% this year and will continue to slowly decline in the coming years, said analysts at investment bank CICC in September. Dong Dandan, an energy analyst at China Securities brokerage, estimated the LNG truck fleet would displace about 9.2 million tonnes of diesel in 2024, more than 65 million barrels, equivalent to 4% of last year's demand. The switch to natural-gas-powered trucks helps Beijing alleviate security concerns over imported oil. China imports about 75% of the oil it needs, primarily from Russia and Saudi Arabia, compared with 40% for natural gas.

China 'decisive force' in determining world's peak oil demand

(S&P Global; Oct. 14) - China guzzled roughly 16.5 million barrels per day of the world's oil supply in 2023, all liquids included. As the world's second-largest oil consumer, accounting for about 16% of global demand, a peak or plateau in its refined oil product demand is crucial to the oil market. The timing of the peak and the pace of oil demand decline from there on will affect global oil balances and, consequently, oil prices.

"China is the only major developing country that is likely to see demand of gasoline and gasoil/diesel to reach a plateau at present or in the near future," said Kang Wu, global head of oil demand research at S&P Global Commodity Insights. "While oil demand in nearly all developed countries has peaked, the vast majority of developing countries other than China will see their oil demand continue to grow in the foreseeable future. ... China is a decisive force in determining if and when the global oil demand will peak."

Analysts have varying views on the year when China's oil demand will peak, but most of them agree the decline will not be so dramatic as to trigger a sharp downturn in global oil demand. Commodity Insights projects China's total refined product demand, excluding direct crude burn and all gas liquids, will peak in 2027 at 16.4 million barrels per day. It consumed 15.5 million barrels per day in 2023. Global refined product demand is forecast to peak in 2028 at 91.5 million, compared with 88.4 million in 2023.

Southeast Asia nation talks with China about developing gas field

(Reuters; Oct. 9) - East Timor, located between Indonesia and Australia, has talked with Chinese firms including state-owned Sinopec about developing the stalled Greater Sunrise gas field, President Jose Ramos-Horta said on Oct. 9, after disagreements with Australia over the shared field's future. The field, whose revenues were estimated at US\$65 billion in 2018, is vital to the economy of the poor Southeast Asian island country but has been stalled for decades due to disagreements with Australia, which shares the field, and operator Woodside, which would spearhead the project development.

A bitter dispute over a maritime boundary was resolved in 2018. Now the main hurdle is disagreement over whether to pipe the gas to a new liquefied natural gas plant in East Timor or to an existing LNG hub in Darwin. Ramos-Horta has previously suggested East Timor could bring in new partners like China if the deal is not made on their terms, raising concerns in Australia about growing Chinese power in the region. Ramos-Horta said East Timor had talked with a number of private and state-owned Chinese firms and that representatives had visited as part of a recent Chinese business delegation.

Ramos-Horta was speaking after delivering a speech in Canberra at which he said: "We look for partners. If Australia doesn't feel like doing it, that is totally understandable. Then either we talk with the Chinese or the Kuwaitis." The development of the Greater Sunrise field is critical to East Timor's economy. Its main source of revenue – the Bayu Undan oil and gas field – is exhausted and stopped exporting gas last year.

Japanese LNG buyer gets ready for more lean-gas imports

(S&P Global; Oct. 11) - Japan's Hiroshima Gas is set to start building two liquefied petroleum gas (LPG) tanks in December at its Hatsukaichi LNG import terminal as part of efforts to enhance its capability to receive various types of LNG and be prepared for possible imports of lean LNG, ahead of its expiring gas supply contracts around 2030, according to company officials. The two LPG tanks, with a capacity of 990 million tonnes each, are scheduled for completion in September 2026. The company currently has two 60-million-tonne LPG tanks and two 75-million-tonne tanks at the Hatsukaichi terminal.

The move by Hiroshima Gas comes as it aims to be prepared for greater availability of lean-gas LNG to keep its options open with the approach of its long-term LNG contract expirations, the officials said. "This is also part of our efforts to be able to receive LNG with low calorific value for emergency as well as for spot LNG, which could also be lean, or low-calorie LNG," he said during a press briefing at the Hatsukaichi LNG terminal, coinciding with the general assembly of the International Group of Liquefied Natural Gas Importers, or GIIGNL in Hiroshima.

LPG — primarily propane and butane — is typically used to boost calorific (energy) value in city gas in Japan, and the use of lean LNG requires a larger volume of LPG to

increase calorific values. Japan's use of LPG for city gas blending has been rising in recent years, mirroring increasing imports of lean-gas LNG from the U.S., which tends to have a lower Btu value than liquefied gas from other sources.

Japan may boost LNG in storage to guard against supply shocks

(Reuters; Oct. 11) - Japan is considering stepping up purchases of liquefied natural gas for emergency needs to at least 12 cargoes a year from three now, an official of its industry ministry said, to guard against unexpected supply shocks. The reserve-boosting plan entails additional purchases by the world's second-biggest buyer of LNG after China, increasing its buys to at least 0.84 million tonnes of LNG per year from 0.21 million now.

Japan is expanding its role as an LNG trader at a time of falling domestic demand for the fuel, but in a plan to boost energy security it trades some cargoes that are not wanted at home during periods of weak demand. From last December, Japan's top power generator, JERA, has bought three LNG cargoes to add to a strategic buffer run by the Ministry of Economy, Trade and Industry.

This winter, JERA will continue buying one cargo each month from December to February, Yuya Hasegawa, director of the ministry's energy resources development division, told Reuters. "From the mid- to late-2020s, we will try to secure at least one cargo per month throughout the year — that is, at least 12 cargoes per year," he said, adding that JERA would continue handling cargoes for the reserve. Japan has no underground storage but has tanks that can hold just over a month of LNG consumption at its more than 30 receiving terminals, the International Energy Agency says.

Producers eagerly await LNG Canada start-up to boost prices

(Reuters; Oct. 11) - A huge liquefied natural gas export terminal led by Shell, called LNG Canada, under construction in Kitimat, British Columbia, may struggle to dramatically raise Canadian gas prices when it starts operating next year because a flood of pent-up supply is waiting to hit the market, analysts said. Gas prices at Alberta's AECO hub hit a two-year low of 5 Canadian cents per million Btu in late September as storage filled up. The slump has hurt producers that boosted drilling activity this year in anticipation of new demand from LNG Canada and prompted some firms to curtail production.

Company executives and analysts estimate firms have shut in between 800 million and 1 billion cubic feet a day, around 5% of gas production from Canada, the world's sixth-largest producer. In addition to curtailments, some producers like Canadian Natural Resources have delayed completing newly drilled wells until prices pick up. Advantage

Energy became the latest to announce temporary curtailments on Oct. 9. The Calgary-based company began shutting in up to 130 million cubic feet a day of gas last month.

Advantage CEO Michael Belenkie said he was disappointed some producers were continuing to sell gas at a loss, instead of curtailing production and allowing prices to recover until demand from LNG Canada kicks in. "In three, six, nine months we will see substantial off-take from the system, but people have delivered early," he said. LNG Canada, at 14 million tonnes annual production capacity, is a joint venture between five partners including Japan's Mitsubishi and Malaysia's state energy firm Petronas. It will be Canada's first major LNG export terminal and require around 2.1 bcf per day of gas.

New Mozambique leader inherits stalled LNG developments

(Bloomberg; Oct. 9) - Mozambicans voted Oct. 10 for a new leader who will need to quell an insurgency that's stalled massive liquefied natural gas projects with the potential to transform one of the world's least-developed nations. Daniel Chapo, the candidate of the Liberation Front of Mozambique, which has ruled the southeastern African nation since independence in 1975, is "all but certain" to beat his three opponents, according to Oxford Economics Africa, while Eurasia Group put the odds of his party securing a two-thirds majority in parliament at 70%.

Chapo has said he favors talks to end an Islamic State-backed insurgency that's delayed TotalEnergies's planned \$20 billion liquefied natural gas project. The company stopped work on its project in early 2021. Patrick Pouyanné, the company's chief executive officer, plans to visit Mozambique later this month to assess whether the president-elect will continue enlisting Rwanda's help to maintain security in the area.

Mozambique had hoped that the gas project and an even bigger one proposed by ExxonMobil would lift millions out of poverty in a nation where nearly three in four people lived on less than \$2.15 a day last year. The seven-year insurgency that's killed thousands is one of the government's biggest challenges, draining finances and delaying hydrocarbon revenues. While the possibility of renegotiating deals with multinationals emerged as a key theme during the campaigns, Chapo said Mozambique has always prioritized stability for investors.

Italy's Eni eyes growth in LNG sales to Asia

(S&P Global; Oct. 10) - Italy's Eni aims to boost its contracted LNG portfolio to around 18 million tonnes per year by 2027 and expand its market penetration in Asia, with plans to double its LNG shipping fleet, Cristian Signorello, deputy chief operating officer of natural resources, told S&P Global Commodity Insights. The move comes as Eni sees

growing LNG demand, particularly in Asia, accelerated by the region's energy transition toward gas from coal, said Signoretto, who is director of Eni's gas and LNG portfolio.

"We really think gas is a very important transition fuel for making sure that the world copes with the energy transition and with the security of supply," Signoretto said in an Oct. 6 interview with Commodity Insights on the sidelines of the LNG Producer Consumer Conference 2024 in Hiroshima. "Having said that, when it comes to LNG, we aim to grow our LNG portfolio" by about 40%, he said.

Eni currently trades 30% of its volume in the east of Suez region, with the balance being marketed in the Atlantic Basin. This split will eventually shift to a 50:50 ratio by the end of this decade, with an increased focus on taking supply from Mozambique and Indonesian developments, Signoretto said. "We want an anchor market in Europe, but shifting this to Asia in time and having three sources of supply, Middle East, Atlantic and Pacific allows us to also optimize the portfolio and to extract even further value."

Eni has financing for second LNG facility offshore Mozambique

(Bloomberg; Oct. 11) - Eni has received more than enough interest for its next floating liquefied natural gas project in Mozambique, even as international lenders face growing pressure to reduce exposure to fossil fuels. Luca Vignati, director of Eni's upstream business, said in an interview that the plant will cost about the same as its \$7 billion Coral South project, inaugurated in 2022. Investment decisions for the new plant could be in place as soon as this quarter, he said.

While oil projects are facing growing challenges to find financing as the world moves toward decarbonization, gas is a cleaner-burning fuel and seen as part of the transition. Potential lenders of Coral North include the U.S. Export-Import Bank, which has listed the project as pending on its website. "Financing from international institutions and first investors are there for more than what we need," Vignati said this week.

The new liquefaction and LNG storage vessel will be identical to its sibling, but Eni will be able to squeeze 5% more LNG from it, Vignati said. That would take production to 3.6 million tonnes of LNG per year. Partners include ExxonMobil, China National Petroleum Corp., Abu Dhabi National Oil Co., Korea Gas and Mozambique state producer Empresa Nacional de Hidrocarbonetos. Approval by the government could be finalized in the coming weeks, Vignati said. To speed up the timeline, Eni has booked space in a shipbuilding yard and long-lead items have already been ordered, he said.

Woodside completes pipeline for new offshore Australia gas field

(Upstream; Oct. 10) - Woodside Energy has completed installation of the offshore trunkline for its US\$12 billion-plus Scarborough mega-gas project in Australia, which is targeting its first liquefied natural gas cargo in 2026. When operational, the 269-mile undersea pipeline will transport gas from the offshore Scarborough field to the onshore Pluto LNG liquefaction facility in Karratha, Western Australia.

The installation of the trunkline took around 12 months to complete. In addition to a nameplate capacity of 8 million tonnes per year of LNG, the Scarborough project will supply more than 200 million cubic feet of gas per day for domestic consumption into the Western Australian market. Woodside is installing a second liquefaction train at its Pluto LNG terminal, in addition to modifying the original production unit, which went online in 2012, to handle the new gas supply from Scarborough.

Exxon starts claim against Dutch government for gas field shutdown

(Euro News; Oct. 10) - ExxonMobil has invoked the controversial Energy Charter Treaty in a potential multibillion-euro compensation claim — an apparent bid to pressure the Netherlands' new government over the shuttering of Europe's largest gas field in Groningen. ExxonMobil has sued the Dutch government for its 2018 decision to ramp down gas production in Groningen after years of extraction-linked earthquakes.

The petroleum giant's claim, which could potentially run to billions of euros, appears to be prompted by the recent change of government, as Mark Rutte, who served as liberal prime minister for 14 years, was ousted after a swing to the right in 2023 elections. "It is our view that the previous government had no intention of reaching an amicable settlement," ExxonMobil said in a social media post on Oct. 8.

ExxonMobil's move, made under the controversial Energy Charter Treaty, has drawn sharp condemnation from green groups. The firm's decision to file an arbitration request with the International Centre for Settlement of Investment Disputes comes just months after the European Union decided to withdraw from the treaty, as a majority of member states saw it as incompatible with the bloc's climate goals. In February, Exxon, along with partner Shell, requested arbitration at an independent Dutch tribunal, complaining the Dutch government had shut down production earlier than originally agreed.

Thailand wants to restart talks with Cambodia over oil and gas field

(Bloomberg; Oct. 10) - Thailand's new government will restart negotiations with Cambodia to explore an offshore oil and gas field with tens of billions of dollars worth of reserves that the two countries have been squabbling over since the 1970s. Prime

Minister Paetongtarn Shinawatra, who took office in September, said the joint exploration is among her administration's top 10 urgent goals as the country seeks to boost dwindling reserves, and contain electricity prices and a ballooning fuel imports bill.

The neighbors agreed earlier this year to discuss how to fairly exploit the 106,000-square-mile block that is estimated to contain about 10 trillion cubic feet of natural gas and 300 million barrels of crude oil. The process won't be easy, given their history of diplomatic spats and sensitivities on both sides over ceding sovereignty. Negotiations have stalled since 2001, when the countries agreed that territorial claims must be discussed at the same time as joint resource development.

But some in Thailand are hopeful the urgency of declining domestic gas production and reserves, and a closing window for fossil fuel use, will finally bring about a breakthrough allowing the nations to start exploration now and resolve territorial issues later. "We don't need to resolve the different opinions on boundaries, we just need to have neighborly chats and make use of the resources," Finance Minister Pichai Chunhavajira said in parliament last month. "That will boost security as well as cut utility costs."

Kurdistan agrees to reduce oil flow to help Iraq adhere to quota

(Bloomberg; Oct. 10) - Iraqi's semi-autonomous region of Kurdistan has cut its oil production by half upon request from Baghdad, as the second-largest producer in OPEC tries to adhere to its output quota. Kurdistan has been pumping 140,000 barrels a day since Sept. 2, Kamal Mohammad Salih, the minister of electricity and acting minister of natural resources in the region's government, said in Istanbul on Oct. 10.

Iraq has exceeded its production limit on a regular basis since agreeing with fellow members of OPEC+ to cut output to prevent an oil surplus. Baghdad has repeatedly pledged to come into compliance, and also promised to make extra curbs to compensate for earlier cheating, but data compiled by Bloomberg show the country was still pumping too much last month. A reduction in flow from the Kurdistan region would help Iraq meet its pledge to OPEC+ nations.

Relations between the Kurdistan Regional Government and Iraq's federal government have been difficult since March 2023, when Turkey halted flows through key oil-transit pipelines after an arbitration court ordered it to pay about \$1.5 billion in damages to Iraq for transporting crude without Baghdad's approval. Iraqi Kurdistan had been exporting 400,000 barrels a day via Turkey before the closure of the pipeline. The Kurdish region has lost billions of dollars in revenue from the halt, and Iraq itself has lost more than \$16 billion, Salih said. "It is a lose-lose situation, nobody benefits from it," he said.