The Week That Was: 2016-06-25 (June 25, 2016) Brought to You by SEPP (www.SEPP.org) The Science and Environmental Policy Project

Quote of the Week: "Falsehood flies, and the truth comes limping after it." – Jonathan Swift The Examiner, Nov 9, 1710 [H/t Jim Moore]

Number of the Week: 19%

THIS WEEK:

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

BREXIT: On June 23rd, the British voted 52% to 48% to exit the European Union. No doubt many political commentators were very surprised. It's too early to forecast how this exit will take place and what will occur. The financial markets reacted strongly in a negative fashion, but such reaction is typical when faced with a political shock. It appears that many in Britain are dismayed by economic and political controls administrated by an autocratic bureaucracy centered in other countries. Early reports showed that the industrial areas of the Midlands and Yorkshire heavily favored the exit. It would be interesting to see a competent analysis of what influence, if any, increasing electricity prices may have had on the vote.

According to reports prior to the vote, Christiana Figueres, one of the leaders of the UN Framework Convention on Climate Change (UNFCCC), which organized the Paris Agreement (not called a treaty which requireS US Senate approval) stated that a Brexit vote would require "recalibration" of the agreement. But, this may have been another slight-of-hand tactic to influence the vote. As it is many leaders of the Brexit are skeptical of the UN assertion that human emissions of greenhouse gases, particularly carbon dioxide (CO2), are the dominant influence on recent global warming/climate change.

What the Brexit vote will create in other countries remains to be seen. Previously, some US groups were calling for the US to withdraw from the UNFCCC. One major point is that the UNFCCC treaty was approved by the US Senate with conditions that have not been met in the Paris Agreement. Will Brexit intensify calls for US withdrawal from the UNFCCC? The UNFCCC is one of the two parent organizations of the UN Intergovernmental Panel on Climate Change (IPCC), which produces summaries of reports with conclusions of certainty that are not substantiated in THE body of the reports. Also, according to government reports, the US is the major funder of the UNFCCC and recently the State Department diverted \$500,000,000 into the UNFCCC's Green Climate Fund without Congressional approval. See links under After Paris and Other News that May Be of Interest.

Linear-No-Threshold Model: One of the favorite ploys of the EPA is to use the Linear-No-Threshold (LNT) model to calculate possible small negative influences on human health with small doses of a substance, even when lacking any physical evidence. Often, it is far easier for a regulator, or an epidemiologist, to declare a substance is harmful by using the LNT Model rather than using the laborious dose-response method long-established in toxicology. ("sola dosis facit venenum" – The dose alone makes the poison.)

The LNT model was developed in the late 1940s for ionizing radiation and it was assumed that long term exposure to the radiation can cause an increase in cancer risks. The benefits of exposure to radiation are largely ignored. The model has been strongly criticized by some scientists because it can lead to absurd results. For example, long-term, prolonged exposure to the sun can lead to skin cancer in some, therefore any exposure to the sun can lead to skin cancer in some. It can be summed as: "There is no safe dose."

A more recent example is the administrators of the EPA lecturing US residents on exposure to emissions from coal-fired power plants because the mercury emissions may reduce IQ (by an immeasurable amount). The EPA's position was supported by a single study not supported by subsequent studies. Yet, it became part of the Mercury and Air Toxics Standards (MATS) regulations promulgated by the EPA, which are being legally contested.

A new paper with the clever title, "Epidemiology Without Biology: False Paradigms, Unfounded Assumptions, and Specious Statistics in Radiation Science", has been published in *Biological Theory*. As one can guess from the title, the paper is not complimentary to the extensive use of the LNT model. Needless to say, this will not be the final word on the subject – far too many careers and papers in epidemiology are built on the LNT model. See links under EPA and other Regulators on the March and Below the Bottom Line.

Chevron Deference: A frustrating issue in Federal courts is trying to establish that a US agency did not produce the science it claims to have established supporting particularly regulations. All too often the court may the Chevron Deference, stopping the argument. This deference grew from a 1984 Supreme Court Case involving Chevron and the Natural Resource Defense Council over the EPA's interpretation of the 1977 Clean Air Act Amendments. The Deference gives government agencies wide latitude in establishing the meaning of enacted laws. Some government agencies, such as the EPA, are taking advantage of this deference.

For example; those attending the oral arguments, in the US Court of Appeals for the District of Columbia, against the EPA "endangerment finding" that carbon dioxide and other greenhouse gases endanger human health saw the lead judge use the deference to shut off all arguments that the science behind the EPA's endangerment finding was extremely weak. This deference biases the courts in favor of government entities and is frequently used in many cases in addition to Clean Air Act issues.

Recent court decisions indicated that the deference is wearing thin as the Administration tries to use it to justify increasing regulations without Congressional approval. For example, a Federal judge, appointed by President Obama, rejected an effort by the US Bureau of Land Management (BLM) to regulate hydraulic fracturing that takes place on federal and Indian lands. For years, the BLM and other government agencies have not permitted hydraulic fracturing for oil and natural gas on these lands, even though a 2005 law stripped the executive branch of fracturing jurisdiction and gave that power to the states. The BLM claimed it was exempt from the law. Hydraulic fracturing provides one of the few bright spots in an otherwise stagnant economy. Whether this decision indicates a trend remains to be seen. See Article # 2 and links under After Paris.

Atmospheric Temperatures: Roy Spencer, a co-developer of measuring atmospheric temperatures by satellites, estimates that those temperatures in 2016 will likely be higher than in

2015, then they will fall. Will this result in a higher plateau as in 1998, or will they fall to the level following the 1998 El Niño – resulting in a continuation of the "pause"?

In response to those claiming that the spike in temperatures is being caused by increased CO2, physicist Donald Rapp wrote:

"There is no possible technical reason for a sudden spike in global temperatures due to CO2. CO2 exerts a slow, gradually acting force. That is a biased assertion based on no facts. Furthermore, far from being "dissipated" the current El Nino is on its downward leg but there is plenty of room left for further temperature declines over the next six months. Take a look at the aftermath of the 1997-8 El Nino below."

"The Arctic in particular experienced abnormal heat, causing Arctic sea ice and the Greenland ice sheet to start melting unusually early', said NASA."

"Alaska recorded its warmest spring on record by a wide margin, and in Finland the average May temperature was between three and five degrees warmer than usual in most regions, according to data from the Finnish Meteorological Institute."

"It is well established that one of the significant global effects of a strong El Nino is warming of Alaska. That's always been true and is still true today. No surprise there."

See link under Measurement Issues -- Atmosphere

Changing Antarctic: Paul Homewood reports on a new paper in Geophysical Research Letters on ice accumulation and temperatures in West Antarctica Ice Sheet for the past 31, 000 years. From the abstract:

"We investigate the relationship between accumulation and temperature for the past 31 ka using high-resolution records from the West Antarctic Ice Sheet (WAIS) Divide ice core in West Antarctica. [The divide separates the region where is ice flows to the Ross Sea from the region where it flows to the Weddell sea.] Although the glacial-interglacial increases result in high correlation and moderate sensitivity for the full record, the relationship shows considerable variability through time with high correlation and high sensitivity for the 0–8 ka period but no correlation for the 8–15 ka period. This contrasts with a general circulation model simulation which shows homogeneous sensitivities between temperature and accumulation across the entire time period. These results suggest that variations in atmospheric circulation are an important driver of Antarctic accumulation but they are not adequately captured in model simulations. Model-based projections of future Antarctic accumulation, and its impact on sea level, should be treated with caution."

SCC: As John Christy has shown, through 2015, the global climate models generally greatly overestimate the warming of the atmosphere, where the greenhouse effect occurs. Further, any projected ice melt of the West Antarctic Ice Sheet may be natural, not attributable to human influence. These examples illustrate the danger in IPCC's failure to seek understanding of the natural influences on climate, instead of emphasizing human influence only. Yet, twelve US

government entities continue to labor under the assumption that 50-year projections from global climate models are valid.

Blackout California: The shutdown of the facility due to a leak in the Aliso Canyon underground gas storage facility in Southern California has resulted in the California Independent Service Operator (CAISO), which manages the California grid, estimating that all customers should expect to be without power for a total of 14 days this summer. Some 21 million Southern Californians may be directly affected. Southern California relies on natural gas to balance its solar and other power plants, particularly during the summer. Complicating the issue is the "California Duck Curve" which illustrates the steep ramping requirements in California due to the addition of solar capacity. The sharp increase in power needed from about 4 pm to 9 pm is taxing on all equipment employed.

Writing in Energy Matters, Roger Andrews discusses some of the issues involved and that the outlook for preventing blackouts is not good. The California Public Utilities Commission is addressing the significant problem by demanding the public utility (Southern California Edison) acquire more electricity storage using batteries to prevent blackouts. Apparently, the Commission is unaware that commercial-scale battery storage does not exist. See links under California Dreaming.

California Nuclear: Adding to complications, the pressure group "Friends of the Earth" issued a press release that it has successfully negotiated the closure of the Diablo Canyon Power Plant, the only remaining nuclear power plant in California – located between Los Angeles and San Francisco. The facilities have 1,100 MWe reactors and an operating capacity factor of about 90%. It produces about 9% of the electricity used in California and is scheduled to close in 2025. The press release states:

"Friends of the Earth says the agreement provides a clear blueprint for fighting climate change by replacing nuclear and fossil fuel energy with safe, clean, cost-competitive renewable energy."

SEPP is conducting its annual vote for the recipient of the coveted trophy, The Jackson, a lump of coal. Readers are asked to nominate and vote for who they think is most deserving, following these criteria:

- The nominee has advanced, or proposes to advance, significant expansion of governmental power, regulation, or control over the public or significant sections of the general economy.
- The nominee does so by declaring such measures are necessary to protect public health, welfare, or the environment.
- The nominee declares that physical science supports such measures.
- The physical science supporting the measures is flimsy at best, and possibly non-existent.

Number of the Week: 19%. Writing in Master Resource, nuclear engineer Jim Rust states that the capacity factor of solar plants in the Southwest US desert are about 19%, while those for nuclear plants are about 90% or greater. The Southwest desert is considered the most promising place to locate solar plants in the country. These numbers are verified by the US Energy Information Administration. Of course, nuclear power is reliable; solar is not. Those customers who have to pay the bills for the replacements of nuclear power plants are in for an unpleasant surprise.

ARTICLES: The Articles section is now at the bottom of TWTW.

NEWS YOU CAN USE:

Science: Is the Sun Rising?

Synopsis: Solar Cycle Affects Cosmic Ray Positrons

By Michael Schirber, Physics, June 17, 2016

http://physics.aps.org/synopsis-for/10.1103/PhysRevLett.116.241105

[SEPP Comment: Will it influence the Svensmark hypothesis?]

Suppressing Scientific Inquiry – The Witch Hunt

Dem Congressmen: First Amendment Doesn't Protect Global Warming SkepticsBy Michael Bastasch, Daily Caller, June 13, 2016 [H/t Timothy Wise]
http://dailycaller.com/2016/06/13/dem-congressmen-first-amendment-doesnt-protect-global-warming-skeptics/#ixzz4BYXWLmbV

Activists Admit at Friendly Forum They've Been Working with NY AG on Climate RICO Campaign for Over a Year

By Katie Brown, Energy In Depth, June 24, 2016

http://energyindepth.org/national/activists-admit-at-friendly-forum-theyve-been-working-with-ny-ag-on-climate-rico-campaign-for-over-a-year/

Establishing Accountability for Climate Change Damages: Lessons from Tobacco Control

By Workshop Summary by Seth Shulman, Senior Staff Writer, Union of Concerned Scientists; Climate Accountability Institute and Union of Concerned Scientists, October 2012

http://www.climateaccountability.org/pdf/Climate%20Accountability%20Rpt%20Oct12.pdf?version=meter+at+0&module=meter-

<u>Links&pgtype=article&contentId=&mediaId=&referrer=&priority=true&action=click&contentCollection=meter-links-click</u>

Suppressing Scientific Inquiry – The Witch Hunt – Push-Back

Is Attorneys' General Mischief just the Tip of the Iceberg?

Guest essay by Ari Halperin, WUWT, June 18, 2016

https://wattsupwiththat.com/2016/06/18/is-attorneys-general-mischief-just-the-tip-of-the-iceberg/ [SEPP Comment: Though included in the list, SEPP is not identified as a conservative organization, which is correct. SEPP is indifferent to political leanings.]

Fighting back against global warming scalp hunting

Editorial, Washington Examiner, June 23, 2016 [H/t Timothy Wise] http://www.washingtonexaminer.com/fighting-back-against-global-warming-scalp-hunters/article/2594654

"The bottom line, the conservative attorneys general argued, is that using 'law enforcement authority to resolve a public policy debate undermines the trust invested in our offices and threatens free speech."

House committee at war with state AG's prosecuting climate change dissenters

By Rick Moran, American Thinker, June 20, 2016

http://www.americanthinker.com/blog/2016/06/house committee at war with state ags prosecuting climate change dissenters.html

House panel turns up heat after states clam up on climate dissent probes

By Valerie Richardson, Washington Times, June 19, 2016

http://m.washingtontimes.com/news/2016/jun/19/house-republicans-send-climate-change-attorneys-ge/#!

Hype and Hypocrisy of Climate Attacks on Exxon

By Larry Bell, Newsmax, June 20, 2016

 $\frac{http://www.newsmax.com/LarryBell/attorney-general-attorneys-general-Martin-Act-N-Y-2016/06/20/id/734670/}{}$

Liberal AG's Climate Change Probes Abuse Fourth Amendment to Upend First Amendment

By Mark Fitzgibbons, CNS News, June 23, 2016 [H/t Timothy Wise]

http://cnsnews.com/commentary/mark-fitzgibbons/liberal-ags-climate-change-probes-abuse-fourth-amendment-upend-first

Challenging the Orthodoxy -- NIPCC

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

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

Challenging the Orthodoxy

Prepared Testimony to House Committee on Science, Space & Technology

By John Christy, UAH, Feb 2, 2016

https://science.house.gov/sites/republicans.science.house.gov/files/documents/HHRG-114-SY-WState-JChristy-20160202.pdf

Greenpeace co-founder pens treatise on the positive effects of CO2 – says there is no crisis By Anthony Watts, WUWT, June 20, 2016

https://wattsupwiththat.com/2016/06/20/greenpeace-co-founder-pens-treatise-on-the-positive-effects-of-co2-says-there-is-no-crisis/

Link to report: The Positive Impact of Human CO2 Emissions on the Survival of Life on Earth By Patrick Moore, Frontier Centre for Public Policy, June 2016

https://wattsupwiththat.files.wordpress.com/2016/06/moore-positive-impact-of-human-co2-emissions.pdf

Defending the Orthodoxy

A Brief History of Climate Denial

By John Cook, Resilience, June 23, 2016 [H/t Clyde Spencer]

http://www.resilience.org/stories/2016-06-23/a-brief-history-of-climate-denial

Link to paper: Institutionalizing delay: foundation funding and the creation of U.S. climate change counter-movement organizations

By Robert Brulie, Climate Change, Dec 21, 2013

http://link.springer.com/article/10.1007/s10584-013-1018-7

[SEPP Comment: According to the "research" 91 climate change counter-movement (CCCM) organizations "have an annual income of just over \$900 million, with an annual average of \$64 million in identifiable foundation support." How much is for climate change is not stated in the abstract. The US Global Change Research Program alone as an annual budget of about \$2.5 billion, yet has not delivered physical evidence that CO2 is the primary cause of global warming/climate change. Looks like the US taxpayer is being short-changed.]

America's Climate Choices (5th Edition)

By Committee on America's Climate Choices; Board on Atmospheric Sciences and Climate; Division on Earth and Life Studies; National Research Council, National Academies Press, 2016 http://www.nap.edu/catalog/12781/americas-climate-choices

"Current efforts of local, state, and private-sector actors are important, but not likely to yield progress comparable to what could be achieved with the addition of strong federal policies that

establish coherent national goals and incentives, and that promote strong U.S. engagement in international-level response efforts."

[SEPP Comment: What choice? The report on climate choices offers no evidence that national and international bureaucracies can control climate.]

El Nino drives fastest annual increase on record of carbon dioxide

By Staff Writers, Science Daily, June 13, 2016 [H/t Clyde Spencer]

https://www.sciencedaily.com/releases/2016/06/160613130700.htm

Link to paper: El Niño and a record CO2 rise

By Betts, et al. Nature Climate Change, June 13, 2016

http://www.nature.com/nclimate/journal/vaop/ncurrent/full/nclimate3063.html

"The recent El Niño event has elevated the rise in CO2 concentration this year. Here, using emissions, sea surface temperature data and a climate model, we forecast that the CO2 concentration at Mauna Loa will for the first time remain above 400 ppm all year, and hence for our lifetimes." [Abstract]

Every observatory in the world now reports carbon dioxide is at highest level in 4 million vears

By Andrew Freeman, Yahoo, June 17, 2016 [H/t Clyde Spencer]

https://www.yahoo.com/news/every-observatory-world-now-reports-213048950.html?nhp=1 [Comment from Clyde Spencer: The article implies that the Antarctic CO2 has migrated from the northern hemisphere. Yet, the very few CO-2 maps that have been released show high levels of CO2 in the southern oceans.]

Nuclear Energy, Global Warming, and the Politicization of Science

By Spencer Weart, APS Back Page, June 2016 [H/t Ron Sundelin]

http://www.aps.org/publications/apsnews/201606/backpage.cfm

[SEPP Comment: More physics without evidence!]

Questioning the Orthodoxy

DNA results prove so-called polar bear hybrid was a blonde grizzly

By Susan Crockford, Polar Bear Science, June 21, 2016

https://polarbearscience.com/2016/06/21/breaking-dna-results-prove-so-called-polar-bear-hybrid-was-a-blonde-grizzly/

"I think it's 99 per cent sure that it's going to turn out to be a hybrid,' said Ian Stirling, an emeritus research scientist with Environment Canada and adjunct professor at the University of Alberta."

CO2 hits record high: Antarctic temperatures do nothing

By Jo Nova, Her Blog, June 22, 2016

http://joannenova.com.au/2016/06/co2-hits-record-high-antarctic-temperatures-do-nothing/

More People Die Of Cold Than Heat

By Paul Homewood, Not a Lot of People Know That, June 22, 2016 https://notalotofpeopleknowthat.wordpress.com/2016/06/22/more-people-die-of-cold-than-heat/ [SEPP Comment: But, people dying of cold cannot be blamed on human use of fossil fuels.]

Ouestioning the Orthodoxy -- SCC

Annals Of Government Fraud: The "Social Cost Of Carbon"

By Francis Menton, Manhattan Contrarian, June 12, 2016 [H/t ICECAP] http://manhattancontrarian.com/blog/2016/6/11/annals-of-government-fraud-the-social-cost-of-carbon

Development of Social Cost of Carbon Estimates

By Staff Writers, GAO, July 24, 2014

http://www.gao.gov/products/GAO-14-663

"Relied on existing academic literature and models."

Junk Science Week: What's the right price for carbon? Take a guess (everyone else is)

By Ross McKitrick, Financial Post, June 16, 2016

http://business.financialpost.com/fp-comment/junk-science-week-whats-the-right-price-for-carbon-take-a-guess-everyone-else-is

"Where it really counts we're using guesstimates based on inconsistent models."

Discounting Climate Costs

By David W. Kreutzer, Heritage, June 16, 2016 [H/t Timothy Wise] http://www.heritage.org/research/reports/2016/06/discounting-climate-costs

You Ought to Have a Look: The Hows and Whys of the Social Cost of Carbon

By Patrick J. Michaels and Paul C. "Chip" Knappenberger, Cato, June 13, 2016 http://www.cato.org/blog/you-ought-have-look-hows-whys-social-cost-carbon

After Paris!

The U.S. Should Withdraw from the United Nations Framework Convention on Climate Change

By Nicolas Loris, Brett D. Schaefer, and Steven Groves, Heritage Foundation, June 9, 2016 <a href="http://www.heritage.org/research/reports/2016/06/the-us-should-withdraw-from-the-united-nations-framework-convention-on-climate-nation-nat

change?utm source=twitter&utm medium=social&utm campaign=othtwitter

The Energy Absurdity Of The Paris Climate Agreement

By Daniel Wetzel, Die Welt, Via GWPF, June 21, 2016

http://www.thegwpf.com/the-energy-absurdity-of-the-paris-climate-agreement/

[SEPP Comment: Regulate first, think later.]

Germany's 'Die Welt': The Paris Climate Treaty And "The Absurd Excrescence Of Climate Protection"!

By P Gosselin, No Tricks Zone, June 21, 2016

 $\frac{http://notrickszone.com/2016/06/21/germanys-die-welt-the-paris-climate-treaty-and-the-absurd-excrescence-of-climate-protection/\#sthash.V21vser0.dpbs$

UN boss: Brexit would mean rewriting Paris Agreement on climate change

By James Crisp, EurActiv, June 22, 2016

http://www.euractiv.com/section/climate-environment/news/un-boss-brexit-would-mean-rewriting-paris-agreement-on-climate-change/?nl ref=15561958

How a Court Threw Out a Major Obama Environmental Regulation and EPA Refused to Say How Global Temperatures Would Change under the Paris Treaty

By Alan Carlin, Carlin Economics and Science, June 24, 2016 http://www.carlineconomics.com/archives/2753

You Ought to Have a Look: Paris Agreement Prospects, EPA Shenanigans, House Says No to a Carbon Tax

By Patrick J. Michaels and Paul C. "Chip" Knappenberger, Cato, June 17, 2016 http://www.cato.org/blog/you-ought-have-look-paris-agreement-prospects-epa-shenanigans-house-says-no-carbon-tax

Problems in the Orthodoxy

Ocean viruses may have impact on Earth's climate

By Jessica McDonald, Science, June 17, 2016 [H/t Toshio Fujita] http://www.sciencemag.org/news/2016/06/ocean-viruses-may-have-impact-earth-s-climate

Water Vapor Vs Carbon Dioxide: Which 'Wins' In Climate Warming? By Marshall Shepherd, Forbes, June 20, 2016 [H/t Clyde Spencer] http://www.forbes.com/sites/marshallshepherd/2016/06/20/water-vapor-vs-carbon-dioxide-which-wins-in-climate-warming/#62c2d94e3b6b

Seeking a Common Ground

Is Climate Science Settled Because It Cannot Be Settled?

Guest opinion: Dr. Tim Ball, WUWT, June 18, 2016

https://wattsupwiththat.com/2016/06/18/is-climate-science-settled-because-it-cannot-be-settled/

Science, Policy, and Evidence

How Dr. Frankenstein is making research sick

By Judith Curry, Climate Etc. June 20, 2016

https://judithcurry.com/2016/06/20/how-dr-frankenstein-is-making-research-sick/#more-21761

Review of Recent Scientific Articles by CO2 Science

CMIP3 and 5 Model Predictions of Precipitation and Temperature

Woldemeskel, F.M., Sharma, A., Sivakumar, B. and Mehrotra, R. 2016. Quantification of precipitation and temperature uncertainties simulated by CMIP3 and CMIP5 models. *Geophysical Research: Atmospheres* **121**: 3-17. June 20, 2016 http://www.co2science.org/articles/V19/jun/a10.php

Temperature Impacts on Emergency Transport to Japan Hospitals

Onozuka, D. and Hagihara, A. 2015. All-Cause and Cause-Specific Risk of Emergency Transport Attributable to Temperature. *Medicine* **94:** e2259. June 21, 2016

http://www.co2science.org/articles/V19/jun/a11.php

[SEPP Comment: Cold is more dangerous than heat.]

Some Unresolved Difficulties of Modeling Meteorological Droughts

Ganguli, P. and Ganguly, A.R. 2016. Robustness of Meteorological Droughts in Dynamically Downscaled Climate Simulations. *Journal of the American Water Resources Association* **52**: 138-167. June 24, 2016

http://www.co2science.org/articles/V19/jun/a13.php

Models v. Observations

In Honor of Secretary of State John Kerry's Global Warming Publicity-Founded Visit to Greenland...

...A Few Model-Data Comparisons of Greenland Surface Air Temperatures

By Bob Tisdale, WUWT, June 20, 2016

https://wattsupwiththat.com/2016/06/20/in-honor-of-secretary-of-state-john-kerrys-global-warming-publicity-founded-visit-to-greenland/

Paging Attorneys General! ...

2016 Scientific Consensus: Climate Models Aren't Working

By Kenneth Richard, No Tricks Zone, June 20, 2016

http://notrickszone.com/2016/06/20/paging-attorneys-general-2016-scientific-consensus-climate-models-arent-working/#sthash.wEyyJiD5.dpbs

[SEPP Comment: In journals, other than the once distinguished Science with an editorial policy of not publishing skeptical papers, papers challenging the Global Climate Models continue to be published.]

Measurement Issues -- Surface

Global temperatures are heading downward, and fast

By Anthony Watts, WUWT, June 21, 2016

https://wattsupwiththat.com/2016/06/21/global-temperatures-are-heading-downward-and-fast/[SEPP Comment: Graphs showing locations of surface measuring devices and the world's population, 2000, by latitude are particularly interesting.]

Can Both GISS and HadCRUT4 be Correct? (Now Includes April and May Data)

Conclusion by Walter Dnes and Edited by Just The Facts, Via WUWT, June 16, 2016 https://wattsupwiththat.com/2016/06/16/can-both-giss-and-hadcrut4-be-correct-now-includes-april-and-may-data/

Measurement Issues -- Atmosphere

2016 Will Likely See Record Global Warmth in Satellite Data

...but the approaching La Nina might extend the global warming pause to 20 years.

By Roy Spencer, His Blog, June 22, 2016

http://www.drroyspencer.com/2016/06/2016-will-likely-see-record-global-warmth-in-satellite-data/

Changing Weather

U.S. Numerical Weather Prediction is Falling Further Behind: What is Wrong and How Can It Be Fixed Ouickly?

By Cliff Mass, Weather Blog, June 21, 2016

http://cliffmass.blogspot.com/2016/06/us-numerical-weather-prediction-is.html

Among the problems with NOAA testing: "Some of the results were clearly bogus, like the radically poor results of a 13-km forecast run and a hurricane simulation that had rain in the eye of the MPAS hurricane). Something was clearly wrong with the tests."

Changing Climate – Cultures & Civilizations

Climate and Human Civilization for the Past 4.000 Years

Guest essay by Andy May, WUWT, June 22, 2016

https://wattsupwiththat.com/2016/06/22/climate-and-human-civilization-for-the-past-4000-years/

Changing Cryosphere – Land / Sea Ice

The Antarctic Has Been Warmer Than Now For Most Of The Last 8000 Years

By Paul Homewood, Not A Lot of People Know That, June 19, 2016

 $\underline{https://notalotofpeopleknowthat.wordpress.com/2016/06/19/the-antarctic-has-been-warmer-than-now-for-most-of-the-last-8000-years/$

Link to paper: Variable relationship between accumulation and temperature in West Antarctica for the past 31,000 years

By Fudge, et al. Geophysical Research Letters, Apr 28, 2016 http://onlinelibrary.wiley.com/doi/10.1002/2016GL068356/full

And yet another unaccounted for climate variable: snow algae accelerates melting of Arctic glaciers

By Anthony Watts, WUWT, June 23, 2016

https://wattsupwiththat.com/2016/06/23/and-yet-another-unaccounted-for-climate-variable-snow-algae-accelerates-melting-of-arctic-glaciers/

Five years of polar bear habitat at June 20 around the Arctic

By Susan Crockford, Polar Bear Science, June 21, 2016

https://polarbearscience.com/2016/06/21/five-years-of-polar-bear-habitat-at-june-20-around-the-arctic/

"Five years worth of sea ice maps for the same date is hard to come by in this country, since the Canadian Ice Service does not archive their daily sea ice maps."

[SEPP Comment: Apparently, those pesky polar bears do not stay in one place.]

Un-Science or Non-Science?

Bangladesh declares lightning strikes a disaster as deaths surge

World could see a 50 percent increase in lightning this century as a result of global warming, scientists say

By Syful Islam, Thomas Reuters Foundation, June 22, 2016 [H/t Clyde Spencer] http://news.trust.org/item/20160622142821-46d02/

Link to paper: Projected increase in lightning strikes in the United States Due to global warming By Romps, et al, Berkley Research Reports, Nov 4, 2014

http://www.romps.berkeley.edu/2014/lightning/14lightning.pdf

[SEPP Comment: The increase is based on projections from 11 climate models with no established predictive capability.]

Thousands of heat deaths predicted as New York City heats up, scientists say

By Sebastien Maio, Reuters, June 23, 2016 [H/t Clyde Spencer]

https://www.yahoo.com/news/thousands-heat-deaths-predicted-york-city-heats-scientists-210541777.html?nhp=1

"More than 3,000 New Yorkers could die each year from intense heat due to climate change beginning about 60 years from now, researchers said on Thursday."

[SEPP Comment: From models over estimating temperatures, but the authors use them to forecast future deaths, assuming humans cannot adapt.]

Communicating Better to the Public – Make things up.

Claim: Crop breeding is not keeping pace with climate change

By Anthony Watts, WUWT, June 20, 2016

https://wattsupwiththat.com/2016/06/20/claim-crop-breeding-is-not-keeping-pace-with-climate-change/

[SEPP Comment: With graph of increasing grain yields.]

Crop breeding is not keeping pace with climate change

By Staff Writers, Leeds, UK (SPX), Jun 24, 2016

http://www.seeddaily.com/reports/Crop_breeding_is_not_keeping_pace_with_climate_change_99 9.html

[SEPP Comment: Increases in the world's yields demonstrate that this is pure bunk.]

Questioning European Green

Technical Problems ... Two More Huge German Offshore Wind Parks Cut Off From Grid! – By P Gosselin, No Tricks Zone, June 22, 2016

 $\frac{http://notrickszone.com/2016/06/22/technical-problems-two-more-huge-german-offshore-wind-parks-cut-off-from-grid/\#sthash.veBQQp9I.dpbs}{}$

Litigation Issues

University of Arizona loses FOI suit for emails – Overpeck and Bradley's emails to be made public

By Anthony Watts, WUWT, June 16, 2016

https://wattsupwiththat.com/2016/06/16/breaking-university-of-arizona-loses-foi-suit-for-emails-overpeck-and-bradleys-emails-to-be-made-public/

Cap-and-Trade and Carbon Taxes

Reasons to Oppose a Carbon Tax

By H. Sterling Burnett, Heartland, June 17, 2016

http://news.heartland.org/newspaper-article/2016/06/17/reasons-oppose-carbon-tax

EPA and other Regulators on the March

Powerful Shot Against Believers In "No Safe Dose" Of Radiation

By Ron Adams, Forbes, June 19, 2016 [H/t Clyde Spencer]

 $\underline{\text{http://www.forbes.com/sites/rodadams/2016/06/19/powerful-shot-against-believers-in-no-safe-dose-of-radiation/\#772af1892170}$

Link to paper: Epidemiology Without Biology: False Paradigms, Unfounded Assumptions, and Specious Statistics in Radiation Science (with Commentaries by Inge Schmitz-Feuerhake and Christopher Busby and a Reply by the Authors)

By Sacks, Meyerson, and Siegel, Biological Theory, June 17, 2016

https://link.springer.com/article/10.1007/s13752-016-0244-4

Why was DOE's Low Dose Radiation Research program defunded in 2011?

By Ron Adams, Atomic Insights, Nov 26, 2013

http://atomicinsights.com/low-dose-radiation-research-program-defunded-2011/

[SEPP Comment: Note the 2013 date – see link immediately above.]

EPA's PM2.5 Co-Benefits PR Trick Exposed

By Marlo Lewis, Global Warming.org, June 15, 2016

http://www.globalwarming.org/2016/06/15/epas-pm2-5-co-benefits-pr-trick-exposed-2/

[SEPP Comment: Double counting is one thing – but 1,000 plus times?]

EPA Science Panel Stacked With Experts Paid Millions By EPA

By Michael Bastasch, Daily Caller, June 22, 2016

http://dailycaller.com/2016/06/22/epa-science-panel-stacked-with-experts-paid-millions-by-epa/

Why Shouldn't the Energy Department Run the Entire Economy?

By Ryan Young, CEI, June 15, 2016

https://cei.org/blog/why-shouldnt-energy-department-run-entire-economy

[SEPP Comment: With rates of return for energy investments of 1800%?]

Energy Issues - Non-US

National Grid recruits NHS hospitals to help keep the lights on

By Emily Gosden, Telegraph, UK, June 19, 2016

 $\underline{http://www.telegraph.co.uk/business/2016/06/19/national-grid-recruits-nhs-hospitals-to-help-keep-the-lights-on/}$

Energy Issues -- US

Questioning "The Secret Dirty War to Stop Solar Power"

By James Rust, Master Resource, June 23, 2016

https://www.masterresource.org/solar-power/questioning-dirty-war-solar/

"Capacity factors of solar plants in Southwest desert areas are 0.19 compared to capacity factors of 0.9 or greater for nuclear and fossil-fueled electricity plants."

The Challenge Of Keeping The Lights On In New England: A Conversation With ISO-NE's CEO

By Peter Kelly-Detwiler, Forbes, June 14, 2016 [H/t Cooler Heads]

 $\underline{\text{http://www.forbes.com/sites/peterdetwiler/2016/06/14/the-challenge-of-keeping-the-lights-on-in-new-england-a-conversation-with-iso-nes-ceo/\#33e7d40df800}$

Oil and Natural Gas – the Future or the Past?

Don't Ignore The History And Economics Of Oil (Listen To The Sacred Chickens)

By Michael Lynch, Forbes, June 21, 2016

 $\underline{http://www.forbes.com/sites/michaellynch/2016/06/21/dont-ignore-the-history-and-economics-of-oil-listen-to-the-sacred-chickens/\#1e98ab915ed5$

[SEPP Comment: A great prediction: the price of oil will go up as the production declines and/or consumption increases; it will go down as production increases and/or consumption decreases.]

One Way to Solve Fracking's Water Problem: Don't Use Water

A bold idea from scientists hoping to push debates over shale gas drilling in a new direction.

By Eric Roston, Bloomberg, June 21, 2016 [H/t Clyde Spencer]

http://www.bloomberg.com/news/articles/2016-06-21/one-way-to-solve-fracking-s-water-problem-don-t-use-water?cmpid=yhoo.headline&yptr=yahoo

Link to paper: Activated desorption at heterogeneous interfaces and long-time kinetics of hydrocarbon recovery from nanoporous media

By Lee, Bocquet & Coasne, Nature Communications, June 21, 2016

http://www.nature.com/ncomms/2016/160621/ncomms11890/full/ncomms11890.html

[SEPP Comment: No discussion of sand or other proppants needed to keep the fractures open under intense pressure.]

Rigonomics

Is \$50 a barrel enough to revive global oil production?

By Staff Writers, The Economist, June 18, 2016

http://www.economist.com/news/finance-and-economics/21700649-50-barrel-enough-revive-global-oil-production-rigonomics

[SEPP Comment: Simplistic analysis.]

Return of King Coal?

Japan maintains coal power strategy despite pressure

By Paul Homewood, Not a Lot of People Know That, June 21, 2016

 $\underline{https://notalotofpeopleknowthat.wordpress.com/2016/06/21/japan-maintains-coal-power-strategy-\underline{despite-pressure/}}$

Nuclear Energy and Fears

Are Greens Coming Around to Nuclear Power?

By Staff Writers, The American Interest, June 17, 2016

http://www.the-american-interest.com/2016/06/17/are-greens-coming-around-to-nuclear-power/

Environmental Conflict Goes Nuclear (civil war erupts over CO2 reduction strategy)

By Robert Bradley Jr. Master Resource, June 22, 2016

https://www.masterresource.org/nuclear-power/nuclear-environmental-nuclear-power-split-environmental-movement/

PG&E Moves to Retire 2.3-GW Diablo Canyon Nuclear Plant

By Sonal Patel, Power Mag, June 21, 2016

http://www.powermag.com/pge-moves-to-retire-2-3-gw-diablo-canyon-nuclear-plant/?hq e=el&hq m=3258373&hq l=7&hq v=5e660500d0

Alternative, Green ("Clean") Solar and Wind

AWED Energy & Environmental Newsletter: June 20, 2016

By John Droz Jr. Master Resource, June 20, 2016

https://www.masterresource.org/alliance-for-wise-energy-decisions/awed-energy-environmental-newsletter-june-20-2016/

Georgia Power's Rooftop Solar Program Signs Up Only 5 Customers

By Julia Pyper, GTM, June 17, 2016

http://www.greentechmedia.com/articles/read/Georgia-Powers-Rooftop-Solar-Program-Signs-Up-Only-Five-Customers?utm_source=Inside+Climate+News&utm_campaign=0127176043-Clean_Economy_Wire12_10_2014&utm_medium=email&utm_term=0_29c928ffb5-0127176043-326456013

"Even when selecting the most favorable circumstances for adopting rooftop solar on the Georgia Power survey, the shortest payback period available is 13 years. For many customers, that's just too long."

Solar Power to Grow Sixfold as Sun Becoming Cheapest Resource

By Mahmoud Habboush and Claudia Carpenter, Bloomberg Technology, June 22, 2016 [H/t Timothy Wise]

http://www.bloomberg.com/news/articles/2016-06-22/solar-power-to-grow-sixfold-as-sun-becoming-cheapest-resource

"Solar plants using photovoltaic technology could account for 8 percent to 13 percent of global electricity produced in 2030, compared with 1.2 percent at the end of last year, the Abu Dhabibased industry group [International Renewable Energy Agency] said in a report Wednesday." [SEPP Comment: No discussion of storage or back-up costs.]

California Dreaming

Diablo Canyon nuclear plant to be shut down, power replaced by renewables, efficiency, storage

California, world's sixth largest economy, going nuclear-free

By Kate Colwell, Press Release, Friends of the Earth, June 21, 2016

http://www.foe.org/news/news-releases/2016-06-diablo-canyon-nuclear-plant-to-be-shut-down "Diablo Canyon is the nuclear plant that catalyzed the formation of Friends of the Earth in 1969. When David Brower founded Friends of the Earth the Diablo Canyon was the first issue on the organization's agenda and Friends of the Earth has been fighting the plant ever since."

Blackout California

By Roger Andrews, Energy Matters, June 23, 2016 http://euanmearns.com/blackout-california/#more-14385

California In Power Grid Emergency: "All Customers Should Expect 14 Days Without Power"

By Staff Writers, Peak Oil, June 21, 2016 [H/t Clyde Spencer]

http://peakoil.com/consumption/california-in-power-grid-emergency-all-customers-should-expect-14-days-without-power

Renewable Or Reliable Energy? Why Not Both?

By David Slayton, IBD, June 24, 2016

http://www.investors.com/politics/commentary/renewable-or-reliable-energy-why-not-both/

Oh Mann!

Scorching Hot Southwest Is Climate Change In Action

Scientists say if we keep burning fossil fuels at the same rate, pretty soon "what we think of as extreme summer heat" will become "typical."

By Lydia O'Connor, Huffington Post, June 20, 2016 [H/t Clyde Spencer]

http://www.huffingtonpost.com/entry/southwest-heatwave-climate-

<u>change_us_57681abce4b0853f8bf18b5b?ir=Science§ion=us_science&utm_hp_ref=science#c</u> omments

Other Scientific News

Chemists Were Wrong About Splenda

By Josh Bloom, ACSH, June 16, 2016

http://acsh.org/news/2016/06/16/chemists-were-wrong-about-splenda/

A "Great Course" Failure

By Donn Dears, Power For USA, June 24, 2016

https://dddusmma.wordpress.com/2016/06/24/a-great-course-failure/

Compulsory Courses for Any Curriculum; The Science Dilemma

By Tim Ball, A Different Perspective, May 25, 2016

http://drtimball.com/2016/compulsory-courses-for-any-curriculum-the-science-dilemma/

Engineering Immune Cells to Recognize and Kill Cancer

By Lila Abassi, ACSH, June 16, 2016

http://acsh.org/news/2016/06/16/engineering-immune-cells-to-recognize-and-kill-cancer/

[SEPP Comment: Will the anti-GMO crowd oppose this?]

New Life Found That Lives Off Electricity

Scientists have figured out how microbes can suck energy from rocks. Such life-forms might be more widespread than anyone anticipated.

By Emily Singer, Quanta, June 21, 2016

https://www.quantamagazine.org/20160621-electron-eating-microbes-found-in-odd-places/

How water droplets freeze

By Staff Writers, Washington DC (SPX), Jun 24, 2016

http://www.terradaily.com/reports/How water droplets freeze 999.html

Other News that May Be of Interest

Brexit: David Cameron to quit after UK votes to leave EU

By Staff Writers, BBC, June 24, 2016

http://www.bbc.com/news/uk-politics-36615028

A bright global future for Britain

Leaving the EU means joining the world

By Matt Ridley, Rational Optimist, June 21, 2016

http://www.rationaloptimist.com/blog/a-global-future-for-britain/

[SEPP Comment: Published before the vote on June 23.]

BELOW THE BOTTOM LINE:

Sunshine fear halts Jersey school beach trip [UK]

By Staff Writers, BBC, June 21, 2016

http://www.bbc.com/news/world-europe-jersey-36578148

[SEPP Comment: Above 49 degrees N latitude, north of all cities in the US, except the few in Alaska. Who would dare to go outside in Miami in June, 25.7 degrees N latitude?]

Asteroid kills 90% of all mammal species: Anthropocene kills one rat (maybe)

By Jo Nova, Her Blog, June 21, 2016

 $\frac{http://joannenova.com.au/2016/06/asteroid-kills-90-of-all-mammal-species-anthropocene-kills-one-rat-maybe/\#more-49299}{}$

Climate change claims its first species – or does it?

By Roger Andrews, Energy Matters, June 20, 2016

http://euanmearns.com/climate-change-claims-its-first-species-or-does-it/

ARTICLES:

Please note that articles not linked easily or summarized here are reproduced in the Articles Section of the full TWTW that can be found on the web site under the date of the TWTW.

1. Exxon's Inquisitors Feel the Heat

Court filings reveal the true aim of this 'fraud' case: silencing conservatives. By Kimberley Strassel, WSJ, June 16, 2016 http://www.wsj.com/articles/exxons-inquisitors-feel-the-heat-1466117071

SUMMARY: Ms. Strassel writes: "The first thing to know about the crusade against Exxon_by state attorneys general is that it isn't about the law. The second thing to know is that it isn't even about Exxon. What these liberal prosecutors really want is to shut down a universe of their most-hated ideological opponents.

That became startlingly clear this week, with Exxon's latest filing in federal court. The oil company revealed that it has received another subpoena for documents, this one from Massachusetts Attorney General Maura Healey. But Ms. Healey, whose fervor exceeds her political sense, gives away the game.

The 17 attorneys general participating in this cause have always been careful to identify Exxon as their only target. It's easier to accuse a big, bad oil company of nefarious deeds, so they make the bogus claim that Exxon somehow "defrauded" the public and its shareholders by engaging in "climate denial." All the better if they can beat Exxon into cutting a giant check to settle any future charges—a payoff for their states (and for the trial lawyers helping them).

But the Healey subpoena shows that Exxon is a front. The real target is a broad array of conservative activist groups that are highly effective at mobilizing the grass-roots and countering liberal talking points—and that therefore must (as the left sees things) be muzzled. This is clear from the crazy list of organizations Ms. Healey asked for information about in her subpoena. She demanded that Exxon turn over decades of correspondence with any of them.

Take Americans for Prosperity. AFP confirms it has never received a dime from Exxon. But its 2.3 million activists nationwide are highly effective in elections, and it receives funding from the left's favorite boogeymen, Charles and David Koch.

Or, closer to home: Ms. Healey named the Beacon Hill Institute, a right-leaning think tank in Boston. My sources confirm Beacon Hill has also never seen Exxon dollars. But it is a perpetual thorn in the side of liberal Massachusetts politicians like Ms. Healey.

Also named: the American Legislative Exchange Council. ALEC doesn't now, and hasn't ever, taken a position on the climate. The group is, however, one of the most powerful forces in the country for free-market legislation, having written hundreds of model bills that states use in their efforts to reduce taxes, cut regulations and reform tort laws. Democratic activists have, for the past five years in particular, waged a vicious campaign to run ALEC out of business, and Ms. Healey is now doing her bit.

The same tactics were on display in a subpoena to Exxon from Virgin Islands Attorney General Claude Walker. He appears to have cut-and-pasted from an anti-Exxon website maintained by Greenpeace, since his subpoena lists the same groups in pretty much the same order. The exercise was so sloppy that Mr. Walker named numerous organizations that have been defunct for years, listed several targets twice, and misidentified others.

The goal of the Exxon probe isn't to protect consumers or help the environment. It's a message: Oppose us, and we will marshal our terrifying government powers to intimidate and threaten you,

to force you to spend millions defending yourself, to eat up the time you'd otherwise use speaking out.

The Exxon investigation is "pure harassment," civil-liberties attorney Harvey Silverglate told the Boston Herald this week. "It is outrageous for any law enforcement official," he continued, "to be seeking to win this battle for minds by flexing law enforcement muscle and trying to shut up the other side."

That goal is all the more clear given the dishonesty of the legal claim. New York Attorney General Eric Schneiderman is pursuing Exxon under his state's sweeping Martin Act, which covers securities fraud. Yet at a recent panel discussion in New York, Columbia Law Professor Merritt B. Fox noted that Exxon's actions were irrelevant in a market already "well supplied with information about climate change." He skewered Mr. Schneiderman for pursuing a case "so unlikely" to "be a winner." This was even as he expressed solidarity with concerns about global warming.

The attorneys general are feeling so much pushback that Mr. Schneiderman felt compelled to give a speech last week delineating his own made-up limits on free speech. Groups that question his harassment of them are engaged in "First Amendment opportunism," he said, and any right they claim is trumped, apparently, by his righteous, self-defined calling to pursue "fraud." He clearly sent this memo to his persecutors-in-arms, since Ms. Healey was parroting the same lines this week in response to questions about her subpoena.

The Exxon campaign is only the latest in liberals' broad, coordinated strategy to shut down conservatives. We've seen it in the IRS targeting, the Wisconsin John Doe probe, the campaign against ALEC, the harassment of conservative donors. And the only way to stop it is for targets to speak out—even louder.

2. Obama's Fracking Comeuppance

A judge he appointed rebukes an anti-drilling regulation as lawless. Editorial, WSJ, June 22, 2016 http://www.wsj.com/articles/obamas-fracking-comeuppance-1466638580

SUMMARY: the editors write: "Another day, another judicial rebuke to President Obama's contempt for the rule of law. On Wednesday a federal judge struck down an oil and gas drilling rule imposed with no statutory authority.

"In 2015 the Bureau of Land Management published new regulations about well construction and water management for hydraulic fracturing, or fracking, that takes place on federal and Indian lands. The BLM asserted "broad authority" to control oil and gas operations on the basis of laws that were passed in 1920, 1930, 1938, 1976 and 1982 and were allegedly ambiguous. Thus the agency said it deserved the benefit of the interpretive doubt that the courts call Chevron deference.

"Abusing Chevron is an Obama specialty. But BLM's overreach was notably egregious because Congress passed an energy law in 2005 that stripped the executive branch of fracking jurisdiction and gave that power to the states.

"The BLM argued that Congress's choice didn't matter because the bureau wasn't mentioned by name in the 2005 law. That claim inspired Judge Scott Skavdahl of Wyoming—an Obama appointee—to conduct a remedial seminar in the Constitution's separation of powers.

"Under the BLM argument, Judge Skavdahl writes, 'there would be no limit to the scope or extent of congressionally delegated authority BLM has. . . . Having explicitly removed the only source of specific federal agency authority over fracking, it defies common sense for the BLM to argue that Congress intended to allow it to regulate the same activity under a general statute that says nothing about hydraulic fracturing.'

"Judge Skavdahl also rebukes the administrative agencies that 'increasingly" rely' on Chevron deference to stretch the outer limits of 'delegated' statutory authority by revising and reshaping legislation.' He reminds that agencies derive their 'existence, authority and powers from Congress alone," and that Congress's "inability or unwillingness to pass a law desired by the executive branch does not default authority to the executive branch to act independently.'

"A President who rewrites inconvenient laws ought to alarm Americans of all political persuasions. Principled decisions like Judge Skavdahl's help restore the constitutional norms that Mr. Obama has done so much to dismantle."

3. EMP: More Urgent Than Any Climate Threat

It is incredible that a truly existential threat to our existence receives far less attention than global warming.

Letters, WSJ, June 19, 2016

http://www.wsj.com/articles/emp-more-urgent-than-any-climate-threat-1466355395

The comments on an article by Joe Colangelo "A Devastating Threat We're Not Ready For" (oped, June 13) include the following:

From Anthony Sandar: "Regarding Joe Colangelo's "A Devastating Threat We're Not Ready For" (op-ed, June 13): The electromagnetic-pulse threat (EMP) may indeed be the most serious imminent threat to our country. But the current administration, including the Energy Department, is much more concerned about the ethereal threat of climate change. That's where its attention and money are focused, to harden us against dubious man-made global warming, even though hardening power-generation plants at a relatively small cost seems like a no-brainer. Then again, without such plant upgrades, an EMP would be the quickest way for the administration to eliminate dependence on carbon-based fuels."

From Howard Halpern: "The EMP threat from the sun is real. In 1850 the battery-powered telegraph system in the U.S. suddenly burned out. Shortly before a treaty to ban above-ground nuclear detonations was to take effect, our military fired a missile with a hydrogen bomb warhead designed to destroy an incoming intercontinental ballistic missile from an island off the coast of Asia to high above the atmosphere. Its EMP damaged electric utility equipment thousands of miles away in Hawaii. Our military responded by requiring protection against EMP and testing of that protection in procurement of military systems. EMP from the sun might last a month and destroy unprotected electric grids around the world. An enemy missile with a hydrogen bomb warhead detonated far above the Earth's atmosphere could shut down electric grids from coast to coast in North America. Consequences would include no functioning pumps at gas stations, no working cash registers, no pumping of water out of reservoirs or pumping of natural gas or oil in

pipelines, communications limited to word-of-mouth and hand-delivered notes and no functioning
banks or governments."
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