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Study says nuclear the cheapest baseload electricity source for Japan

(Bloomberg; Dec. 16) - Nuclear power is forecast to be the cheapest baseload electricity source in Japan in 2040, highlighting the government's desire to restart more of the nation's idled reactors. The cost of constructing and operating a new nuclear power plant for 2040 is estimated at 12.5 yen (\$0.08) per kilowatt-hour, according to documents released from a trade ministry panel meeting on Dec. 16. This cost assumes reactors will be used for 40 years at a 70% operational rate. The meeting was held to discuss the levelized cost of electricity for each power asset, the document said.

A previous study published in 2021 saw LNG-fueled power plants as the cheapest power source in 2030. However, the latest analysis now includes a cost to reduce emissions, while LNG prices are also higher. Intermittent renewable sources, like large-scale and residential solar, were priced lower than nuclear for 2040, the most recent report showed. However, when including the total system cost, including deployment of storage batteries, nuclear is cheaper than solar in some scenarios.

Japan is in the process of revising its national energy strategy, which will dictate its power mix targets beyond 2030. The government has doubled down on nuclear as a way to curb dependence on pricey fossil fuels. The analysis released Dec. 16 also estimated the cost of ammonia and hydrogen co-fired electricity, as well as pairing carbon capture and storage with LNG and coal power plants — technologies that the Japanese government is considering for its long-term energy transition. Co-firing with hydrogen boosted the cost of an LNG plant by about 6% for deployment in 2040.

Japan targets nuclear power for 20% of energy mix by 2040

(Bloomberg; Dec. 17) - Japan's government will aim to increase its use of nuclear power, dropping a decade-long policy of reducing dependence on the energy source and reversing curbs initiated following the 2011 Fukushima meltdown. The nation, which relied on coal and natural gas for more than 60% of electricity generation last year, set out a proposed new energy strategy on Dec. 17, urging both nuclear and renewables to be utilized "to the fullest extent" to maintain growth and help curb emissions. The draft policy, which is expected to be adopted, also recommends construction of new reactors.

Nuclear should account for around 20% of the nation's energy mix by fiscal 2040 and renewables for 40% to 50%, according to the strategy, drafted by the trade ministry and advised by a 16-person panel of experts. That's in line with a previous target for nuclear

energy to make up 20% to 22% of the mix by 2030, showing the country's commitment to the technology will continue. Renewables accounted for about 23% of the power mix in fiscal 2023 and nuclear made up roughly 8.5%, according to trade ministry data.

Adding more emissions-free power is seen as crucial to allow Japan to attract more data center operators and advanced manufacturing like semiconductor factories. The revised energy strategy should also enable Japan, the world's fifth-largest carbon dioxide polluter, to boost decarbonization efforts that have been criticized by scientists and climate groups as insufficient. Nuclear previously accounted for roughly a third of Japan's power mix before all 54 of the nation's reactors were taken offline following the 2011 disaster. Of 33 still operable reactors, only 14 are so far back online.

U.S. LNG exports continue growth, but prices are down

(Reuters columnist; Dec. 17) - U.S. liquefied natural gas exports are on track to climb to new highs in 2024, as record domestic gas production spurred the 10th straight year of volume growth in the lucrative LNG export sector. U.S. shipments for 2024 look to reach 86.9 million tonnes, according to ship-tracking data from Kpler. That's 720,000 tons or 0.8% more than in 2023 and sustains the expansion trend of U.S. LNG exports despite brief outages at a number of terminals in 2024 and delays at projects in construction.

Despite the growth, it hasn't been an easy year for the U.S. LNG export sector. Record gas output at home, combined with slowing demand in key markets, resulted in a roughly 21% fall in average U.S. export prices so far this year versus 2023, according to the U.S. Energy Information Administration. From January through September, LNG export prices averaged \$6.15 per thousand cubic feet, according to EIA. That compares to \$7.75 over the same period in 2023 and \$12.20 in 2022, when Russia's invasion of Ukraine triggered power sector turmoil and a sharp rise in LNG imports across Europe.

A 22% drop from 2023 in purchases by top-market Europe hurt U.S. LNG exporters by forcing them to find other buyers, often in more distant and dispersed locations that take longer and cost more to serve. For 2024, Europe is on track to purchase 43.8 million tonnes of U.S. LNG, 12.7 million less than European buyers purchased in 2023 and the lowest full-year total since 2021, according to Kpler. To offset the drop, U.S. exporters dialed up sales to Asia, where volumes rose by 8 million tonnes to 31.6 million this year.

But shifting volumes to buyers in Japan, South Korea, India and China costs more than the equivalent cargo loads to Europe due to the far longer journey times. And higher gas costs may also serve to undermine the appetite for LNG in cost-sensitive South Asia economies where coal and other power sources are cheaper and more abundant.

Analysis says more U.S. LNG exports could raise domestic gas prices

(Bloomberg; Dec. 17) - The Biden administration released a key study Dec. 17 that is likely to complicate President-elect Donald Trump's plans to quickly approve more exports of liquefied natural gas. The study, which analyzed the economic, environmental and other costs of exports, found increased exports would raise natural gas prices for a range of U.S. consumers. The price gains were seen as high as 30% in one scenario that examined "unfettered exports," according to the Department of Energy study.

The study also found higher exports would be more likely to displace renewable energy rather than coal, and would lead to more global emissions. The analysis found that currently approved LNG export volumes are "more than enough to meet global demand for decades to come," Energy Secretary Jennifer Granholm said. "Further increasing exports, unconstrained, would surely generate more wealth for the LNG industry, but American consumers and communities and climate would pay the price," she said.

The study, underway since January, stopped short of saying the approval of more shipments isn't in the public interest. The Biden administration launched the analysis while imposing a halt on new LNG export licenses, a moratorium Trump has vowed to end on his first day back in the White House. Analysts said before the study was released that findings showing additional exports cause more harm than good could make new approvals issued by Trump's administration vulnerable to legal challenges.

Analysis of LNG exports not likely to stop Trump administration plans

(EnergyWire; Dec. 18) - A highly anticipated U.S. Department of Energy (DOE) study released Dec. 17 found that big increases in liquefied natural gas exports would cause U.S. prices to spike — but it didn't deliver a knockout blow to LNG supporters awaiting President-elect Donald Trump's return to the White House. The new report is likely to provide fodder for legal challenges to LNG projects in the future, though the Trump administration is expected to move ahead quickly with new gas export approvals.

The opening for Trump is related in part to timing. DOE announced a 60-day comment period for the study that won't end until well after Trump takes office on Jan. 20. While the Federal Energy Regulatory Commission approves the construction and operation of onshore and near-shore LNG terminals, DOE is responsible for deciding if LNG exports are in the public interest. Biden officially unveiled the pause on new export authorizations in January, though it was later overturned by a court.

The study suggested that by 2050 U.S. LNG exports could increase domestic natural gas prices more than 30%. That assumes exports of more than 56 billion cubic feet per day — more than four times current levels. Scott Segal, a partner at the Bracewell law firm, said the comment period will allow for an administrative record that calls into

question some of the report's flaws. "In all likelihood, the report will be withdrawn by the next administration to remove any patina of authoritativeness it might have," he said.

OPEC+ wary of more U.S. oil cutting into their market share

(Reuters; Dec. 17) - OPEC+ is wary of a renewed rise in U.S. oil output when Donald Trump returns to office, delegates from the group said, because more U.S. oil would further erode OPEC+ market share and hamper the group's efforts to boost prices. OPEC+ pumps about half of the world's oil. Earlier this month it delayed until April a plan to raise output, extending some of its supply cuts until the end of 2026 due to weak demand and booming production from the U.S. and other non-OPEC+ producers.

OPEC has a history of underestimating U.S. output gains going back to the start of the shale oil boom, which has seen the U.S. become the world's top oil producer — it now pumps a fifth of world supply. Meanwhile, some OPEC delegates expect more U.S. oil and say the reason is President-elect Donald Trump. Following an election centered on the economy and the cost of living, Trump's transition team put together a wide-ranging package to deregulate the energy sector.

"I think a return of Trump is good news for the oil industry, with possibly less stringent environmental policies," a delegate from an OPEC+ member said. "But we may see higher production in the United States, which is not good for us." A further rise in U.S. output would hinder plans by the Organization of the Petroleum Exporting Countries and allies such as Russia to start raising output in April 2025 without risking a drop in prices. A drop in prices would hurt OPEC+ countries that rely on oil revenues.

OPEC+ is holding back 5.85 million barrels per day of output after a series of cuts since 2022. Since 2022, total U.S. oil output has risen 11% to 21.6 million barrels per day, according to OPEC's own figures. Only 11 years ago, the U.S. pumped about 10 million.

Company proposes to store CO2 in Gulf of Mexico offshore wells

(Louisiana Illuminator; Dec. 16) - The fishers in Gulf of Mexico waters off Cameron Parish, Louisiana, estimate their catch has fallen catastrophically from 1 million tons a season to 150,000 tons since the first liquefied natural gas terminal in the parish began operating eight years ago. Now, a new industry is being developed in the waters that were once the most productive grounds in the nation for fish, shrimp and oysters.

A company called OnStream CO2 is developing the GeoDura hub, which it says could hold millions of tons of carbon dioxide captured from fossil fuel industries, including LNG terminals, a mile or more below the waters off Cameron Parish's shores. It would be among the first of its kind in the U.S. Currently there are just a handful of offshore CCS

projects in the world. "These people are book smart, but when it comes to common sense, they have nothing," Travis Dardar said of the project. Dardar is a Cameron-based fisher and founder of the group Fishermen Involved in Sustaining our Heritage.

According to a report from the Center for International Environmental Law, in the best-case scenario, the injection of captured carbon may temporarily disrupt fisheries with drilling and seismic testing. In the worst-case, underwater carbon sequestration wells could fail and release the stored carbon, killing off the plants, fish and even the people in boats in the waters above. Storing carbon also has potential global implications if, as opponents claim, carbon capture and sequestration allow the fossil fuel industry to maintain the status quo as one of the world's top emitters of greenhouse gasses.

The federal government, which is supporting the GeoDura hub with a recently announced \$26 million grant award, and geologists who have studied carbon storage say offshore sequestration projects make a lot of sense.

UAE producer strikes another deal to supply Germany with LNG

(Bloomberg; Dec. 16) - The United Arab Emirates's biggest oil producer has agreed to sell liquefied natural gas to a second German utility as it wraps up more supply contracts from a new export terminal it's building. Abu Dhabi National Oil Co. will supply 0.6 million tonnes of LNG annually to Germany's EnBW Energie Baden-Wuerttemberg for 15 years starting 2028, according to a statement.

ADNOC has preliminary deals with buyers from Europe to Japan for supply of the fuel and is converting those to definitive sales agreements. The pact with EnBW is an example of Europe's continuing dependence on fossil fuels. In November, ADNOC signed its first sales agreement to supply 1 million tons of LNG a year to Germany's SEFE. The country fast-tracked LNG imports after Russia curbed pipeline gas deliveries following its invasion of Ukraine, though Germany aims to shift to cleaner energy.

The UAE and other Middle Eastern states are ramping up gas projects, seeing the fuel as a key bridge in the transition to greener energy sources. In addition to building the multibillion-dollar Ruwais LNG project, ADNOC has stakes in export facilities in the U.S. and Africa. Saudi Arabia is also expanding domestic gas output and buying international export volumes to trade and Qatar is in the middle of a massive LNG expansion.

Germany ready to abolish levy charged on natural gas in storage

(Bloomberg; Dec. 16) - Germany's conservatives are ready to abolish a contentious levy charged on natural gas in storage, breaking a week-long political standstill over the fee that had raised alarm among European neighbors. The fee, which the government

introduced at the peak of Europe's energy crisis in 2022 to help pay to fill domestic gas storage, had also been levied at border-crossing points and was sharply criticized by central European countries as it made it more expensive for them to obtain the fuel.

The draft plan from the economy ministry to abolish the levy had been in limbo for weeks after Chancellor Olaf Scholz' three-party coalition collapsed. Last month, natural gas market manager Trading Hub Europe (THE) announced it would have to increase the fee next year if the law to abolish it wasn't passed. The levy, paid to THE, is used to cover the costs of refilling storage sites. It's paid by gas traders or utilities for deliveries through Germany and has been heavily criticized as it raises the cost of obtaining liquefied natural gas for countries such as Austria, Slovakia and the Czech Republic.

Before a Dec. 16 meeting of the European Union energy council, the delegations of the three countries had again appealed to Germany to quickly abolish the levy.

U.K. sanctions secretive oil trader with links to Russian business

(Wall Street Journal; Dec. 17) - The U.K. sanctioned a secretive oil-trading company that it described as a linchpin in Russia's oil trade, designed to step up pressure on Moscow ahead of possible peace talks with Ukraine. The U.K. added 2Rivers, a trader based in Dubai and run by a group of Azerbaijan businessmen, to its list of sanctioned companies on Dec. 17. The move bans anyone in the U.K., and British companies and people abroad, from moving 2Rivers funds or dealing in its property and other assets.

The U.K. also listed Coral Energy, which is what 2Rivers was called until it rebranded over the summer. The name change was an attempt to shed Coral's reputation as a player in Russian oil. The company previously said it stopped trading Russian oil in late 2022. The prime minister's office said the companies were "key linchpins in enabling the trading of (Russian President Vladimir) Putin's precious oil," and that the sanctions aimed to clamp down on "oil revenues he so desperately needs to fuel his illegal war."

A spokeswoman for 2Rivers said the company would challenge the sanctions legally and by diplomatic channels. She said the U.K.'s move "fails to reflect the company's ... full exit from Russian trading activities." The company blamed its reputation for trading Russian oil on former employees in Moscow who, it said, kept using its name without permission. The sanctions could complicate Russia's ability to move and finance its oil exports. The U.K. is home to international banks, insurers and law firms that serve the oil industry. The sanctions are likely to limit 2Rivers's access to the financial system.

Oil spill from Russian tankers fouls Black Sea beaches

(Reuters; Dec. 18) - An oil spill from damaged tankers has contaminated a long stretch of sandy beaches along the Russian Black Sea shoreline, polluting the air and threatening wildlife in one of the worst ecological disasters to hit the region in years. Around 4,000 volunteers have been cleaning beaches near the resort city of Anapa from the spill from two tankers, which were damaged by a Dec. 15 storm, a local task force said. The emergencies ministry said the cleanup stretched along 30 miles of shoreline.

Numerous videos posted on social media showed birds floundering in oil, flapping their wings and struggling to fly. Black oil spots were also visible along the beaches. "It was impossible to breathe; I thought it was my car emitting the smoke. ... Oil has come to us. I can't go any further: It's oil, oil, oil, oil, a man's voice said in a video on social media.

The stricken tankers, both more than 50 years old, were carrying some 62,000 barrels of oil products in total, TASS news agency reported, but the scale of the leakage is still unknown. The vessels were in the Kerch Strait between mainland Russia and Crimea, which Russia annexed from Ukraine in 2014, when they issued distress signals. TASS news agency said on Dec. 17 a third tanker had issued a distress signal but its hull was still intact, there was no oil spillage and the crew was safe.