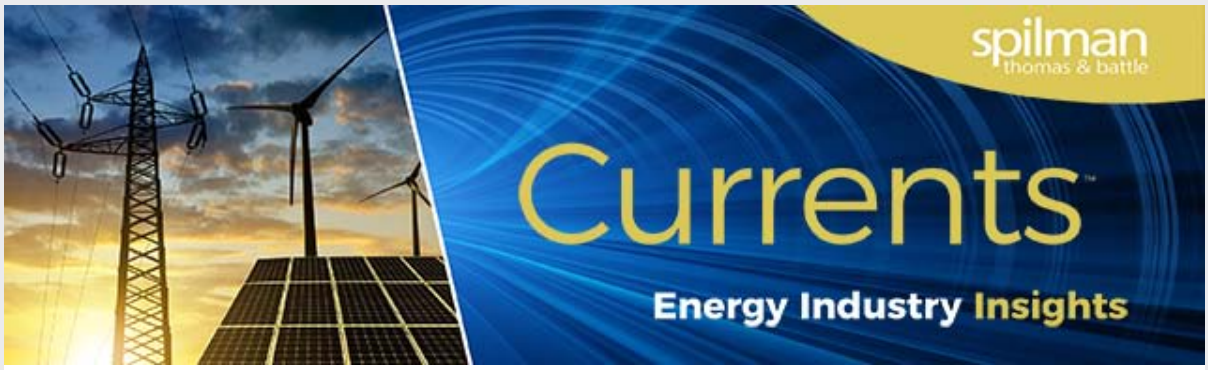

Issue 4, 2020

Energy Blockchain's Most Obvious Use Case is Not What You Think

"Instead, a select group of blockchain companies is finding success with a focus on certificates of origin, helping demonstrate the provenance of renewable energy supplies."

Why this is important: The push to use renewable energy continues to be a hot topic in many circles, but questions arise about the reliability of electricity claimed to be created by renewable energy sources. Renewable Energy Certificates ("RECs") try to address this issue by providing data about electricity when created, including the renewable fuel type and location used to create it. With a U.S. market of approximately $3 billion annually, RECs are an important part of the renewable energy system. Still, not all renewable energy plants are created equal, and purchasers may prefer to track electricity back to a specific renewable plant. Blockchain technology steps in here to help. At a basic level, a blockchain, or distributed ledger, is a public list of transactions updated in near real time. Several companies have begun offering the ability to track RECs on a blockchain back to the original producer, thereby increasing the reliability of electricity claimed to be created by renewable energy sources. Further, many are looking to blockchain technology to enable peer-to-peer renewable energy trading. --- Nicholas P. Mooney II

France and Germany Miss EU Climate Plan Deadline

"Only 18 of the 28 EU countries have submitted final national energy and climate plans, which detail how they will meet 2030 emission reduction targets, to the European Commission by the January 1st deadline."

Why this is important: The European Union has been a leader in the fight against climate change. But it seems most of the low-hanging fruit already has been plucked, and further reductions may be difficult to achieve. The larger European economies are having trouble meeting deadlines for submission of plans that will meet the EU's ambitious goals. Meanwhile, the plans submitted by the smaller countries will not allow the EU to achieve all of its 2030 climate goals and would fall far short of the more ambitious, zero carbon goal for 2050. --- David L. Yaussy

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High Coal Demand Expected Through at Least 2024, Says International Energy Agency

"The International Energy Agency's 2019 report on global coal usage says coal demand has risen since 2017 and is expected to remain stable or rise slightly for the next five years."

Why this is important: The International Energy Agency believes a worldwide higher demand for coal will continue until 2024. Worldwide usage of coal is up since 2017, and usage is expected to remain steady or increase slightly. Led by China, with half the world's coal consumption, worldwide usage was up 2 percent in 2018. Despite these increases, U.S. steam coal demand likely will remain in a steady decline as coal-fired electrical generation has declined from 50 percent to a projected 21 percent in 2024. --- Mark E. Heath

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Automakers: New Tech, Battery Advances Will Curb EV Range Anxiety

"Many EV batteries now have a range of 200 miles or more, and are seeing reductions both in price and size in the car, which experts say is a positive step toward getting more people comfortable with the idea of driving an EV."

Why this is important: Advances in lithium-ion battery technology are critical for the sustained success of electric vehicle sales. In addition to curbing "range anxiety," manufacturers need to make continued advances in charging times and cost. The recharging time for the typical EV using 110 volts is two to four hours. The charging time using 440 volts is 30 to 40 minutes. The lowered cost of the battery packs are also making electric vehicles more affordable. In 2010, the average cost per kWh was $1,160. By the end of 2018, that number dropped to $176. Reducing range anxiety and recharging times along with lower battery costs is the holy trinity for electric vehicle sales. --- Nicholas S. Preservati

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China's Countrywide Ban on Plastics: Good Intentions Do Not Equate to Good Policies

"China produces the largest quantity of plastic waste in the world and accounts for the highest shares of mismanaged plastic waste."

Why this is important: China has proposed a ban on single use plastics by 2025, an experiment that will be interesting to observe. A ban may produce unintended environmental consequences as the alternatives to single use plastics, which are presumably made of compostable or energy-intensive recyclable materials, are put into production. A better approach might be to better manage such single use plastics, with market incentives for proper disposal. --- David L. Yaussy

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Ohio's Natural Gas Supply Surge Spells Opportunity for Manufacturers

"Beyond energy independence and national security, this expansion in gas production has brought much-needed economic activity to eastern Ohio."

Why this is important: Since the last half of the 19th century, Ohio has been known as a manufacturing powerhouse. Youngstown and Cleveland steel, Akron rubber, Canton and Warren heavy industrial plants -- all fueled the American economy. When overseas manufacturing became predominant in the last decades of the 20th century, Ohio became the poster child of the Rust Belt. The Appalachian shale region slowly has begun to re-energize Ohio's manufacturing sector, and the potential growth is great. There are three primary reasons. First, natural gas is the base ingredient for many Ohio products -- plastics, pharmaceuticals, and fertilizers. Second, many existing heavy industries use natural gas furnaces in production -- glass, steel, cement, paper, food products, etc. Third, natural gas is becoming increasingly used for electricity generation, as it is the cleanest burning fossil fuel. --- Gerald E. (Gee) Lofstead III

What is Behind Rise in Steel Prices

"It was apparent that unabated Chinese appetite for iron ore and coking coal on the back of 7% rise in crude steel production (China produced 904.2 MT of crude steel during January to November 2019) was the primary driver to this price trend."

Why this is important: Some analysts believe steel prices in China bottomed out in November 2019. Since that time, iron ore and metallurgical coal prices have risen as the cost of steel increased from $145 to $153. If these trends continue, it could help the U.S. metallurgical coal export market. The drop in metallurgical coal and steam coal prices combined have negatively impacted a number of U.S. producers. This could be the first signs of relief. --- Mark E. Heath

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Geothermal's Surprise: Cheap Renewables Could Keep States from Achieving Climate Goals

"States like New York, Massachusetts and California with ambitious 2030 renewables and 2045 emissions reduction mandates are starting to find a tension between cost and value."

Why this is important: In California, enough solar powered electricity is produced during peak daytime hours to run most of the state. Until there is a satisfactory method of storing additional photovoltaic power, there isn't much more solar capacity to be added. What is needed is baseload power for when solar power can't be produced. Geothermal is a low-carbon alternative that could provide that power, but its cost is high in relation to solar. Some consideration has to be given to geothermal's capacity factor, or ability to provide reliable power at all times in determining its value to the electric grid overseers. Balancing episodic generation by low-cost renewable sources with reliable generation by higher-priced renewables is going to be an increasing problem for the grid. --- David L. Yaussy

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The Iranian Cybersecurity Threat is a Good Reminder for the Energy Sector to Embrace a Prevention Mindset

"A big part of the Iranian cybersecurity threat is its strategic prioritization of high risk, high reward critical infrastructure targets essential to the American way of life."

Why this is important: This article highlights the significance of Iran's cyber-warfare campaign. For more than a year, affiliates of Iran have been probing American electric utilities for cyber vulnerabilities. The threat is real, as earlier this month Iranian hackers attempted 10,000 cyber-attacks on Texas state agencies in just two days. This week, the Texas Public Utility Commission had its official website hacked by an "anonymous Iranian." --- Nicholas S. Preservati

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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.

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

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