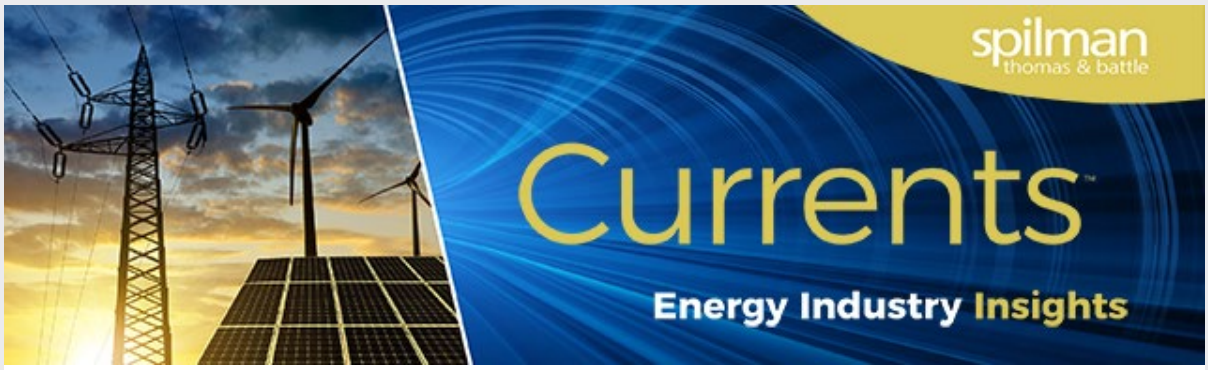

Issue 39, 2020

Mountain Valley Says Natural Gas Pipeline Timing Depends on Litigation, U.S. Approvals

"'As the litigation process progresses and as we receive additional information from FERC regarding potentially releasing the remainder of the route for construction, (Mountain Valley) will continue to evaluate its current construction plans, budget, and schedule,' Equitrans said."

Why this is important: This is another example of the increased costs resulting from the environmentalist strategy of challenging pipeline infrastructure projects at every step of the permitting process. Originally set to be completed in 2018 at a cost of $3.5 billion, the Mountain Valley natural gas pipeline is now set for a mid/late 2021 completion date at a cost of around $5.7 billion. Future projects must expect and, most importantly, budget for frequent and drawn out permit challenges. --- Joseph C. Unger

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U.S. Should Follow EU and China in Setting Carbon-Neutral Target: UN's WMO

"Xi used the U.N. lectern to call for multilateral action on climate change after President Donald Trump called the Paris climate agreement - with nearly 200 signatories - a one-sided accord and criticised China for being the world's largest carbon emitter."

Why this is important: There is a wide gulf between China's climate commitments and its climate action. In 2019, China had twice the amount of CO2 emissions as the U.S. and three times the emissions of the EU. During that time period, the U.S. and the EU saw their emissions decrease by 1.7 percent, while China's rose by 2.6 percent. While this article highlights China's leadership and paints the U.S. as the global laggard, in actuality, the EU is the global leader in climate action, China is the global leader in emissions, and the U.S. is in between the two. --- Nicholas S. Preservati

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Coal-to-Gas Plant Conversion is Gathering Pace in the U.S. and Canada

"Repurposing aging coal plants to run on natural gas is increasingly considered a viable way for energy producers to reduce emissions and cut costs."

Why this is important: The U.S. Energy Information Agency is finding many U.S. coal plants are being

converted to natural gas for power generation. The utilities are making the conversions to deal with stranded assets and repurposing the plants as gas-fired electrical generation power plants. Between 2011 and 2019, 121 coal-fired plants were repurposed to other fuels – primarily natural gas. The changes are occurring to 1) meet stricter emissions standards; 2) use cheap natural gas; and 3) use the more efficient natural gas turbines now available. At least 17 coal-fired plants repurposed to natural gas fueled combined cycle plants now produce 15.3 GW, up from their 7.9 GW coal-fired ratings. In another study of 104 coal plants, 86 were repurposed to natural gas and now produce 14.3 GW of power. These market forces are driving the closure of coal-fired electric generation plants. --- Mark E. Heath

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To Batteries and Beyond: In a High-Renewables World, Pumped Hydro Storage Could be 'the Heavy Artillery'

"But as more renewables come online, the industry is eyeing new locations and fresh technologies."

Why this is important: Renewables like wind and solar provide intermittent power, so utilities are looking at ways to store power in order to level the load when renewables cut out. The current storage champion is not a traditional chemical battery, but kinetic energy stored in water that is pumped uphill during times of excess power generation, and allowed to fall downhill through turbines when additional power is needed. This allows power generation over a longer period of time than lithium ion batteries, but still not more than about 12 hours. Developers are actively seeking out favorable sites to construct new pumped hydro projects to balance increased build out of renewables. --- David L. Yaussy

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Japan's JERA to Shut Inefficient Coal-Fired Power Plants by 2030

"Japan's biggest power generator JERA said it will shut down all inefficient coal-fired power plants in Japan by 2030 and it aims to achieve net zero emissions of carbon dioxide by 2050 to tackle climate change."

Why this is important: Japan's largest power producer, JERA, wants to cut its CO2 emissions to net zero by 2050 and close its inefficient coal-fired plants by 2030. Japan currently gets 80 percent of its electricity from coal-fired generation plants and those plants account for 40 percent of the country's CO2 emissions. To reduce coal use, the utility plans to invest in offshore wind farms and using ammonia and hydrogen as fuel for its power plants. By 2035, it wants to use 20 percent ammonia as fuel with coal at its coal-fired electric generation plants. Currently, utilities worldwide are looking at ways to reduce the use of coal for electric generation. --- Mark E. Heath

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Solar the New 'King of Electricity' as Renewables Make Up Bigger Slice of Supply

"Solar output is expected to lead a surge in renewable power supply in the next decade with renewables seen accounting for 80% of growth in global electricity generation under current conditions."

Why this is important: Power generation from renewables, solar in particular, is expected to set records for deployment in the near future. How high those records will be will depend on adequate investment in every aspect of solar infrastructure, probably the most important of which is battery/storing technology. Lowering energy storage prices is key to the future of solar energy. --- Joseph C. Unger

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New Design Molten Salt Reactor is Cheaper to Run, Consumes Nuclear Waste

"There are many well-informed nuclear designers who believe that molten salt is the way to have gone and is still the way to go."

Why this is important: Nuclear power has long been hindered with very high costs to build nuclear plants. Most plants today use light water for cooling. A new type of reactor that is actually an old type, is now being built that uses a molten salt core and can burn nuclear waste. The Elysium Reactor is a Molten Chloride Salt Fast Reactor and is being designed so that it can burn nuclear waste, is air cooled, processes heat, can be refueled with no downtime and has lower costs, and does not need a water source. The reactor can even produce hydrogen. Oak Ridge used a molten salt reactor from the 1950s to the 1970s, but the system lost out to light water cooled reactors. This new type of reactor can be built offsite as its not pressurized and could lead to much smaller nuclear plants with zero CO2 emissions. --- Mark E. Heath

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Energy Question of the Week

Last Week's Question and Results

Should the U.S. rejoin the Paris Accord?

Yes, strongly support - 13%
Yes, moderately support - 8.7%
Neutral - 8.7%
No, moderately oppose - 26.1%
No, strongly oppose - 34.8%
Do not know - 8.7%

Should the U.S. increase CAFÉ standards for passenger vehicles and light trucks?

Yes, strongly support

Select

Yes, moderately support

Select

Neutral

Select

No, moderately oppose

Select

No, strongly oppose

Select

Do not know

Select

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, email us! We have a large number of attorneys willing to weigh in on the issues that impact you and your business.

If you would like to subscribe to this weekly e-blast or know someone who would, please email us with contact information and CURRENTS in the subject line. We will add you or your acquaintance to the email list.

If you have any energy questions, please feel free to contact us.