

Volume 5, Issue 33

• Welcome

Welcome to Volume 5, Issue 33 of *Currents*. In today's e-newsletter, we look at the effects of renewables and of extreme weather on the grid; China's coal boost; storage project investments; the Kremlin, U.S. and Nord Stream 2; carbon capture's pipeline boom; and the impact of the wastewater rule on coal-fired plants.

We would love to have your <u>feedback</u> about what we considered to be important and why. We hope you enjoy reading.



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FERC Warned Renewables Planning Can Strand Grid Assets

"But at a FERC technical conference, others highlighted a potential risk for overbuilding and the cost it could incur for consumers."

Why this is important: It's not just electricity generation facilities that can be built and then not used, becoming stranded assets that ratepayers still have to pay for. The same can happen with electricity transmission projects, such as power lines. The FERC is trying to decide what rules it should have in place for requiring utilities and grid operators to take into account the likelihood that transmission lines could be overbuilt and not needed by the time construction is finished. --- <u>David L. Yaussy</u>

• <u>China is Mining Much More Coal Again and That's Boosting</u> <u>Its Factories</u>

"Beijing attributed the improvement to 'recent policy measures' that have strengthened energy supply and stabilized soaring costs."

Why this is important: China's energy crunch is being eased by a big jump in coal production. This year, China has faced serious energy shortages with curtailments in electric generation that have slowed economic output and consumer use of energy. In mid-November, China saw record coal production that is slowly easing those energy woes. However, some economic reporting still shows China's overall economy in a contraction, rather than an expanding state, in October and November. Increased use of coal worldwide has and will continue to revive U.S. coal markets despite the closure of U.S. coal-fired electric generation plants. --- Mark E. Heath

• <u>Hydrostor Advances 3.2 GWh Energy Storage Project to</u> <u>Help Replace California's Diablo Canyon Plant</u>

"The project's announcement comes as California regulators are racing to bring online new resources by the middle of the decade, in a bid to replace both Diablo Canyon as well as 3.7 GW of natural gas plants scheduled to soon shut down."

Why this is important: Lack of inexpensive and reliable energy storage is one of the major impediments to development of intermittent energy sources such as wind and solar. Air that is compressed by power generated from excess wind and solar can be used to drive turbines whenever additional peaking power is needed. Previously, the cost of these pressurized systems was estimated to be greater than the cost of other types of batteries, but pressurized air is getting another look as regulators look to level out power supply from intermittent energy sources and replace nuclear and gas facilities that will be taken off line. --- David L. Yaussy

Kremlin Says Absence of US Pressure Serves as Key Condition to Implement Nord Stream 2

"Currently, Germany's Federal Network Agency is expected to certify an infrastructure facility, Dmitry Peskov recalled."

Why this is important: Efforts to facilitate the export of LNG by U.S. producers would be the most effective means to minimize the ability of Russia to impose a geopolitical stranglehold on our European allies with Nord Stream 2. The encouragement of exports of inexpensive LNG to Europe would restrain the ability of Russian gas to exert economic hardship on energy users in Europe. Increased exports of domestic natural gas would be a more certain check on the influence of Nord Stream 2 than diplomatic negotiations that may not be honored by the countries involved. --- William M. Herlihy

• <u>Extreme Weather, Low Hydro and Fuel Shortages Could</u> <u>Threaten Grid in Multiple Regions This Winter: NERC</u>

"The threat is most severe in the Electric Reliability Council of Texas territory, where electricity demand could outstrip capacity reserves by more than 37% in the most extreme scenarios."

Why this is important: The North American Electric Reliability Corp. ("NERC") has released its 2021-22 Winter Reliability Assessment. The report notes the U.S. has retired 70 GW of baseload generation in the past 10 years. The closing of mostly coal-fired electrical generation plants has left some regions vulnerable to energy shortages this winter. NERC notes that some regions, due to ongoing droughts, will have low hydro availability, while other regions do not have adequate gas pipeline infrastructure to deliver enough gas in severe weather events. And worldwide energy demands have left some utilities with low coal stockpiles that may limit the coal-fired baseload generation many regions rely upon in heavy demand periods. The report is now more detailed after the power disruptions in Texas in February 2021 and also notes Texas regulators have ordered utilities to winterize plants to survive the cold temperatures that crippled Texas last winter. A separate report on the Texas event also recently was released by NERC and the Federal Energy Regulatory Commission. --- <u>Mark E. Heath</u>

What to Make of the Carbon Capture Pipeline Boom

"The market for carbon capture, utilization, and storage technologies (CCUS) could be at a turning point following a decade of project cancelations, and concerns about cost and scalability."

Why this is important: The recently passed Infrastructure Bill authorizes billions of dollars to fund carbon capture development. For those companies that want to set net zero goals and still use fossil fuels for heat and power, carbon capture is about the only road to take. With this combination of demand and available money, is it any wonder that the number of proposed carbon capture projects has increased dramatically? --- <u>David L. Yaussy</u>

Coal-Fired Power Plants to Close After New Wastewater Rule

"Dozens of plants nationwide plan to stop burning coal this decade to comply with more stringent federal wastewater guidelines, according to state regulatory filings, as the industry continues moving away from the planet-warming fossil fuel to make electricity."

Why this is important: Coal-fired electrical generation plants continue to be scheduled to close. But the driver is not climate change -- it's compliance costs for a new wastewater rule. New rules require plant operators to remove coal ash and mercury, arsenic and selenium from water before discharging it into streams and rivers by 2028. The new rules will affect 75 coal-fired plants, and last month operators were to announce how they will comply with the rule. At least 26 will close, including large plants like Keystone and Conemaugh in Pennsylvania and units at Scherer and Bowen in Georgia. The changes in Pennsylvania, the number three coal producer in the U.S., will mean only 10 percent of its electricity will come from coal-fired generation in the future. Compliance with the new rule is estimated at \$200 million per year, which is why many older plants are closing. Of the 26 plants that plan to stop burning coal, five will switch to natural gas as a fuel source and 21 will shut down. --- <u>Mark E. Heath</u>

EIA Energy Statistics

Here is a round-up of the latest statistics concerning the energy industry.

PETROLEUM This Week in Petroleum

Weekly Petroleum Status Report

NATURAL GAS Short-Term Energy Outlook - Natural Gas

Natural Gas Weekly Update

Natural Gas Futures Prices

COAL Short-Term Energy Outlook - Coal

Coal Markets

Weekly Coal Production

RENEWABLES Short-Term Energy Outlook

Monthly Biodiesel Production Report

Monthly Densified Biomass Fuel Report

What are your areas of interest? If there are particular industries or issues that you would like to hear about, <u>email us</u>! We have a large number of attorneys willing to weigh in on the issues that impact you and your business.

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