



## Update on DER, Grid & Electricity Sector Developments

Hello,

Welcome to your latest issue of Update.

The news and developments continue to pile up and once again I will try to make sense of one of them in my Op Ed below. And I challenge you to a bet at the end of this one.

If you have any comments on my Op Ed, jump over to LinkedIn where I will be posting it so you and others that use that platform can share your thoughts.

You will find below the usual selection of interesting (to me) articles, reports etc that I have curated for you. (I have to say that I never thought I would be a "curator" but I guess that is the term for this particular part of what I do these days).

Take care - and talk to you in July!

Dan

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## Dominance Week

Last week here in  
Washington it was



"Infrastructure Week", one of many issue-designated weeks that the White House has put together to deploy a coordinated focus on one particular issue. The idea of having these kind of weeks is not a new one. It has been used by past Administrations, in some cases very effectively.

It was not used well last week. In fact, I follow infrastructure developments and I cannot remember what even happened.

This week is Energy Week. That is great, on the face of it. But the theme of the week is "Energy Dominance" Wait.....What? Last time I heard, I thought if we had a national theme it was "Energy Independence", with that term meaning that we should developing our own energy resources here at home and not having to rely on imports. That always made sense to me for many reasons, not the least of which are the security benefits that it brings, e.g. not having boots on the ground to protect foreign energy

sources and facilities. But I am now remembering that there was a theme after energy independence - "All of the Above". The idea behind that one was to use everything you have, and not to rule anything out, and to not put all of your eggs in one basket. Not a bad idea if everyone is given a fair chance to be in the basket.

Energy Dominance seems to be being used to describe the objective of expanding US exports of coal, oil and gas, e.g. the primary energy group (if not to also have those sources dominate in the U.S. as Secretary Perry alludes to in a news item below) The goal apparently is to help create jobs, and expand the economy. All things equal, that objective and goal make sense.

But all things are not the same anymore, nor will they be in the future.

Sure, there is presently a market for fossil energy elsewhere in the world, especially as the developing world seeks to ramp up electricity production to meet the new expectations of their

citizens for an electricity-based lifestyle. But as I have recently talked about, things are changing rapidly, even in places like India and China, with a leading financial research company saying that solar will be cheaper than fossil in those two countries in the not-too-distant future.

There is also a new component coming (or already here in some places) to the marketplace - carbon pricing. Carbon is soon to become a new thumb on the scale that will result an even greater advantage going to clean, low/no carbon energy sources.

The battleship is turning, slowly but surely, and it is on a course toward clean energy.

So if clean energy is going to be the dominant source, shouldn't we want to have dominance of that which will be dominant?

Well, in terms of federal leadership, that does not appear to be the hill to be king of. Which means that the top of the clean energy hill is going to be

occupied by someone else, and for one of the answers to that you can take a peek back at my [column](#) of a few months ago called "The Smile Is So Wide You Can See It From Here" where I talked about China having a clear field to dominance in clean energy.

But wait....who can argue against an energy policy that creates jobs, which is something that would presumably come with an expansion of primary energy exports. Well....presume again. As has been repeatedly demonstrated with real facts and real evidence in recent months, the jobs are incontrovertibly being created in clean energy - not in traditional energy. The following latest factoid adds to the interesting new fodder available on this point. A new coal mine was recently opened in the US - the first in a long time - but because of the high level of automation embedded in it, it has only brought with it 70 jobs - the amount that comes with the average new supermarket.

So what are we going to dominate? A sector that has an uncertain and

declining future? Or the sector that is going to prevail because there is no other choice for it to prevail based on economics and the incorporation of externalities which cannot be ignored for much longer?

Look....I am weary of talking about the disconnect between the facts and the stream of statements brought forth these days by various parties. I have spent my career trying to base my work on facts and logic. So I am not going to keep harping on the current situation via the thoughts and opinions that I continue to share with you and instead turn to other topics. There actually are a lot of other things to talk about. For instance, I am trying to decide if the title of my next Op Ed or Blog Post should be "A Dot I Had Not Yet Connected" or "Is Demand Response Still A Thing?". Which one of those would you like to hear me talk about?

Meanwhile, I am taking bets on whether I can meet this self-imposed restriction on commenting on the disconnect between actual fact and

desired fact . What do you think? (:

Best,

Dan

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## **Update on DER, Grid & Electricity Sector Developments**

### **ARPA-E: New Study Shows It Has Been Working Well**

Amid threats by the Administration to shut-down ARPA-E, a new GAO study gives the agency high marks for its efficiency and the effectiveness of its financial activities in support on R&D for cleantech.

More [here](#)

More [here](#)

### **Carbon Pricing: 40 Countries Reported To Have Or Be Pursuing**

A recent piece in Vox focused on the fact that while carbon pricing seems to be something that is off in the future in the U.S., many other countries are actively pursuing it.

More [here](#)

### **Clean Energy: Snapshot Of All World Energy**

BP recently released its annual statistical review of world energy with both energy and economic trends evident in the direction of clean energy.

More [here](#)

### **Clean Energy Jobs: New Coal Mines May Not Bring New Coal Jobs**

The nation's first new coal mine in many years opened recently, but notable to many is the fact that because of its high level of automation, it

will bring with it only 70 jobs, less than are found in an average supermarket.

More [here](#)

### **Clean Energy: New Mark Hit By Wind And Solar**

For the first time, monthly electricity generation from wind and solar (including utility-scale plants and small-scale systems) exceeded 10% of total electricity generation in the United States, based on March data provided by EIA. Electricity generation from both of these energy sources has grown with increases in wind and solar generating capacity. On an annual basis, wind and solar made up 7% of total U.S. electric generation in 2016.

More [here](#)

### **Clean Energy: Solar Set To By-Pass Fossil Plants On A Global Basis**

According to Bloomberg, Solar power is becoming cheap enough that it will push coal and even natural-gas plants out of business faster than previously forecast. The research group estimated solar already rivals the cost of new coal power plants in Germany and the U.S. and by 2021 will do so in quick-growing markets such as China and India.

More [here](#)

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### **Clean Energy Jobs: Solar Wins Not Only Over Fossil But Rest Of Economy**

More clean energy jobs reports continue to come out. A recent one covered by CleanTechnica reports that the US solar industry is creating jobs 17 times faster than the rest of the economy.

More [here](#)

### **Clean Energy: Focus On Increase In Renewables Growth In Western States**

A recently release study out this month by DOE/EIA looked at the relationship between planning and electricity procurement for 12 utilities in 10 Western states through 2015. The study showed Western utilities bought three times more wind energy more than regulators expected based on the utilities' resource plans. Attribution to State procurement standards is discussed as is the need for storage to continue the upward tick.

More [here](#)

### **Clean Energy: Administration's Deference To Fossil Fuels Is Not Reducing Investment In Renewable Energy**



In a recent Reuters article, information is presented to show that investors still have a good appetite for the renewable and clean energy sector, and have not been dissuaded by the policies and statements of the White House has issued with respect to favorability for the fossil fuel sector.

More [here](#)

### **Clean Energy Finance: Leading Financial Data Firm Acquires Climate Data Firm**

A well-known shareholder advisory firm is buying up environmental data and analytics companies, because it says investors are increasingly concerned about the impact climate change will have on their portfolios. Institutional Shareholder Services said it is buying the investment climate data division of South Pole Group, a Zurich-based environmental advisory firm on Monday.

More [here](#)

### **Clean Energy: Large Users Slurping Up Renewable Energy Sources**

A recent article carried by Reuters focused on the fact that Large Companies continue to contract for more and more renewable energy, and notes that part of the reason is the corporate sustainability goals that such companies are increasingly adopting.

More [here](#)

### **Climate: Survey Shows Americans Want States To Lead**

The survey found 70% of Americans believe that there is solid evidence of climate change. Moreover, in response to the question: "if the federal government fails to act, do you believe it's your state's responsibility to take the lead?" the poll found 66% of respondents said that they should be taking the lead. In fact, majorities of Democrats and Republicans believe that it's their state's responsibility to step in and act on climate change.

More [here](#)

### **Climate: New Poll Asks Different Question About Paris Exit**

A new survey out from the Harvard-Harris Poll has found that 72 percent of voters would prefer renegotiation over opting out of the climate pact process altogether.

More [here](#)

### **Climate: Parties Plan To Meet Paris Themselves**

There have been numerous media reports on the many parties that have reacted negatively to the announcement by the White House to withdraw from the Paris Climate Accord. Many of the parties have made their own

commitment to meet the Paris targets. A new website collects all of the statements and commitments by these parties.

More [here](#)

More [here](#)

### **Climate: Impact Of Nuclear**

A recent piece in the NYT focused on the emissions impact of the retirements of existing nuclear power plants.

[More here](#)

### **Cities: Brooklyn And Tampa**

Politico recently included coverage of energy development in two cities - Brooklyn and Tampa - to show how electricity modernization can help in community revitalization and improvement.

More [here](#)

More [here](#)

### **Cybersecurity: A Look At The Increase In Attacks**

The Washington Examiner recently looked at the increase in cyberattacks on the electricity grid.

More [here](#)

### **Cybersecurity: Crash Override Concerns**

A recent report put out by a consulting firm focuses on the seriousness of the Crash Override Malware that Russia used in the grid attack on Ukraine. A report from the Dept. of Homeland Security followed and subsequently a letter from the U.S. Senate to President Trump.

More [here](#)

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### **Demand Response: Reliance Continues During Heat Waves**

A recent article looked at how DR is increasingly being relied on by regional system operators and others as a reliable resource to get through periods of high demand, such as those experienced during heat waves.

More [here](#)

### **DOE: Secretary Perry Speaks Out On Grid Study**

Energy Secretary Rick Perry has defended his department's study into the reliability of the electric by saying the research will ensure the grid "isn't tossed aside in favor of some political favorites" according to The Hill. He spoke at an Energy Information Administration event in Washington, saying that his goal his goal is to roll back the "political" goals of the Obama administration that he said prioritized renewable energy to such an extent that it put the electric grid at risk.

More [here](#)

### **FERC/PJM: Court Upholds FERC Approval**

The U.S. Court of Appeals for the District of Columbia has upheld the Federal Energy Regulatory Commission's approval of the PJM Interconnection's new electricity market rules. Clean energy advocacy groups had challenged them claiming that PJM's new "always available, all-year requirement" looked "resource-neutral" on the outside, but it actually put resources such as wind and solar power at a disadvantage, considering wind and solar would more likely "perform reliably and cheaply" in the winter and summer, respectively.

More [here](#)

### ***Sponsor Spotlight: EDTA***

The Electric Drive Transportation Association (EDTA) is the lead organization and voice on all things related to electric vehicles. With EVs being recognized as a key resource in the new, modernized grid, EDTA is a resource that you want to know about. You can find out more here.

### **Grid Flexibility: New Report On Coordination Of DER In CA**

A new report titled "Coordination of Transmission and Distribution Operations in a High Distributed Energy Resource Electric Grid," has been released by California, Independent System Operator (CAISO), Pacific Gas & Electric (PG&E), Southern California Edison (SCE) and San Diego Gas & Electric (SDG&E). The report describes the challenges of operating a highly distributed energy resource grid, and recommends a number of new, proactive exchanges of information between CAISO, utilities, and DER service providers.

More [here](#)

### **Nevada: Governor Vetoes Boost To RPS**

Nevada Governor Brian Sandoval recently vetoed a bill that would have boosted the state's renewable energy target. The legislation would have required that 40 percent of the state's electricity come from clean energy sources by 2030, up from the current target of 25 percent by 2025.

More [here](#)

### **Ohio: Next Phase Of Power Forward Hearings Set**

The Commission has scheduled another round of presentations by technology companies to the Commission and staff. Presentations will focus on grid-mod technologies and what their application in Ohio could be.

More [here](#)

### **Pacific Northwest: Adequacy OK For Now But New Capacity Needed**

The Northwest Council has issued a new Adequacy Report that says the region's power supply is expected to be adequate through 2020, although the region will need to add new capacity by 2021 to maintain an adequate supply.

More [here](#)

### ***Sponsor Spotlight: Silver Spring Networks***

Silver Spring is among the 2017 sponsors of Update. You can see recent announcements by the company [here](#).

### **Reliability: Solar And Wind In Some Countries Have Decreased Outages**

A recent trade piece presented an argument that countries with the most wind and solar deployed are actually showing less electricity outages than other countries.

More [here](#)

### **Reliability: Oil & Gas Sector Adds Its Views On Electric Reliability**

There is heightened activity and commentary at present on the issue grid reliability and how the increase in the amount of renewable energy might affect that, with the main item stimulating this discussion being DOE's current efforts to produce a report on that issue. Not only is everyone in the electricity community weighing in but in a new report the American Petroleum Institute is as well.

More [here](#)

### **Resilience/Adaptation: Netherlands Expertise Sought By Others**

A recent feature article on the Netherlands focused on the expertise that the country has gained over the years in managing sea level rise while still producing economic prosperity. It talks of how other countries and entities look to the country as a model.

More [here](#)

### **Resiliency: A View Of More 95-Degree Days**

The NYT recently produced an interactive piece that was designed to

demonstrate and convey the impacts on society and business, in various parts of the world, on an increase in the number of days/year that log in at 95 degrees or more.

More [here](#)

More [here](#)

### **Solar: Rural Areas To Benefit**

Across the nation, according to the Houston Chronicle, solar farms are poised to become a boon for rural economies that have been hard hit by the decline of industries such as agriculture, manufacturing and coal, as well as the boom-and-bust cycles of oil and gas

More [here](#)

### **Storage: New Report On Outlook For Battery Dominance**

McKinsey recently released a report describing its outlook for battery storage as the next disruptive technology in the power sector

More [here](#)

### **Storage: Batteries Getting Bigger**

The NYT recently put out a feature piece on battery storage looking in particular at how larger batteries are being deployed in larger overall installations.

More [here](#)

### **Texas: Wind And Solar Are Winning**

A recent article by Bloomberg makes the case that Texas is "too windy and sunny" for old energy industries to compete with the new cleantech and renewable energy sector.

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