# The Week That Was: 2017-08-26 (August 26, 2017)
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# The Science and Environmental Policy Project

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**Quote of the Week**. *"The most difficult subjects can be explained to the most slow-witted man if he has not formed any idea of them already; but the simplest thing cannot be made clear to the most intelligent man if he is firmly persuaded that he already knows, without a shadow of a doubt, what is laid before him."* – Leo Tolstoy, 1894

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**Number of the Week:** 1,000,000 atomic bombs exploding per day

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**THIS WEEK:**

***By Ken Haapala, President, Science and Environmental Policy Project (SEPP)***

**History of Climate Change:** In the second edition of "Climate, History, and the Modern World", climate change research pioneer H.H. Lamb expressed disappointment with the direction the Climatic Research Unit (CRU) at the University of East Anglia was taking. Lamb had worked diligently to establish the unit to understand the causes of climate change, both warming and cooling, before any undue influence from increased atmospheric carbon dioxide (CO2) could be found. Lamb feared a global cooling, and had studied abrupt climate change from changes in pollen and other proxy records. Lamb's depiction of temperature change from proxy records in central England in the first report of the UN Intergovernmental Panel on Climate Change (IPCC) became an icon.

Unfortunately, the CRU and the IPCC became overwhelmed by the fashionable belief that CO2 will be a major cause of climate change. This belief appeared to be backed-up by the 1979 Charney Report published by the US National Academy of Sciences. Quickly forgotten, was that the Charney Report makes clear that the projections of significant change from CO2 were based on speculation from climate modelers – not established by physical evidence, hard data.

There were no comprehensive calculations of global temperatures available in 1979, although the collection of the necessary data by satellites had just begun. The technique of using the collected satellite data to estimate temperatures was published by Roy Spencer and John Christy in the early 1990s. Without comprehensive global atmospheric temperatures, there can be no calculation of the direct influence of CO2 on temperatures, the influence of which occurs in the atmosphere. Surface instrument data only records a possible secondary effect, and are extremely limited, largely land based, and confined to westernized locations.

Also, unfortunately, the IPCC's promotion of Mr. Mann's hockey-stick had a negative impact on the use of proxy data to understand climate history. The hockey-stick had several deficiencies, including improper mathematical manipulation, failure to properly calibrate instrument data with proxy data, and improper elimination of data that did not support the hypothesis, "cherry-picking." In the west, even well-conducted proxy studies have a cloud.

Many western scientific societies have succumbed to political pressure from the IPCC and others; but, fortunately not all. The Chinese Academy of Sciences is to be congratulated for publishing a study of proxy data covering the past 2,000 years.

The proxy data are from tree rings, lake sediments, ice cores, stalagmites, corals and historical documents and show four distinct warm periods, epochs, over the past 2000 years. They show significant warming and cooling and changes in precipitation. There appears to be three distinct multi-year cycles. Generally, warm periods are associated with prosperous times. The current warm period is comparable to ones in 981 to 1100 AD and 1201 to 1270 AD. The current warm period is associated with El Niño Southern Oscillation (ENSO) and the Atlantic Multidecadal Oscillation. Cold periods were associated with sunspot minima. The difference between warm periods and cold periods is about 1.3°C (2.3°F). See links under Challenging the Orthodoxy.
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**New Technique?** Using artificial neural networks (ANN), which are a form of machine learning (big data and artificial intelligence), Australians Jennifer Mahonhasy and John Abbot deconstructed 2000 years proxy data to reconstruct what temperatures may have been in the absence of human CO2 emissions. The proxy data they use include tree rings and coral cores. They state that the proxy records show cycles of warming and cooling within in a band of 2°C.

Interestingly, they date the Medieval Warm Period "from AD 986 when the Vikings settled southern Greenland, until 1234 when a particularly harsh winter took out the last of the olive trees growing in Germany" and the "end of the Little Ice Age as 1826, when Upernavik in northwest Greenland was again inhabitable – after a period of 592 years."

Inhabited by Inuits, Upernavik is the northernmost town in Greenland with a population over 1,000 and the northernmost point in Greenland where Norse runic characters have been found, on a stone. Mahonhasy states *"the modern inhabitation of Upernavik also corresponds with the beginning of the industrial age. For example, it was on 15 September 1830 that the first coal-fired train arrived in Liverpool from Manchester: which some claim as the beginning of the modern era of fast, long-distant, fossil-fuelled (sic) fired transport for the masses…So, the end of the Little Ice Age corresponds with the beginning of industrialization*." [local spelling]

They show a graph on the match between the ANN projections and the proxy temperatures from 1880 to 2000. Based on the analysis, they conclude that the influence of industrialization (CO2) emissions has been in the order of 0.2°C, not the approximately 1°C, claimed by the IPCC. It remains to be seen whether this technique holds up to independent analysis. See links under Challenging the Orthodoxy.
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**Hurricane Harvey:** The record breaking period of almost 12 years without a major hurricane, category 3 or above, hitting the US is over. Hurricane Harvey made landfall on the Texas coast, between Port Aransas and Port O'Connor (east of Corpus Christi) on Friday night. Harvey is a strong, slow-moving storm, Category 4 at landfall, and National Weather Service predicted a storm surge up to 9 to 13 feet (2.7 to 4 meters) and heavy rainfall of 15 to 30 inches (38 to 76 cm) with up to 40 inches (102 cm) in some locations

Fittingly, Roger Pielke Jr. cautioned against drawing long-term conclusions from short-term weather trends when he wrote:

*"The world has had a run of good luck when it comes to weather disasters. That will inevitably come to an end. Understanding loss potential in the context of inexorable global development and long-term climate patterns is hard enough. It is made even more difficult with the politicized overlay that often accompanies the climate issue."*

On August 9, the National Weather Service has upped its forecast for the season to 14 to 19 named storms, 5 to 9 hurricanes with sustained winds of at least 74 mph (33 m/s; 64 knots; 119 km/h) (Category 1), and 2 to 5 major hurricanes with sustained winds of at least 111-129 mph, (96-112 knots 178-208 km/h).

One of the reasons for the revised forecasts of more hurricanes is the absence of an El Niño, which inhibits the formation of hurricanes. The contrast between 2016 and 2017 is ironic. The two hottest years in the atmospheric record are 1998 and 2016, both strong El Niño years. The EPA, and other government groups, claim that CO2-caused warming endangers human health and welfare. Yet, El Niños, which are a cause of increases in temperatures, occur with global wind patterns that inhibit the formation of hurricanes, which are truly destructive. See links under Seeking a Common Ground and Changing Weather.
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**Changing Sea Levels:** With Hurricane Harvey, no doubt we will see many more articles on the dangers of sea level rise, including government reports from NOAA and NASA claiming short-term trends are indicative of long-term trends. As stated in the May 13 TWTW, the recently deployed GRACE satellites may be calibrated incorrectly, attributing sea level rise to a presumed melting in the West Antarctic that may be more appropriately attributed to the melting of the great ice sheets covering much of the Northern Hemisphere.

Three recent studies cast further doubt on forecasts a significant increase in sea level rise; two for the Atlantic coast, and one for California. The Virginia Beach – Norfolk – Newport News area of Virginia may be one of the most vulnerable areas in the US to sea level rise. The Metropolitan Statistical Area (MSA) has a population of 1.7 million and has a large military presence, large ice-free harbor, shipyards, coal piers, miles of waterfront property and beaches, and significant industries.

Frequently, warnings of CO2-caused climate change resulting in increased sea level rise appear in the local papers, prompting Roger Bezdek to study the problem. He states:

*"At the Sewells Point tidal station in Norfolk, Virginia, rising sea levels have been recorded since 1927: Sea level at Sewells Point rose at an average rate of 4.4 mm/yr. from 1927 to 2006, with a 95 percent confidence interval of ±0.27 mm/yr"*

*"It is important to get the cause of local sea level rise correct. For governments to identify an incorrect cause becomes a colossal waste of time and money. Far too often "climate change" is thrown about as the cause, but is meaningless and wasteful."*

The measured increase of 17 inches (44 cm) per century is considerably greater than generally accepted rise of 7 to 8 inches (18-20 cm) per century world-wide. There are three local conditions that may result in this increase: groundwater extraction resulting in aquifer-system compaction, geological conditions from a past meteor impact, and tectonic effects from the past ice age. Bezdek considers the latter two insignificant, but considers the former a significant problem that has been known for over 40 years.

*"The two areas where subsidence rates were the most rapid roughly coincide with groundwater pumping centers at Franklin and West Point. Measurements of land subsidence are currently made at Continuously Operating Reference Stations (CORS) in the region. The National Geodetic*

*Survey has computed velocities for three of these stations between 2006 and 2011 and found an average subsidence rate of 3.1 mm/yr* (12 inches per century).

In Bezdek's view, the primary problem of groundwater extraction and aquifer subsidence is solvable, as it was solved in the Houston-Galveston, Texas area.

Another study by Arnoldo Valle-Levinson, et al. of the Miami area finds:

*"Tide gauge records reveal comparable short-lived, rapid SLR [Sea Level Rise] accelerations (hot spots) that have occurred repeatedly over ~1500 km stretches of the coastline during the past 95 years, with variable latitudinal position. Our analysis indicates that the cumulative (time-integrated) effects of the North Atlantic Oscillation determine the latitudinal position of these SLR hot spots, while a cumulative El Niño index is associated with their timing. The superposition of these two ocean-atmospheric processes accounts for 87% of the variance in the spatiotemporal pattern of intradecadal sea level oscillations."]*

Wind variance plays an important role in relative sea level rise, not CO2.

A study by Albert Parker and Clifford Ollier finds:

*"that the sea level rises estimate by a local panel for California as well as the IPCC for the entire world are up to one order of magnitude larger than what is extrapolated from present sea level rise rates and accelerations based on tide gauge data sets*.

*"As the evidence from the measurements does not support the IPCC expectations or the even more alarming predictions by the local California panel, these claims and the subsequent analyses are too speculative and not suitable for rigorous use in planning or policy making."*

As stated in the NIPCC reports, to understand local sea level rise, one must examine local conditions, not regional or global models of what is speculated to happen. See links under Challenging the Orthodoxy – NIPCC and Changing Seas.
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**Why have US CO2 Emissions Fallen?** Writing in Energy Matters, Roger Andrews follows-up on a prior paper by him and another by Euan Mears trying to develop a better estimate on this important matter. Many analysts have offered simple answers to this question, based on one single factor, such as fracking, renewables, the recession, etc. These answers do not try to assess the relative importance of a multiple factors.

Using US Energy Information Administration (EIA) data, Andrews finds that between 2007 and 2015, total annual US CO2 emissions decreased by 740 million tons (12%). Drilling deep into the EIA data he finds "that 35% of this decrease was caused by natural gas replacing coal in electricity generation, 30% by lower fuel consumption in the transportation sector, 28% by renewables replacing coal in electricity generation and 7% by other factors." These estimates do not include the impact of the recession and as Andrews bluntly admits the estimates are speculative and cannot be easily confirmed.

Using his conversion factors of TWh for CO2 emitted by generation type, one can calculate that, in general, coal produces 2.55 times more CO2 per TWh generated than natural gas. [A Terawatt-hour (TWh), is a measure of electrical energy, 10 raised to the $12^{th}$ power, watt-hours.]

Later, writing in the comments section, Andrews states:

*"…the underlying purpose of this post was to obtain an estimate of how much of the recent reduction in US emissions could be attributed to renewables as opposed to 'market' forces. According to the results 28% can be attributed to renewables if we ignore the impacts of the 2008-9 recession, and arguably as little as 12% if we don't. Either way this doesn't represent much bang for the ~200 billion bucks the US has so far spent on developing renewable energy.*" [Andrews lives in Mexico.]

See links under Energy Issues – US
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**Greenpeace and RICO**: Prior to the last election, certain politicians suggested using the US Racketeer Influenced and Corrupt Organizations Act (RICO) against individuals whose views they do not like and whom they call "climate deniers" and "anti-science." The environmental industry did not make a loud outcry against such action.

Now the builders of the Dakota Access Pipeline have sued Greenpeace for $300 Million in damages citing RICO. Under RICO, the damages award would triple. Greenpeace US attorney Tom Wetterer said that the suit was "not designed to seek justice, but to silence free speech through expensive, time-consuming litigation. This has now become a pattern of harassment by corporate bullies."

The same can be said about politicians who threatened to use RICO. Nonetheless, the issue of damage to pipeline property remains open, and government officials refused to maintain order during the protests. What recourse do private citizens and companies have in such circumstances?
See links under Litigation Issues
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**Word Counting and Evidence:** Geoffrey Supran and Naomi Oreskes, at the Department of the History of Science, Harvard University, performed a textual content analysis (word counting) of Exxon documents. In the abstract of their paper they state:

*"This paper assesses whether ExxonMobil Corporation has in the past misled the general public about climate change. We present an **empirical** document-by-document textual **content analysis** and comparison of 187 climate change communications from ExxonMobil…"* [Boldface added.]

Apparently, at Harvard word counting is now considered empirical evidence in science. SEPP is still waiting for the hard, empirical evidence that CO2 is the primary cause of global warming, as the IPCC and many government officials and academics have claimed. Content analysis does not suffice, especially from the IPCC.

But, what can one expect from a Harvard historian who so poorly represented the writings of Paul Samuelson, perhaps the most outstanding graduate of Harvard in economics, and the first US Nobel laureate in economics? For years, Samuelson advocated that the economy of the Soviet Union was comparable to that of the US because its military was comparable. In attacking others, Oreskes claimed that it was common knowledge that the Soviet military was weak and could not be sustained, because its economy was weak.

This could be a very instructive learning moment – don't trust authorities in one subject, if they assert claims, with no hard evidence, in another subject. See links under Defending the Orthodoxy
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**Number of the Week: One million atomic bombs**. Roy Spencer calculated that the energy released by a hurricane such as Harvey is more than 1,000,000 atomic bombs exploding per day, of energy dropped on Hiroshima. See link under Changing Weather

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**NEWS YOU CAN USE:**

***Commentary: Is the Sun Rising?***

**Attribution Shift: Scientists Increasingly Link Climate Change To Solar Forcing In Scientific Journals**

By Kenneth Richard, No Tricks Zone, Aug 24, 2017
http://notrickszone.com/2017/08/24/attribution-shift-scientists-increasingly-link-climate-change-to-solar-forcing-in-scientific-journals/#sthash.BQtq2i9K.dpbs

***Challenging the Orthodoxy -- NIPCC***

**Climate Change Reconsidered II: Physical Science**

Idso, Carter, and Singer, Lead Authors/Editors, 2013
https://www.heartland.org/media-library/pdfs/CCR-II/CCR-II-Full.pdf
*Summary*: http://www.nipccreport.org/reports/ccr2a/pdf/Summary-for-Policymakers.pdf

**Climate Change Reconsidered II: Biological Impacts**

Idso, Idso, Carter, and Singer, Lead Authors/Editors, 2014
http://www.nipccreport.org/reports/ccr2b/pdf/Full-Report.pdf
*Summary*: https://www.heartland.org/media-library/pdfs/CCR-IIb/Summary-for-Policymakers.pdf

**Why Scientists Disagree About Global Warming**

The NIPCC Report on the Scientific Consensus
By Craig D. Idso, Robert M. Carter, and S. Fred Singer, NIPCC, Nov 23, 2015
http://climatechangereconsidered.org/
Download with no charge
https://www.heartland.org/policy-documents/why-scientists-disagree-about-global-warming

**Nature, Not Human Activity, Rules the Climate**

S. Fred Singer, Editor, NIPCC, 2008
http://www.sepp.org/publications/nipcc_final.pdf

***Challenging the Orthodoxy***

**New book from Dr. Roy Spencer on Al Gore's fallacies: An Inconvenient Deception**

How Al Gore Distorts Climate Science and Energy Policy – Al Gore has provided a target-rich environment of deceptions in his new movie.
Guest essay by Dr. Roy Spencer, WUWT, Aug 23, 2017
https://wattsupwiththat.com/2017/08/23/new-book-from-dr-roy-spencer-on-al-gores-fallacies-an-inconvenient-deception/

**Modern Warm Period Not Unprecedented, Chinese Academy of Sciences Study Finds**

By Staff Writers, GWPF, from Chinese Academy Of Sciences, Aug 23, 2017

https://www.thegwpf.com/modern-warm-period-not-unprecedented-chinese-academy-of-sciences-research-finds/
Link to paper: Characteristics of Temperature Change in China over the Last 2000 years and Spatial Patterns of Dryness/Wetness during Cold and Warm Periods
By Quansheng Ge, Haolong Liu, Xiang Ma, Jingyun Zheng, and Zhixin Hao, Advances in Atmospheric Science, August 20017
https://link.springer.com/article/10.1007/s00376-017-6238-8

**Most of the Recent Warming Could be Natural**
By Jennifer Marohasy, Her Blog, Aug 21, 2017 [H/t GWPF]
http://jennifermarohasy.com/2017/08/recent-warming-natural/
Link to paper: The application of machine learning for evaluating anthropogenic versus natural climate change
By John Abbot and Jennifer Marohasy, GeoResJ, Dec 2017
http://www.sciencedirect.com/science/article/pii/S2214242817300426

**Big Data Finds the Medieval Warm Period – No Denial Here**
By Jennifer Marohansy, The Spectator, Via GWPF, Aug 22, 2017
https://www.thegwpf.com/big-data-finds-the-medieval-warm-period-no-denial-here/

**On the Impact of the GWPF**
By Andrew Montford, GWPF, Aug 21, 2017
https://www.thegwpf.com/on-the-impact-of-the-gwpf/
Link to paper: Sharman, Amelia and Perkins, Richard (2017) Post-decisional logics of inaction: the influence of knowledge controversy in climate policy decision-making. Environment and Planning A. ISSN 0308-518X (In Press)
http://eprints.lse.ac.uk/83629/

***Defending the Orthodoxy***
**Study concludes Exxon misled public on climate change**
By Timothy Cama, The Hill, Aug 23, 2017
http://thehill.com/policy/energy-environment/347622-study-concludes-exxon-mislead-public-on-climate-change
Link to paper: Assessing ExxonMobil's climate change communications (1977–2014)
By Geoffrey Supran and Naomi Oreskes, Environmental Research Letters, Aug 23, 2017
http://iopscience.iop.org/article/10.1088/1748-9326/aa815f

**Stop treating science denial like a disease**
Turning the rejection of scientific expertise into a pathology mistakenly presents individual ignorance as the bottleneck in political disagreements
By Daniel Sarewitz, Guardian, UK, Aug 21, 2017 [H/t GWPF]
https://www.theguardian.com/science/political-science/2017/aug/21/stop-treating-science-denial-like-a-disease
"Our biggest problem is not science denial; it's post-normal science denial."

**More questions about a Trump admin war on science**
By Miranda Green, CNN, Aug 24, 2017
http://www.cnn.com/2017/08/24/politics/trump-environmental-changes/index.html
*[SEPP Comment: Frequently, environmental regulations are not based on science.]*

**Northeast states propose 30 percent greenhouse gas cut**
By Timothy Cama, The Hill, Aug 23, 2017
http://thehill.com/policy/energy-environment/347670-northeast-states-propose-30-percent-greenhouse-gas-cut

***Questioning the Orthodoxy***
**2017 National Climate Assessment: A Self-Falsifying Prophecy?**
Guest post by David Middleton, WUWT, Aug 14, 2017
https://wattsupwiththat.com/2017/08/14/2017-national-climate-assessment-a-self-falsifying-prophecy/

**Review and Summary of three Important Atmospheric Physics Papers**
By Andy May, WUWT, Aug 22, 2017
https://wattsupwiththat.com/2017/08/22/review-and-summary-of-three-important-atmospheric-physics-papers/

**John Cameron: Challenging authority is essential for progress**
By John Cameron, The Scotsman, Aug 24, 2017 [H/t GWPF]
http://www.scotsman.com/news/opinion/john-cameron-challenging-authority-is-essential-for-progress-1-4539891

**Fat and happy polar bears no longer a climate change icon say experts**
The bear population appears to be plentiful and plump
By Jennifer Harper, Washington Times, Aug 24, 2017
http://www.washingtontimes.com/news/2017/aug/24/fat-and-happy-polar-bears-no-longer-a-climate-chan/

**Scientific Literacy Leads to More Politically Polarized Opinions on Climate Change**
Guest post by David Middleton, WUWT, Aug 23, 2017
https://wattsupwiththat.com/2017/08/23/scientific-literacy-leads-to-more-politically-polarized-opinions-on-climate-change/

***After Paris!***
**Africa to Play the Trump Card on Coal: For Poverty Alleviation**
By Staff Writers, The Inspired Africa, July 28, 2017 [H/t GWPF]
http://theinspiredafrica.com/2017/07/28/1469/
Link to GWPF report with map showing those without access to electricity in Africa
https://www.thegwpf.com/africa-to-play-the-trump-card-on-coal-for-poverty-alleviation/
"Some see Donald Trump as a rich weirdo who doesn't care about climate change. Others believe he's the first US president not to view Africa through a Western lens. His latest move on aid, the World Bank and the Paris Green Fund suggest they may be right."

**India's dependence on coal to continue despite thrust on renewables**
By Vishwa Mohan, The Economic Times, India, Aug 22, 2017 [H/t Dennis Ambler]
http://economictimes.indiatimes.com/news/environment/developmental-issues/indias-dependence-on-coal-to-continue-despite-thrust-on-renewables/articleshow/60173347.cms

“The survey calculated the 'social cost' of renewables at Rs 11 per KWh which, it claimed, is three times that of the coal in 2017 and the gap would reduce only when the country progresses towards the year 2030.
“The government's chief economic advisor Arvind Subramanian, while delivering Darbari Seth Memorial lecture on last Thursday, too spoke about this scenario when he noted that the coal continues to be "a very cheap way of providing energy to hundreds of millions who are still energy deprived."

### *Change in US Administrations*

**Common Sense on Climate Change: It’s Official Federal Policy**
By Robert Bradley Jr., Master Resource, Aug 23, 2017
https://www.masterresource.org/trump-on-climate-change/federal-climate-messaging/

**The Trump administration just disbanded a federal advisory committee on climate change**
By Juliet Eilperin, Washington Post, Aug 20, 2017
https://www.washingtonpost.com/news/energy-environment/wp/2017/08/20/the-trump-administration-just-disbanded-a-federal-advisory-committee-on-climate-change/?utm_term=.937694d88512

**Pre-Determined ‘Science’: The Chair of the federal climate board disbanded by Trump was a World Wildlife Fund activist**
By Paul Homewood, Not a Lot of People Know That, Aug 22, 2017
https://notalotofpeopleknowthat.wordpress.com/2017/08/22/pre-determined-science-the-chair-of-the-federal-climate-board-disbanded-by-trump-was-a-world-wildlife-fund-activist/

**Stalled on health care, President Trump quietly scores wins on energy agenda**
By Michael Collins, USA Today, Aug 24, 2017
https://www.usatoday.com/story/news/politics/2017/08/24/president-trump-energy-agenda/590893001/

**Trump To Repeal Obama Executive Order On Sea Level Rise**
By Michael Bastasch, Daily Caller, Aug 15, 2017 [H/t WUWT]
http://dailycaller.com/2017/08/15/trump-to-repeal-obama-executive-order-on-sea-level-rise/?utm_source=site-share
*[SEPP Comment: As if the Obama Administration could stop changing seas.]*

**Trump Administration Makes First Move In Rolling Back Vehicle Emission Standards**
By Jack Crowe, Daily Caller, Aug 14, 2017 [H/t Timothy Wise]
http://dailycaller.com/2017/08/14/trump-administration-makes-first-move-in-rolling-back-vehicle-emission-standards/

**What Congress and the Trump Administration Need to Do to Fix the EPA's Broken Budget**
By William Yeatman, CEI, June 10, 2017
https://cei.org/blog/what-congress-and-trump-administration-need-do-fix-epas-broken-budget

**Smart Move to Repeal Department of Interior 'Valuation Rule' on Minerals**
By Marlo Lewis, CEI, Aug 24, 2017
https://cei.org/blog/smart-move-repeal-department-interior-valuation-rule-minerals

## *Seeking a Common Ground*

**Weather-related Natural Disasters: Should we be concerned about a reversion to the mean?**
By Roger Pielke, Jr. Risk Frontiers, July 31, 2017 [H/t Climate Depot]
https://riskfrontiers.com/weather-related-natural-disasters-should-we-be-concerned-about-a-reversion-to-the-mean/
"The world has had a run of good luck when it comes to weather disasters. That will inevitably come to an end. Understanding loss potential in the context of inexorable global development and long-term climate patterns is hard enough. It is made even more difficult with the politicized overlay that often accompanies the climate issue."

**Reviewing the Climate Science Special Report**
By Judith Curry, Climate Etc. Aug 20, 2017
https://judithcurry.com/2017/08/20/reviewing-the-climate-science-special-report/#more-23295

## *Review of Recent Scientific Articles by CO2 Science*

**The Impact of Ocean Acidification on Juvenile Fish Digestion**
Jacob, H., Pouil, S., Lecchini, D., Oberhänsli, F., Swarzenski, P. and Metian, M. 2017. Trophic transfer of essential elements in the clownfish *Amphiprion ocellaris* in the context of ocean acidification. *PLoS ONE* **12**: e0174344. Aug 25, 2017
http://www.co2science.org/articles/V20/aug/a16.php
*[SEPP Comment: Ocean carbonization describes the experiment better than ocean acidification. Unlike many studies the actual reduction in pH is given – from 8.0 to 7.5. The water remained alkaline.]*

**The Impact of Key Climate Drivers on Terrestrial Carbon Storage**
Yue, K., Fornara, D.A., Yang, W., Peng, Y., Peng, C., Liu, Z. and Wu, F. 2017. Influence of multiple global change drivers on terrestrial carbon storage: additive effects are common. *Ecology Letters* **20**: 663-672. Aug 24, 2017
http://www.co2science.org/articles/V20/aug/a15.php
"While additional work is likely needed to further constrain the magnitude of the C pool responses to these global change drivers, it is encouraging to note the *direction* of the response, which clearly is *positive* and indicative of an overall *enhancement of the terrestrial C sink*. Thus, in the years and decades ahead, it should be expected that the terrestrial biosphere will continue to act as a break on the modern increase in atmospheric CO2, sequestering more and more C in its above- and below-ground pools and acting as a negative feedback to projected CO2-induced global warming."

**The Survival of a Pacific Krill Species Under Ocean Acidification**
Cooper, H.L., Potts, D.C. and Paytan, A. 2017. Effects of elevated *p*CO2 on the survival, growth, and moulting of the Pacific krill species, *Euphausia pacifica*. *ICES Journal of Marine Science* **74**: 1005-1012. Aug 23, 2017
http://www.co2science.org/articles/V20/aug/a14.php
"In the words of the authors, although high pCO2 appeared to slow growth of the krill species (more particularly in the 10th and 90th quantiles of the size distribution), 'a *p*CO2 level of 1200 µatm [(pH 7.6)] had no effect on either survival or moulting frequency.' In fact, krill survival remained unaffected by ocean acidification until seawater pH values were lowered to 6.96, corresponding to a *p*CO2 of *over 6,000 µatm*."

**The High Plasticity of a Fleshy Macroalga to Ocean Acidification**

Kumar, A., Castellano, I., Patti, F.P., Delledonne, M., Abdelgawad, H., Beemster, G.T.S., Asard, H., Palumbo, A. and Buia, M.C. 2017. Molecular response of *Sargassum vulgare* to acidification at volcanic CO2 vents: insights from de novo transcriptomic analysis. *Molecular Ecology* **26**: 2276-2290. Aug 21, 2017
http://www.co2science.org/articles/V20/aug/a13.php
"One such site is found off the coast of Ischia Island, Italy, where volcanic vents releasing CO2 have formed two distinct zones of reduced pH (7.8 and 6.7), compared to the surrounding area where the pH value is around 8.1.
"Furthermore, they add that 'the cellular signaling components and membrane receptors affected by elevated CO2/decreased pH seem to contribute towards growth, division and development of *S. vulgare* at the acidified site," where the macroalga "looks healthy and flourishing.'"

## *Changing Weather*

**ECMWF at the heart of weather and climate modelling as global challenge of societal relevance** with game changing prediction capability through exascale
By Staff Writers, Primeur Weekly, July 31, 2017 [H/t Climate Etc.]
http://primeurmagazine.com/weekly/AE-PR-08-17-120.html
*[SEPP Comment: A talk describing efforts to improve weather forecasting at the European Centre for Medium-Range Weather Forecasts (ECMWF). NOAA and the National Weather Service need to be listening.]*

**As a 50-year dry spell has reversed, Indian monsoons strengthened over past 15 years**
By Staff Writers, India: New England News, Aug 8, 2017 [H/t GWPF]
http://indianewengland.com/2017/08/50-year-dry-spell-reverses-indian-monsoons-strengthened-past-15-years/
Link to paper: A revival of Indian summer monsoon rainfall since 2002
By Qinjian Jin & Chien Wang, Nature Climate Change, July 24, 2017
http://www.nature.com/nclimate/journal/v7/n8/full/nclimate3348.html?foxtrotcallback=true

**Atlantic hurricane season 2017: What you should know**
By Staff Writers, Fox News, Aug 24, 2017
http://www.foxnews.com/us/2017/08/24/atlantic-hurricane-season-2017-what-should-know.html
Link to Report: Early-season storms one indicator of active Atlantic hurricane season ahead
Above-normal season likely with 14 to 19 named storms
By Staff Writers, NOAA, Aug 9, 2017
http://www.noaa.gov/media-release/early-season-storms-one-indicator-of-active-atlantic-hurricane-season-ahead

**Hurricane Harvey makes landfall as Category 4 storm**
By Julia Manchester, The Hill, Aug 25, 2017
http://thehill.com/blogs/blog-briefing-room/news/348081-hurricane-harvey-makes-landfall-as-category-4-storm
Link to National Weather Service Report
https://twitter.com/NHC_Atlantic/status/901282619056427010

**Hurricane Harvey: 1 Million Hiroshima Bombs per Day**
By Roy Spencer, His Blog, Aug 25, 2017
http://www.drroyspencer.com/2017/08/hurricane-harvey-1-million-hiroshima-bombs-per-day/

**Extraordinary Radar Imagery for Hurricane Harvey**
By Cliff Mass, Weather and Climate Blog, Aug 26, 2017
http://cliffmass.blogspot.com/2017/08/extraordinary-radar-imagery-for-harvey.html

## *Changing Seas*

**Water Intrusion in the Chesapeake Bay Region: Is It Caused by Climate-Induced Sea Level Rise?**
By Roger H. Bezdek, Journal of Geoscience and Environment Protection, Aug 2017
http://www.scirp.org/journal/PaperInformation.aspx?PaperID=78612&#abstract

**Why Are Sea Levels Around Miami Rising So Much Faster Than Other Places?**
By Maddie Stone, Gizmodo, Aug 11, 2017 [H/t Climate Etc.]
http://gizmodo.com/why-are-sea-levels-in-miami-rising-so-much-faster-than-1797733450
Link to paper: Spatial and temporal variability of sea level rise hot spots over the eastern United States
By Arnoldo Valle-Levinson, et al. Geophysical Research Letters, Aug 12, 2017
http://onlinelibrary.wiley.com/doi/10.1002/2017GL073926/abstract

**California sea level rise: Evidence based forecasts vs. model predictions**
By Albert Parker and Clifford Ollier, Ocean & Coastal Management, July 19, 2017
http://www.sciencedirect.com/science/article/pii/S0964569117303071

## *Changing Cryosphere – Land / Sea Ice*

**Record-shattering 2.7-million-year-old ice core reveals start of the ice ages**
By Paul Voosen, Science, Aug 15, 2017 [H/t Climate Etc.]
http://www.sciencemag.org/news/2017/08/record-shattering-27-million-year-old-ice-core-reveals-start-ice-ages?utm_source=newsfromscience&utm_medium=twitter&utm_campaign=icecore-14698
*[SEPP Comment: The ice ages may have started earlier.]*

**East Antarctica will stay stable even if western ice sheets melt, new study finds**
By Cecile Borkhataria, Daily Mail, Aug 18, 2017 [H/t GWPF]
http://www.dailymail.co.uk/sciencetech/article-4803132/East-Antarctic-stay-stable-western-ice-sheets-melt.html
"Most of the ice sheet rests on bedrock above sea level, making it less susceptible."
*[SEPP Comment: The western ice sheet may be subject to geo-thermal melting.]*

**Pacific walrus haulout two weeks early, US gov't agency blames "earliest" ice loss**
By Susan Crockford, Polar Bear Science, Aug 24, 2017
https://polarbearscience.com/2017/08/24/pacific-walrus-haulout-two-weeks-early-us-govt-agency-blames-earliest-ice-loss/
*[SEPP Comment: More false claims from US Fish and Wildlife.]*

## *Agriculture Issues & Fear of Famine*

**Soviet-Era Grain Record Seen Tumbling on Bumper Russian Crop**
By Anatoly Medetsky, Bloomberg, Aug 21, 2017 [H/t GWPF]
https://www.bloomberg.com/news/articles/2017-08-21/soviet-era-grain-record-seen-tumbling-on-bumper-russian-harvest

*[SEPP Comment: If one considers the grain production of areas previously within the USSR, the record tumbled long ago. For example, "Ukraine's market year 2015-16 wheat harvest reached 27.2 million tonnes, the largest crop since independence in 1990, the U.S. Department of Agriculture's (USDA) Foreign Agricultural Service (FAS) reported on Jan 28."]*
http://www.world-grain.com/articles/news_home/World_Grain_News/2016/02/Ukraines_wheat_production_incr.aspx?ID=%7B2E983294-6111-48D4-A7B1-6350CC757FB7%7D'

***Lowering Standards***

**First tanker crosses northern sea route without ice breaker (Because it is one anyway!)**
By Paul Homewood, Not a Lot of People Know That, Aug 25, 2017
https://notalotofpeopleknowthat.wordpress.com/2017/08/25/first-tanker-crosses-northern-sea-route-without-ice-breaker-because-it-is-one-anyway/

**BBC Claim Climate Change Is Cutting Crop Yields In Africa**
By Paul Homewood, Not a Lot of People Know That, Aug 23, 2017
https://notalotofpeopleknowthat.wordpress.com/2017/08/23/bbc-claim-climate-change-is-cutting-crop-yields-in-africa/

**German DWD Weather Service Misleads Public Into Thinking May Mean Temperatures Are Rising**
By P Gosselin, No Tricks Zone, Aug 22, 2017
http://notrickszone.com/2017/08/22/german-dwd-weather-service-misleads-public-into-thinking-may-mean-temperatures-rising/#sthash.Iy2ImCq4.dpbs

***Communicating Better to the Public – Exaggerate, or be Vague?***

**New Grid Study Finally Released, And The Winner Is … Wind Power!**
By Tina Casey, Clean Technica, Aug 24, 2017
https://cleantechnica.com/2017/08/24/new-grid-study-finally-released-winner-wind-power/
Link to report: Staff Report to the Secretary on Electricity Markets and Reliability
By Staff Writers, DPE. August 2017
https://energy.gov/sites/prod/files/2017/08/f36/Staff%20Report%20on%20Electricity%20Markets%20and%20Reliability_0.pdf
"The study details how cheap natural gas, government regulations, weak power demand and increasing volumes of solar and wind power are challenging the economics of coal and nuclear plants." (From the article)
*[SEPP Comment: The article uses the "straw-man" argument. The study focuses on the reliability of natural gas.]*

***Communicating Better to the Public – Make things up.***

**NYT Writer Uses Solar Eclipse To Whine About Inaction On Global Warming**
Boy Michael Bastasch, Daily Caller, Aug 21, 2017
http://dailycaller.com/2017/08/21/nyt-writer-uses-solar-eclipse-to-whine-about-inaction-on-global-warming/
Link to NYT op-ed: Should You Trust Climate Science? Maybe the Eclipse Is a Clue
By Justin Gillis, NYT, Aug 18, 2017
https://mobile.nytimes.com/2017/08/18/climate/should-you-trust-climate-science-maybe-the-eclipse-is-a-clue.html?smid=tw-share&referer=https://t.co/S5oapqFrSU?amp=1

Gillis: “Friends of mine in Georgia plan to drive 70 miles to find the perfect spot on a South Carolina golf course to observe the solar eclipse. Many Americans will drive farther than that, or fly, to situate themselves in the ‘path of totality,’ the strip of the country where the moon is predicted to blot out the sun entirely.”
*[SEPP Comment: This observer drove hundreds of miles to be on the “path of totality” only to see a dim sun, blocked by heavy overcast – even though the previous day weather forecasts were for a clear sky.]*

**Modern Astrology in NY Times: Justin Gillis says Eclipses show all Scientists are always right about everything**
By Jo Nova, Her Blog, Aug 28, 2017
http://joannenova.com.au/2017/08/modern-astrology-in-ny-times-justin-gillis-says-eclipses-show-all-scientists-are-always-right-about-everything/

***Communicating Better to the Public – Do a Poll?***
**28% think Climate Scientists Understand Causes of Climate Change Very Well**
By Scott Rasmussen, His Blog, Aug 21, 2017 [H/t GWPF]
https://ballotpedia.org/Scott_Rasmussen%27s_Number_of_the_Day_for_August_21,_2017

***Questioning European Green***
**When Will the Insanity End?**
By Donn Dears, Power For USA, Aug 18, 2017
http://www.powerforusa.com/2017/08/18/when-will-the-insanity-end/

**Post-Internal Combustion Engine? Doing the UK Math**
By Donn Dears, Master Resource, Aug 22, 2017
https://www.masterresource.org/electric-vehicles-and-generation-capacity/uk-bev-math/

**It's up against stiff competition, but the race for electric cars could be our leaders' maddest green mania yet, writes Christopher Booker**
By Christopher Booker, Daily Mail, Aug 23, 2017 [H/t Paul Homewood]
http://www.dailymail.co.uk/news/article-4814780/Race-electric-cars-maddest-green-mania-yet.html

**Why won’t the government admit the true cost of renewable energy?**
By Harry Wilkinson, CapX, Aug 23, 2017 [H/t GWPF]
https://capx.co/why-wont-the-government-admit-the-true-cost-of-renewable-energy/
*[SEPP Comment: The expected increases in electricity costs are not necessary – if the UK government were not handicapped by the Climate Change Act of 2008]*

**The Hidden Costs of Renewable Energy**
By Jonathan Ford, Financial Times, Via GWPF, Aug 21, 2017
https://www.thegwpf.com/the-hidden-costs-of-renewable-energy/
*[SEPP Comment: High risks require high returns; government guaranteed markets find buyers.]*

**The UK Oil Refining Industry**
By Paul Homewood, Not a Lot of People Know That, Aug 24, 2017
https://notalotofpeopleknowthat.wordpress.com/2017/08/24/the-uk-oil-refining-industry/#more-29481

**UK Electric Car Perks 'Shockingly Generous'**
Subsidies aimed at cutting emissions are helping the better-off and risk creating new problems
By Ed Conway, The Times, Via GWPF, Aug 18, 2017
https://www.thegwpf.com/uk-electric-car-perks-shockingly-generous/

***Questioning Green Elsewhere***
**The Footprint of Energy: Land Use of U.S. Electricity Production**
By Landon Stevens, et al. Strata, June 2017
http://www.strata.org/pdf/2017/footprints-full.pdf
"Coal, natural gas, and nuclear power all feature the smallest, and nearly identical physical footprint, of about 12 acres per megawatt produced. Solar and wind are much more land intensive technologies using 43.5 and 70.6 acres per megawatt, respectively. Hydroelectricity generated by large dams has a significantly larger footprint than any other generation technology using 315.2 acres per megawatt."

**The Idea of Renewable Energy Is Reported to Have Originated with the Nazis; at Least They Were Wise Enough to Reject It**
By Alan Carlin, Carlin Economics and Science, Aug 24, 2017
http://www.carlineconomics.com/archives/3822
Link to essay: The Nazi Origins of Renewable Energy (and Global Warming)
By David Archibald, American Thinker, July 20, 2017
http://www.americanthinker.com/articles/2017/07/the_nazi_origins_of_renewable_energy_and_global_warming.html

***Green Jobs***
**Why the US Solar Industry Doesn't Want Government Protection**
By Nick Stockton, Wired, Aug 21, 2017
https://www.wired.com/story/why-the-us-solar-industry-doesnt-want-government-protection
"But much of the rest of the US solar industry finds those figures far-fetched, and calls the tariff a terrible idea. See, manufacturing remains a small part of the US solar power industry. Most of the money—and work—lies in assembling panels into arrays and installing them for large corporate or industrial-scale clients (residential rooftop setups are small potatoes)."]
*[SEPP Comment: Why have subsidies and mandates?]*

***Litigation Issues***
**Dakota Access Pipeline Owner Sues Greenpeace for $300 Million in Damages**
Energy Transfer Partners claims 'relentless campaign of lies' in RICO lawsuit against Greenpeace and other environmental groups
By Christopher M. Matthews, WSJ, Via GWPF, Aug 23, 2017
https://www.thegwpf.com/dakota-access-pipeline-owner-sues-greenpeace-for-300-million-in-damages/

**Ecoterrorism vs. Affordable Energy: Greenpeace's Hate and Destruction on Trial**
By Robert Bradley Jr., Master Resource, Aug 24, 2017
https://www.masterresource.org/greenpeace/suing-greenpeace-ep/
*[SEPP Comment: See link immediately above.]*

**Cabot Oil & Gas Goes on Offensive Against Fracking Nuisance Lawsuits**

Guest post by David Middleton, WUWT, Aug 22, 2017
https://wattsupwiththat.com/2017/08/23/cabot-oil-gas-goes-on-offensive-against-junk-fracking-lawsuits/

**Court rejects pipeline project on climate concerns**
By Timothy Cama, The Hill, Aug 22, 2017
http://thehill.com/policy/energy-environment/347469-court-rejects-pipeline-project-on-climate-concerns
"In a 2-1 ruling, the Court of Appeals for the District of Columbia Circuit found that the Federal Energy Regulatory Commission (FERC) did not properly analyze the climate impact from burning the natural gas that the project would deliver to power plants."

***Subsidies and Mandates Forever***
**The importance of the Renewable Fuel Standard**
By Steve Pittman Indiana Ethanol Producers Association, Greensburg Daily News, Aug 24, 2017
http://www.greensburgdailynews.com/opinion/the-importance-of-the-renewable-fuel-standard/article_3b843dc4-d521-5520-8be1-54621c77ba91.html

**Big ethanol's fuel mandate costs American taxpayers millions**
By Nan Swift, The Hill, Aug 24, 2017
http://thehill.com/blogs/pundits-blog/energy-environment/347810-big-ethanols-fuel-mandate-costs-american-taxpayers

***EPA and other Regulators on the March***
**EPA Needs Budget Reform, Less Spending and Better Science**
By Myron Ebell and Matthew Townsend, The Hill, Via CEI, Aug 16, 2017
https://cei.org/content/epa-needs-budget-reform-less-spending-and-better-science

**How Jeff Sessions is stopping the EPA's slush fund**
By Benjamin Zycher, The Hill, Aug 2, 2017 [H/t Cooler Heads]
http://thehill.com/blogs/pundits-blog/energy-environment/347148-how-jeff-sessions-is-stopping-the-epas-slush-fund

**EPA chief Scott Pruitt right to pursue funds for Gold King Mine victims**
Editorial, Denver Post, Aug 18, 2017 [H/t EPA Press Office]
http://www.denverpost.com/2017/08/18/epa-chief-scott-pruitt-right-to-pursue-funds-for-gold-king-mine-victims/

**EPA to host 10 hearings on water rule rewrite**
By Timothy Cama, The Hill, Aug 25, 2017
http://thehill.com/policy/energy-environment/347964-epa-to-host-10-hearings-on-water-rule-rewrite

***Energy Issues – Non-US***
**Blowout Week 190**
By Roger Andrews, Energy Matters, Aug 19, 2017
http://euanmearns.com/blowout-week-190/#more-19332
*[SEPP Comment: See the first section from Australian Financial Review on electricity prices in Australia compared with other developed countries.]*

**Don't boil the kettle while charging your electric car because it will blow the fuse, National Grid warns**
By Paul Homewood, Not a Lot of People Know That, Aug 23, 2017
https://notalotofpeopleknowthat.wordpress.com/2017/08/23/dont-boil-the-kettle-while-charging-your-electric-car-because-it-will-blow-the-fuse-national-grid-warns/
"The average household is supplied with single phase electricity and is fitted with a main fuse of 60-80 amps," the National Grid said.
"If one were to use an above average power charger, say 11kW, this would require 48 amps. When using such a charger it would mean that you could not use other high demand electrical items… without tripping the house's main fuse."

**Norway embarks on mission improbable**
By Jillian Ambrose, Telegraph, UK, Aug 19, 2017 [H/t Paul Homewood]
http://www.telegraph.co.uk/business/2017/08/19/norway-embarks-mission-improbable/
*[SEPP Comment: Making money from UK waste?]*

## *Energy Issues – Australia*

**Victoria plans to reduce electricity prices by copying state with most expensive supply in the world**
By Jo Nova, Her Blog, Aug 24, 2017
http://joannenova.com.au/2017/08/victoria-plans-to-reduce-electricity-prices-by-copying-state-with-most-expensive-supply-in-the-world/

## *Energy Issues – US*

**Quantifying the causes of the recent decrease in US CO2 emissions**
By Roger Andrews, Energy Matters, Aug 23, 2017
http://euanmearns.com/quantifying-the-causes-of-the-recent-decrease-in-us-co2-emissions/#more-19345

**Fossil fuel protesters are mostly clueless about how much those low-cost fuels impact and improve their lives**
By Mark Perry, AEIdeas, Aug 21, 2017 [H/t Timothy Wise]
http://www.aei.org/publication/blog/carpe-diem/

**How electricity will be priced in the future**
By Fereidoon Sioshansi, Energy Post Aug 18, 2017
http://energypost.eu/how-electricity-will-be-priced-in-the-future/
"By now the narrative on the rapid transformation of the electricity sector driven by the 3Ds – decentralization, de-carbonization and digitization – is well-known."
*[SEPP Comment: De-carbonization is politically driven, not economically driven.]*

## *Oil and Natural Gas – the Future or the Past?*

**Rock Steady - E&Ps Maintain Accelerated Spending Despite Oil Price Decline**
By Nick Cacchione, RBN Energy, Aug 22, 2017
https://rbnenergy.com/rock-steady-eandps-maintain-accelerated-spending-despite-oil-price-decline

## *Return of King Coal?*

**China Leads the Way**
By Donn Dears, Power For USA, Aug 22, 2017
http://www.powerforusa.com/2017/08/22/china-leads-the-way/
"The fleet of coal-fired power plants in the United States has an average efficiency of around 33%.
"New HELE plants [in China] can have an efficiency of around 45% HHV."

## *Nuclear Energy and Fears*

**China pips US in race to start the world's first meltdown-proof nuclear power plant**
China has 20 nuclear power plants under construction, more than any other country on earth. With Sanmen, the industry is hoping to get the nod to build more reactors at home, and even export the AP1000 technology.
By Eric Ng, Chen Binglin, Robert Delaney, South China Post, Aug 18, 2017 [H/t Toshio Fujita]
http://www.scmp.com/business/companies/article/2107354/china-pips-us-race-start-worlds-most-advanced-nuclear-power-plant

**New dawn for thorium reactor research**
First molten-salt thorium nuclear reactor experiment in over 45 years starts in the Netherlands
By Staff Writers, The Engineer, Aug 21, 2017
https://www.theengineer.co.uk/thorium-nuclear-reactor/

## *Alternative, Green ("Clean") Solar and Wind*

**Wind Power Is All Grown Up Now**
By Chris Bryant, Bloomberg, Aug 23, 2017
https://www.bloomberg.com/gadfly/articles/2017-08-17/vestas-still-has-a-fair-wind-behind-it
"Today, it [Vestas] generates more than 10 billion euros ($11.7 billion) in annual sales."
*[SEPP Comment: Excluding China, the big three in market share are: Vestas with 24.5%; Siemens Gamesa, 22%; and GE, 20.7%. Since the industry is "grown-up", why keep "infant industry" subsides and mandates?]*

**Proof that Wind and Solar are Unreliable**
By Donn Dears, Power For USA, Aug 15, 2017
http://www.powerforusa.com/2017/08/15/proof-that-wind-and-solar-are-unreliable/
Link to Report: PJM's Evolving Resource Mix and System Reliability
By Staff Writers, PJM Interconnection, March 30, 2017
http://www.pjm.com/~/media/library/reports-notices/special-reports/20170330-pjms-evolving-resource-mix-and-system-reliability.ashx
*[SEPP Comment: Better said as more evidence, not proof.]*

**Rail Energy Storage Harnesses the Power of Gravity All the Livelong Day**
A California startup is repurposing trains and rail cars to help renewable energy utilities compete with fossil fuels.
By Glenn McDonald, Seeker, Aug 21, 2017
https://www.seeker.com/earth/energy/rail-energy-storage-harnesses-the-power-of-gravity-all-the-livelong-day
"None of this matters unless the system is efficient. Rail energy storage has about an 80 percent efficiency rate, meaning that the descending railroad cars can output 80 percent of the energy that was initially used to get them up that hill.

"That's better than pumped-storage hydroelectricity, Kelly noted, which typically runs in the 60 percent range. Batteries can return a higher efficiency, but their capacity degrades over time."
*[SEPP Comment: It will be interesting to see if this technique becomes commercially deployable. Government reports indicate that large pumped-hydro storage has about 80% efficiency, not the 60% stated in the article.]*

**America's first U.S.-built offshore wind installation vessel**
A Texas company is building the nation's first offshore wind-turbine installation vessel and designing it to fit through the New Bedford hurricane barrier.
By Jennette Barnes, South Coast Today, TX, Aug 22, 2017
http://www.southcoasttoday.com/news/20170822/americas-first-us-built-offshore-wind-installation-vessel

**7 things you didn't know about where solar energy is headed**
By John Siciliano, Washington Examiner, Aug 23, 2017
http://www.washingtonexaminer.com/7-things-you-didnt-know-about-where-solar-energy-is-headed/article/2631983
*[SEPP Comment: But not how to make the sunshine on the ground dependable.]*

## *Alternative, Green ("Clean") Vehicles*

**Cheaper, Lighter, Quieter: The Electrification of Flight Is at Hand**
Our small electric plane, which uses light and powerful batteries and motors, is less costly than its gasoline-engine rivals
By George Bye, IEEE Spectrum, Aug 22, 2017
http://spectrum.ieee.org/aerospace/aviation/cheaper-lighter-quieter-the-electrification-of-flight-is-at-hand
*[SEPP Comment: The author appears realistic, initially; aiming for a small, specialized market. Short-hop commuter aircraft are another matter, particularly when weather is a factor.]*

**Electric Vehicle Prospects: Bad Analogies Are Worse Than No Analogies**
By Michael Lynch, Forbes, Aug 21, 2017
https://www.forbes.com/sites/michaellynch/2017/08/21/electric-vehicle-prospects-bad-analogies-are-worse-than-no-analogies/#3c91b714c2c2
"Conceivably, battery costs and performance will improve to the point where the additional cost will not be a significant barrier. But so far, the date when that will occur is wildly speculative and doesn't appear to be near. Claims to the contrary appear to be based on a superficial understanding of hard numbers."
*[SEPP Comment: Comparing an EV with a gas engine is like comparing a horse with a model T, with the EV the horse?]*

**Hidden Battery Powered Vehicle Issues**
By Donn Dears, Power For USA, August 25, 2017
http://www.powerforusa.com/2017/08/25/hidden-battery-powered-vehicle-issues/

## *California Dreaming*

**California Proves That Environmental Regulations Don't Kill Profits**
By Stephanie Sawyer, Wired, Aug 22, 2017
https://www.wired.com/story/california-proves-that-environmental-regulations-dont-kill-profits/

*[SEPP Comment: The author avoids the issue. When governments favor particular producers, profits to those producers are not the issue. Costs to the consumers are.]*

**Feds Spend $22.8 Million Helping California Fix The Dam It Neglected For Years**
By Tim Pearce, Daily Caller, Aug 11, 2017 [H/t WUWT]
http://dailycaller.com/2017/08/11/feds-spend-22-8-million-helping-california-fix-the-dam-it-neglected-for-years/

**Moorpark Sub-Area: Local Capacity Alternative Study**
By Staff Writers, California Independent System Operator Corporation (ISO), August 16, 2017
http://www.caiso.com/Documents/Aug16_2017_MoorparkSub-AreaLocalCapacityRequirementStudy-PuentePowerProject_15-AFC-01.pdf

**San Onofre nuclear plant shutdown showdown headed back to court? Good.**
Editorial, San Diego Union Tribune, Aug 18, 2017 [H/t Toshio Fujita]
http://www.sandiegouniontribune.com/opinion/editorials/sd-san-onofre-nuclear-plant-closure-costs-20170818-story.html

## *Health, Energy, and Climate*

**National Institutes of Health wipes references to climate 'change' from site**
By Julia Manchester, The Hill, Aug 24, 2017
http://thehill.com/blogs/blog-briefing-room/news/347798-nih-unit-deletes-references-to-climate-change
*[SEPP Comment: Since climate was changing before humanity existed, why would climate change be a threat to human health?]*

## *Environmental Industry*

**Fair trade for thee, but not for me**
By Paul Driessen, WUWT, Aug 22, 2017
https://wattsupwiththat.com/2017/08/22/fair-trade-for-thee-but-not-for-me/

## *Other News that May Be of Interest*

**Paper examines 'unconscious assumptions that have impeded scientific progress in the past'**
By Anthony Watts, WUWT, Aug 20, 2017
https://wattsupwiththat.com/2017/08/20/paper-examines-unconscious-assumptions-that-have-impeded-scientific-progress-in-the-past/
Link to paper: On multi-level thinking and scientific understanding
By Michael Edgeworth McIntyre, Advances in Atmospheric Sciences, Oct 2017
https://link.springer.com/article/10.1007%2Fs00376-017-6283-3

**Cognitive Bias Survival Guide**
Manage the Mind to Make Better Decisions
By Staff Writers, Geek Wrapped, No Date [H/t GWPF]
https://www.geekwrapped.com/cognitive-bias-survival-guide

**Tired Of Science's Mumbo-Jumbo? Use The De-Jargonizer!**
By Julianna LeMieux, ACSH, Aug 22, 2017
https://www.acsh.org/news/2017/08/22/tired-sciences-mumbo-jumbo-use-de-jargonizer-11728

Link to paper: Automatic jargon identifier for scientists engaging with the public and science communication educators
By Tzipora Rakedzon, et al. Plos One, Aug 9, 2017
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0181742
Link to De-Jargonizer
http://scienceandpublic.com/
*[SEPP Comment: The abstract of the paper had a Suitability for General Audience Score of 88.]*

**U.S. Has 3.5 Million More Registered Voters Than Live Adults — A Red Flag For Electoral Fraud**
Editorial, IBD, Aug 16, 2017
http://www.investors.com/politics/editorials/u-s-has-3-5-million-more-registered-voters-than-live-adults-a-red-flag-for-electoral-fraud/

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**BELOW THE BOTTOM LINE:**

**Claim: Warmer waters from climate change will leave fish shrinking, gasping for air**
By Anthony Watts, WUWT, Aug 22, 2017
https://wattsupwiththat.com/2017/08/22/claim-warmer-waters-from-climate-change-will-leave-fish-shrinking-gasping-for-air/

**People in…**
By Staff Writers, Climate Change Predictions.org. Aug 24, 2017
http://climatechangepredictions.org/uncategorized/8886
"As the country faces acute power shortage and the global warming debate hots up, energy conservationists caution against growing number of buildings with glass facades dotting the landscapes of cities as being responsible for energy consumption much in excess that a normal structure would do.
"If you see the structures that have come up recently, they are all mostly made with glass. Right from top to below, you can see huge shinning glass.
"Though these buildings look very contemporary and stylish, they are the biggest culprit when it comes to energy consumption, says Harsh Narang, director, Modern India Architects.
Glass building are a very European concept because they don't get much of sunlight. Hence, their main aim is to get maximum sunlight. But, in our country where temperatures at times go as high as 50 degrees Celcius, these glasses take in more of sunlight.
"Hence, the offices use more air-conditioners directly resulting in higher consumption of electricity and also in the form of carbon-dioxide emission and also CFCs that air-conditioners generate causing damage to the ozone layer, he adds.
"According to a study conducted by Chartered Institution of Building Services Engineers, London, a complete glass building consumes four times more electricity than a normal building."
Rediff India Abroad, 12 Jun 2007

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ARTICLES:

**1. Cuomo's Natural Gas Blockade**
New York's Governor is raising energy costs for millions of Americans.
Editorial, WSJ, Aug 23, 2017
https://www.wsj.com/articles/cuomos-natural-gas-blockade-1503529234

SUMMARY: The editorial states:

*"The U.S. shale boom has lowered energy prices and created hundreds of thousands of jobs across the country. But those living in upstate New York and New England have been left in the cold by New York Gov. Andrew Cuomo, whose shale gas blockade could instigate an energy crisis in the Northeast.*

*"Progressives once hailed natural gas as a "transition fuel" to renewables like solar and wind, but now they are waging a campaign to "keep it in the ground." New York is ground zero. First, Mr. Cuomo banned hydraulic fracturing (i.e., fracking), and now he's blocking natural gas pumped in other states from reaching Northeast markets.*

*The Empire State's southern tier overlays the rich Marcellus and Utica Shale formations, among the most productive drilling regions in the country. Shale fracking has been an economic boon for Appalachia—and could have lifted upstate New York. Since 2010 natural gas production has surged 520% in West Virginia, 920% in Pennsylvania and 1880% in Ohio.*

*"Mr. Cuomo's predecessor David Paterson imposed a moratorium on fracking in 2010. After winning re-election in 2014, Mr. Cuomo started laying the ground for a White House bid and made the ban permanent. Between 2010 and 2015, New York's natural gas production plunged by half—which has translated into fewer jobs as well as less royalties for landowners and revenue for local governments.*

*"Last year the Governor compounded the economic damage by blocking the 120-mile Constitution pipeline transporting natural gas from Pennsylvania to upstate New York and New England. Although the Federal Energy Regulatory Commission (FERC) approved the pipeline in 2014, Mr. Cuomo's Department of Environmental Conservation conducted a separate review and denied a water-quality permit putatively because the developers hadn't provided sufficient information.*

*"Constitution's developers challenged the denial in federal court. While the Clean Water Act lets states perform their own environmental reviews, New York appears to have abused its discretion. Last week the Second Circuit Court of Appeals deferred to state regulators while leaving a door open for the pipeline companies to challenge the timeliness of the state review in the D.C. Circuit Court of Appeals.*

*"While Constitution isn't dead, environmentalists say the appellate-court decision will give New York and other states more latitude to block pipelines, which is no idle threat. Two major pipelines in the Northeast under development will need state approvals, and developers pulled two others in the past two years amid regulatory obstacles in New England.*

*"All of this is ominous since the region desperately needs more natural gas to make up for lost power from the impending shutdown of nuclear and coal plants. New England's Independent System Operator projects that 14% of the region's electric generation capacity will be retired within three years and says more pipelines are needed for grid stability.*

The editorial discusses the premature closure of the Indian Point nuclear plant and that the governor has no back-up plant. Then it continues:

*"Speaking of which, about a quarter of households in New York, 45% in Vermont and 65% in Maine still burn heating oil—which is a third more expensive than natural gas and produces*

*about 30% more carbon emissions per million Btu. Yet many can't switch due to insufficient natural gas and pipeline infrastructure.*

*"Mr. Cuomo's natural gas blockade is harming residents and businesses throughout the Northeast while raising carbon emissions that he claims are imperiling the planet. The likely Democratic presidential aspirant may hope to ride this record to the White House, but millions of Americans are already paying a high price for his policies"*
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**2. Why Georgia Sticks With Nuclear Power**

It's a hedge against a low-carbon future—and much more.
By Tim Echols, WSJ, Aug 17, 2017
https://www.wsj.com/articles/why-georgia-sticks-with-nuclear-power-1503011785
SUMMARY: Mr. Echols is a member of Georgia's Public Service Commission. He writes:

*"Georgia's decision to continue building two new nuclear reactors—the only commercial ones now in development in the U.S.—means my state stands alone. Vermont's Yankee plant went offline in 2014, and Massachusetts' Pilgrim Station is scheduled to close in 2019. The company behind two half-finished reactors in South Carolina may abandon the project.*

*"Georgia has been down this road before. The first two reactors at the Vogtle Electric Generating Plant near Augusta were completed in 1987 and 1989, in the aftermath of the 1979 Three Mile Island accident. What was supposed to be a $1 billion project turned into an $8 billion one. Still, it was a great deal for ratepayers, delivering low-cost power for decades.*

*"Today, finishing the Vogtle plant's two new Westinghouse AP1000 reactors is the right call—for their owners, including Southern Co. , as well as for Georgia and the U.S.*

*"Diversifying the energy supply makes sense, because no one knows what the future holds. The U.S. could institute a carbon tax, or even regulate frackers out of a job. No matter what happens, nuclear reactors will ensure Georgia's electric rates stay competitive.*

*"They also will keep the U.S. from forfeiting its nuclear leadership. As other states have decommissioned reactors without replacing them, the world has begun looking to nations like China and Russia. The World Nuclear Association reports China is increasing its nuclear generation capacity 70% by 2021 and will surpass U.S. output by 2030. The only way for America to continue setting international standards for safety and security is to invest in reactors and technology."*

Mr Echols concludes with his firm commitment to the plant and the need for it.

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