The Week That Was: 2016-12-31 (December 31, 2016) Brought to You by SEPP (<u>www.SEPP.org</u>) The Science and Environmental Policy Project

Quote of the Week. "The only source of knowledge is experience." – Albert Einstein

Number of the Week: \$26 Billion

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

TWTW: Over the next few weeks, the coverage of TWTW will be limited. Shortly before the election, Ken Haapala was asked to volunteer for a non-paid, temporary position on a Trump transition landing team. He responded as he would have for any major national candidate – Yes. Having been vetted, on January 2 he starts his duties. The activities will probably take considerable time, and he will avoid writing in TWTW about policy or political issues. Any policy or political writing may be misinterpreted. Thank you.

Updated US Climate Change Financing: A recently uncovered report from the Congressional Research Service (CRS) provides data on federal government financing of climate science and climate change activities. This prompted an update of estimates made several years ago, that were discussed in TWTW at the time. The CRS report covers FY 2008 to 2014, with FY 2014 as estimates based on the President's FY2014 request. (Today, the fiscal year runs from October 1 of the prior year to September 30 of the stated year. For example, FY2017 would be from October 1, 2016, to September 30, 2017.). The report states:

The Office of Management and Budget (OMB) and federal agencies have identified approximately \$77 billion of budget authority available to federal agencies from Fiscal Years 2008 through 2013 for climate change activities. The large majority—more than 75%—funded technology development and deployment, mostly through the Department of Energy (DOE). More than one-third of the identified funding during this period was appropriated in the American Recovery and Reinvestment Act of 2009 (P.L. 111-5), enacted February 17, 2009.

In general, agencies spend all their budget authority. The OMB is the source used for expenditure. The report covers several major federal initiatives which address climate: the US Global Change Research Program; the Clean Energy Technologies, formerly called the Climate Change Technology Program; International Climate Change Assistance, largely funding UN Groups such as the Intergovernmental Panel on Climate Change (IPCC); and Climate Adaptation, Preparedness, and Resilience.

The U.S. Global Change Research Program (USGCRP) was mandated by Congress in the Global Change Research Act of 1990 (P.L. 101-606). Its numbers grew from \$1.728 Billion in FY 2001 to an estimate of \$2.658 Billion in FY 2014, plus an additional 0.641 Billion with the 2009 American Recovery and Reinvestment Act of 2009 (ARRA), also called the Stimulus Bill.

The Clean Energy Technologies grew from \$1.675 Billion in FY 2001 to an estimate of \$7.933 in FY2014 plus an additional \$25.499 Billion in the ARRA. International Climate Assistance grew

from \$218 Million in FY 2001 to \$893 Million in FY 2014 and Adaptation grew from\$0 in FY 2009 to \$110 Million in FY2014

The total reported numbers also include OMB estimates of Energy Tax Provisions That May Reduce Greenhouse Gases which grew from \$0 in FY2001 to an estimate of \$9.839 Billion in 2014. Tax credits for alternative electricity generation such as wind and solar fall into this group.

The expenditure estimates were combined with earlier expenditure estimates from the Government Accountability Office to give an indication of approximate government expenditures on climate change since FY1993. The various categories were grouped into two: climate science and other.

From FY 1993 to FY 2014, the government reports show that annual spending on "climate science" grew from \$1.306 Billion to \$2.658 Billon, totaling \$42.488 Billion. Of this total \$0.641 Billion came with AARA (the "stimulus bill"). The increase in annual expenditures over the period was a bit over 200%. Over this period "Other" climate related expenditures (including tax credits) grew from \$1.046 Billion to \$8.936 Billion, totaling \$104.289 Billion, with \$25.499 Billion coming from ARRA. The increase in annual expenditures over the period was 850%.

Total expenditures for the period grew from \$2.352 Billion to \$11.594 Billion, for a total of \$146.777 Billion with \$26.140 Billion coming from ARRA. The increase in annual expenditures was 490%.

The amount going to international assistance, UN groups, grew from \$201 Million to \$893 Million in 2014, a growth in annual expenditures 440%. The UN groups focus on global warming occurring at the surface, surface-air temperatures, and largely ignore atmospheric warming, where the greenhouse gas effect occurs.

When the budgets for FY 2015 & FY 2016 of the US Global Change Research Program (USGCRP) are included, the total expenditures for "climate science" from FY 1993 to FY 2016 come to \$47.561 Billion with international assistance amounting to \$8.240 Billion.

As with UN groups, the USGCRP does not consider atmospheric warming as important. Yet, according to the 1979 National Academy of Sciences "Charney Report", the greenhouse gas warming occurs in the atmosphere. Since the advent of comprehensive satellite measurements almost 40 years ago, atmospheric warm is slight, and can be explained as from natural causes.

The CRS report also gave the total annual expenditures of climate change in constant 2012 dollars, but the GAO report did not give constant dollars. The index used by the CRS was not available on the web, so the Consumer Price Index from the Bureau of Labor Statistics was used to adjust GAO numbers to 2012 constant dollars. To assure a reasonable adjustment, several calculations were double-checked with CRS numbers. The error in the match sets was less than 1%.

In 2012 dollars, expenditures for climate change grew from \$3.740 Billion in 1993 to \$11.112 Billion in 2014, for a total of \$166.530 Billion from FY 1993 to FY 2014. The growth in expenditures was 297%, or almost 300%. Note that estimates for "Other" climate expenditures were not available for FY 2015 & FY 2016, so the total amount could not be calculated to include those years.

By way of comparison, the Congressional Budget Office estimated that the entire Apollo program, from 1962 to 1973 with 17 missions, and 7 of them sending men to the moon and returning them cost \$170 Billion, in 2005 Dollars. Using the CPI this works out to be about \$200 Billion in 2012 dollars. In "fighting" climate change, the US is spending almost as much as it did on all the Apollo missions, without examining the correct data. See links under Defending the Orthodoxy.

Number of the Week: As stated above, the 2009 "stimulus bill" contained \$26.140 Billion in federal government funding on climate related activities. Such spending provided few "shovel ready" jobs.

NEWS YOU CAN USE:

Challenging the Orthodoxy -- NIPCC

Nature, Not Human Activity, Rules the Climate S. Fred Singer, Editor, NIPCC, 2008 http://www.sepp.org/publications/nipcc_final.pdf

Overcoming Chaotic Behavior of Climate Models

By S. Fred Singer, SEPP, July 2010 http://www.sepp.org/science_papers/Chaotic_Behavior_July_2011_Final.doc

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 <u>http://climatechangereconsidered.org/</u> 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 <u>https://www.heartland.org/media-library/pdfs/CCR-II/CCR-II-Full.pdf</u> *Summary*: <u>http://www.nipccreport.org/reports/ccr2a/pdf/Summary-for-Policymakers.pdf</u>

Climate Change Reconsidered II: Biological Impacts

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

Challenging the Orthodoxy

Obsolete Climate Science on CO2 By Richard A. Epstein, The Hoover Institution, Dec 20, 2016 [H/t WUWT] <u>http://www.hoover.org/research/obsolete-climate-</u> <u>science?utm_content=bufferefd7e&utm_medium=social&utm_source=twitter.com&utm_campaig</u> <u>n=buffer</u>

"At this time, it appears that virtually all the EPA rules rest on outdated science."

[SEPP Comment: Addresses weaknesses in approaches by establishment climate science defenders such as exaggerated concerns over global warming, dismissive attitude towards independent inquiry, the manner in framing the concept of social cost of carbon, etc.]

Salvaging the Unsalvageable: HFCs and the UN Climate Change Fiasco

By Tim Ball, A Different Perspective, Dec 29, 2016 http://drtimball.com/2016/salvaging-the-unsalvageable-hfcs-and-the-un-climate-change-fiasco/

Skeptical Climate Scientists Coming In From the Cold

By James Varney, RealClear Investigations, Dec 31, 2016 http://www.realclearinvestigations.com/articles/2016/12/31/skeptical_climate_scientists_coming_ in_from_the_cold.html

Defending the Orthodoxy

Carbon Dioxide and Climate: A Scientific Assessment Ad Hoc Study Group on Carbon Dioxide and Climate By Jule G. Charney, et al. Climate Research Board, National Academy of Sciences, July 23-27, 1979

https://www.nap.edu/read/12181/chapter/1#vii

Climate Change: Improvements Needed to Clarify National Priorities and Better Align Them with Federal Funding Decisions

By Staff Writers, Summary, GAO-11-317, May 20, 2011 [FY 1993 to FY 2010] http://www.gao.gov/products/GAO-11-317

Federal Climate Change Funding from FY2008 to FY2014

By Jane Leggett, et al. Congressional Research Service, Sep 13, 2013 https://www.hsdl.org/?view&did=745047

U.S. Government's Fiscal Years 2014 and 2013 Consolidated Financial Statements – Summary

GAO-15-341R: Publicly Released: Feb 26, 2015. http://www.gao.gov/products/GAO-15-341R

U.S. Global Change Research Program

Thirteen Agencies, One Vision: Empower the Nation with Global Change Science <u>http://www.globalchange.gov/</u> FY 2015 & 2016 Budget <u>http://www.globalchange.gov/about/budget</u>

CPI Inflation Calculator

Databases, Tables & Calculators by Subject https://www.bls.gov/data/inflation_calculator.htm

A Budgetary Analysis of NASA's New Vision for Space Exploration

By Staff Writers, Congressional Budget Office, September 2004 p.18 http://www.hq.nasa.gov/office/hqlibrary/documents/056716382.pdf

Questioning the Orthodoxy

Why Climate Alarmists Have Missed the Big Picture

By Alan Carlin, Carlin Economics and Science, Dec 30, 2016 http://www.carlineconomics.com/archives/3267

"Climate alarmists have laid out a technical basis that CAGW could occur if all their climate model assumptions were correct. Far, far more likely is that global temperatures will fall, just as they did during the Little Ice Age ending in the 19th Century."

Prioritizing the environment and jobs with Pruitt at the helm of EPA

By Sen. Jim Inhofe, Washington Examiner, Dec 21, 2016 <u>http://www.washingtonexaminer.com/prioritizing-the-environment-and-jobs-with-pruitt-at-the-helm-of-epa/article/2610140</u>

The Climate Science Challenge,

By Scott Adams, creator of Dilbert, His Blog, Dec 28, 2016 [H/t Cooler Heads] <u>http://blog.dilbert.com/post/155073242136/the-climate-science-challenge</u> *[SEPP Comment: Seeking the invisible 97%!]*

The Illusion of Knowledge

By Scott Adams, Creator of Dilbert, His Blog, Dec 29, 2016 [H/t GWPF] http://blog.dilbert.com/post/155121836641/the-illusion-of-knowledge

Mathematical Association of America Reviews Uncertainty: The Soul of Modeling, Probability & Statistics

Posted by William Briggs, His Blog, Dec 26, 2016 http://wmbriggs.com/post/20577/

You Ought to Have a Look: Panic Among Alarmists

By Patrick J. Michaels and Paul C. "Chip" Knappenberger, Cato, Dec 30, 2016 <u>https://www.cato.org/blog/you-ought-have-look-panic-among-alarmists</u> Link to Curry post: The art and science of climate model tuning By Judith Curry, Climate Etc. Aug 1, 2016 <u>https://judithcurry.com/2016/08/01/the-art-and-science-of-climate-model-tuning/</u>

Newly launched Chinese satellite claims to monitor CO2 – but does it?

By Anthony Watts, WUWT, Dec 27, 2016 <u>https://wattsupwiththat.com/2016/12/27/newly-launched-chinese-satellite-claims-to-monitor-co2-but-does-it/</u>

Link to paper: A cloud detection scheme for the Chinese Carbon Dioxide Observation Satellite (TANSAT)

By Xi Wang, Zheng Guo. Yipeng Huang, Hongjie Fan, Wanbiao Li, Advances in Atmospheric Sciences, Dec 14, 2016

http://link.springer.com/article/10.1007%2Fs00376-016-6033-y

Obama's National Monument Designation: Second-Term Environmental Policymaking at Its Worst

By William Yeatman, CEI, Dec 29, 2016 https://cei.org/blog/obamas-national-monument-designation-second-term-environmentalpolicymaking-its-worst [SEPP Comment: Is this the way that certain outgoing administrations punish the public for not continuing their ways?]

Scientists discovered an absurdly easy way to seem convincing

By Kevin Loria, Business Insider, Dec 25, 2016 [H/t Clyde Spencer] http://www.businessinsider.com/how-to-convince-people-of-something-2016-12 [SEPP Comment: Maybe this is why the EPA claims its endangerment finding is supported by basic physics, without providing the data.]

Discussion thread – Social Cost of Carbon

By David Wojick, Climate Etc. Dec 30, 2016 https://judithcurry.com/2016/12/30/discussion-thread-social-cost-of-carbon/#more-22668

Polar Bear Population Is Rising, Despite Green Fears

By Andrew Follett, Daily Caller, Dec 22, 2016 http://dailycaller.com/2016/12/22/polar-bear-population-is-rising-despite-green-fears/

After Paris!

Here's why the Senate should help Trump repudiate the Paris climate agreement By Marlo Lewis, Fox, Dec 20, 2016 <u>http://www.foxnews.com/opinion/2016/12/20/heres-why-senate-should-help-trump-repudiate-paris-climate-agreement.html</u>

After US Election -- Favorable

New EPA Head a Welcome Political Climate Change By Larry Bell, Newsmax, Dec 19, 2016 <u>http://www.newsmax.com/LarryBell/epa/2016/12/19/id/764629/</u> New EPA Head a Welcome Political Climate Change By Larry Bell, Newsmax, Dec 19, 2016 <u>http://www.newsmax.com/LarryBell/epa/2016/12/19/id/764629/</u>

Republican attorneys general eager to dismantle Obama climate agenda under Donald Trump

Democratic states now vow to challenge a GOP-ruled Washington on environmental issues By Ben Wolfgang, The Washington Times, December 26, 2016 <u>http://www.washingtontimes.com/news/2016/dec/26/republican-attorneys-general-eager-todismantle-ob/</u>

Trump Versus The Green Blob: The Battle That Will Define His Presidency By James Delingpole, Breitbart, Dec 19, 2016 <u>http://www.breitbart.com/big-government/2016/12/19/trump-versus-the-green-blob-the-battle-that-will-define-his-presidency/</u>

Trump should adopt these climate-related reforms to make America great again By H. Sterling Burnett, Orange County Register, Dec 16, 2016 <u>http://www.ocregister.com/articles/trump-738643-donald-action.html</u>

Seeking a Common Ground The latest climate 'conspiracy theory'

By Judith Curry, Climate Etc. Dec 15, 2016 https://judithcurry.com/2016/12/15/the-latest-climate-conspiracy-theory/

Was 2016 the Best Year Ever?

By Bjørn Lomborg, Project Syndicate, Dec 26, 2016 <u>https://www.project-syndicate.org/commentary/inequality-and-climate-change-exaggeration-by-bjorn-lomborg-2016-12</u>

Review of Recent Scientific Articles by CO2 Science

Parts of Asia Were Warmer During the Holocene Than They Are Now

Aizen, E.M., Aizen, V.B., Takeuchi, N., Mayewski, P.A., Grigholm, B., Joswiak, D.R., Nikitin, S.A., Fujita, K., Nakawo, M., Zapf, A. and Schwikowski, M. 2016. Abrupt and moderate climate changes in the mid-latitudes of Asia during the Holocene. *Journal of Glaciology* **62**: 411-439. Dec 30, 2016

http://www.co2science.org/articles/V19/dec/a18.php

"And *this* finding suggests that there is nothing unusual, unnatural or unprecedented about the air temperatures that are currently being observed around the world. In fact, it actually *supports* that fact."

Two Thousand Years of Solar Forcing of Chinese Temperatures

Tiwari, R.K., Rajesh, R. and Padmavathi, B. 2016. Evidence of Higher-Order Solar Periodicities in China Temperature Record. *Pure and Applied Geophysics* **173**: 2511-2520. Dec 22, 2916 http://www.co2science.org/articles/V19/dec/a13.php

Climatic Effects of Methane Emissions from Alaska's North Slope

Sweeney, C., Dlugokencky, E., Miller, C.E., Wofsy, S., Karion, A., Dinardo, S., Chang, R.Y.-W., Miller, J.B., Bruhwiler, L., Crotwell, A.M., Newberger, T., McKain, K., Stone, R.S., Wolter, S.E., Lang, P.E. and Tans, P. 2016. No significant increase in long-term CH4 emissions on the North Slope of Alaska despite significant increase in air temperature. *Geophysical Research Letters* **43**: 6604-6611. Dec 21, 2016

http://www.co2science.org/articles/V19/dec/a12.php

Models v. Observations

Internal climate variability as a confounding factor in climate sensitivity estimates By Frank Bosse, Climate Etc. Dec 29, 2016 https://judithcurry.com/2016/12/29/internal-climate-variability-as-a-confounding-factor-in-

https://judithcurry.com/2016/12/29/internal-climate-variability-as-a-confounding-factor-in climate-sensitivity-estimates/

Model Issues

The art and science of climate model tuning

By Judith Curry, Climate Etc. Aug 1, 2016

https://judithcurry.com/2016/08/01/the-art-and-science-of-climate-model-tuning/

Link to manuscript, The art and science of climate model tuning

By Haurdin, et al. American Meteorological Society, July 29, 2016

http://journals.ametsoc.org/doi/abs/10.1175/BAMS-D-15-00135.1

[SEPP Comment: Simply because global climate models can reproduce 20th century surface warming, does not mean they are suitable for prediction of global warming from greenhouse gases. The warming occurs in the atmosphere. The models fail to predict what occurs in the atmosphere.]

Changing Weather

First Week of 2017: Record Cold, 48 States Going Below Freezing By Roy Spencer, His Blog, Dec 28, 2016 http://www.drroyspencer.com/2016/12/first-week-of-2017-record-cold-48-states-going-belowfreezing/

The heat is on again as 2017 set to be one of the warmest on record

By "Staff Writers, AP, Dec 20, 2016

http://www.aol.co.uk/news/2016/12/19/the-heat-is-on-again-as-2017-set-to-be-one-of-thewarmest-on-rec/

"Next year will be among the warmest on record but is unlikely to beat 2016's record temperatures, the Met Office has said.

"Global average temperatures in 2017 are expected to be about 0.75C above the long-term average of 14C seen between 1961 and 1990, according to analysis using the new Met Office supercomputer."

Changing Earth

Molten iron river discovered speeding beneath Russia and Canada

By Andy Coghlan, New Scientist, Dec 19, 2016

https://www.newscientist.com/article/2116536-molten-iron-river-discovered-speeding-beneathrussia-and-canada/

Link to paper: An accelerating high-latitude jet in Earth's core

By Philip W. Livermore, Rainer Hollerbach & Christopher C. Finlay, Nature Geoscience, Dec 19, 2016

http://www.nature.com/ngeo/journal/vaop/ncurrent/full/ngeo2859.html

Acidic Waters

The 'Ocean Acidification' Narrative Collapses Under The Weight Of New Scientific Evidence

By Kenneth Richard, No Tricks Zone, Dec 29, 2016 <u>http://notrickszone.com/2016/12/29/the-ocean-acidification-narrative-collapses-under-the-weight-of-new-scientific-evidence/#sthash.7UjwFax7.dpbs</u>

Lowering Standards

How to communicate science

What makes influential science? Telling a good story By Anthony Watts, WUWT, Dec 16, 2016 https://wattsupwiththat.com/2016/12/16/how-to-communicate-science/

Study: Hollywood-like dramatic style, not science content, brings citations to climate change papers

By Luboš Motl, Reference Frame, Dec 17, 2016 http://motls.blogspot.com/2016/12/study-hollywood-like-dramatic-style-not.html#more

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

Global Warming's Fingerprints Seen in 24 Weird Weather Cases By Seth Borenstein, AP, Dec 15, 2016 [H/t Clyde Spencer] http://abcnews.go.com/Technology/wireStory/study-warmings-fingerprints-24-weird-weathercases-44220524

Link to report: Explaining Extreme Events from a Climate Perspective

This BAMS special report presents assessments of how climate change may have affected the strength and likelihood of individual extreme events.

By Staff Writers, American Meteorological Society, Dec 2016

https://www.ametsoc.org/ams/index.cfm/publications/bulletin-of-the-american-meteorologicalsociety-bams/explaining-extreme-events-from-a-climate-perspective/

Questioning European Green

The cost of climate change policies: over £300 billion By Matt Ridley, Rational Optimist, Dec 18, 2016 <u>http://www.rationaloptimist.com/blog/the-cost-of-climate-change-policies/</u> [SEPP Comment: Where does the public get a refund for inferior government mandated products?]

'Manager Magazin' Reports How Renewable Electricity Is Taking Germany On A Wild Ride

By P Gosselin, No Tricks Zone, Dec 28, 2016 <u>http://notrickszone.com/2016/12/28/manager-magazin-reports-how-renewable-electricity-is-taking-germany-on-a-wild-ride/#sthash.dMID0Dfz.dpbs</u>

Questioning Green Elsewhere

More bad luck for South Australia, yet another blackout, 300 powerlines down, 125,000 homes cut off

By Jo Nova, Her Blog, Dec 28, 2016 <u>http://joannenova.com.au/2016/12/more-bad-luck-for-south-australia-yet-another-blackout-300-powerlines-down-125000-homes-cut-off/#more-52439</u>

Subsidies and Mandates Forever

Energy Subsidies

By Chris Edwards, Downsizing the Federal Government, Dec 15, 2016 [H/t GWPF] <u>https://www.downsizinggovernment.org/energy/energy-subsidies</u>

[SEPP Comment: The article does not consider the hidden costs of solar and wind, and in the US dam subsides are rare, if any. DOE research in energy efficiency and electricity storage are desirable, but results should focus on what is affordable and practical. For example, pumped storage hydro is the most practical form of electricity storage available. But, in the US it runs afoul of the EPA water and land regulations.]

U.K. Clean Energy Sector Shrinks After Government Subsidy Cuts

By Jessica Shankleman, Bloomberg, Dec 16, 2016 https://www.bloomberg.com/news/articles/2016-12-16/u-k-clean-energy-sector-shrinks-aftergovernment-subsidy-cuts [SEPP Comment: Surprise? The fast growth is not self-sustaining?]

EPA and other Regulators on the March

NOAA approves Mid-Atlantic deep-sea coral canyons for protection By Tamara Dietrich, Daily Press, VA, Dec 15, 2016 [H/t Timothy Wise] http://www.dailypress.com/news/science/dp-nws-noaa-deep-sea-corals-20161215-story.html "NOAA Fisheries has designated the region the Frank R. Lautenberg Deep Sea Coral Protection Area, after the late New Jersey senator who spearheaded ocean conservation legislation. It's the largest protection area in U.S. Atlantic waters."

Washington's Control of Energy

WSJ: Obama's 'Permanent' Drilling Freeze Won't Be Permanent Editorial, WSJ, Via GWPF, Dec 22, 2016 http://www.thegwpf.com/obamas-permanent-drilling-freeze-wont-be-permanent/

Obama's Last-Minute Offshore Drilling Ban Could Be Illegal

By Andrew Follett, Daily Caller, Dec 22, 2016 http://dailycaller.com/2016/12/22/obamas-last-minute-offshore-drilling-ban-could-be-illegal/

This nifty map shows why coal power is struggling, Trump notwithstanding

By Warren Cornwall, Science, Dec 16, 2016 http://www.sciencemag.org/news/2016/12/nifty-map-shows-why-coal-power-struggling-trumpnotwithstanding?utm_source=MIT+TR+Newsletters&utm_campaign=1772be079e-newslettersthe-download&utm_medium=email&utm_term=0_997ed6f472-1772be079e-153779577&goal=0_997ed6f472-1772be079e-

153779577&mc_cid=1772be079e&mc_eid=ad0b6c7f64

[SEPP Comment: According to this article, there is no reason to implement the Administration's costly power plan. Of course, the hidden costs of unreliable wind are not in the calculations.]

Oil and Natural Gas – the Future or the Past?

The \$3.5 Trillion Fracking Economy Is About To Get A Lot Bigger

By Andrew Follett, Daily Caller, Dec 17, 2016

http://dailycaller.com/2016/12/17/the-3-5-trillion-fracking-economy-is-about-to-get-a-lot-bigger/ Link to paper: Fracking, Drilling, and Asset Pricing: Estimating the Economic Benefits of the Shale Revolution.

By Gilje, Ready, and Roussanov, National Bureau of Economic Research, Dec 2016 <u>http://marcelluscoalition.org/wp-content/uploads/2016/12/NBER-paper.pdf</u>

Unravelling the US Shale Productivity Gains

By Trisha Curtis, Oxford Institute for Energy Studies, Nov 2016 [H/t GWPF] https://www.oxfordenergy.org/wpcms/wp-content/uploads/2016/11/Unravelling-the-US-Shale-Productivity-Gains-WPM-69.pdf

Study suggests hydraulic fracturing boosts local economies

By Vicki Ekstrom High, Phys.org, Dec 23, 2016

http://phys.org/news/2016-12-hydraulic-fracturing-boosts-local-economies.html

Link to paper: The Local Economic and Welfare Consequences of Hydraulic Fracturing By Bartik, Currie, Greenstone, and Knittel, (University affiliations: MIT, Princeton, Chicago, plus National Bureau of Economic Research) Dec 23, 2016 [H/t GWPF] https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2692197

Abstract: Exploiting geological variation within shale deposits and timing in the initiation of hydraulic fracturing, this paper finds that allowing fracking leads to sharp increases in oil and gas recovery and improvements in a wide set of economic indicators. At the same time, estimated willingness-to-pay (WTP) for the decrease in local amenities (e.g., crime and noise) is roughly equal to -\$1,000 to -\$1,600 per household annually (-1.9% to -3.1% of mean household income).

Overall, we estimate that WTP for allowing fracking equals about \$1,300 to \$1,900 per household annually (2.5% to 3.7%), although there is substantial heterogeneity across shale regions. *[SEPP Comment: The article has errors in its numbers, which, if corrected, would increase the beneficial impacts.]*

Nuclear Energy and Fears

Japan pulls plug on troubled fast breeder reactor

By Staff Writers, Tokyo (AFP), Dec 19, 2016

http://www.nuclearpowerdaily.com/reports/Japan_pulls_plug_on_troubled_fast_breeder_reactor_999.html

Oh Mann!

I'm a scientist who has gotten death threats. I fear what may happen under Trump. By Michael Mann, Washington Post, Dec 18, 2016

https://www.washingtonpost.com/opinions/this-is-what-the-coming-attack-on-climate-sciencecould-look-like/2016/12/16/e015cc24-bd8c-11e6-94ac-

<u>3d324840106c_story.html?postshare=4661482071614664&tid=ss_tw-</u> bottom&utm_term=.3701cd7c2670

 $\frac{\text{bottom&utm}_\text{term}=.3/01\text{cd/c}26/0}{(57)}$

"The fate of the planet hangs in the balance."

[SEPP Comment: Based on Mr. Mann's opinion, we should accept his statistical methods that produce biased results, and global climate models that are not supported by the most relevant data?]

Other Scientific News

How Data Become Science

By Julianna LeMieux, ACSH, Aug 5, 2016 <u>http://acsh.org/news/2016/08/05/how-data-become-science</u> *[SEPP Comment: If the editors of the journal are biased, then the entire process is thrown into*

doubt, as happened with Science Mag.]

Review: 'Getting Risk Right,' by Dr. Geoffrey Kabat

BELOW THE BOTTOM LINE:

France unveils the world's first (and probably last) solar panel road

By Paul Homewood, Not a Lot of People Know That, Dec 23, 2016 <u>https://notalotofpeopleknowthat.wordpress.com/2016/12/23/france-unveils-the-worlds-first-and-probably-last-solar-panel-road/</u>

Link to newspaper report: France unveils the world's first solar panel road: Half-mile stretch could provide enough energy to power entire village's street lights By Libby Plummer, Daily Mail, Dec 23, 2016

http://www.dailymail.co.uk/sciencetech/article-4058752/France-unveils-world-s-solar-panel-road-0-6-mile-stretch-provide-energy-power-entire-village-s-street-lights.html

Limestone Dust: The Latest Climate Geoengineering Favourite

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

https://wattsupwiththat.com/2016/12/16/limestone-dust-the-latest-climate-geoengineering-favourite/

Ready, aim ...

by Staff Writers, Climate Change Predictions.org, Dec 30, 2016 http://climatechangepredictions.org/uncategorized/7608

"Atmospheric scientist Paul Crutzen would like to save the world and darken your day. He proposes in this month's journal Climatic Change that to screen ourselves from global warming, humans could use heavy artillery to lob huge explosive shells laden with sulphate particles high into the stratosphere.

"A potent mix of pollutants would scatter the incoming sunlight and bounce more sunbeams back into space. Bingo, you'd lower the rate of global warming and give the fossil-fuel industries more reason to push hydrocarbons."

From Sun Herald (Australia) 6 Aug 2006 – screen copy held by the website

ARTICLES:

1. Five Ways to Restore the Separation of Powers

It isn't enough for Trump to quickly rescind Obama's executive orders. Congress also needs to act.

By David B. Rivkin Jr. and Elizabeth Price Foley, WSJ, Dec 19, 2016 http://www.wsj.com/articles/five-ways-to-restore-the-separation-of-powers-1482192048

SUMMARY: The two constitutional law attorneys write:

"The worst legacy of the Obama administration may be disdain for the Constitution's separation of powers. President Obama's actions have created dangerous stress fractures in our constitutional architecture, making it imperative that the Trump administration and Republican Congress commence immediate repairs.

"The Constitution separates power in two ways: among the three branches of the federal government and between the federal government and states. As James Madison wrote in the Federalist Papers, separation creates "a double security" for liberty because "different governments will control each other, at the same time that each will be controlled by itself."

"The Obama administration has spurned this core constitutional principle, aggrandizing executive power at the expense of Congress and states. It has rewritten laws, disregarding its constitutional duty to faithfully execute them."

After giving specific examples using ObamaCare, protection of illegal immigrants, waiving work for welfare, changing the 1970 Clean Air Act, definitions of navigable waters under the 1972 Clean Water Act, the authors suggest:

"First, Congress can amend the 1996 Congressional Review Act to require affirmative approval of major executive-branch regulations. The law now allows regulations to go into effect automatically if Congress does not disapprove them. The act has been used only once to overturn a regulation because it requires passage of a joint resolution of disapproval—which must be signed by the president. This requirement should be inverted: If Congress does not affirmatively approve a regulation, it never goes into effect. "Second, Congress could prohibit " Chevron deference," in which federal courts defer to executive branch interpretations of ambiguous statutes. Chevron deference is a judge-made doctrine that has aggrandized executive power, ostensibly to implement Congress's intent. If Congress denounces such deference, it can simultaneously reduce executive power and encourage itself to legislate with greater specificity.

"Third, Congress can augment its institutional authority by expanding its contempt power. The criminal contempt statute should require the U.S. attorney to convene a grand jury upon referral by the House or Senate without exercising prosecutorial discretion. Congress should also extend the civil contempt statute to the House, not merely the Senate, and enact a new law specifying a process for using Congress's longstanding (but rarely invoked) inherent contempt authority.

"Fourth, Congress can require that all major international commitments be ratified by treaty. A statute defining the proper dividing line between treaties and executive agreements would reassert the Senate's constitutional role, provide clarification to the judiciary, and encourage communication and negotiation between Congress and the president.

"Fifth, Congress can enact a law further restricting its ability to coerce states into adopting federal policies or commanding state officials to carry them out. While the courts have ultimate say on the contours of these federalism doctrines, a law could force greater consensus and debate, provide guidelines on Congress's use of its powers, and signal to the judiciary a reinvigorated commitment to federalism.

"Restoring separation of powers is necessary and possible. It should be the highest priority of the Trump administration and Congress."

2. Obama's Midnight Regulation Express

The goal is to issue more rules than the new administration could ever repeal. By Kimberley A. Strassel, WSJ, Dec 22, 2016 http://www.wsj.com/articles/obamas-midnight-regulation-express-1482451192

After some introductory remarks the columnist writes:

"But perhaps nothing has more underlined the Obama arrogance than his final flurry of midnight regulations. With each new proposed rule or executive order, Mr. Obama is spitefully mocking the nation that just told him "enough."

"The technical definition of a midnight regulation is one issued between Election Day and the inauguration of a new president. The practice is bipartisan. George W. Bush, despite having promised not to do so, pushed through a fair number of rules in his final months. But Jimmy Carter and Bill Clinton were more aggressive, and Mr. Obama is making them look like pikers.

"Mr. Obama has devoted his last year to ramming through controversial and far-reaching rules. Whether it was born of a desire to lay groundwork for a Clinton presidency, or as a guard against a Trump White House, the motive makes no difference. According to a Politico <u>story</u> of nearly a year ago, the administration had some 4,000 regulations in the works for Mr. Obama's last year. They included smaller rules on workplace hazards, gun sellers, nutrition labels and energy efficiency, as well as giant regulations (costing billions) on retirement advice and overtime pay.

"Since the election Mr. Obama has broken with all precedent by issuing rules that would be astonishing at any moment and are downright obnoxious at this point. This past week we learned

of several sweeping new rules from the Interior Department and the Environmental Protection Agency, including regs on methane on public lands (cost: \$2.4 billion); a new anti-coal rule related to streams (\$1.2 billion) and renewable fuel standards (\$1.5 billion).

"This follows Mr. Obama's extraordinary announcement that he will invoke a dusty old law to place nearly all of the Arctic Ocean, and much of the Atlantic Ocean, off limits to oil or gas drilling. This follows his highly politicized move to shut down the Dakota Access pipeline in North Dakota. And it comes amid reports the administration is rushing to implement last-minute rules on commodities speculation, immigrant workers and for-profit colleges—among others.

"Any action that is rushed is likely to be shoddy, especially if it's from the federal government. The point is for Mr. Obama to have his way and to swamp the Trump administration with a dizzying array of new rules to have to undo. That diverts manpower from bigger and better priorities.

"President Obama is hoping this work will prove too much and his rules will stand. He'd be making a good bet. George W. Bush promised to undo last-minute Clinton regulations. Yet a paper done in 2005 by Jason M. Loring and Liam R. Roth in Wake Forest Law Review found that a whopping 82% were left to stand.

"Then again, a Republican Congress seems ready and willing to invoke the Congressional Review Act, which allows legislators to reject rule-making. More important, Mr. Trump and his team seem to understand that Americans are angry at Mr. Obama's tendency to rule like an autocrat. They also surely know how damaging many of these Obama parting gifts (particularly energy rules) will prove to their own agenda.

"A Trump administration could send a powerful message to future presidents and build public support by highlighting the "midnight regulation" phenomenon and then making it a priority to ax every final Obama order. Single them out. Make a public list. Celebrate every repeal. That would be as profound a rebuke to the Obama legacy—a legacy based on abuse of power—as any other."