

The Week That Was: 2016-08-20 (August 20, 2016)
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The Science and Environmental Policy Project

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Quote of the Week. “All models are wrong, some are useful.” – Statistician George E. P. Box,
[H/t ACSH]

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Number of the Week: \$13 Billion in 2013

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THIS WEEK:

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

Seeking a Common Ground: One of the challenges in preparing TWTW is reaching as broad a readership as possible with brief discussions of scientific issues. The readers have various scientific backgrounds. TWTW is translated into several European languages and is read in academic or research institutions in Russia and China. For these reasons, the writing tends to be terse, with little or no technical language or jargon. Of course, people object to some statements in TWTW, and significant objections are generally addressed in subsequent issues.

Physicist Donald Rapp has written several books on climate change including; “Assessing Climate Change: Temperatures, Solar Radiation, and Heat Balance”; now it its third edition. The book covers a full range of topics that are major issues in the climate change debate. Further, Rapp is a chapter reviewer of “Climate Change Reconsidered II: Physical Science.” Following last week’s TWTW, which discussed the extent of government funding of climate change studies, Rapp addressed what he considers to be the one-sided view presented in TWTW. It does not adequately discuss the views of those who think that, based on empirical science, carbon dioxide is a major influence on climate. Rapp states:

“I think the evidence indicates that the greenhouse effect produces an imbalance between power in to earth from the sun and power radiated by the earth to space. I suggest that imbalance primarily warms the upper layers of the oceans. ENSO events allow that stored energy to be released to the land/atmosphere system. Oddly enough it is the alarmists who mostly claim that ENSO is a natural phenomenon that balances out between El Niños and La Niñas and cannot produce warming by itself. All of this remains to be resolved in the future.

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“The biggest problem today (I think) in climate matters is that we, as a community of scientists, have succumbed to social pressures and have thereby given up on the scientific method, and instead, replaced it with a quasi-legalistic method in which each side cherry-picks data and skews the presentation to present a biased, one-sided view. The fact that the science is not settled and is full of uncertainties, allows this to go on, because no one on either side is able to definitively show the other is wrong. The alarmists mostly hold sway because they have more political power and funding. And so we have become relegated to something akin to the trench warfare that prevailed in WW-I when opposing forces were stalemated into probing attacks that went nowhere. It is noteworthy that the GAO [Government Accountability Office] said funds were allocated to ‘science to better understand climate change’ whereas our Commander-in-Chief says the science is ‘settled’.”

He is correct. Overall, TWTW has focused on the extreme views of the climate establishment, including the heavily politicized UN Intergovernmental Panel on Climate Change (IPCC) and its followers, and has not adequately presented the views of scientists who believe as Donald Rapp does. It will try to correct this imbalance in the future. Understanding energy flows, both to the earth and from the earth, is vital. Also vital, is understanding energy flows internal to the earth, such as in the oceans. We deeply thank Donald Rapp for his salient criticism.

Onset of Ice Ages: SEPP Chairman S. Fred Singer edited the 1990 book, “The Ocean in Human Affairs.” The book discussed how the oceans moderated and modified the earth’s climate. The book also presented that the closing of the Caribbean Seaway, connecting the Atlantic and the Pacific oceans, set-up what is called the thermohaline circulation of the Atlantic Ocean, and, in turn, set-up the circulations in the oceans known as The Thermohaline Circulation - The Great Ocean Conveyor Belt. The late William Gray strongly advocated the view that the ocean circulations were a dominant driver of climate change, including 20th century warming. Temperature variations could take 1000 years.

In Singer’s book, it was estimated that the closing of the Caribbean seaway took place about 3 million years ago. This provided an explanation why frequent Ice Ages began to form after that time, and not earlier. The current period of frequent ice ages is different from other proposed eras of severe cold in the distant past.

In recent years, some researchers disputed the timing claiming that, based on plant and animal studies, the closing of the seaway and the forming of the Isthmus of Panama occurred much earlier. Research published this week, reaffirms the date of about 3 million years ago (2.8 million years ago). Interestingly, the ocean circulations and their role in climate change and ice ages are not discussed. See links under Changing Earth.

Federal Funding: Following-up on last week’s TWTW discussing federal funding of climate science and attendant work, we present highlights of the September 13, 2013 report by the Congressional Research Service below.

“Summary:

“Direct federal funding to address global climate change totaled approximately \$77 billion from FY2008 through FY2013. The large majority—more than 75%—has funded technology development and deployment, primarily through the Department of Energy (DOE). More than one-third of the identified funding was included in the American Recovery and Reinvestment Act of 2009 (P.L. 111-5). The President’s request for FY2014 contains \$11.6 billion for federal expenditures on programs. In the request, 23% would be for science, 68% for energy technology development and deployment, 8% for international assistance, and 1% for adapting to climate change. The Office of Management and Budget (OMB) also reports that energy tax provisions that may reduce greenhouse gas (GHG) emissions would reduce tax revenues by \$9.8 billion.

“At least 18 federal agencies administer climate change-related activities, according to OMB. Federal policy on climate change has been built largely from the “bottom up” from a variety of existing programs and mandates, presidential initiatives, and congressionally directed activities; funding has largely reflected departmental missions and support for each activity. Recently, the Obama Administration, in the context of its Climate Action Plan announced in June 2013, outlined an overall strategy with programs, resources, and tax incentives in a cross-agency, inter-governmental initiative. The new Climate Action Plan and a recent OMB report required by

Congress on federal funding for climate change activities outline four main components of the strategy: •Climate and Global Change Research and Education •Reducing Emissions through Clean Energy Investments and Standards •International Leadership •Climate Change Adaptation.

“Scope and Purpose of This Report

“This report summarizes direct federal funding identified as climate change-related from FY2008 enacted funding through FY2013 and the FY2014 request (as well as a less consistent series beginning with FY2001). It reports the Administration’s estimates of tax revenues not received due to energy tax provisions that may reduce GHG emissions. The report briefly identifies the programs and funding levels, as well as some qualifications and observations on reporting of federal funding. It further offers some issues that Members may wish to consider in deliberating on U.S. climate change strategies.”

Eighteen federal agencies have spent \$77 Billion between FY 2008 and FY 2013 going far beyond climate science with more than 75% (\$58 Billion) going to funding technology development and deployment. Based upon the shale revolution, such moneys are not needed due to the lack of fossil fuels, but to replace fossil fuels due to the fear of carbon dioxide cause climate change – which is an issue that should be publicly addressed, not dismissed. Further, deployment of alternative forms of energy generation may entail significant social costs to the public in the form of requiring much higher utility payments to maintain these facilities and facilities needed for back-up of unreliable, intermittent sources of electricity. Also, the funds discussed above do not include tax credits, which are sought by high income investors, or other subsidies which are not actual outlays, but in federal accounting are tax expenditures.

The CRS report is another example of the federal government building an industry dependent on continuing government subsidies, thereby placing obligations on future citizens. See links under Funding Issues.

New Editor of Science Magazine: There still may be a glimmer of hope that Science Magazine will refrain from banning those who question the climate establishment on global warming/climate change and who write articles on natural variation of the climate. According to reports, the new chief editor, Jeremy Berg, expresses concern about the possible loss of trust by the public in ‘science’, if not outright hostility. Berg believes too often researchers “have gone beyond explaining the scientific situation and ventured into policy prescriptions, notably in the case of climate change...” Now let us see if he will act on these concerns. See links under Seeking a Common Ground.

UK Betting on Wind Power? Paul Homewood analyses energy reports issued by the UK government, as well as political commentary. He analyzed the just released UK report “Future Energy Strategies” and found parts of the report deficient. For example, he writes about estimates of future sources of electricity generation:

“You might just spot the “Storage” band. Although it is said that this will generate 10 TWh annually by 2040, whoever wrote the report does not seem to have realised that storage technologies don’t actually produce electricity.

“I find this slightly disconcerting, coming as it did from the National Grid!”

[According to its web site, the National Grid owns “the electricity transmission system in England and Wales. We own and operate four of the eight regional gas distribution networks in Great Britain.”]

Homewood writes further about “Future Energy Strategies”:

“Non-existent CCS jumps from nothing to 80 TWh in 2040... We become heavily reliant on obscenely expensive offshore wind, rising from 17 TWh to 71 TWh by 2040... We also become more reliant on interconnectors, though presumably this is a two-way thing.”

Perhaps the writers for the National Grid believe they can use interconnectors to connect their unreliable, intermittent wind power to non-existent, affordable battery storage on a commercial scale.

Similarly, Homewood questioned an editorial by Ambrose Evans-Pritchard [AEP] business editor of the UK Telegraph:

“AEP brags that the UK is the world leader in offshore wind. This is hardly surprising, as no other countries seem to be potty enough to throw billions down the drain in subsidising it... In a way, AEP’s headline says it all. What on earth are we doing making ‘vast gambles’ with the nation’s energy strategy?” See links under Energy Issues – Non-US and

<http://www2.nationalgrid.com/UK/Our-company/>

Battery Storage: Writing in *Energy Matters*, Roger Andrews reported on the efforts to replace electricity from diesel generators on El Hierro in the Canary Islands with a combination of wind power and pumped storage. The latest figures, now covering over one year, which included July with sustained northerly winds, was a success of 38%. The remaining electricity is still generated by diesel.

Andrews now analyzes claims in the Guardian, UK, newspaper that batter storage will drop to \$100/kWh and become economical. After the analysis he concludes:

*“Clearly large-scale battery storage will remain uneconomic even at the Holy Grail price of \$100/kWh. So why do battery companies, research institutes and greens claim the opposite? Because they assume that the intermittency problem can be solved simply by installing enough storage to **balance daily load fluctuations**. A large amount of storage isn’t necessary to do this, and \$100/kWh batteries might indeed be able to supply it without breaking the bank. **But they ignore the much larger amounts of storage that are needed to keep the electricity coming during extended windless periods and/or to flatten out seasonal variations in solar output.** Why? I see two possible explanations. First, they are being carried along in a wave of visionary enthusiasm and haven’t recognized it as a problem; second, they know about it but don’t want to tell anyone because it might spell the death of large-scale storage battery research, and ultimately maybe the death of intermittent renewables too. I’ll let the readership make up their minds as to which it is.”* [Boldface added.]

See links under Challenging the Orthodoxy.

Smart Grids: When wind and solar promoters are challenged as to the unreliability of their systems, they frequently use the term “smart grid”, implying such a grid will solve all the issues. Andrews presents conceptualizations of the smart grid and analyzes the only operating smart grid system where data is available: King Island, Tasmania (population 1,600, peak load 2.5MW, annual electricity consumption ~10GWh). Andrews concludes:

1. “Grids must contain complex frequency and stability control mechanisms if they are to handle high levels of renewables penetration. Hence some kind of “smart grid” will be needed.
2. Adding these mechanisms, however, is likely to be costly and there is no guarantee that they will work as planned.
3. Even if they do work as planned inadequate storage capacity and intermittency will limit renewables penetration. Regardless of how well the smart grid performs technically there will be extended periods when renewable energy generation plus energy in storage are inadequate to fill demand.
4. Backup fossil fuel generation will therefore always be required, although present-day smart grid designs implicitly take this requirement into account. It is in fact difficult to find a smart grid conceptual diagram which does not show a fossil fuel plant as part of the generation mix.”

“If the goal of a smart grid is ultimately to integrate large amounts of renewable energy with the grid then it won’t succeed. No smart grid is smart enough to generate electricity when the wind doesn’t blow and the sun doesn’t shine.”

Andrews also examines a \$179 million demonstration project by the US Department of Energy, that was funded under the “Stimulus Bill.” The project included 16 smart grid tests. The results are buried in 16 large pdf files with no succinct summaries. One is reminded of the closing scene in the movie “Raiders of the Lost Ark” with a large warehouse loaded with crates, dutifully marked, but serving little or no purpose. It is doubtful there is any treasure in the DOE files. See links under Energy Issues – Non-US and https://www.smartgrid.gov/document/Pacific_Northwest_Smart_Grid_Technology_Performance.html

Number of the Week: \$13 Billion in 2013. That is the “estimated revenue loss effects of energy tax provisions” in FY 2013 as presented in the CRS report. See links under Funding Issues.

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NEWS YOU CAN USE:

Commentary: Is the Sun Rising?

Deeply Cold North Atlantic, Weak Sun Could Lead To “Big Freeze” 2016/17 Winter ...Like 1962/63!

By P Gosselin, No Tricks Zone, Aug 16, 2016

<http://notrickszone.com/2016/08/16/deeply-cold-north-atlantic-weak-sun-could-lead-to-big-freeze-201617-winter-like-196263/#sthash.eP9S3ZQ8.dpbs>

Climategate Continued

Esper et al 2016 and the Oroko Swamp

By Steve McIntyre, Climate Audit, Aug 13, 2016

<https://climateaudit.org/2016/08/13/esper-et-al-2016-and-the-oroko-swamp/#more-22587>

Re-examining Cook’s Mt Read (Tasmania) Chronology

By Steve McIntyre, Climate Audit, Aug 16, 2016

<https://climateaudit.org/2016/08/16/re-examining-cooks-mt-read-tasmania-chronology/>

Suppressing Scientific Inquiry – The Witch Hunt – Push-Back

Dem Attorney General Global Warming Investigation Likely Illegal, Says Law Expert

By Chris White, Daily Caller, Aug 15, 2016

<http://dailycaller.com/2016/08/15/dem-attorney-general-global-warming-investigation-likely-illegal-says-law-expert/>

Newly Released AG Emails Reveal Anxiety Over Schneiderman-led #ExxonKnew Climate Investigations

Emails reveal early warnings that “Wild Card” NY Attorney General Schneiderman’s Climate-RICO crusade would get jilted by other AGs

From E&E Legal, WUWT, Aug 17, 2016

<https://wattsupwiththat.com/2016/08/17/newly-released-ag-emails-reveal-anxiety-over-schneiderman-led-exxonknew-climate-investigations/>

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

Thin tropical clouds cool the climate

By Anthony Watts, WUWT, Aug 17, 2016

<https://wattsupwiththat.com/2016/08/17/thin-tropical-clouds-cool-the-climate/>

Abnormal climate response of the DICE IAM – a trillion dollar error?

By Nic Lewis, Climate Etc. Aug 15, 2016

<https://judithcurry.com/2016/08/15/abnormal-climate-response-of-the-dice-iam-a-trillion-dollar-error/>

Met Office Climate-Aerosol Hypothesis Now Dead And Buried For Good, German Scientists

Write Ocean cycles instead of aerosols: Met Office hypothesis on North Atlantic refuted for good

By Dr. Sebastian Lüning and Prof. Fritz Vahrenholt, (German text translated/edited by P

Gosselin), No Tricks Zone, AAug 17, 2016

<http://notrickszone.com/2016/08/17/met-office-climate-aerosol-hypothesis-now-dead-and-buried-for-good-german-scientists-write/#sthash.AAo7G4vk.dpbs>

New Antarctic ice discovery aids future climate predictions

By Staff Writers, SPX, Aug 17, 2016

http://www.spacedaily.com/reports/New_Antarctic_ice_discovery_aids_future_climate_predictions_999.html

Link to paper: Antarctic last interglacial isotope peak in response to sea ice retreat not ice-sheet collapse

By Max Holloway, et al, Nature Communications, Aug 16, 2016

<http://www.nature.com/ncomms/2016/160816/ncomms12293/full/ncomms12293.html>

The Moral Case for Fossil Fuels

Review and Summary of “The Moral Case for Fossil Fuels”

By Andy May, WUWT, Aug 12, 2016

<http://wattsupwiththat.com/2016/08/12/the-moral-case-for-fossil-fuels/>

You Ought to Have a Look: Natural Climate Variability

By Patrick J. Michaels and Paul C. "Chip" Knappenberger, CATO, Aug 15, 2016

<http://www.cato.org/blog/you-ought-have-look-natural-climate-variability>

The Holy Grail of Battery Storage

By Roger Andrews, Energy Matters, Aug 18, 2016

<http://euanmearns.com/the-holy-grail-of-battery-storage/#more-14957>

Questioning the Orthodoxy

Arctic Ice: An Update – Evidence From the Past is Instructive

Guest opinion: Dr. Tim Ball, WUWT, Aug 13, 2016

<https://wattsupwiththat.com/2016/08/13/arctic-ice-an-update-evidence-from-the-past-is-instructive/>

Climate Alarmism: Probably the Greatest Hoax/Scam in World History

By Alan Carlin, Carlin Economics and Science, Aug 19, 2016

<http://www.carlineconomics.com/archives/2851>

[SEPP Comment: Treating forecasts/projections as scientific predictions.]

Inconvenient: Giant Coral Reef That ‘Died’ In 2003 Teeming With Life Again

By Anthony Watts, WUWT, Aug 18, 2016

<https://wattsupwiththat.com/2016/08/18/inconvenient-giant-coral-reef-that-died-in-2003-teeming-with-life-again/>

The transition to a low-carbon economy should be avoided

By Peter Foster, Financial Post, Aug 8, 2016 [H/t GWPF]

<http://business.financialpost.com/fp-comment/peter-foster-the-transition-to-a-low-carbon-economy-should-be-avoided>

After Paris!

COP21 & Developing Countries

By Robin Guenier, Climate Etc. Aug 16, 2016

<https://judithcurry.com/2016/08/16/cop21-developing-countries/#more-21999>

After Brexit!

New Paper Reveals Hidden Cost of UK Climate Policy

By Staff Writers, GWPF, Aug 19, 2016

<http://www.thegwpf.com/new-paper-reveals-hidden-cost-of-uk-climate-policy/>

Link to paper: Energy-Intensive Industries: Climate policy casualties

By John Constable, GWPF, 2016

<http://www.thegwpf.org/content/uploads/2016/08/Industry-1.pdf>

New energy minister, Lucy Neville-Rolfe, shares her thoughts on fracking

It divides opinion more than most topics. New Energy Minister Lucy Neville-Rolfe explains why she thinks we should embrace fracking.

Editorial, The Gazette, Blackpool, UK, Aug 16, 2016

<http://www.blackpoolgazette.co.uk/news/environment/new-energy-minister-lucy-neville-rolfe-shares-her-thoughts-on-fracking-1-8071229>

The Administration's Plan

After Obama's reelection, the environment became a top priority.

By Juliet Eilperin, Washington Post, Aug 16, 2016

<https://www.washingtonpost.com/graphics/national/obama-legacy/environmental-climate-change-policies.html>

Half A Billion Solar Panels By 2021: U.S. Army Makes It Look Easy

By Tina Casey, Triple Pundit, Aug 16, 2016

<http://www.triplepundit.com/2016/08/half-billion-solar-panels-2021-u-s-army-makes-look-easy/>

[SEPP Comment: A few questions the article does not address. At what cost? Will unreliable daytime electricity make the Army more effective – particularly at night?]

Obama admin unveils new truck fuel standards

By Staff Writers, Washington (AFP), Aug 16, 2016

http://www.spacedaily.com/reports/Obama_admin_unveils_new_truck_fuel_standards_999.html

The Administration's Plan – Independent Analysis

'Hopelessly Insolvent' Obama-Backed Solar Company On Verge Of Extinction

By Chris White, Daily Caller, Aug 12, 2016

<http://dailycaller.com/2016/08/12/hopelessly-insolvent-obama-backed-solar-company-on-verge-of-extinction/>

“The company is ‘hopelessly insolvent,’ Judge Stuart Bernstein said in a Thursday decision announcing SunEdison’s shareholders won’t get an official voice in the bankruptcy.”

The Administration's Plan – Push-Back

Moniz: Fracking has been good for the environment

By John Siciliano, Washington Examiner, Aug 15, 2016

<http://www.washingtonexaminer.com/moniz-fracking-has-been-good-for-the-environment/article/2599392>

[SEPP Comment: From the Secretary of Energy!]

The Democrat's foolish War on Climate

By David Wojick, Climate Etc. Aug 17, 2016

<https://judithcurry.com/2016/08/17/the-democrats-foolish-war-on-climate/#more-22008>

Social Benefits of Carbon

Map shows how Earth's vegetation has changed since 1980s

"Our system provides an objective way to classify the land surface," said Steven Higgins.

By Brooks Hays, UPI, Aug 15, 2016 [H/t Clyde Spencer]

http://www.upi.com/Science_News/2016/08/15/Map-shows-how-Earths-vegetation-has-changed-since-1980s/6741471268210/

“A recent study **blamed** rising CO2 levels and a warming Mediterranean on greening among drylands in north-central Africa.” [Boldface added.]

Problems in the Orthodoxy

Climate Scientists Concerned La Nina May Usher In New Warming Hiatus

By Alister Doyle, Reuters, Via GWPF, Aug 17, 2016

<http://www.thegwpf.com/climate-scientists-concerned-la-nina-may-trigger-new-warming-hiatus/>

Seeking a Common Ground

Alarm over the public loss of trust in science

By Judith Curry, Climate Etc. Aug 18, 2016

<https://judithcurry.com/2016/08/18/alarm-over-the-public-loss-of-trust-in-science/#more-22010>

Editor Sounds Alarm Over Falling Public Trust In Science

By David Mathews, Times Higher Education, Via GWPF, Aug 18, 2016

<http://www.thegwpf.com/alarm-over-falling-public-trust-in-science/>

Review of Recent Scientific Articles by CO2 Science

Effects of Elevated CO2 and Salinity on Lithifying Microbial Mats

Ahrendt, S.R., Mobberley, J.M., Visscher, P.T., Koss, L.L. and Foster, J.S. 2014. Effects of elevated carbon dioxide and salinity on the microbial diversity in lithifying microbial mats.

Minerals 4: 145-169. Aug 19, 2016

<http://www.co2science.org/articles/V19/aug/a9.php>

The Global Effects of Global Warming on Human Mortality

Guo, Y., Gasparrini, A., Armstrong, B., Li, S., Tawatsupa, B., Tobias, A., Lavigne, E., Coelho, M. de S.Z.S.C., Leone, M., Pan, X., Tong, S., Tian, L., Kim, H., Hashizume, M., Honda, Y., Guo, Y.-L.L., Wu, C.-F., Punnasiri, K., Yi, S.-M., Michelozzi, P., Saldiva, P.H.N. and Williams, G. 2014. Global variation in the effects of ambient temperature on mortality. *Epidemiology* 25: 781-789.

Aug 17, 2016

<http://www.co2science.org/articles/V19/aug/a8.php>

“Once again, therefore, it is as clear as it can possibly be made, that essentially everywhere in the world, typical *cold* temperatures are *far* more likely to lead to premature human deaths than are typical *warm* temperatures. And because of this fact, we must be thankful for the post-Little Ice Age *warming of the world*, which has been predominantly experienced almost everywhere at the cold -- and *deadly* -- end of the planet's daily temperature spectrum.”

Seismic Activity and Global Warming: How Might They be Related?

Viterito, A. 2016. The Correlation of Seismic Activity and Recent Global Warming. *Journal of Earth Science & Climatic Change* 7: 345. doi: 10.4172/2157-7617.1000345 Aug 16, 2016

<http://www.co2science.org/articles/V19/aug/a7.php>

Models v. Observations

Comparison Between Observational Data and Model Projections for Cairns (AU) Hot Days

Guest essay by Dr. B Basil Beamish, WUWT, Aug. 17, 2016

<https://wattsupwiththat.com/2016/08/17/comparison-between-observational-data-and-model-projections-for-cairns-au-hot-days/>

Measurement Issues -- Surface

July 2016 Global Surface (Land+Ocean) and Lower Troposphere Temperature Anomaly Update

Guest Post by Bob Tisdale, WUWT, Aug 6, 2016

<https://wattsupwiththat.com/2016/08/16/july-2016-global-surface-landocean-and-lower-troposphere-temperature-anomaly-update/>

Changing Weather

East Coast take notice - models, factors, climatology, analog support for tropical trouble

By Staff Writers, ICECAP, Aug 19, 2016

http://icecap.us/index.php/go/political-climate/east_coast_take_notice_models_factors_and_analog_support_for_trouble_ahead1/
[SEPP Comment: The US may not make it to 4000 days without a major hurricane hit.]

Big Chill: ‘Substantial Cooling’ Predicted Within The Next Few Years

By Anthony Watts, WUWT, Aug 15, 2016

<https://wattsupwiththat.com/2016/08/15/big-chill-substantial-cooling-predicted-within-the-next-few-years/>

Causes of Lake Superior Record Water Level Rise 2013-2014

By Roy Spencer, His Blgo, Aug 19, 2016

<http://www.drroyspencer.com/2016/08/causes-of-lake-superior-record-water-level-rise-2013-2104/>

The climate change brigade are wrong again

By Christopher Booker, Telegraph, UK, Aug 13, 2016 [H/t GWPF]

<http://www.telegraph.co.uk/news/2016/08/13/the-climate-change-brigade-are-wrong-again/>

Changing Cryosphere – Land / Sea Ice

New Survey Finds Antarctica Covered in More Ice Than Previously Thought

By Trevor English, Interesting Engineering, Aug 12, 2016 [H/t GWPF]

<http://interestingengineering.com/new-survey-finds-antarctica-covered-in-more-ice-than-previously-thought/>

Link to paper: An automated methodology for differentiating rock from snow, clouds and sea in Antarctica from Landsat 8 imagery: a new rock outcrop map and area estimation for the entire Antarctic continent

By Burton-Johnson, Black. Fretwell, and Kaluza-Gilbert. The Cryosphere, Aug 1, 2016

<http://www.the-cryosphere.net/10/1665/2016/>

Sea ice strongly linked to climate change in past 90,000 years

By Staff Writers, Oslo, Borway (SPX) ,Aug 17, 2016

http://www.spacedaily.com/reports/Sea_ice_strongly_linked_to_climate_change_in_past_90000_years_999.html

Narwhal and beluga ice entrapment is natural – not caused by global warming

By Susan Crockford, Polar Bear Science, Aug 13, 2016

<https://polarbearscience.com/2016/08/13/narwhal-and-beluga-ice-entrapment-is-natural-not-caused-by-global-warming/>

*“The phenomenon has been known from Greenland for centuries (Egede 1788) and is termed among Greenlanders as ‘sassat’ (previously spelled ‘savssat’), which means ‘something that is being served’. **The most famous ‘sassat’ took place in Disko Bay in January 1915 and involved at least 1,000 narwhals that were trapped in heavy fast ice (Porsild 1918).**” [Boldface added]*

NASA: ‘...highly unlikely that this year’s summertime sea ice minimum extent will set a new record’

From Walt Meier at NASA Goddard:

By Anthony Watts, WUWT, Aug 19, 2016

<https://wattsupwiththat.com/2016/08/19/nasa-highly-unlikely-that-this-years-summertime-sea-ice-minimum-extent-will-set-a-new-record/>

Changing Earth

Recent connection between North and South America reaffirmed

By Staff Writers, Panama City, Panama (SPX), Aug 19, 2016

http://www.terradaily.com/reports/Recent_connection_between_North_and_South_America_reaffirmed_999.html

Link to paper: Formation of the Isthmus of Panama

By Aaron O’Dea, et al. Science Advances, Aug 17, 2016

<http://advances.sciencemag.org/content/2/8/e1600883>

[SEPP Comment: Makes many comparisons between before that time and today highly speculative.]

Agriculture Issues & Fear of Famine

It’s Official: Neonics Don’t Cause Bee Deaths

By Hank Cambell, ACSH, Aug 16, 2016

<http://acsh.org/news/2016/08/16/its-official-neonics-dont-cause-bee-deaths/>

Record crops seen for U.S. corn, soybeans

By Ron Sterk, World-Grain.com, Aug 12, 2016 [H/t GWPF]

http://www.world-grain.com/articles/news_home/World_Grain_News/2016/08/Record_crops_seen_for_US_corn.aspx?ID=%7B8FA676D2-87B2-42E6-BF02-0ECC27C0BBAF%7D&cck=1

Russia to see record grain harvest since end of USSR [Since the loss of Ukraine?]

By Staff Writers, Famagusta Gazette, Aug 17, 2016 [H/t GWPF]

<http://famagusta-gazette.com/russia-to-see-record-grain-harvest-since-end-of-ussr-p35749-69.htm>

“Earlier, Russian Minister of Agriculture Alexander Tkachev said that Russia has become the world’s leader of wheat export, overtaking the United States and Canada.”

Lowering Standards

NASA Successfully Eliminates the 1998 El Nino

By Steven Capozzola, Climate Change Dispatch, Aug 16, 2016

<http://climatechangedispatch.com/nasa-successfully-eliminates-the-1998-el-nino/>

More From The Hottest July Ever

By Tony Heller, Real Science, Aug 19, 2016

<http://realclimatescience.com/2016/08/more-from-the-hottest-july-ever/>

Some comments on neoskepticism

By Steven Koonin, Climate Etc. Aug 14, 2016

<https://judithcurry.com/2016/08/14/some-comments-on-neoskepticism/>

Link to article: The challenge of climate-change neoskepticism

By Paul C. Stern, John H. Perkins, Richard E. Sparks, Robert A. Knox, Science, Aug 12, 2016

<http://science.sciencemag.org/content/353/6300/653>

[SEPP Comment: Another Red Herring from Science Magazine. What is the evidence that CO2 causes significant global warming/climate change? If there is little or no evidence, then severely limiting emissions causes significant harm without benefits!]

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

Offshore Wind Could Replace Hinkley in U.K. at Same Cost

By Jessica Shankleman, Bloomberg, Aug 15, 2016

<http://www.bloomberg.com/news/articles/2016-08-16/offshore-wind-could-replace-hinkley-nuclear-in-u-k-at-same-cost?>

[SEPP Comment: Assuming periods of no electricity are without cost.]

Communicating Better to the Public – Make things up.

Scientific American: “Denial” Helps Us Cope with Our Collective Climate Grief

Guest essay by Eric Worrall, WUWT, Aug 16, 2016

<https://wattsupwiththat.com/2016/08/16/scientific-american-denial-helps-us-cope-with-our-collective-climate-grief/>

Link to article: Are We Feeling Collective Grief Over Climate Change?

The idea is highly controversial, but at least one psychiatrist is convinced that we are, whether we know it or not

By Margaret Hetherman, Scientific American, Aug 16, 2016

<http://blogs.scientificamerican.com/guest-blog/are-we-feeling-collective-grief-over-climate-change/>

Communicating Better to the Public – Use Propaganda

A World at War

We’re under attack from climate change—and our only hope is to mobilize like we did in WWII.

By Bill McKibben, New Republic, Aug 15, 2016

<https://newrepublic.com/article/135684/declare-war-climate-change-mobilize-wwii>

[SEPP Comment: Worse than the propaganda to fight communism in Vietnam – declaring war on ourselves.]

Environmentalist: Climate Change Is World War III

By Mark Vespa, Townhall, Aug 16, 2016 [H/t Timothy Wise]

<http://townhall.com/tipsheet/mattvespa/2016/08/16/environmentalist-climate-change-is-world-war-iii-n2205484>

[SEPP Comment: See link immediately above.]

McKibben: It’s The Climate World War. Hitler, Nazi’s, panic!

By Jo Nova, Her Blog, Aug 18, 2016

<http://joannenova.com.au/2016/08/mckibben-its-the-climate-world-war-hitler-nazis-panic/>

[SEPP Comment: See two above links.]

Contamination of Olympic ceremony by climate alarmism is unethical

By Luboš Motl, The Reference Frame, Aug 6, 2016

<http://motls.blogspot.com/2016/08/contamination-of-olympic-ceremony-by.html#more>

Olympic-sized climate propaganda

By Paul Driessen, WUWT, Aug 15, 2016

<https://wattsupwiththat.com/2016/08/15/olympic-sized-climate-propaganda/>

Communicating Better to the Public – Use Propaganda on Children

National Public Radio (USA): ‘Should We Be Having Kids In The Age Of Climate Change?’

By Jo Nova, Her Blog, Aug 20, 2016

<http://joannenova.com.au/2016/08/we-should-protect-our-kids-from-climate-change-by-not-having-them/#more-50412>

Questioning European Green

Brutal Wind Industry ...Leading German Wind Energy Opponent Receives “Threats To Life And Limb”!

By P Gosselin, No Tricks Zone, Aug 14, 2016

<http://notrickszone.com/2016/08/14/brutal-wind-industry-leading-german-wind-energy-opponent-receives-threats-to-life-and-limb/#sthash.1cRBv3zx.dpbs>

Climate Change Chaos From Ocean Heatwaves Could Change Our Understanding of Global Warming

The big question facing researchers is if marine heatwaves are increasing in frequency or severity or both, as a result of global warming.

By Michael Slezak, Newsweek, Europe, Aug 15, 2016 [H/t Clyde Spencer]

http://europe.newsweek.com/marine-heatwaves-climate-change-global-warming-490539?utm_source=yahoo&utm_medium=yahoo_news&utm_campaign=rss&utm_content=/rss/yahoous/news&yptr=yahoo

German Scam: “A Contribution To Rescuing The Climate” Is In Fact Just “A Multibillion Euro Business”

By P Gosselin, No Tricks Zone, Aug 19, 2016

<http://notrickszone.com/2016/08/19/german-scam-a-contribution-to-rescuing-the-climate-is-in-fact-just-a-multibillion-euro-business/#sthash.jjYfAJpX.dpbs>

Funding Issues

Federal Climate Change Funding from FY2008 to FY2014

By Jane Leggett, Richard Lattanzio, and Emily Bruner, CRS, Sep 13, 2013

<https://www.fas.org/sgp/crs/misc/R43227.pdf>

U.S. village in Alaska deciding on relocation due to climate change

By Sebastien Malo, Reuters, Aug 17, 2016

<https://www.yahoo.com/news/u-village-alaska-deciding-relocation-due-climate-change-193255019.html?nhp=1>

Residents voted earlier, in 2002, to relocate but that effort stalled.

The cost of relocation has been estimated at some \$180 million, and authorities are seeking state and federal funding, according to local media.

[SEPP Comment: Is erosion a result of human-caused climate change? Erosion has been happening for hundreds of millions of years.]

The Political Games Continue

Energy gurus take reins of Clinton team

Robin Bravender, E&E reporter, Aug 16, 2016

<http://www.eenews.net/stories/1060041670>

EPA and other Regulators on the March

EXCLUSIVE: Feds Hide \$25 Million In Payments To Lawyers Suing Under Environmental Laws

By Michael Bastasch and Ethan Barton, Daily Caller, Aug 15, 2016

<http://dailycaller.com/2016/08/15/exclusive-feds-hiding-25-million-in-payments-to-lawyers-suing-under-environmental-laws/>

Energy Issues – Non-US

Offshore Wind, Intermittency, and Electricity Storage

By Staff Writers, GWPF, Aug 17, 2016

<http://www.thegwpf.com/offshore-wind-intermittency-and-electricity-storage/>

The Commoditization of the Electricity Market

By Jim Clarkson, Master Resource, Aug 16, 1026

<https://www.masterresource.org/electricity-general/electricity-commodization/>

How smart is a smart grid?

By Roger Andrews, Energy Matters, Aug 15, 2016

<http://euanmearns.com/how-smart-is-a-smart-grid/#more-14937>

EU Targets For Interconnector Capacity

By Paul Homewood, Not a Lot of People Know That, Aug 14, 2016

<https://notalotofpeopleknowthat.wordpress.com/2016/08/14/eu-targets-for-interconnector-capacity/>

Future Energy Strategies

By Paul Homewood, Not a Lot of People Know That, Aug 15, 2016

<https://notalotofpeopleknowthat.wordpress.com/2016/08/15/future-energy-strategies/>

Link to report: Future Energy Scenarios, 2016

By Staff Writers, UK National Grid, July 2016

<http://fes.nationalgrid.com/fes-document/> and

<https://notalotofpeopleknowthat.files.wordpress.com/2016/08/fes-2016-interactive.pdf>

The Vast Gamble On Wind Power

By Paul Homewood, Not a Lot of People Know That, Aug 15, 2016

<https://notalotofpeopleknowthat.wordpress.com/2016/08/15/the-vast-gamble-on-wind-power/>

Gummer Has Grossly Underestimated The Cost Of The Climate Change Act

By Paul Homewood, Not a Lot of People Know That, Aug 16, 2016

<https://notalotofpeopleknowthat.wordpress.com/2016/08/16/gummer-has-grossly-underestimated-the-cost-of-the-climate-change-act/#more-23416>

Saudis May Rejuvenate US Shale Economy Instead Of Destroying It

By Robin Pagnamenta, The Times, Via GWPF, Aug 15, 2016

<http://www.thegwpf.com/saudis-may-rejuvenate-us-shale-economy-instead-of-destroying-it/>

Energy Issues -- US

At Stake: America's Energy Future

By Donn Dears, Power For USA, Aug 19, 2016

<https://dddusmma.wordpress.com/2016/08/19/at-stake-americas-energy-future/>

How Green Energy Hurts the Poor

By William F. Shughart II, Michael Jensen, Independent Institute, Aug 5, 2016 [H/t Timothy Wise]

<http://www.independent.org/newsroom/article.asp?id=8838>

'Lure of the Renewables' (Vaclav Smil in 1987 for today)

By Robert Bradley Jr., Master Resource, Aug 18, 2016

<https://www.masterresource.org/smil-vaclav/lure-renewables-vaclav-smil-1987-today/>

“Perhaps the most distressing characteristic displayed by the pushers of soft energy was the intellectual poverty of their grand designs, their impatient dismissal of all criticism, their arrogant insistence on the infallible orthodoxy of their normative visions.”

“There is little doubt about the origins and the real message of soft energy dogma: the roots are in the muddled revolts of young Americans in the late 1960s and the early 1970s, the goal is a social transformation rather than simply a provision of energy. The latter fact explains the widespread appeal of soft energy sources among zealous would-be reformers of Western ways.”

[SEPP Comment: What was true 20 years ago with the fear of running out of fossil fuels, remains true today. Post focuses mostly on bio-fuels.]

Washington's Control of Energy

Hillary's Green Navy Sinks in Red Ink

By Larry Bell, Newsmax, Aug 15, 2016

<http://www.newsmax.com/LarryBell/affordable-energy-national-u-n-/2016/08/15/id/743590/>

Oil and Natural Gas – the Future or the Past?

Shale gas production drives world natural gas production growth

By Faouzi Aloulou, and Victoria Zaretskaya, EIA, Aug 15, 2016

<http://www.eia.gov/todayinenergy/detail.cfm?id=27512&src=email>

World tight oil production to more than double from 2015 to 2040

By Faouzi Aloulou, et al. EIA, Aug 12, 2016

<http://www.eia.gov/todayinenergy/detail.cfm?id=27492>

Big Dakota Pipeline to Upend Oil Delivery in U.S.

By Heinsider, Houston Energy, Aug 15, 2016

<http://houstonenergyinsider.com/?p=5996>

[SEPP Comment: Seems to lack an analysis of how pricing influences supply.]

Natural gas expected to pass coal in carbon emissions

By Kyle Feldscher, Washington Examiner, Aug 17, 2016 [H/t Timothy Wise]

<http://www.washingtonexaminer.com/natural-gas-expected-to-pass-coal-in-carbon-emissions/article/2599562>

Shale's Efficiency Drive And The Coming Frac Sand Boom

By Irina Slav, Oil Price, Aug 15, 2016

<http://oilprice.com/Energy/Energy-General/Shales-Efficiency-Drive-And-The-Coming-Frac-Sand-Boom.html>

Return of King Coal?

Will there be a shortage of US coal in 2017?

By Staff Writers, Wood Mackenzie, Aug 18, 2016

<http://www.woodmac.com/analysis/potential-US-coal-shortage-in-2017?>

Oil Spills, Gas Leaks & Consequences

NASA: Natural gas industry the source of massive methane 'hot spot'

By James Fenton, USA Today, Aug 15, 2016 [H/t Clyde Spencer]

<http://www.usatoday.com/story/tech/nation-now/2016/08/15/nasa-industry-source-methane-hot-spot/88812104/>

[From Clyde Spencer: Incidentally, I have tried to find elevated CO2 in the Four Corners area on the OCO2 maps and have not been able to see them.]

Study: Most of methane hot spot comes from natural gas leaks

By Staff Writers, AP, Aug 15, 2016 [H/t Clyde Spencer]

<https://www.yahoo.com/news/study-most-sources-methane-hot-spot-gas-facilities-190135909.html?nhp=1>

Nuclear Energy and Fears

Changjiang 2 enters commercial operation

By Staff Writers, WNN, Aug 15, 2016

<http://www.world-nuclear-news.org/NN-Changjiang-2-enters-commercial-operation-1508164.html>

“Changjiang 2 becomes CNNC's 15th power reactor in commercial operation. It now has 12,162 MWe of generating capacity online. CNNC also has another nine units under construction and several more planned.”

Russia to build 11 new nuclear reactors by 2030

By Staff Writers, WNN, Aug 10, 2016

<http://www.world-nuclear-news.org/NP-Russia-to-build-11-new-nuclear-reactors-by-2030-10081602.html>

Decommissioning of Nuclear Facilities: Germany's Experience

By Boris Brendebach, Installation and Reactor Safety Company, IAEA, Aug 18, 2016

<https://www.iaea.org/newscenter/news/decommissioning-of-nuclear-facilities-germanys-experience>

DOE legal obligation on Yucca Mountain

By Staff Writers, WNN, Aug 9, 2016

<http://www.world-nuclear-news.org/WR-DOE-legal-obligation-on-Yucca-Mountain-0908167.html>

“The institute also cautioned the DOE not to use money from the Nuclear Waste Fund - into which customers and utilities have paid more than \$20 billion through a 0.1 cent per kilowatt-hour fee levied against nuclear generation - for new siting activities not authorized by the NWPA or approved by Congress. ””

Green River nuclear plant is looking like a tough sell

Editorial, Salt Lake Tribune, Aug 16, 2016 [H/t Toshio Fujita]

<http://www.sltrib.com/opinion/4224357-155/editorial-green-river-nuclear-plant-is>

Alternative, Green (“Clean”) Solar and Wind

“America’s First Offshore Wind Farm Is Nearly Ready”... Get ready for Euro-sized electricity bills!

Guest post by David Middleton, WUWT, Aug 17, 2016

<https://wattsupwiththat.com/2016/08/17/americas-first-offshore-wind-farm-is-nearly-ready-get-ready-for-euro-sized-electricity-bills/>

[SEPP Comment: According to the analysis, it is cheaper to build reliable nuclear, which is not becalmed in August, or forced to shut down due to hurricanes and nor'easters.]

Study: Wind power fiercer than expected

As US’ first offshore wind farm takes root, study indicates wind may be more powerful, turbulent than expected

By Anthony Watts, WUWT, Aug 11, 2016

<https://wattsupwiththat.com/2016/08/11/study-wind-power-fiercer-than-expected/>

Not Much Wind In Norway

By Paul Homewood, Not a Lot of People Know That, Aug 17, 2016

<https://notalotofpeopleknowthat.wordpress.com/2016/08/17/not-much-wind-in-norway/>

Alternative, Green (“Clean”) Energy -- Other

Now, Environmentalists Oppose Corn Ethanol

By Donn Dears, Power For USA, Aug 16, 2016

<https://dddusmma.wordpress.com/2016/08/16/now-environmentalists-oppose-corn-ethanol/>

Reduced ecosystem functions in oil palm plantations

By Staff Writers, Leipzig, Germany (SPX) Aug 18, 2016

http://www.seeddaily.com/reports/Reduced_ecosystem_functions_in_oil_palm_plantations_999.html

[SEPP Comment: Probably the same can be said for all monoculture.]

California Dreaming

California’s globally irrelevant, costly, elitist driven and purely political climate change campaign

Guest essay by Lawrence Hamlin, WUWT, Aug 18, 2016

<https://wattsupwiththat.com/2016/08/18/californias-globally-irrelevant-costly-elitist-driven-and-purely-political-climate-change-campaign/>

[SEPP Comment: The average number of leases issued by BLM during each administration is revealing.]

PG&E files plan to shut down Diablo Canyon nuclear power plant

By Rob Nikolewski, LA Times, Aug 11, 2016

<http://www.latimes.com/business/la-fi-nuclear-power-pacific-gas-20160811-snap-story.html>

“PG&E plans to pay nearly \$50 million to San Luis Obispo County to help offset property taxes that would decline because of the plant closing.”

Other Scientific News

UCI physicists confirm possible discovery of fifth force of nature

By Staff Writers, Irvine CA (SPX), Aug 17, 2016

http://www.spacedaily.com/reports/UCI_physicists_confirm_possible_discovery_of_fifth_force_of_nature_999.html

Tree-rings reveal secret clocks that could reset key dates across the ancient world

Trees which grew during intense radiation bursts in the past have 'time-markers' in their tree-rings that could help archaeologists date events from thousands of years ago

By Staff Writer, Eurekalert, Aug 17, 2016

http://www.eurekalert.org/pub_releases/2016-08/uoo-trs081616.php

[SEPP Comment: Unable to link to paper.]

Other News that May Be of Interest

The Toilet Revolution

By Bjørn Lomborg, Project Syndicate, Aug 16, 2016

<https://www.project-syndicate.org/commentary/toilets-india-modi-gates-by-bjorn-lomborg-2016-08>

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BELOW THE BOTTOM LINE:

In 2009: Warming would stop 2020 Olympics. Now disaster moved to 2084

By Jo Nova, Her Blog, Aug 14, 2016

<http://joannenova.com.au/2016/08/in-2009-warming-would-stop-2020-olympics-now-disaster-moved-to-2084/>

Zombie radiation: Fukushima's poisonous fallout eating entire chunks of peoples' brains away, reaching California coast

By Jonathan Benson, Natural News, Aug 17, 2016 [H/t Toshio Fujita]

http://www.naturalnews.com/055004_radiation_poisoning_Fukushima_brain_damage.html

[SEPP Comment: From “The world’s top news source on natural health.”]

Climate change causes swelled heads!

By Staff Writers, Climate Change Predictions.org, Aug 16, 2016 [From Wired, Mar 22, 2007]

<http://climatechangepredictions.org/uncategorized/6667>

“Jessica Ash and Gordon Gallup studied 109 fossilized skulls from different latitudes to determine that “climate may have been an important selective force behind the evolution of human cranial capacity,” according to Gallup, who theorised that changes in global temperature could account for as much as 50 per cent of the variation in headmeat.

“Specifically we found that as the distance from the equator increased, north or south, so did brain size,” he said.

The researchers will publish their study in the spring edition of Human Nature.”

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ARTICLES:

1. Is a Little Radiation So Bad?

A new initiative aims to change the scientific stance that any amount of radiation increases someone's cancer risk

By John R. Emshwiller and Gary Fields, WSJ, Aug 12, 2016

<http://www.wsj.com/articles/is-a-little-radiation-so-bad-1471014742>

SUMMARY: The reporters discuss that many of the fears of radiation have been shaped by science fiction movies. Also, many fears are based on questionable scientific model They state:

“The scientific basis for this view is known as the linear no-threshold model, or LNT, which holds that any amount of radiation increases someone’s cancer risk, with the danger rising along with the dose.

“But Carol Marcus scoffs at the LNT model. As science, it’s “baloney,” she said, essentially in the same category as “the Earth is flat.” The white-haired, 77-year-old professor of nuclear medicine at the University of California, Los Angeles, with both an M.D. and Ph.D., is on a campaign to change the way America treats radiation.

“In a pending petition, she is asking the Nuclear Regulatory Commission to abandon the LNT model, which her filing, quoting another critic, calls “the greatest scientific scandal of the 20th century.” Two similar petitions, signed by about two dozen academics and others, are also under NRC review.

“Dr. Marcus advocates an approach that holds that low radiation doses aren’t harmful and could even benefit people’s health—a phenomenon known as “hormesis,” possibly reducing cancer rates by stimulating the body’s protective systems. Among other things, she wants the NRC to raise by 50-fold its allowable annual radiation dose to the public.

“A typical NRC rule-making petition attracts fewer than two dozen public comments, said an agency spokeswoman. A few draw up to about 200. More than 600 comments have come in on the LNT matter, the most ever. An NRC staff recommendation on the petitions isn’t expected until next year.

“One comment came from the U.S. Environmental Protection Agency, an LNT adherent. Radiation’s link to cancer is “particularly strong,” it said, and warned against “basing radiation protection on poorly supported and highly speculative proposals.”

“Most of the comments are against her initiative, said Dr. Marcus. At least, she said, her petition is intended “to get this ball rolling” and force regulators to deal with evidence she believes contradicts the LNT model.

In a sense, LNT critics are asking the NRC to turn back the clock to a time when officials believed that below a certain level, known as the “tolerance dose,” radiation wasn’t harmful. By 1960, however, the Federal Radiation Council wrote of “an increasing reluctance” among scientists to embrace exposure standards “on the basis of the existence of a threshold for radiation damage.”

“By the 1970s, the LNT model was rising to the fore.

“LNT supporters and critics say that large bodies of scientific evidence support their respective positions. They debate the biologic research regarding damage done to cells by radiation and the body’s ability to repair such injuries. Sometimes, the two sides point to the same research to bolster their arguments.

“The dispute largely involves annual radiation exposures below 10 rem, or 10,000 millirems. A rem is a measure of radiation absorbed by a person.

“The average American gets about 300 millirems a year from background sources, such as the sun. A medical procedure can add anywhere from a few millirems for a chest X-ray to more than 1,000 for certain CT scans or other procedures. A cross-country airplane flight provides about 5 millirems of extra solar radiation. Under the LNT model, even one millirem would raise someone’s cancer risk by a small amount.

“As a precaution, regulators try to limit the amount of extra radiation the public gets from nuclear activities. The NRC requires its licensees, such as nuclear power plants, to ensure that no member of the public gets more than an additional 100 millirems a year from the facility’s operations.

“In her petition, Dr. Marcus said that the public-exposure level could safely be raised to the same limit as for nuclear-industry workers, currently 5,000 millirems a year.

“Moving from the LNT model could greatly reduce the costs of cleaning up contaminated sites, said Edward Calabrese, a toxicology professor at the University of Massachusetts in Amherst. He has written that in the 1940s and 1950s, an influential group of scientists pushed the LNT model using actions that were “ideologically driven and deliberately and deceptively misleading”—a position that others dispute.

“A more benign view of radiation, said Dr. Marcus, would have helped avoid what she believes was the unnecessary evacuation in 2011 of tens of thousands of people in Japan after the Fukushima nuclear complex, damaged by an earthquake and tsunami, released radiation.

“Jan Beyea, a physicist who served on a National Academy of Sciences panel that studied the accident, defended the prudence of the evacuation given the circumstances but added that “the social and mental distress caused by the fear of radiation is probably the biggest public health effect from these releases.” Dr. Beyea, an LNT supporter, estimated that the radiation could cause about 500 cancer cases over the next 50 years. However, he said, the stress and chaotic evacuation conditions contributed to the deaths of several hundred elderly people.

“Radiation fears also crop up in medicine. A report earlier this year by researchers from Memorial Sloan Kettering Cancer Center and Hofstra University found that of some 3,500 people surveyed, nearly two-thirds expressed some level of concern about getting radiation from medical imaging procedures, such as CT scans.”

2. Enlist the Market in the Climate-Change Fight

Standardized disclosure of climate risk will help secure long-term value for investors and taxpayers.

By Brian Deese and Jeff Zients, WSJ, Aug 18, 2016

<http://www.wsj.com/articles/enlist-the-market-in-the-climate-change-fight-1471561052>

SUMMARY: Mr. Deese is a senior adviser to President Obama. Mr. Zients is director of the White House’s National Economic Council. In advocating stopping CO2 emissions to fight global warming/climate change they write:

“Even before the devastating flooding began in Louisiana last week, and we learned that July 2016 shattered all global temperature records, mounting data had demonstrated the growing risks climate change poses to the global economy. Whether you are an investor assessing the \$2 trillion in bonds that Moody’s found carry elevated near-term climate risk, one of the nearly two million U.S. homeowners facing significant risk from climate-related flooding, or a U.S. taxpayer staring

at \$360 billion in direct government costs from extreme weather over the past decade—these threats are looming, large and increasing.

“This year’s World Economic Forum Global Risks Report declared the “failure of climate-change mitigation and adaptation” the “risk with the greatest potential impact in 2016.” Yet financial markets suffer from an alarming lack of standardized and comparable climate-risk information, which keeps investors and policy makers from accurately incorporating these risks into their decisions. Combating climate change requires not only leveraging bold action by governments to cut carbon pollution, but also harnessing the power of market forces with clear, uniformly disclosed assessments of climate-related economic risks.

“This starts by changing the way the federal government does business. On Friday, the Federal Emergency Management Agency is proposing the first update to federal flood standards in 40 years. These needed changes will reduce the risks and costs of flood disasters, including lost lives and up to hundreds of millions in taxpayer dollars. In coming months, our Housing and Transportation Departments will issue similar, new standards.

“Likewise, the administration recently proposed requiring that all companies doing business with the federal government publicly disclose what they know about their climate-risk exposure. This information will be a factor in taxpayer-funded contracting decisions. The administration is also working to increase disclosure of climate risks that America’s more than 140 million pension beneficiaries face in their investments. And we now require that our agencies consider and publicly disclose climate risk when undertaking other major federal actions, like leases of public resources, issuance of permits, and investment in infrastructure.

“But to deliver sufficient impact, this effort must involve government and the private sector working together to develop assessments of climate risks as well. Such information is a prerequisite to effectively engaging consumers, investors and companies in the work of protecting the planet.

“Here in the U.S., the Securities and Exchange Commission has already taken important steps to make clear that today’s climate risks can be financially material, which is necessary to trigger mandatory disclosure requirements. But shareholders are increasingly pushing management to be more attentive to climate risk. This proxy season alone, shareholders filed a record-setting 94 climate-related proposals at shareholder meetings of U.S. companies. And these proposals garnered majorities or near-majorities in several high-profile shareholder votes.

“Clearly, more aggressive action is needed: The SEC could adopt detailed and standardized industry specific requirements for disclosure, and, once in place, aggressively hold public companies to account when it comes to those obligations to disclose. That will ensure that the market has the transparency and data it needs to efficiently price climate risk and to spur innovation that could ultimately decrease the magnitude of these risks across the economy.

“This effort should also be extended internationally. The G-20’s Financial Stability Board has already charged a task force led by former New York City Mayor Michael Bloomberg to develop recommendations on this very issue. At the coming G-20 meeting, the world’s major economies should reaffirm the importance of this work, and support the Task Force’s efforts to push in the direction of specific international disclosure standards.

“The good news is there is a broad and growing bipartisan consensus for these types of aggressive actions, including from major global companies, former Republican and Democrat U.S. Treasury secretaries, and large institutional investors representing trillions of dollars in capital. Yet some Republicans in Congress continue to advocate for a strategy of keeping taxpayers and investors in the dark by preventing the government from updating flood standards or enforcing disclosure of common-sense information to the public.

“The stakes for our economy are too high to stand still or move backward. This is the moment to accelerate efforts to understand, measure and standardize disclosure of climate risk and put that understanding to use. Doing so will help to secure long-term value for investors and taxpayers; improve market efficiency and stability; strengthen the resilience of our communities; and help the world combat climate change.”

3. Too Big to Frack? Oil Giants Try Again to Master Technology That Revolutionized Drilling

BP and others are hoping that hydraulic fracturing will allow them to coax enough oil out of U.S. wells to replace output from declining megaprojects

By Bradley Olson and Sarah Kent, WSJ, Aug 16, 2016

<http://www.wsj.com/articles/too-big-to-frack-oil-giants-try-again-to-master-technology-that-revolutionized-drilling-1471362741>

SUMMARY: The authors use an oil and gas well being drilled by BP as an example of how big oil is moving into hydraulic fracturing in oil and gas in shale formations. The article suggests that the deep-pockets of the majors will lessen the advantage of the independents. What the reporters fail to mention is that the independent producers have taken most of the leases in better areas. The independents have learned how to most effectively drill and to operate on tight budgets. It should be interesting competition. So much for the myth that “big oil” controls.

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