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**From:** Maisano, Frank [frank.maisano@bracewell.com]  
**Sent:** 5/21/2018 7:40:32 PM  
**To:** Maisano, Frank [frank.maisano@bracewell.com]  
**Subject:** May 21 PRG Energy Update: Racing Toward Summer Environment with Great Energy

Friends,

Well it was rainy, but the Preakness was about as exciting a race as we've seen that had a 2/5 favorite. The sloppy track made for a real mess on the infield, but Justify ran through it, taking early pressure from Derby runner-up *Good Magic* and then holding off the late-charging *Bravazo*. And for the second straight race: *winner-winner, chicken dinner* in the bet books, although I did get hurt on my tri- and Superfecta boxes by *Tenfold's* late charge and *Quip's* fade. All-in-all, a fun day...and with the Belmont 19 days away, I truly question whether we will see a Triple Crown winner this year given *Justify's* race inexperience and the grueling grind of three races in 7 weeks. We'll see as the field shapes up, but right now I remain skeptical of his ability to go the full mile and a half at Belmont.

So, tonight is a pivotal game for the Caps as they face elimination for the first time, but how about those Vegas Golden Knights. It is so crazy that in their inaugural year they are headed to the Stanley Cup Finals.

Early in the week, we will be very busy with Congress in session pushing hard on Appropriations bills. Tomorrow is the busiest day with House Energy Committee moving several pieces of nuclear legislation at 10:00 a.m. featuring former NRC Commish and ClearPath advisor Jeff Merrifield, while Senate Energy Approps panel marks up the just-passed House Energy Budget at 2:30 p.m. Also, tomorrow at 10:00 a.m., the Senate Environment Committee will hold a business meeting to move several bills including the USE IT Act, which targets advancing CCS technologies. Then on Thursday, the full Approps Committee will likely move the FY 2019 energy budget bill out to the Senate calendar.

The biggest event off the Hill is Thursday's CSIS-EPIC nuclear summit that focuses on the future of nuclear. Other key events feature an EESI-American Biogas Assn forum on biogas/waste management Wednesday and an EESI, rural coops forum on rural communities investments in energy efficiency featuring our friend Curtis Wynne of the Roanoke (NC) Electric Co-op. Finally, if you are following NAFTA and Mexican trade issues (and you should be given what is currently going on) you will want to head over to the Press Club tomorrow where former Mexican President Vicente Fox will discuss globalism vs nationalism.

We also have heard that Thursday maybe the day that NOAA releases its 2018 hurricane forecast for the season that starts June 1<sup>st</sup>. Of course, we are covering that issue aggressively with our friends at MIT, who are focused on responding to more intense hurricanes through better building resilience and recovery. They have a full array of research on these topics and are happy to discuss how they affect communities and policymakers response - especially after last year's difficult hurricane season in the Southeast and Caribbean.

Lots of great events out of town this week including NEI's annual conference in Atlanta, Clean Energy Ministerials in Denmark, Interior Sect. Zinke and Miss America Cara Mund headlining a North Dakota Oil conference, an Argus NatGas Markets conference in Houston, NOAA's Global monitoring conference in Boulder and ACEEE Finance Forum in NY.

Finally, Memorial Day weekend starts on Friday, which is the unofficial beginning of Summer. Expect those trips to the beach and traffic around Annapolis to get a little nuttier, while we finally bust out those linen pants and Tommy Bahama shirts. As well, this week's signifies the beginning of the summer concert season kicked off by this past weekend's Rock on the Range show in Columbus. The performances were pretty awesome including a killer Tool set, pieces of the new Godsmack album and a wonderful tribute by Alice in Chains to Chris Cornell who passed away 1 year ago on Friday. We are headed Godsmack and Incubus for sure while Stacey is once again headed to Firefly in Delaware in June. It should be a great summer of shows.

No update next Monday as I will be in California all week first at a field hockey tournament and then visiting colleges with Adam. Enjoy the weekend and please be careful on the roads or wherever you're headed.

Best,

Frank Maisano

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## FRANKLY SPOKEN

***“Currently, we have no reason to change our fundamental outlook for 2018, a 16.1 billion gallons of ethanol production, 14.4 billion gallons to 14.5 billion gallons of domestic lending and 1.6 billion gallons to 1.8 billion gallons of exports. We saw record exports totaling 512 million gallons in the first quarter, there were a number of new players buying U.S. ethanol including Colombia, Saudi Arabia and Switzerland. Brazil first quarter totaled nearly 240 million gallons.”***

*Great Plains CEO Todd Becker on their Q1 2018 Earnings Call, highlighting significant production and exports resulting in more than 16 billion gallons of ethanol and having no reason to change the fundamental outlook despite different claims by USDA Secretary Perdue and ethanol lobbyists about demand*

## ON THE POD

**MIT Experts Weigh in on Hurricane, Building Resiliency** – The episode of PRG’s podcast *The Lobby Shop* this week [features my interview](#) with MIT resiliency expert Jeremy Gregory discussing the 2018 hurricane season and what vulnerable communities and their resident/policymakers can do to withstand and rebuild in more resilient ways. Good stuff with the start of the hurricane season slated for June 1. Check it out In [Stitcher](#), [Apple Podcasts](#), [SoundCloud](#), and [Google Play Music](#).

**America Adapts Podcast Archive with Dave Roberts** – I found a new podcast last week called [America Adapts](#) with Doug Parsons and I really liked it. It was very well done and featured segments with Climate skeptic gadfly Marc Morano, Vox’s David Roberts, *Rolling Stone*/climate book author Jeff Goodell and many more great people and topics. Check out Roberts [talking](#) about politics, his career as an enviro writer and climate adaptation.

## FUN OPINIONS

**Murray: Watch out for International Shipping Fuel Regs** – Our friend William Murray has a [great op-ed](#) on obscure marine regulations may spike U.S. fuel prices just in time for 2020 election cycle. Murray argues [rules](#) set by the UN-affiliated International Maritime Organization (IMO) that will limit sulfur content in its heavy fuel oil by 2020 could limit supply in much the same way road diesel was limited in 2008. Yet shippers have not upgraded nearly enough ships with the sulfur scrubbers needed ([only 250 out of the 60,000 global merchant fleet](#) of ships were upgraded by the end of last year). So, Murray writes, unless the IMO pushes back on its implementation plans to allow more ships and refiners to upgrade, prices for refined products like gasoline, diesel and home heating oil could start to spike by the winter of 2019 to 2020; just in time for the next presidential election cycle.

## IN THE NEWS

**President Moves Efficiency Executive Order** – President Trump late Thursday [issued a new efficiency Executive Order](#) that replaced one signed by former President Obama that sought to reduce federal agencies’ energy use and greenhouse gas emissions. The change instructs agencies to set their own goals for efficiency and “prioritize actions that reduce waste, cut costs, enhance the resilience of Federal infrastructure and operations, and enable more effective accomplishment of its mission.” The Business Council for Sustainable Energy’s President Lisa Jacobson said the new Executive Order focused on Efficient Government Operations is important to continue to achieve annual building energy

and water reductions at federal facilities. She added that the Council strongly supports the Executive Order's recognition of performance contracting, through Energy Savings Performance Contracts and Utility Energy Savings Contracts, in achieving the goals.

**House Approps Move Energy Funding** – The House Appropriations Committee approved a sweeping set of resources and program direction to the Department of Energy that would spur advanced nuclear, carbon capture, energy storage and other clean energy technologies. The Senate takes up the bill tomorrow.

The bill:

- Builds upon direction in the FY18 spending deal for DOE to map out a "moonshot" goal for demonstrating advanced nuclear technologies with the private sector by the mid to late 2020s
- Directs the energy secretary to launch a department-wide energy storage effort with aggressive performance targets, utilizing the strengths of the agency's electricity, renewable and science offices to drive down costs and improve performance of grid-scale technologies
- Prioritizes R&D of new advanced reactor designs by providing \$100 million for advanced small modular nuclear reactor R&D, which helps innovative pending designs -- such as NuScale Power's -- get up and running on schedule; and \$155 million for advanced reactor technologies that could help more advanced technologies being worked on by Terrapower, X-energy and others
- Includes \$65 million for a versatile test reactor design, building off the initial resources provided in the recently-enacted FY18 omnibus for a national lab facility critical to the development of advanced nuclear by private developers
- Provides up to \$20 million for testing of high assay low-enriched uranium (HA-LEU), which will be needed to fuel many advanced nuclear concepts
- Supports scale-up of carbon capture efforts, including new solicitations for advanced fossil fuel system engineering, and specifically projects that generate emissions suitable for utilization or storage
- Advances and fully funds the ongoing five-year R&D effort led by DOE's Energy Innovation Hubs

**DOE Rolls out Thermal Solar Opportunity** – DOE announced \$72 million for new projects to advance high-temperature concentrating solar power (CSP) technologies last week. These projects will extend previous research on high-temperature components, develop them into integrated assemblies, and test these components and systems through a wide range of operational conditions. CSP technologies use mirrors to reflect and concentrate sunlight onto a focused point where it is collected and converted into heat. This thermal energy can be stored and used to produce electricity whenever it is needed. The best commercially available technologies can only reach 565 °C. The high-temperature thermal systems targeted by this program seek to achieve at least 700 °C, which would boost the efficiency and lower the cost of the electricity. If successful, these projects will lower the cost of a CSP system by approximately \$0.02 per kilowatt-hour, which is 40 percent of the way to the office's 2030 cost goals of \$0.05 per kilowatt-hour (kWh) for baseload CSP plants.

**New ClearPath Video Highlights Nuclear** – Speaking of Nuclear, a new whiteboard video from the Clearpath Foundation's Rich Powell explains that the virtues of the current nuclear fleet - namely its carbon-free power and 24/7 reliability - must be coupled with ever-changing demands of our global energy industry. That includes new technologies that make it smaller and highly scalable for use in cities and remote areas and allow for high-temperature use to decarbonize heavy industrial processes.

**WY CCS Testing Up/Running** – Wyoming's Integrated Test Center located at Basin Electric Power Cooperative's Dry Fork Station near Gillette was dedicated last week. The carbon capture research facility is a testing space off the back of the operating coal power plant. Five Carbon XPrize finalists — U.S., Canada, India, China and Scotland — will head to the site to put their concepts to capture CO2 from the power plant and convert it to a marketable product to the test. The project launched in 2015 with the Wyoming State Legislature's approval of \$15 million for the design, construction, and operation of the Wyoming ITC. Private partners, including our friends at Tri-State Generation, contributed \$5 million. The center is just the second in the country that allows for real-time testing of technology at an active power plant. Senate Environment chairman John Barrasso sent a letter of congratulation to Wyoming Gov. Matt Mead upon the ITC's dedication, calling the facility "the future of energy technology."

**National Audubon Joins Carbon Capture Coalition** – And speaking of CCS, C2ES said the [National Audubon Society will join the Carbon Capture Coalition](#). Jeff Bobeck, co-director of the Carbon Capture Coalition and director of energy policy engagement at C2ES said Audubon is among the oldest, most recognized, and widely respected voices for conservation, and its unique perspective will be a valuable addition to the coalition. Audubon’s commitment to solving climate change is rooted in a devotion to ensuring continued biodiversity, and its support illustrates a growing awareness that carbon capture is an essential and necessary tool to meet mid-century climate targets.

### **ON THE SCHEDULE THIS WEEK**

**ACEEE Finance Forum Underway** – The American Council for an Energy-Efficient Economy holds its [2018 Energy Efficiency Finance Forum](#) on Tarrytown, NY today and tomorrow. The keynote speaker today is Richard Kauffman, Chairman of Energy and Finance for New York. Kauffman joined the governor’s office in 2013 as the state’s first Chairman of Energy and Finance for New York and was known as the “Energy Czar.” Tomorrow, Matthew Arnold, Managing Director and Global Head of Sustainable Finance at JPMorgan Chase will keynote. Matt leads the firm’s client engagement on sustainability across all sectors globally.

**NEI holds its 65<sup>th</sup> Annual Industry Conference and Supplier Expo** – the Nuclear Energy Assembly (NEA) – in Atlanta today through Wednesday. The yearly conference of the nuclear technologies industry brings together industry leaders from all levels and this year is joined with the annual meeting of the North American Young Generation in Nuclear (NAYGN), which celebrates the future of nuclear energy. Speakers include Mike Allen, co-founder and executive editor of Axios, on the 2018 midterm elections; Jay Wileman, president and chief executive officer of GE Hitachi Nuclear Energy, will lead a discussion on how the industry is fostering innovation and leading the advance of new nuclear technologies; and former Secretary of Energy Ernest Moniz on the strategic importance of a robust nuclear industry for the country.

**Argus Gas Conference Looking at NatGas Demand, Supply Chain** – Argus holds its [North American Natural Gas Markets Conference](#) today through Wednesday in Houston. Keynote Speaker is Williams CEO Alan Armstrong. The event will look at the future of North American natural gas supply and production outlooks for the Permian, Marcellus and Utica; global LNG market trends; US exports and trading developments; mitigating political hurdles and the future of natural gas in an uncertain regulatory environment, and many other issues.

**NAS Hosts Small Business Meetings** – The National Academy of Sciences' Board on [Science, Technology and Economic Policy](#) will meet today and tomorrow to review the Small Business Innovation Research and Small Business Technology Transfer Programs at the Department of Energy Review.

**Clean Energy Ministerial Set for Denmark** – Tomorrow through Thursday, the [9<sup>th</sup> Clean Energy Ministerial](#) will be held in Copenhagen. It is jointly hosted by Denmark, Finland, Norway, Sweden, the Nordic Council of Ministers and the European Commission representing the European Union. The gathering features the world’s largest economies discussing deployment of clean energy technologies. Deputy Energy Secretary Dan Brouillette, representatives from Idaho National Lab and Nuclear Energy Agency and ClearPath Executive Director Rich Powell will be participating in an official side event at the ministerial. Deputy Secretary Brouillette and Assistant Secretary for Fossil Energy Steven Winberg will be participating in another official side event at the ministerial launching a new effort to promote and expand carbon capture technologies. Senior officials from Norway, the International Energy Agency, Saudi Arabia, Japan, United Kingdom and Occidental Petroleum are among other participants.

**Holdren Addresses NOAA Global Monitoring Conference** – The National Oceanic and Atmospheric Admin (NOAA) holds its [46<sup>th</sup> Global Monitoring Annual Conference](#) tomorrow and Wednesday in Boulder Colorado. The conference is part of NOAA’s continuing effort to stay abreast of recent observations concerning trace gases, aerosols, radiation, ozone, and climate forcing and to provide a forum in which these observations can be relayed and discussed. Speakers will be presenting the ESRL monitoring and research results of the past year. The meeting is not limited to ESRL reports and includes observations related to these themes by both independent and cooperative investigators, and other national and international programs.

**Columbia Forum to Look at IEA Oil Forecast to 2023** – The Center on Global Energy Policy holds a [presentation and discussion](#) at the Princeton Club of NY at 9:30 a.m. tomorrow looking at IEA's report *Oil 2018 – Analysis and Forecasts to 2023*. The event will feature Neil Atkinson, IEA's Head of the Oil Industry & Markets Division. Oil 2018 is the IEA's annual five-year forecast of global oil demand, supply refining, and trade. Oil 2018's analysis of the market examines a wide range of other important issues and uncertainties including the implications for oil demand of the 2020 IMO marine fuel regulations, growth of the global petrochemicals sector, a rising of electrification in China's transport fleet, decline rates in key oil producing countries, crude quality issues arising from the rapid increase in US production, investment needs in North American takeaway capacity, implications for global refining of the looming capacity surplus and more trends in global oil trade.

**Zinke, Miss America Headline ND Gas Conference** – The Williston Basin Petroleum Conference is set for Bismarck, North Dakota tomorrow through Thursday and will feature a keynote by Interior Secretary Ryan Zinke on Wednesday. Other speakers include ND Gov Doug Burgum, videos from ND Sens. Hoeven and Heitkamp, as well as Rep Kevin Cramer, Harold Hamm, Miss American Cara Mund and many more.

**House Energy to Look at Nuclear Legislation** – The House Energy and Commerce Subcommittee on Energy will hold a legislative hearing tomorrow on draft bills to propel "micro reactors" at military and national security facilities and expand the availability of advanced nuclear fuels. A [draft bill](#) from Rep. Bill Flores (R-Texas) would direct the Energy Department to establish a program supporting availability of HA-LEU via public-private partnerships to address regulatory and market challenges. A second [draft bipartisan bill](#) led by from Rep. Joe Wilson (R-S.C.) would require the secretary of energy to report on key components of a pilot program to site, construct and operate "micro reactors" at critical Defense Department or Energy Department national security facilities. The hearing also looks at the [NUKE Act \(H.R. 1320\)](#) from Reps. Adam Kinzinger (R-Ill.) and Mike Doyle (D-Pa.), which would streamline Nuclear Regulatory Commission licensing and update NRC's fee structure by limiting how much NRC can collect for overhead costs tied to running the agency to ensure adequate funding is spent to develop a regulatory framework for advanced reactors without overcharging. Witnesses include NNSA's Brent Park, DOE Office of Nuclear Energy head Ed McGinnis as well as ClearPath adviser and former NRC Commissioner Jeff Merrifield, URENCO USA President Melissa Mann, President, Nick Irvin of Southern Company and UCS's Ed Lyman.

**Forum to Look at US-Ukraine Energy Security** – The Wilson Center and Kennan Institute will hold a [forum tomorrow at 11:30 a.m.](#) featuring a discussion on US-Ukraine energy cooperation. The discussion will focus on strengthening Ukraine's energy security.

**Fox to Address Trade, Immigration, Trump** – The National Press Club will host a [Headliners Luncheon](#) tomorrow featuring former Mexican President Vicente Fox. Fox will deliver an address entitled "Democracy at the Crossroads: Globalization versus Nationalism". Fox, a right-wing populist representing the National Action Party (PAN), was elected as the 55<sup>th</sup> President of Mexico on December 1, 2000. Winning with 42% of the vote, Fox made history as the first presidential candidate in 71 years to defeat the Institutional Revolutionary Party (PRI). Fox's administration focused chiefly on improving trade relations with the United States and maintaining Mexico's growing economy. Fox left office in 2006, and in a break with his country's cultural norms and traditions has remained in the public eye post-presidency and has not been shy about expressing his views and opinions.

**Forum Spotlights Rural Co-Ops** – The [Partnership for Advancing an Inclusive Rural Energy Economy](#), a collaboration between the National Cooperative Business Association CLUSA and the Environmental and Energy Study Institute will hold a [livestream](#) tomorrow at 1:00 p.m. to look at how rural electric cooperatives are delivering cutting-edge inclusive energy efficiency programs for their members--saving them money while supporting local economic development. This livestream will include information about the U.S. Department of Agriculture's Rural Utilities Services (RUS) loan program that co-ops can take advantage of to help deliver these benefits. Livestream speakers include Doug O'Brien of the National Cooperative Business Association CLUSA, Roanoke Electric Cooperative CEO Curtis Wynn and Mike Couick of the Electric Cooperatives of South Carolina. Roanoke Electric's "[Upgrade to Save](#)" program and the "[Help My House](#)" program available to South Carolina's co-ops offer on-bill financing to help members afford cost-saving home energy upgrades. With on-bill financing, members repay their co-ops over time as part of their monthly electric bills, and the programs are designed so that members of all income levels can participate.

**House Foreign Affairs to Look at Oil, Gas Competitiveness** – The House Foreign Affairs Committee will hold a hearing tomorrow at 2:00 p.m. to examine the global implications of increased U.S. oil and gas competitiveness and how it could be utilized to strengthen American foreign policy. Ken Medlock of the Rice University Baker Institute, GTI's David Carroll, CSIS's Sarah Ladislaw and Samantha Gross of the Brookings Institute will testify.

**Senate Energy Approves Subpanel** – Mark up of the FY 2019 budget at 2:30 p.m. in SD-138

**Forum to Look at India Clean Energy Transition** – The World Resources Institute holds a forum on Wednesday at 10:00 a.m. looking at India's transition to a low-carbon economy. The event features a keynote by former World Bank, IMF exec Montek Singh Ahluwalia. WRI's Andrew Light and Christina Chan will join a discussion after.

**Forum to Look at Waste Energy** – The Environmental and Energy Study Institute (EESI) and the American Biogas Council (ABC) hold a briefing on Wednesday looking at the numerous challenges posed by organic wastes-to human health, water and air quality, and to businesses that must manage these wastes-and how anaerobic digestion offers solutions to these pressing issues. Anaerobic digestion is the process of converting organic materials, typically viewed as wastes, into usable products, including biogas, renewable natural gas (RNG), as well as valuable organic fertilizer and compost. These biogas systems turn a waste management issue into a revenue opportunity for America's farms, dairies, food processing, and wastewater treatment industries. Speakers for this forum will discuss the tremendous opportunities for rural and urban communities alike to use anaerobic digestion to foster healthy communities and businesses.

**Forum to Look at European Energy Security** – The Atlantic Council holds a discussion on Wednesday at 3:00 p.m. in 138 Dirksen looking at European energy security. The forum will feature conversation topics such as the energy transition, Nord Stream 2, and the role of gas in bolstering European energy security and the US-Europe energy relationship. Senate Foreign Relations Chair Ron Johnson and H.E. Prof Zdzisław Krasnodębski, Vice President of the European Parliament, will each provide keynote remarks, followed by a panel discussion featuring speakers from both sides of the Atlantic.

**Senate Hosts Pompeo to Discuss State Budget** – The Senate Foreign Relations Committee holds a hearing to examine the President's proposed budget request for fiscal year 2019 for the Department of State Thursday at 10:00 a.m. Secretary Pompeo will testify.

**Senate Full Approves Committee** – Mark up of the FY 2019 budget at 10:30 a.m. in SD-106

**CSIS, EPIC to Hold Nuclear Forum** – CSIS and the Energy Policy Institute at the University of Chicago (EPIC) will hold a half-day public conference on Thursday afternoon to address pressing questions in an effort to better understand the potential future of U.S. nuclear power. Nuclear energy faces an uncertain future in the United States as the fuel is beset by fierce competition from natural gas and renewable energy in many markets. Coupled with failure to deliver new projects on time and at cost, along with a public sensitive to operational safety, existing and future nuclear power generation is at risk in the United States.

**GBC Looks at Positive Energy Buildings** – The U.S. Green Building Council will hold its 2018 Building Tech Forum on Thursday at 5:30 p.m. net positive energy buildings. Green technology firms and building product companies will discuss cutting-edge research and products to support net positive energy buildings. Presenters will discuss advances in building technologies during education tracks, including case studies, equipment, products, renewable energy innovations and more.

## IN THE FUTURE

**MEMORIAL DAY** – May 28<sup>th</sup>

**Press Club Hosts Fox News Anchor** – Bret Baier, chief political anchor for Fox News Channel and the anchor and executive editor of "Special Report with Bret Baier," will share his latest book, "Three Days in Moscow: Ronald Reagan and the Fall of the Soviet Empire," at a National Press Club Headliners Book Event on Tuesday, May 29<sup>th</sup>, at 7:30 p.m. in the Club's conference rooms. In "Three Days in Moscow" Baier uses the 1988 Moscow Summit, Reagan's pivotal final meeting with Communist Party Leader Mikhail Gorbachev, to examine the life and legacy of Reagan and his arduous battle with the Soviet Union through a new lens.

**Stern, Grumbles to Speak at WRI Paris Look Back** – The World Resources Institute holds a [forum](#) on Wednesday May 30<sup>th</sup> at 2:30 p.m. on the one-year anniversary of the US withdrawal from Paris. The WRI event will reflect on the state of climate action in the United States and internationally. The discussion will feature remarks by Todd Stern, former U.S. Special Envoy for Climate Change at the U.S. Department of State, and former EPA official Ben Grumbles will address the topic. This event will be a time to look at what has happened on climate action since the announcement -- both where has there been progress and what more needs to be done at the local, national and international levels.

**Atlantic Council Cyber Security Exercise to Look at Vulnerabilities** – The increasing complexities of the globalized supply-chain system has introduced myriad new threat vectors for intentional and unintentional compromise of integral components, 'unintended taint', the flaws in software unintentionally built into products, is of particular concern. It is of vital importance that we recognize and understand this very significant and credible threat to the uninterrupted functionality of critical infrastructure within the energy sector. Consequently, the [Atlantic Council's Cyber Statecraft Initiative](#) will hold an exercise next Wednesday May 30<sup>th</sup> at 4:00 p.m. to model a downstream petroleum refinery that will be manipulated in real-time, demonstrating how vulnerabilities in the supply-chain can be affected, followed by a discussion engaging key experts and stakeholders for a progressive and solutions-oriented discussion on how to appropriately identify and mitigate these underappreciated threats to the energy sector.

**WVU Research to Look at Coal Drainage for Rare Earths** – On Thursday, May 31<sup>st</sup> at 10:00 a.m., the US Energy Association holds a [forum](#) on coal mine drainage as a domestic source of rare earth elements. Rare Earth elements are essential for advanced technologies from smartphones and robots to national defense systems. The rare earth metals have remarkable chemical properties but are so evenly dispersed throughout the earth's crust that economically attractive concentrations are extremely rare. As a result, the U.S. imports nearly all its rare earth elements from China. Fortunately, researchers at West Virginia University, led by Water Research Institute director Paul Ziemkiewicz, have found that acid mine drainage from Appalachian coal mines naturally concentrates rare earth elements and the metal residues contain readily recovered concentrations that match many of the world's best deposits. Current research, supported by USDOE's National Energy Technology Laboratory and industry, is developing extraction technology to set the groundwork for a domestic rare earth industry.

**WCEE Hosts Solar Jobs Forum** – The Women's Council on Energy and the Environment [will hold a lunch and learn on Thursday May 31<sup>st</sup>](#) looking at solar jobs. The Solar Foundation's National Solar Jobs Census 2017 found that there were over 250,000 Americans employed in the solar industry, a 3.8% decline from the previous year. Despite the decrease, long term trends have been strong. Experts Zoe Ripecky (The Solar Foundation), Kerene Tayloe (Green For All), Emma Rodvien (Solar United Neighbors), and Madison Freeman (Young Professionals in Foreign Policy) will join together for a discussion of solar jobs and their impact on communities around the U.S. This will include an overview of the findings of the Solar Jobs Census, as well as a discussion of best practices for expanding diversity in the industry, economic impacts of solar deployment, and how current policies will impact solar jobs.

**FERC Commissioners Headline Western PSC Forum** – The Western Conference of Public Service Commissioners holds a [conference](#) in Boise, Idaho on June 3<sup>rd</sup> through 6<sup>th</sup>. WCPSC is a regional association within NARUC and the conference takes place at the [Boise Centre](#), located in the heart of [downtown Boise](#). Speakers include Idaho Gov. Butch Otter, FERC Commissioner Cheryl LaFleur and Rich Glick, AGA Richard Myers and Montana PUC Chair Travis Kavulla, among many others.

**FERC Chair Headlines EIA Annual Energy Conference** – EIA holds its annual [2018 Energy Conference](#) on June 4<sup>th</sup> and 5<sup>th</sup> at the Washington Hilton. FERC Chair Kevin McIntyre will keynote the event.

**Hydrogen, Fuel Cell Forum Set for DC** – The Fuel Cell and Hydrogen Energy Association will be hosting a full-day forum and exposition on Tuesday, June 12 in Washington, D.C. at the Ronald Reagan Building and International Trade Center with leading executives, experts, and policymakers on fuel cell and hydrogen technology. The forum will bring together key federal and state policymakers, including the Department of Energy and White House, as well as the broader environmental, transportation, and energy communities to raise awareness of the benefits of fuel cell and hydrogen technology. This event will precede the Department of Energy's 2018 Annual Merit Review.

**SAFE to Discuss Impact of Self-Driving Technology on Economy, Workforce** – Securing America's Future Energy will hold a forum and release a new groundbreaking study with original research on the magnitude of impacts from driverless cars at the Jack Morton Auditorium at the George Washington University. The study done in collaboration with leading transportation and labor economists focuses on impacts from driverless cars and offers case-study analysis on the economic productivity gains. It will also offer context on the history of network-scale innovations and the short and long-term impacts on the workforce. Report author J.D. Vance, former Transportation Secretary Rodney Slater, current legislators and DOT officials who are actively crafting AV Policy will all speak. For further information, contact Leslie Hayward [lhayward@secureenergy.org](mailto:lhayward@secureenergy.org).

**GTM to Host Grid Forum** – Greentech Media host Grid Edge Innovation Summit on June 20<sup>th</sup> and 21<sup>st</sup> in San Francisco. The event is an energy conference that will examine the energy customer of tomorrow and how new innovative business models are quickly emerging. GTM brings together forward thinking and prominent members of the energy ecosystem and as our research team explores the future of the market. Former FERC Chair Jon Wellinghoff will speak along with many others, including our friends Shayle Kann, Julia Pyper and Stephen Lacey.

**Young Professional Program for World Gas Forum Set** – The Young Professionals Program (YPP) will hold a special forum during the World Gas Conference June 25-29 in Washington, DC. YPP will provide a great opportunity for promising young professionals in the energy sector to learn from top leaders in the natural gas industry and network with their peers throughout the world. More on this as we get closer.

**Clean Energy Forum on Schedule** – The 2018 Congressional Clean Energy Expo and Policy Forum will be held on July 10<sup>th</sup> and brings together up to 45-55 businesses, trade associations, and government agencies to showcase renewable energy and energy efficiency technologies.

**FRANK MAISANO**

Senior Principal

**Ex. 6**

Policy Resolution Group