

Message

From: Maisano, Frank [frank.maisano@bracewell.com]
Sent: 7/2/2018 6:49:22 PM
To: Maisano, Frank [frank.maisano@bracewell.com]
Subject: July 4th Week PRG Energy Update:Kigali, OPEC, Better Pavement Can Reduce Emissions

Friends,

Wasn't going to do an update today but decided to do a short one because of the crazy World Cup Games, the news about LeBron and – even more interesting – some policy news around the July 4th travel season, the Kigali amendment to the Montreal Protocol on HFC reductions and Trump tweets over OPEC.

How could you not like those FIFA World Cup games yesterday. Two games to Penalty Kicks where host Russia's Cinderella continued with a win over Spain after some brilliant saves by goalie Igor Akinfeev, who clinched the victory by stopping a shot with his foot. The brilliant goalie play continued in the second game when Croatia outlasted Denmark in shootout, Croatia now faces Russia in the quarterfinals. Brazil-Mexico now and Belgium-Japan this afternoon.

And apparently, LeBron James is headed to the Lakers for over \$150M. Now, the question is who may join him? And don't forget the MLB All-Star game is here at Nationals Park on Tuesday, July 17th. Our friend, former AP reporter and baseball author/historian Fred Frommer will be all over the run up to the game. Frommer, author of You Gotta Have Heart, a history of DC baseball history, starts this Sunday at noon at The Farm, a rooftop building outside Nats Park, where former Washington Senators PA announcer Phil Hochberg chats about the four All-Star Games DC hosted in the 20th Century. Then next Tuesday July 11th at 6:45 p.m., Fred will be at the Smithsonian's S. Dillon Ripley Center with Hochberg and Gregory McCarthy of the Nats, for a night of baseball history. Finally, the night before the All-Star Game July 16th, Fred will join fellow author David Rapp and documentary filmmaker Aviva Kempner at East City Book Shop on Capitol Hill for an All-Star panel at 6:00 p.m. just before the Home Run Contest.

As we continue the July 4th travel season this week, I wanted to remind you of a note I sent on Friday highlighting the great work and important research of our friends at the MIT Concrete Sustainability Hub on Pavement-Vehicle Interactions – research that can lower fuel consumption and vehicle emissions. It is a perfect add-in to any stories you or your colleagues may be considering on the heavy travel week. While this will be the busiest July 4th travel week ever, much of the traffic is likely to be spread out with the heaviest day to launch being tomorrow afternoon.

There is a new letter today from CEI and several other groups opposing the Kigali amendment to the Montreal Protocol. The letter says the amendment would do "far more economic harm than environmental good," adding that the environmental benefits are minimal. But that is just not right. A recent economic analysis for the White House showed significant jobs gains, 13 Republican Senators (mostly conservatives) urged the President to submit it to the Senate, 34 HVACR Manufacturing CEOs urged support and 3 conservative taxpayers groups (ACCF, Americans for Tax Reform and FreedomWorks) suggested Trump support Kigali because of global competitiveness advantages. And all of this occurs after last week's lawsuit by 11 states against EPA over implementing over HFC reductions.

If you are following recent tweets and comments from President Donald Trump about OPEC oil market manipulation, SAFE President/CEO Robbie Diamond weighed in saying Trump is right to point to OPEC as manipulating the market, but urged him to also turn his sights to "**solutions that end oil dependence and the cartel that manipulates the market rather than having the U.S. come hat in hand to these foreign powers. Asking the cartel to increase output is like trying to put a Band-Aid on a broken system that shouldn't even exist in the first place.**"

Finally, the most grueling test of strength and endurance – the Tour de France – cycling's crown jewel, starts on Saturday. With one more *Tour* victory, Chris Froome can match the record of five shared by Jacques Anquetil, Eddy Merckx, Bernard Hinault and Miguel Indurain. The start of the 105th edition will be at Noirmoutier-en-l'île. The 2018 Tour route will include a total of 26 mountain climbs or hills, including 12 in the Alps, 4 in the Massif central and 10 in the Pyrenees. Ouch!!! Riders arrive in Paris on July 29th.

Enjoy the holiday week...Stacey and kids headed to *Imagine Dragons* tonight. I bet that's a fun show. Call with questions ...Best,

Frank Maisano

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FRANKLY SPOKEN

"Kigali gets us everything we want and everything we've been advocating for for a long time—a unified, negotiated decision on phasedowns [of HFCs] instead of prohibitions. U.S. ratification of the global deal offers the greatest level of certainty for the market writ large. That process, rather than litigation, is where our industry will be focusing its efforts in the coming months."

Caroline Davidson-Hood, general counsel for the Air-Conditioning, Heating, and Refrigeration Institute regarding the lawsuit filed by 11 states challenging implementation of EPA HFC reductions

"Because of the technological prowess of American manufacturers, U.S. businesses stand to gain from this deal – ratification will open new markets at a time when demand for refrigeration, heating, and air-condition equipment is projected to grow."

A letter from conservative tax group leaders of Americans for Tax Reform, FreedomWorks and the American Council for Capital Formation on moving the Kigali amendment forward in the Senate.

FUN OPINIONS

CEOs Say Kigali Essential for Global Competitiveness – ICYMI, following the letter from 13 Senators urging the White House to send them the Kigali amendment to the Montreal Protocol, 34 HVACR Industry CEOs wrote a letter to President Trump urging his support for Kigali. These are major manufacturers that include Honeywell, Lennox, Fujitsu, Johnson Controls, Rheem, Dow Chemical and many more. The CEOs, who speak for more than 589,000 Americans currently employed in the industries, urged the President to send the Kigali Amendment to the Senate to secure a position of strength for American companies in a highly competitive global market for next generation air conditioning, refrigeration, thermal insulation, aerosols, medical uses, fire suppression, semiconductors and other technologies that utilize fluorocarbons.

IN THE NEWS

AGs Suit Spurs New Twist in Kigali Discussion – CEI will release a letter today opposing the Kigali amendment to the Montreal Protocol but a [legal challenge](#) to EPA's current regulations on HFC reductions by 11 states. In its guidance, the EPA said revoking the rules would "dispel confusion and provide regulatory certainty" after a federal appellate court in July 2017 struck down large portions of the Obama-era regulation. NRDC filed a similar suit earlier this week. Another legal fight over the EPA guidance raises concerns about avenues for regulations to change, even as the industry continues to advocate for U.S. participation in a 2016 global deal to phase down HFCs called the Kigali Amendment to the Montreal Protocol.

Better Pavement Mean Better Fuel Econ, Less Emissions – As we begin the July 4th travel season, you or your colleagues should check out the important research by [MIT's Concrete Sustainability Hub](#) on Pavement-Vehicle Interactions – studies about how we can lower fuel consumption and vehicle emissions by taking a new approach to building and maintaining our roadways. It is a perfect add-in to any stories you or your colleagues may be considering on the heavy travel week this July 4th.

Wasted Energy in Travel – All vehicles, whether gasoline, diesel, or electric, use energy to move—but some of that energy is wasted. The quality of the roads we drive on every day impacts the amount of fuel we use, as well as the associated greenhouse gas emissions. On roads with poor surface conditions or inadequate structural properties (like many in our favorite District) vehicles consume additional fuel beyond what’s needed to move. This wasted fuel is known as excess fuel consumption, and it has a significant impact on fuel economy and vehicle emissions.

Pavement Improvements Help Reduce Fuel Consumption – MIT’s Concrete Sustainability Hub (CSHub) researchers study pavement-vehicle interaction (PVI) in an effort to understand and quantify the impacts of excess fuel consumption. MIT’s research focuses on three key factors:

1. **ROUGHNESS:** whether the road is bumpy or smooth. Roughness, commonly seen and felt as the presence of cracks and potholes, has a significant impact on passenger vehicles.
2. **TEXTURE:** the abrasiveness of the road surface, which can be seen and heard when driving.
3. **DEFLECTION:** the bending of a pavement under the weight of a vehicle. Deflection is present from the initial construction, and depends on pavement design. Think of the difference between walking or riding on sand versus a paved surface.

Road Solutions Can Improve Fuel Efficiency, Reduce Emissions – CSHub studies suggest that excess fuel consumption can be significantly reduced by building stiffer roads and maintaining smoother pavements—benefiting states and municipalities alike through reductions in emissions and fuel costs to drivers. And it reduces road wear costs on vehicles and tires, while improving driving comfort. There are two case studies that quantify fuel waste on US roadways. The impacts of excess fuel consumption depend on a variety of factors, including location, traffic levels, pavement designs, and maintenance schedules. MIT has done case studies examining real roadway networks, including in California and Virginia:

- **California:** Using data collected by the California Department of Transportation (Caltrans) through the use of GPS and ground-penetrating radar, MIT conducted an analysis of the state’s entire 50,000 lane-mile system and found excess fuel consumption of 1 billion gallons over a 5-year period. The collaboration showed that PVI, including roughness and deflection, accounts for 1 percent of overall fuel consumption on California highways.
- **Virginia:** A study of the Commonwealth’s interstate highway system—some 5,000 lane miles in total—identified 1 million tons of CO₂ associated with EFC emissions over a 7-year period. Researchers also determined that only 1.3 percent of the interstate network is responsible for 10 percent of its total greenhouse gas emissions, meaning rehabilitation of those few lane miles could result in significant environmental improvements.

Who Can Help – If you’re looking for a resource to discuss the impact of pavement interaction on fuel economy and emissions, MIT’s Jeremy Gregory (jgregory@mit.edu) is available to address the key issues, impacts and examples surrounding improved pavements and infrastructure ... and how this affects American communities and drivers. MIT’s Concrete Sustainability Hub (cshub.mit.edu) is pushing the frontier of academic research into building materials, with implications for policymakers, communities, the transportation industry, fleets and the millions of American drivers hitting the roads over July 4th and all summer. For more info, drop me a note, reach out to Jeremy or connect with MIT communications person Anne Wilson Yu. You can reach her at awwilson@mit.edu

ACCF: Proxy Advisory Have Minimal Oversight – The American Council for Capital Formation released a new report that says proxy advisory firms are operating with minimal oversight. The firms, which advise shareholders on how to assess and vote on company plans, are moving toward an increasingly activist stance on issues relating to the environment, as well as social and political issues. The report, titled "The Conflicted Role of Proxy Advisors," examines the impact such proxy firms have on major policies at most publicly traded companies. Our friend Dave Banks is leading an effort at ACCF on this issue.

ON THE SCHEDULE THIS WEEK

JULY 4th HOLIDAY

Stanford to Look at Behavior, Enviro Change – Stanford holds an event on Thursday evening featuring PhD Candidate Jen Wang, who will discuss an even more fundamental condition and challenge to positive environmental change – getting humans to change their behaviors. From the everyday choices we make to our combined organizational behaviors, human behavior is at the core of the environmental issues we care about.

Event to Honor Tesla Birthday – On Friday evening, the International Club of DC and the Embassy of Croatia host a dinner reception of Croatian culture, music, wine, and cuisine on the occasion of the 162nd anniversary of the birth of Croatian-born scientist Nikola Tesla. During the event, Tesla will have a Model S and Model X on display. Tesla product experts will be on hand to answer questions and show you how electric vehicles can fit seamlessly into your lifestyle. Test rides will be offered on a first come, first serve basis.

IN THE FUTURE

Clean Energy Forum on Schedule – The 2018 Congressional Clean Energy Expo and Policy Forum will be held tomorrow and brings together up to 45-55 businesses, trade associations, and government agencies to showcase renewable energy and energy efficiency technologies.

BPC Forum to Examine Oil, Gas Issues – On Thursday at 10:30 a.m., the Bipartisan Policy Center (BPC) convenes a panel of experts to examine the current state of the Environmental Social Governance (ESG) movement in the oil and gas sector and explore what's coming next. This movement continues to gain traction in a time when the regulatory agenda has changed significantly under the Trump Administration. ESG is particularly significant for the energy sector, specifically as shareholder resolutions surrounding climate change continue to take center stage in the media and in the boardroom.

Duke CEO, CARB Chair, Others Headline POLITICO Summit – POLITICO is hosting its second Pro Summit on July 17th at the Renaissance Hotel. The Pro Summit brings together Pro subscribers, expert reporters, key decision-makers, and others who are shaping the policy landscape for a full day of incisive conversations. Summit speakers include Rep. Joe Crowley, Duke CEO Lynn Good, FERC Chair Kevin McIntyre, Amy Myers Jaffe of the Council on Foreign Relations, Coal CEO Bob Murray, California Air Resources Board Chair Mary Nichols and many others. Duke Energy is the main event sponsor.

Grid Forum Set for Iowa – The TransGrid-X 2030 Symposium will be held on July 26th in Ames, Iowa. The event will showcase the long-awaited NREL Seam Study—a concept featuring bi-directional high-voltage transmission; 600 GW of wind, solar and gas-fired generation; and a trillion-dollar economic event, if fully built. Our friends Rob Gramlich and former FERC Chair Jim Hoecker will be among the speakers.

EPRI Hosts Electrification Conference – The Electric Power Research Institute (EPRI) hosts the inaugural Electrification 2018 International Conference and Exposition on August 20th to 23rd in Long Beach CA. Hosted by the and sponsored by more than 20 major utilities and organizations, this annual conference will bring together utility leaders, regulators, researchers, academia, vendors, economic development groups, and energy users from diverse manufacturing, transportation, industrial, and agriculture sectors around the globe. SoCo CEO Tom Fanning is among the many speakers.

FRANK MAISANO

Senior Principal

Ex. 6

Policy Resolution Group