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A Turning Point for U.S. Power Generation

"For the first time in U.S. history, renewable energies briefly generated more electricity than coal in April this year, according to the Institute for Energy Economics and Financial Analysis."

Why this is important: In 2016, the cheap price of natural gas due to new technologies and large-scale shale extraction allowed it to replace coal as the main energy source in America. However, renewable energy sources, such as wind, solar, hydroelectric, and bioenergy, are predicted to bump coal to third place, particularly as aging U.S. coal plants are abandoned due to costly maintenance, repairs and inefficiencies. Natural gas and renewable energies "are proving to be more efficient, cleaner and more cost-efficient than coal." While President Trump has campaigned for "ending the war on coal" and disparaged renewable energies, demand for coal has not seen a meaningful turnaround. According to data from the U.S. Energy Information Administration, more coal-fired power plants shut down in Trump's first two years in office than during the entirety of Barack Obama's first term, with 2018 representing a near-record for coal-fired plant closures. Europe's demand for coal for energy and steel production are declining. While demand for coal in Asia remains strong, U.S. coal faces logistical disadvantages and competition from China, the world's largest producer of coal. While coal continues to be a significant part of the global energy market for the foreseeable future, growth will be slowed due to "fluctuating and diminishing demand, changing regulatory and market conditions," and "the likelihood of continued technological advances that provide for cleaner, cheaper alternatives." --- Dennise R. Smith

Oil Hit Hard by Planned New Tariffs on China

"President Donald Trump's decision to impose tariffs on an additional \$300 billion in Chinese goods sent oil markets into a nosedive last week, delivering a setback to an already slumping energy industry and a potential blow to a state economy still linked to the fortunes of the oil and gas sector."

Why this is important: With the Trump administration's most recent call for additional tariffs on Chinese products, oil prices slumped 8 percent and have yet to rebound. Oil prices have been declining recently because of global oversupply of oil coupled with tariffs the United States placed on China, which are weakening China's economy. Also looming in the background is fear of a global economic slowdown that will further weaken energy demands when supplies are abundant. Presently, the oversupply of oil is dampening any impact of geopolitical events on the price of oil. As the trade war between the United States and China deepens, oil prices are expected to decline significantly. --- Bryan S. Neft

The Science is Settled: Fracking Makes America Strong and Healthy

"Spurring record oil and natural gas production, the technology has helped to improve air quality, reduce emissions, create well-paying jobs and even save lives."

Why this is important: It's easy to forget, with the demonizing of fossil fuels, how integral they are to maintaining a society that is healthy and productive. Natural gas usage, which has increased with the horizontal drilling revolution, has decreased CO2

emissions in the U.S. and elsewhere as it replaces coal-fired electric generation. It also has improved the incomes of workers, and higher incomes generally translate into better health outcomes. Add in other factors, such as lower heating costs resulting in fewer winter deaths and the production of plastics and the many life-saving products they are in, and it becomes clear that fracturing, which makes oil and gas recovery more affordable, has made life better for millions of people. --- <u>David L. Yaussy</u>



Vietnam Mulls Importing U.S. Coal for Power Generation

"Vietnam is also seeking to import more U.S. goods to help narrow its trade surplus with the United States following threats by President Donald Trump to impose tariffs on its products amid the Sino-U.S. trade war."

Why this is important: Vietnam state run media announced the country is looking to U.S. coal producers to meet a growing demand for electrical power generation. Currently, Vietnam uses coal to generate 38.1 percent of its electric power. That will rise to 42.6 percent by 2030 and the country believes it will need import 680 million metric tons of coal between 2016 and 2030. Without significant imports and additional coal-fired power plant construction, the country faces severe electrical shortages by 2021. The Southeast Asian nation also would like to use energy imports to help its balance of trade with the U.S. Vietnam recently agreed to buy 2 to 3 million barrels of Texas crude oil in the second half of 2019 and is looking to import natural gas from the U.S. as well. With recent drops in steam coal prices worldwide, Vietnam's plans would provide new markets for U.S. producers. --- Mark E. Heath



Hyundai Launches Car with a Roof-Based Solar Charging System

"The idea is for the solar roof to support the car's electric power source, boost fuel efficiency and lower carbon dioxide emissions, Hyundai said."

Why this is important: Hyundai Motor Company's latest version of the Sonata Hybrid will feature the first ever car with a solar roof charging system. Hyundai plans to introduce the technology to other vehicles. They will sell the vehicle in South Korea and release it later to the North American market. Silicon solar panels will charge while the car is moving to support the car's electrical power source, improve fuel efficiency and lower emissions of carbon dioxide. According to Hyundai, this technology will charge 30 to 60 percent of the car's battery, increasing travel distances by 1,300 kilometers per year with six hours of charging a day. Continued improvements to solar energy technology will make solar energy a more viable and reliable of source of renewable energy generation. --- Dennise R. Smith

U.S. Escalates Venezuela Sanctions, May Target Crude Flows to India, China

"Kevin Book, managing director of ClearView Energy Partners, said the order could bar Venezuela from selling crude to and buying diluent from non-U.S. third parties unless the U.S. allows it.

Why this is important: The United States imposed additional sanctions against Venezuela's state-owned oil company, PDVSA. The order blocks anyone from doing business with the company, or anyone acting on behalf of the company, including the Maduro regime. The intent of the order, as reported by National Security Advisor John Bolton, is to weaken support for the Maduro regime from Cuba, Russia, China, Iran and India. Its effect on sales to Russia and China, however, may be questionable. In its essence, the move is a geopolitical one that likely won't have much effect on the price of global oil, but will continue to erode the position of the Maduro regime. --- Bryan S. Neft



We Must Change Food Production to Save the World, Says Leaked Report

"Attempts to solve the climate crisis by cutting carbon emissions from only cars, factories and power plants are doomed to failure, scientists will warn."

Why this is important: The Intergovernmental Panel on Climate Change is debating a new report calling for significant changes in the way food is produced in order to reduce the 25 percent of greenhouse gas emissions that agriculture generates. Altering agriculture will be more easily said than done. Agriculture has become tremendously more efficient in the past 100 years, producing incredible amounts of food with a minuscule portion of the population in developed nations. It's been able to do this primarily because of the use of energy, principally fossil fuels, to multiply the efforts of individual farmers exponentially and

through conversion of land to support farming activities. Reversing those advances likely will lead to higher food prices, which disproportionately will affect the poor, probably much more than the effects of climate change. --- <u>David L. Yaussy</u>



Miners' Malady is on Trump's Radar

"Much of what President Donald Trump had to say pleased the nearly 1,000 people in the crowd immensely....His audience here wanted to know about coal, steel and natural gas."

Why this is important: President Trump, in Wheeling, West Virginia recently for a fundraiser, discussed the increase in black lung claims among U.S. coal miners. The President told the group of coal industry backers that more needs to be done to combat black lung and announced his administration is looking at changes Australia is implementing to reduce coal dust exposure in their coal industry that could be applied in the U.S. Although the President did not discuss what changes were made, the Australian mine workforce is now the same size as the U.S. mining workforce. --- Mark E. Heath



China Coal Mine Approvals Surge Despite Climate Pledges

"Approvals for new coal mine construction in China have surged in 2019, government documents showed, with Beijing expecting consumption of the commodity to rise in the coming years even as it steps up its fight against smog and greenhouse gas emissions."

Why this is important: While China continues to assert that its environment and climate goals include long-term cuts in coal consumption, its approval for new coal mine construction in 2019 saw a five-fold increase. In the first half of 2019 alone, China approved 141 million tonnes of new annual coal production capacity, compared to 25 million tons over the whole of 2018. Further, coal production in China rose 2.6 percent in the first-half of 2019 to 1.76 billion tons. To reduce emissions and pollution, China is requiring "ultra-low emissions" technology mandatory in all new coal power plants and improving mine zoning regulations. --- Dennise R. Smith



Tesla's Megapack Battery Ambitions Could Drain Cobalt Supply

"This metal which resides primarily in Africa is used by nearly every major tech company and automakers alike, with Tesla pushing the boundaries due to its new Megapack battery product for utility-scale projects."

Why this is important: The increasing use of batteries, from smartphones to grid-scale structures, will drive up the demand for cobalt, a key ingredient in most high-end batteries today. The majority of cobalt is produced in the Democratic Republic of Congo, which is understandably increasing taxes on the cobalt it produces to benefit from its market power. Researchers are trying to develop batteries that do not require large amounts of uncommon constituents such as cobalt, but until they do, the DRC, and cobalt recovery recycling facilities, will be key players in the renewables markets. --- David L. Yaussy



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

<u>Short-Term Energy Outlook - Natural Gas</u>

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, <a href="mailto:email

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