The Week That Was: 2016-12-17 (December 17, 2016) Brought to You by SEPP (www.SEPP.org) The Science and Environmental Policy Project

Quote of the Week. "The data are reality. The model is fantasy. Why substitute fantasy for reality?" Statistician William Briggs

Number of the Week: 666

THIS WEEK:

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

Data Manipulation: As twice-elected president of a science society formed in 1871, with early members important to the beginning of climate measurements covering the US, this author has been very concerned with the manipulation of historic data that seems to have taken place over the past few decades. In effect, a warming trend seems to have been established in the data where one did not exist before. As we saw during Climategate, the Climatic Research Unit at the University of East Anglia "lost" historic data when data was mathematically adjusted.

Similarly, as researchers Joe D'Aleo and Tony Heller have demonstrated, the data entrusted to NOAA; and its subordinate organizations the US Historical Climatology Network (USHCN), the Global Historical Climatology Network (GHCN), and the National Climatic Data Center (NCDC); seem to have been manipulated to give the illusion of a warming trend by lowering the earlier data. Now, Paul Homewood, of the UK, points out that NASA's Goddard Institute of Space Studies (NASA-GISS) has changed its own data since 2011 without notification as to why. The adjustments to its December 2016 version give the illusion of a stronger warming trend than existed in their 2011 data.

Each of these changes can be small, but the cumulative effect of persistent changes can be significant. Sometimes revisions are necessary, but they should be publicly announced. These exercises, without full public disclosure, undermine the credibility of the agencies involved. Further, it is not clear if the historic data, prior to quiet revisions, continue to exist. Until these have been independently examined, any studies based on these surface temperatures are questionable.

Since the general Climate Establishment has not expressed alarm over these small, but persistent, adjustments, it is ironical that many in the Climate Establishment are expressing alarm over the preservation of existing climate data. Apparently, they fear that the Trump administration may secretly manipulate the manipulated. Any changes to the data should be made with full public disclosure, to include the effects of the changes on historic trends, with the historic data preserved.

As a side note: the historic data for states indicates that the 1930s was the hottest decade in the US. However, carbon dioxide (CO2) warming, as well as other greenhouse gas warming, should occur at night, with a lessening of energy flow from the earth to space. Thus, the lack of a warming trend in daytime highs does not mean there is no effect from CO2.

Given its address, perhaps NASA-GISS should be called NASA-Broadway to avoid assuming it is engaged in the same science that placed man on the moon. See links under Lowering Standards and last week's TWTW on NASA-GISS.

AGU Mysteries – Solar: Even though the 2016 meeting of the American Geophysical Union (AGU) in San Francisco featured anti-Trump protests, it produced some interesting findings. In one presentation with press release, and paper to soon follow, solar coronal mass ejections (CMEs) create shock waves that cause a warming and expansion of the upper atmosphere and trace amounts of nitric oxide, which cools it. (In the US, nitric oxide is classified as an extremely hazardous substance under the U.S. Emergency Planning and Community Right-to-Know Act of 1986).

The warming and cooling of the upper atmosphere is an issue that has not been fully explained and no doubt researchers on the issue look forward to the publication of the paper.

As a side note, in his testimony of February 2, 2016, John Christy avoided the issue of uncertainty as to the warming and cooling of the upper atmosphere by limiting his comparison of the performance of global climate models against data to 50,000 feet and below. A similar limitation in altitude appears in the August 2016 paper by Wallace, Christy, and D'Aleo.

AGU Mysteries – **Energy Flow:** Willis Eschenbach and Anthony Watts had an intriguing poster at AGU. Formally displayed posters have now become commonplace at such conventions due to the lack of time and space for formal presentations. Using satellite measured water vapor data from Remote Sensing Systems (RSS) for a 1°x1° gridded total precipitable water (TPW) dataset, the study estimated increase in dowelling longwave radiation from 1988 to 2015.

As expressed in TWTW for the past several weeks, the carbon dioxide warming theory expressed by the 1979 Charney report and accepted by the National Academy of Sciences has two components: a slight warming from CO2 and a more powerful warming from increased water vapor. Yet, the proposed warming of the atmosphere is not occurring after over 35 years, as shown in the work by Christy. The work by Eschenbach and Watts suggests that the expected increase in temperatures is not occurring because global climate is not nearly as sensitive to greenhouse gases as stated in the Charney report. Again, this lack of climate sensitivity to greenhouse gases brings into question EPA's finding that greenhouse gases, especially CO2, endanger public health and welfare – the EPA's endangerment finding.

Improving the SEPP Web Site – Table of Contents: To make the web site a more effective resource, we have drafted a Table of Contents (TOC) for the 6,000 plus links we have added over the past 6 years. Scientific, energy, and policy issues are emphasized. Strictly political issues are largely ignored.

TWTW readers have requested an index for the web site, but a TOC should address their concerns. It will be easier to establish and maintain, with changes made as needed.

To make adding links into the TOC as easy as possible, we designed a program with a scheme based on alphabetical ranking followed by numerical ranking.

For example, the 4 major categories are alphabetical 1) Climate Science; 2) Energy; 3) Policy; and 4) Politics. Then, under Climate Science we have: 1.1 Acid-Alkaline Waters; 1.2 Agriculture Issues and so on. This scheme may not appear to be as logical as order of importance, but it should save considerable man-hours in classifying links as well as adding future classifications.

The proposed Table of Contents for the Web Site can be found at: http://sepp.org/display_toc.cfm. Only the proposed TOC appears, with no instructions, etc.

Comments are most welcome.

Models or Data? On his web site statistician William Briggs asks an important question: Why use models or statistics when simple data will do? This question can apply to global climate models. The models are not performing well where they should be performing the best – in the atmosphere, where greenhouse gas warming should be occurring. The impact on the surface of this warming is secondary. Further, surface data are highly influenced by other human activities, poor siting, poor coverage, and questionable maintenance.

Political Games: President-elect Trump's appointments continue to shake the establishment. As mentioned above, parts of the Climate Establishment, that have not been disturbed by the disappearance of historic data and questionable modifications, fear that under Trump, the data will disappear. The appointment of Oklahoma Attorney General Pruitt for EPA Administrator is condemned by many, but Pruitt has adhered to the law when he has challenged EPA for overstepping its authority. Also, he has punished companies that broke the law.

Former Texas Governor Perry for head of the Department of Energy brings up other questions, such as his embrace of wind power. It is becoming increasingly evident in the UK, South Australia, and elsewhere, that the unreliability of wind brings a real hidden cost in the reliability of the energized grid, thus to consumers. As touched upon in the recent report on the South Australia blackout by the Australian Energy Market Operator, solar and wind have low inertia while heavy spinning systems such as turbines in coal-fired power plants have high inertia. The advantage with high inertia systems is that they maintain a given frequency in the grid, which is an energized system. Texas seems to have experienced problems on extremely cold nights when the wind does not blow.

The selection of Exxon President Rex Tillerson for Secretary of State brings up a host of objections, including his dealings with Russia. Also, he favored a carbon tax and questioned the work of those who questioned CO2-caused global warming. Yet, he has maintained a robust

intelligence unit at Exxon gathering hard data on economic conditions and trends in countries in which Exxon does business. OPEC Secretary-General Mohammad Barkindo said: "He's highly respected around the world, he's deeply knowledgeable." "There's a very thin line between oil, diplomacy and geopolitics." Also, Tillerson is respected by former Shell Oil President Hofmeister, an Exxon competitor. One should note that Exxon was not a major player in the shale revolution.

See links in three categories under After US Election, and under Energy Issues – Australia

92 Feet (28 meters) Under: As the Obama administration is preparing to depart, it seems to be venting a contempt for extraction industries. The out-going governor of North Dakota wrote about the Dakota Access pipeline:

"This particular pipe is state-of-the-art when it comes to safety. It will be buried 92 feet below the bottom of the Missouri River, it will be double the strength of pipe buried on land, and it will have sophisticated flow monitoring devices on both sides of the river with automatic shut-off valves."

Very simply, the political appointees in the Corps of Engineers have no basis in safety concerns for cancelling permits for a pipeline, the laying of which is 99.98% complete. Developed in the 1930s, horizontal directional drilling (HDD) in oil fields is a technique not generally used for other purposes until recent years with the development of mud motors, in the 70s and subsequent development of precision guidance systems (measurement while drilling (MWD)) in three-dimensional space. It is now widely used in urban areas for power, water, and sewer lines, etc.

No TWTW Next Week: With the Holidays, there will be no TWTW next week and there will be a brief one on the following week.

Number of the Week: 666. The new EPA report on the dangers of hydraulic fracturing to drinking water is 666 pages long, with a 50-page summary. The devil is in the details – there are none. The study presents no new data of hydraulic fracturing contaminating drinking water, beyond the issues discussed in the past. The issues are well controlled by state agencies. The report discusses "data gaps" preventing quantitative analysis. Yet, data is collected by state agencies and generally available on web sites. In the central issue of actual contamination, the report is almost as "data free" as the EPA endangerment finding.

Issues remain, such as treating and re-using fracking water with chemicals and sand, and treating and disposing of excess water, brine, from wells in certain areas such as Oklahoma. But this report is not particularly useful for these issues. See links under EPA and other Regulators on the March.

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TWTW has been accused of bias, and it is. It is more focused on what scientists can demonstrate by using evidence – hard data, and not so much on what they can think or speculate.

Thank you -- whether you celebrate Hanukkah, Christmas, or other holy days during this time, we wish you and your family happiness in this blessed season and a joyful new year.

Kenneth Haapala, President Science and Environmental Policy Project (SEPP)

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NEWS YOU CAN USE:

Science: Is the Sun Rising?

Researchers dial in to 'thermostat' in Earth's upper atmosphere

Press release, University of Colorado Boulder, Dec 14, 2016

http://www.colorado.edu/today/2016/12/14/researchers-dial-thermostat-earths-upper-atmosphere

Commentary: Is the Sun Rising?

Revealed: 'Natural thermostat' that cools the air in Earth's atmosphere during violent solar storms

By Libby Plummer, Mail Online, Dec 14, 2016

http://www.dailymail.co.uk/sciencetech/article-4034016/Natural-thermostat-cools-air-Earth-s-atmosphere-violent-solar-storms-revealed.html

[SEPP Comment: Solar pollution?]

Current Solar Cycle Weakest In 2 Centuries! And Grant Foster's "Far-Fetched" Model Claims

The Sun in November 2016. And models coming back to reality

By Frank Bosse and Fritz Vahrenholt (Translated/edited by P Gosselin), No Tricks Zone, Dec 16, 2016

http://notrickszone.com/2016/12/16/current-solar-cycle-weakest-in-2-centuries-and-grant-fosters-far-fetched-model-claims/#sthash.WVYDMF5I.dpbs

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

http://climatechangereconsidered.org/

Download with no charge

https://www.heartland.org/policy-documents/why-scientists-disagree-about-global-warming

Climate Change Reconsidered II: Physical Science

Idso, Carter, and Singer, Lead Authors/Editors, 2013

https://www.heartland.org/media-library/pdfs/CCR-II/CCR-II-Full.pdf

Summary: http://www.nipccreport.org/reports/ccr2a/pdf/Summary-for-Policymakers.pdf

Climate Change Reconsidered II: Biological Impacts

Idso, Idso, Carter, and Singer, Lead Authors/Editors, 2014

http://www.nipccreport.org/reports/ccr2b/pdf/Full-Report.pdf

Summary: https://www.heartland.org/media-library/pdfs/CCR-IIb/Summary-for-Policymakers.pdf

Challenging the Orthodoxy

Prepared Testimony to House Committee on Science, Space & Technology

By John Christy, UAH, Feb 2, 2016

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

On the Existence of a "Tropical Hotspot" & The Validity of EPA's CO2 Endangerment Finding

By Wallace, Christy, and D'Aleo, Independent Researchers, August 2016

 $\underline{https://thsresearch.files.wordpress.com/2016/10/ef-cpp-sc-2016-data-ths-paper-ex-sum-101416.pdf}$

Challenging climate sensitivity: 'Observational Quantification of Water Vapor Radiative Forcing' #AGU16 presentation

By Willis Eschenbach and Anthony Watts. WUWT, Dec 14, 2016

https://wattsupwiththat.com/2016/12/14/challenging-climate-sensitivity-observational-quantification-of-water-vapor-radiative-forcing-our-agu16-presentation/

Remember when peat bogs were going to release deadly carbon? Never mind.

By Anthony Watts, WUWT, Dec 13, 2016

https://wattsupwiththat.com/2016/12/13/remember-when-peat-bogs-were-going-to-release-deadly-carbon-never-mind/

Defending the Orthodoxy

Trump's Choice on Climate Change

By Stephen Cheney, Retired brigadier general in the US Marine Corps, is CEO of the American Security Project, Project Syndicate, Dec 12, 2016

https://www.project-syndicate.org/commentary/trump-climate-change-security-risk-by-stephen-cheney-2016-12

[SEPP Comment: Where is the physical evidence that CO2 is the primary cause of global warming/climate change? The pentagon reports give none.]

Questioning the Orthodoxy

Don't Use Statistical Models (When You Don't Have To. Which Is Nearly Always)

By William Briggs, His Blog, Dec 13, 2016

http://wmbriggs.com/post/20256/

"The data are reality. The model is fantasy. Why substitute fantasy for reality?"

The Impending Collapse Of The Global Warming Scare

By Francis Menton, Manhattan Contrarian, Dec 14, 2016 [H/t GWPF] http://manhattancontrarian.com/blog/2016/12/13/some-predictions-for-the-future-in-the-climate-game

The Social Cost of Carbon

By John Constable: GWPF Energy Editor, GWPF, Dec 17, 2016 http://www.thegwpf.com/the-social-cost-of-carbon/

The Non-Expert Problem and Climate Change Science

By Scott Adams, (Creator of Dilbert), His Blog, Dec 5, 2016 [H/t WUWT] http://blog.dilbert.com/post/154082416051/the-non-expert-problem-and-climate-change-science [SEPP Comment: The comments by Steve McIntyre are valuable. "In my experience, more 'skeptics' are born from poor conduct by climate scientists than from the eloquence of earlier skeptics." See https://wattsupwiththat.com/2016/12/06/quote-of-the-week-mcintyres-comment-to-dilbert-creator-scott-adams-on-climate-experts/

The latest climate 'conspiracy theory'

By Judith Curry, Climate Etc. Dec 15, 2016

https://judithcurry.com/2016/12/15/the-latest-climate-conspiracy-theory/#more-22599

You Ought to Have a Look: How-to Guides to Undoing the Climate Action Plan, Fixing the National Flood Insurance Program, and Killing Mosquitoes

By Patrick J. Michaels and Paul C. "Chip" Knappenberger, CATO, Dec 14, 2016 https://www.cato.org/blog/you-ought-have-look-how-guides-undoing-climate-action-plan-fixing-national-flood-insurance

After US Election -- Opposed

It's up to scientists to call Trump out if he tramples on evidence, Obama official says

As Nasa's Earth science programmes are in the firing line, scientists protest against burying evidence.

By Martha Henriques, IBD Times, UK, Dec 15, 2016

http://www.ibtimes.co.uk/its-scientists-call-trump-out-if-he-tramples-evidence-obama-official-says-1596650

"Sally Jewell, the outgoing secretary of the interior, said at a meeting of the American Geophysical Union in San Francisco that science had been "foundational" to all parts of public policy under the Obama Administration."

[SEPP Comment: Where is the evidence for the endangerment finding? See links under EPA and other Regulators on the March for the Interior Department's latest efforts to stop mining without evidence of harm.]

These are the climate myths guiding Trump's EPA team

By Chelsea Harvey, Washington Post, Dec 13, 2016

https://www.washingtonpost.com/news/energy-environment/wp/2016/12/13/these-are-the-climate-myths-guiding-trumps-epa-team/?utm_source=rss_energy-environment&utm_term=.3c39a6ab6bfe

A 'Sense Of Panic' Over Trump Consumes Climate Science Summit

By Michael Bastasch, Daily Caller, Dec 13, 2016

 $\underline{http://dailycaller.com/2016/12/13/a-sense-of-panic-over-trump-consumes-climate-science-summit/}$

[SEPP Comment: Special session added to AGU agenda!]

Trump falsely claims that nobody knows if global warming is real

By Maria Gallucci, Mashable, Dec 11, 2016

https://www.yahoo.com/news/trump-falsely-claims-nobody-knows-011747403.html

#standupforscience rally at #AGU16 – another Manntastic production

By Anthony Watts, WUWT, Dec 13, 2016

 $\underline{https://wattsupwiththat.com/2016/12/13/standupforscience-rally-at-agu16-another-manntastic-production/}$

After US Election -- Neutral

U.S. Energy Dept balks at Trump request for names on climate change

By David Shepardson, CNBC, Dec 13, 2016

http://www.cnbc.com/2016/12/13/reuters-america-us-energy-dept-balks-at-trump-request-fornames-on-climate-change.html

On Climate Change, Who Will Censure the Censors?

By Megan McArdle, Bloomberg, Dec 15, 2016 [H/t Timothy Wise]

 $\underline{https://www.bloomberg.com/view/articles/2016-12-15/on-climate-change-who-will-censure-the-censors}$

[SEPP Comment: To the writer, both government workers and "deniers" deserve the same protection.]

DOE-designate Perry's Windy Past

By Robert Bradley Jr., Master Resource, Dec 14, 2016

 $\underline{https://www.masterresource.org/perry-rick-texas-gov/doe-secretary-elects-windy-past-texas-post-enron-wind-welfare-queen/}$

Trump's Secretary of State Pick Gets Climate Change

Editorial, Bloomberg, Dec 14, 2016

 $\underline{https://www.bloomberg.com/view/articles/2016-12-14/trump-s-tillerson-pick-has-right-view-on-climate}$

Exxon shifted on climate change under Trump pick

By Timothy Cama, The Hill, Dec 16, 2016

 $\underline{http://thehill.com/policy/energy-environment/310647-exxon-shifted-on-climate-change-undertrump-pick}$

Five ways Trump could unwind Obama's environmental policies

By Timothy Cama, The Hill, Dec 17, 2016

http://thehill.com/policy/energy-environment/310822-five-ways-trump-could-unwind-obamas-environmental-policies

How Climate Rules Might Fade Away

Obama used an arcane number to craft his regulations. Trump could use it to undo them By Matthew Philips, Mark Drajem, and Jennifer A Dlouhy, Bloomberg, Dec 15, 2016 https://www.bloomberg.com/news/articles/2016-12-15/how-climate-rules-might-fade-away [SEPP Comment: Ignoring the elephant in the room: the lack of data supporting the models used to make the projections.]

Trump Picks Exxon Mobil's Tillerson as Secretary of State

By Jennifer Jacobs, Nick Wadhams, and Ben Brody, Bloomberg, Dec 12, 2016 https://www.bloomberg.com/politics/articles/2016-12-13/trump-said-to-pick-exxon-mobil-stillerson-as-secretary-of-state

After US Election -- Favorable

Fossil Fuel Energy Development: The Trump Administration's Priority

By Alan Carlin, Carlin Economics and Science, Dec 15, 2016 http://www.carlineconomics.com/archives/3246

Scott Pruitt Is The Ideal Nominee to Lead the EPA

By Donald R. van der Vaart, Real Clear Energy, Dec 15, 2016

http://www.realclearenergy.org/articles/2016/12/15/scott pruitt is the ideal nominee to lead the e epa 110146.html

[SEPP Comment: By Secretary of the N.C. Department of Environmental Quality who was considered on the short list for the position.]

Shifting sands of the climate debate

By Judith Curry, Climate Etc. Dec 12, 2016

https://judithcurry.com/2016/12/12/shifting-sands-of-the-climate-debate/

"Insiders are out; and outsiders are becoming the insiders."

"I expect that climate and energy policy will be a winner in the Trump administration relative to the Obama administration. Any solutions will come from innovations in the private sector and state and local governments — not from federal decrees or U.N. proclamations."

The Media Still Don't Get Trump

The public doesn't care about what obsesses pundits—and the president-elect knows it. By Jason Riley, WSJ, Via The Hockey Schtick, Dec 13, 2016

http://hockeyschtick.blogspot.com/2016/12/wsj-media-still-dont-get-trump.html

Tillerson's Foreign Prowess Said Aided by Exxon Intelligence Arm

By Joe Carroll, Blomberg, Dec 15, 2016

 $\underline{https://www.bloomberg.com/news/articles/2016-12-15/tillerson-s-foreign-prowess-said-aided-by-exxon-intelligence-arm}$

[SEPP Comment: Video of former Shell Oil president Hofmeister on Tillerson The US has energy plan.]

Review of Recent Scientific Articles by CO2 Science

Five Decades of Wind-Induced Erosion within Chinese Drylands

Yang, F. and Lu, C. 2016. Assessing changes in wind erosion climatic erosivity in China's dryland region during 1961-2012. Dec 1, 2016

http://www.co2science.org/articles/V19/dec/a9.php

"Continuing, Yang and Lu write that 'wind speed was the most sensitive and determinant factor of climatic erosivity,' and that 'the regional mean wind speed was decreased by 24.4% during 1961-2012,' which decline 'reduced the erosivity by 58.2%.' And that's a climate change that most people would likely consider to be *extremely* positive."

Late-Holocene Solar Variability and Its Impact on Climate in Korea

Chae, I. and Park, J. 2016. Climate change and human activities over the past millennium at Mt. Jeombong, central-eastern Korea. *Geosciences Journal* **20**: 477-484. Dec 14, 2016 http://www.co2science.org/articles/V19/dec/a8.php

"The two Korean researchers report that the Jeombong pollen records demonstrate the existence of both the warm Medieval Climate Anomaly and the much colder Little Ice Age, which they make a point of noting 'are two well-known centennial climate shifts that were primarily caused by solar variability."

Potential Effects of Diel-Cycling Hypoxia and pH on Oyster Growth [Daily changes]

Keppel, A.G., Breitburg, D.L. and Burrell, R.B. 2016. Effects of Co-Varying Diel-Cycling Hypoxia and pH on Growth in the Juvenile Eastern Oyster, *Crassostrea virginica*. *PLOS ONE* | DOI:10.1371/journal.pone.0161088. Dec 12, 2016

http://www.co2science.org/articles/V19/dec/a6.php

"'juvenile oysters have [1] an ability to acclimate to, and [2] ultimately compensate for, the negative effects of hypoxia on growth, as well as [3] an ability under some circumstances to withstand exposure to co-varying cycling hypoxia as low as 0.5 mg/liter and [4] pH as low as 7.0 without reductions in growth."

Models v. Observations

Why do climate models disagree on the size of global temperature variability?

Dr. Patrick T. Brown's Personal Website, Dec 5, 2016 [H/t Climate Etc.]

 $\underline{https://patricktbrown.org/2016/12/05/why-do-climate-models-disagree-on-the-size-of-global-temperature-variability/}$

[SEPP Comment: The major issue not discussed is that global mean surface-air temperature (GMST) is taken slightly above ground level, not in the atmosphere where CO2-caused warming is theorized to occur, and where it is not occurring as theorized by climate modelers.]

Another New Paper Reveals No Discernible Human Influence On Global Ocean Temperatures, Climate

By Kenneth Richard, No Tricks Zone, Dec 12, 2016

http://notrickszone.com/2016/12/12/another-new-paper-reveals-no-discernible-human-or-co2-influence-on-global-ocean-temperatures-climate/#sthash.P4IL3K69.dpbs

Measurement Issues -- Atmosphere

New Location for UAH Version 6 Text Files

By Roy Spencer, UAH, Dec 13, 2016

http://www.drroyspencer.com/2016/12/new-location-for-uah-version-6-text-files/

Changing Weather

Even with warm 2016/17 winter, US 20+ year trends are still down

By Joseph D'Aleo, CCM, AMS Fellow, ICECAP, Dec 14, 2016

http://icecap.us/index.php/go/joes-

blog/even with warm 2016 17 winter us 20 year trends are still down/

On the Decrease of Hot Days in the US

By Turbulent Eddie, Climate Etc. Dec 16, 2016

https://judithcurry.com/2016/12/16/on-the-decrease-of-hot-days-in-the-us/

Changing Climate

Ancient climate change at #AGU16 – Atacama Desert may have harbored lakes, wetlands By Anthony Watts, WUWT, Dec 15, 2016

https://wattsupwiththat.com/2016/12/15/ancient-climate-change-at-agu16-atacama-desert-may-have-harbored-lakes-wetlands/

Changing Seas

A Summary of Meehl, et al., 2016 and the Interdecadal Pacific Oscillation

By Andy May, WUWT, Dec 12, 2016

https://wattsupwiththat.com/2016/12/12/a-summary-of-meehl-et-al-2016-and-the-interdecadal-pacific-oscillation/

Prof Peter Ridd, bleaching is not new, like coral spawning, we just discovered it the 1980s By Jo Nova, Her Blog, Dec 10, 2016

http://joannenova.com.au/2016/12/prof-peter-ridd-bleaching-is-not-new-like-coral-spawning-wejust-discovered-it-the-1980s/

New studies take a second look at coral bleaching culprit

By Staff Writers, Cape Cod MA (SPX), Dec 13, 2016

http://www.terradaily.com/reports/New_studies_take_a_second_look_at_coral_bleaching_culprit_999.html

Link to paper: Species-specific control of external superoxide levels by the coral holobiont during a natural bleaching event

By Julia M. Diazk, et al. Nature Communications, Dec 7, 2016

http://www.nature.com/articles/ncomms13801

"...excessive production of superoxide within the coral tissue can cause the loss of symbiotic algae living inside the coral."

What caused the 2011 mass oyster die-off in California?

The consequences of atmospheric rivers may be dramatic for wild oyster populations.

By Léa Surugue, IBT, Dec 14, 2016 [H/t Clyde Spencer]

http://www.ibtimes.co.uk/what-caused-2011-mass-oyster-die-off-california-

1596324?utm_source=yahoo&utm_medium=referral&utm_campaign=rss&utm_content=/rss/yahoous/news&yptr=yahoo

Link to paper: Atmospheric rivers and the mass mortality of wild oysters: insight into an extreme future?

By Cheng, Chang, Deck, and Ferner, Proceedings of the Royal Society B, Dec 14, 2016 http://rspb.royalsocietypublishing.org/content/283/1844/20161462

"Climate change is predicted to increase the frequency and severity of extreme events." [SEPP Comment: Roger Pielke Jr. showed that the predictions are not bearing out. The die-off was from change in salinity not temperature.]

Changing Cryosphere – Land / Sea Ice

Arctic temperatures have hit levels that haven't been seen for thousands of years

By Ian Johnston, The Independent, Dec 14, 2016

http://www.businessinsider.com/arctic-temperatures-have-hit-levels-that-havent-been-seen-for-thousands-of-years-2016-12

The report found the average annual air temperature over land areas was the "highest in the observational record" at 3.5C above 1900. Sea ice levels also fell to the lowest since satellite records began in 1979.

[SEPP Comment: Perhaps NOAA will reveal the locations of the thermometers throughout the Arctic in 1900.]

Hottest Arctic Hype

By Paul Homewood, Not a Lot of People Know That, Dec 16, 2016 https://notalotofpeopleknowthat.wordpress.com/2016/12/16/hottest-arctic-hype/ [SEPP Comment: Warmer than usual temperatures, well below freezing, is no reason to go sunbathing there.]

Inside the Arctic's 'unprecedented' report card

By Joshua Rhett Miller, New York Post, Dec 13, 2016 [H/t Clyde Spencer] http://nypost.com/2016/12/13/the-arctic-got-its-annual-report-card-and-its-really-bad/

Scientists: Greenland Is Now Much Colder With More Advanced Ice Sheet Margins Than 90% Of The Last 7,500 Years

By Kenneth Richard, No Tricks Zone, Dec 15, 2016

http://notrickszone.com/2016/12/15/scientists-greenland-is-now-much-colder-with-more-advanced-ice-sheet-margins-than-90-of-the-last-7500-years/#sthash.PGxUm5x7.dpbs

Climate Change causes more snow and ice on Greenland

By Jo Nova, Her Blog, Dec 16, 2016

http://joannenova.com.au/2016/12/climate-change-causes-more-snow-and-ice-ongreenland/#more-52255

Most of Greenland Ice Melted to Bedrock in Recent Geologic Past, Study Says

By Staff Writers, Lamont-Doherry Earth Observatory, Dec 7, 2016

 $\underline{http://www.ldeo.columbia.edu/news-events/most-greenland-ice-melted-bedrock-recent-geologic-past-study-says}$

"Finding Suggests the Ice Sheet Is More Vulnerable than Thought"

[SEPP Comment: Depends on who did the thinking!]

Antarctic Sea Ice Retreats Due To Wind Patterns

By Paul Homewood, Not a Lot of People Know That, Dec 14, 2016 https://notalotofpeopleknowthat.wordpress.com/2016/12/14/antarctic-sea-ice-retreats-due-to-wind-patterns/

Mysterious "crater" in Antarctica has ominous cause

By Stephanie Pappas, CBS News, Dec 14, 2016 [H/t Clyde Spencer]

http://www.cbsnews.com/news/mysterious-crater-in-antarctica-has-ominous-cause/

[SEPP Comment: What is meant by stating a moulin demonstrates East Antarctic ice is "vulnerable"?]

Lowering Standards

Gavin Caught Cheating Again

By Paul Homewood, Not a Lot of People Know That, Dec 13, 2016

https://notalotofpeopleknowthat.wordpress.com/2016/12/13/gavin-caught-cheating-again/

Five Years of GISS Cheating (Dec 17, 2016)

https://notalotofpeopleknowthat.wordpress.com/2016/12/17/five-years-of-giss-cheating/

"Since October, he has increased global land temperatures for recent years by up to 0.03C, whilst lowering many years prior to 1970."

Use and abuse of climate simulations

By Andrew Montford, Bishop Hill, Dec 12, 2016

http://bishophill.squarespace.com/blog/2016/12/12/use-and-abuse-of-climate-simulations.html [SEPP Comment: Announcing a talk by Gavin Schmidt, director of NASA-GISS, who "was the inaugural winner of the American Geophysical Union's Climate Communication Prize in 2011" after he invented the concept that CO2 was "the control knob of the earth's temperatures." – subprime science.]

NYT Blames Winter Chill on Global Warming

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

https://wattsupwiththat.com/2016/12/16/nyt-blames-winter-chill-on-global-warming/

"How much more of this global warming driven extreme cold can we take?"

Communicating Better to the Public - Make things up.

During last warming period, Antarctica heated up 2 to 3 times more than planet average By Staff Writer, Scienmag, Dec 5, 2016

http://scienmag.com/during-last-warming-period-antarctica-heated-up-2-to-3-times-more-than-planet-average/

"The calculations are in line with estimates from most climate models, proving that these models do a good job of estimating past climatic conditions and, very likely, future conditions in an era of climate change and global warming."

[SEPP Comment: False! The models do not predict atmospheric temperatures well.]

Questioning European Green

£300 Billion: The Cost of the Climate Change Act (UK)

By Peter Lilley, MP, GWPF, Dec 11, 2016 [Press Release]

http://www.thegwpf.com/report-reveals-300-billion-cost-of-britains-climate-change-act/Link to report: http://www.thegwpf.org/content/uploads/2016/12/CCACost-Dec16.pdf

Matt Ridley: Climate Change Act Has Cost Us The Earth

By Matt Ridley, The Times, Via GWPF, Dec 12, 2016

http://www.thegwpf.com/matt-ridley-climate-change-act-has-cost-us-the-earth/

How NOT to Regulate Pesticides: EU, Canada Lessons for Trump (Part II)

By Paul Driessen, Master Resource, Dec 16, 2016

https://www.masterresource.org/pesticide-regulation/not-regulate-pesticides-ii/

"Seek solutions that balance the interests of agricultural producers, consumers, and the environment, since one side of an argument rarely has a monopoly on merit."

Funding Issues

Energy innovation is focus of Gates-led \$1 billion fund

By Staff Writers, Miami (AFP), Dec 12, 2016

http://www.energy-daily.com/reports/Energy innovation is focus of Gates-

led 1 billion fund 999.html

[SEPP Comment: That should have been the focus of tens of billions of government expenditures in wind and solar subsidies.]

Foreign Aid Officials Lose Track Of £274m Climate Fund Handout

By Dominic Kennedy, The Times, Via GWPF, Dec 12, 2016

http://www.thegwpf.com/foreign-aid-officials-lose-track-of-274m-climate-fund-handout/

[SEPP Comment: Would Bill Gates let UK officials get away with that?]

EPA and other Regulators on the March

EPA Releases Final Report on Impacts from Hydraulic Fracturing Activities on Drinking Water

EPA's report concludes that hydraulic fracturing activities can impact drinking water resources under some circumstances and identifies factors that influence these impacts

Press Release, EPA, Dec 13, 2016

https://www.epa.gov/newsreleases/epa-releases-final-report-impacts-hydraulic-fracturing-activities-drinking-water

Link to report: Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States (Final Report)

By Staff Writers, EPA, Dec 2016

https://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=332990

[666 Pages – executive summary of 50 pp]

Wastewater – excess water from wells or injection fluids

EPA's final fracking report re-writes takeaways

After outside review, conclusions are a little more cautious.

By Scott Johnson, Ars Technica, Dec 14, 2016

http://arstechnica.com/science/2016/12/epas-final-fracking-report-re-writes-takeaways/

[SEPP Comment: Useful map of areas of hydraulic fracturing.]

Did EPA Really 'Reverse' Its Stance On Fracking? No

By Michael Bastasch, Daily Caller, Dec 14, 2016

http://dailycaller.com/2016/12/14/did-epa-really-reverse-its-stance-on-fracking-no/

"So that's what EPA did. Officials changed the language in their report to highlight that fracking can impact drinking water — something they found in their draft report — but "data gaps" prevent any sort of quantitative analysis."

No, The EPA Has Not Actually Changed Its Conclusion On Risks Of Fracking To Drinking Water

By Robert Rapier, Forbes, Dec 15, 2016 [H/t Cooler Heads]

http://www.forbes.com/sites/rrapier/2016/12/15/yes-direct-injection-of-fracking-fluid-into-groundwater-causes-contamination/#11586a0c7470

Feds block northern Minnesota mining project

By Devin Henry, The Hill, Dec 15, 2016

http://thehill.com/policy/energy-environment/310554-feds-block-northern-minnesota-mining-project

Energy Issues – Non-US

OPEC Deal Can Work, But 'We Tend to Cheat,' Al-Naimi Says [former Saudi Arabia Oil Minister]

By Catherine Traywick, Bloomberg, Dec 2, 2016

 $\underline{https://www.bloomberg.com/news/articles/2016-12-02/opec-deal-can-work-but-we-tend-to-cheat-al-naimi-says}$

The Saudis Vs Shale

By Editors, Real Clear Energy, Dec 15, 2016

http://www.realclearenergy.org/charticles/2016/12/15/saudis vs shale 110145.html

Graphs of Saudi budget surplus/deficit as a percentage of GDP & Economic growth

OPEC's Oil Production Cuts Pressure U.S. Shale

By Jude Clemente, Forbes, Dec 11, 2016

 $\underline{\text{http://www.forbes.com/sites/judeclemente/2016/12/11/opecs-oil-production-cuts-pressure-u-s-shale/\#5f3dbf5c71d7}$

Britain facing energy crisis that could see families pay extra to keep the lights on while neighbours 'sit in the dark

By Peter Dominiczak, Telegraph, UK, Dec 12, 2016

http://www.telegraph.co.uk/news/2016/12/11/britain-facing-energy-crisis-could-could-see-families-pay-extra/

[SEPP Comment: From a senior executive of UK's Ofgem, the Office of Electricity Regulation and Gas Supply. Has reliability becomes a luxury?]

Hot air: Bombshell report shows green levies backed by government will cost the economy £319bn by 2030

By David Rose, Sunday Mail, UK, Dec 11, 2016 [H/t GWPF]

http://www.dailymail.co.uk/news/article-4021200/Hot-air-Bombshell-report-shows-green-levies-backed-government-cost-economy-319bn-2030.html

Energy Issues – Australia

AEMO's third report highlights wind power link to South Australia blackout

By Charis Chang, News.com, AU, Dec 12, 2016 [H/t GWPF]

http://www.news.com.au/technology/environment/aemos-third-report-highlights-wind-power-link-to-south-australia-blackout/news-story/2bbf105bc613f70966659465043633b0

Link to report: AEMO publishes preliminary recommendations following the South Australian state-wide power outage

By Staff Writers, AEMO, Australian Energy Market Operator, Dec 12, 2016

http://www.aemo.com.au/Media-Centre/AEMO-publishes-preliminary-recommendations-following-the-South-Australian-state-wide-power-outage

South Australia blackout: renewables don't cope with rapid change report finds

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

 $\underline{https://notalotofpeopleknowthat.wordpress.com/2016/12/16/south-australia-blackout-renewables-dont-cope-with-rapid-change-report-finds/}$

"renewable power sources cannot cope with rapid or large changes in frequency, leading ultimately to a "'black system".

"'Finding new ways to provide inertia and respond to frequency changes is where work is required,' AEMC chairman John Pierce said."

Energy Issues -- US

Dakota Access pipeline: Mob rule triumphed over law and common sense

Misinformed environmental activists and paid agitators forced a weak-kneed Army Corps to postpone the project.

By Jack Dalrymple, Governor of North Dakota, Star Tribune, Dec 15, 2016

 $\underline{\text{http://www.startribune.com/dakota-access-pipeline-mob-rule-triumphed-over-law-and-common-sense/} 406939436/$

Dakota and the Pipeline Abyss

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

https://dddusmma.wordpress.com/2016/12/16/dakota-and-the-pipeline-abyss/

"The *Climate Disobedience Action Fund* temporarily shut down five other pipelines in support of the group protesting the Dakota Access pipeline."

Washington's Control of Energy

Dakota Pipeline Developers Lose \$20 Million Per Day On Rejected Project

By Chris White, Daily Caller, Dec 11, 2016

http://dailycaller.com/2016/12/11/dakota-pipeline-developers-lose-20-million-per-day-on-rejected-project/

Five People Could Block Trump's Pipeline Promises

By Catherine Traywick, Bloomberg, Dec 12, 2016

https://www.bloomberg.com/news/articles/2016-12-13/trump-s-pipeline-promises-at-the-mercy-of-hard-to-change-agency

Oil and Natural Gas – the Future or the Past?

Canada's oil exports would be dead without US shale

By Omar Mawji, OilPrice.com, Dec 14, 2016

http://www.businessinsider.com/canadas-oil-exports-are-dead-without-us-shale-production-2016-12?r=UK&IR=T

[SEPP Comment: Blending light oil from shale or oil condensates allows heavy crude, "syrup," from Canada and "peanut butter," from oil sands to flow.]

SEDD Completes Challenging Gas Pipeline Crossing Under Hudson River

By Staff Writers, Pipeline & Gas Journal, July 2016

https://pgjonline.com/2016/07/01/sedd-completes-challenging-gas-pipeline-crossing-under-hudson-river/

Oil Spills, Gas Leaks, Excess Water, Earth Tremors & Consequences

New Ways to Clean Up Oil Fields Without Dumping Wastewater

Experimenting with techniques from desalination to inductive evaporation.

By David Wethe, Bloomberg, Dec 9, 2016

 $\underline{https://www.bloomberg.com/news/articles/2016-12-09/new-ways-to-clean-up-oil-fields-without-dumping-waste \underline{water}$

Nuclear Energy and Fears

Small reactors for heat and power in Russia

By Staff Writers, WNN, Dec 12, 2016

http://www.world-nuclear-news.org/NN-Small-reactors-for-heat-and-power-in-Russia-1212161.html

Palisades to close in 2018 [Michigan]

By Staff Writers, WNN, Dec 9, 2016

http://www.world-nuclear-news.org/C-Palisades-to-close-in-2018-0912168.html

Alternative, Green ("Clean") Solar and Wind

It's Easy Being Green

By John Hinderaker, Power Line, Dec 14, 2016

http://www.powerlineblog.com/archives/2016/12/its-easy-being-green.php

Final wind-turbine rule permits thousands of eagle deaths

By Matthew Daly, AP, Dec 14, 2016

 $\underline{\text{http://bigstory.ap.org/article/b8dd6050c702467e8be4b1272a3adc87/final-wind-energy-rule-permits-thousands-eagle-deaths}$

Solar power on the island of Ta'u, a preliminary appraisal

By Roger Andrews, Energy Matters, Dec 15, 2016

http://euanmearns.com/solar-power-on-the-island-of-tau-a-preliminary-appraisal/#more-15914

"Ta'u is the latest entrant in the growing field of "100% renewables" projects, and this brief appraisal suggests that it probably has a better chance of succeeding than some of the other projects that have been marketed under this mantra. The key, however, is whether the smart grid can be made to work with 100% solar generation and zero diesel backup.

"Now \$14.6 million may be too high and \$8 million may be really what the project cost, although it still seems a little on the low side. But even if \$8 million is the right number it still works out to \$10,000 (or almost one year's GDP) for each of the island's 790 residents.."

The Glenmuckloch Pumped Storage Hydro Scheme

By Euan Mearns, Energy Matters, Dec 12, 2016

http://euanmearns.com/the-glenmuckloch-pumped-storage-hydro-scheme/#more-16072

[SEPP Comment: An excellent and much needed analysis. Pumped storage hydro is a proven technology for "peak shaving" — meeting daily peak demand. But if renewables, such as wind, are doing the pumping, the real question is: does the reservoir have sufficient capacity to provide power over long periods when winds falter? The analysis uses 90% efficiency for pumped storage, whereas SEPP is more comfortable with 75% efficiency.]

Alternative, Green ("Clean") Vehicles

Pushing the Green Car Agenda

By Donn Dears, Power For USA, Dec 13, 2016

https://dddusmma.wordpress.com/2016/12/13/pushing-the-green-car-agenda/

[SEPP Comment: Requiring more expensive cars for the working man – a far cry from Henry Ford's goal!]

California Dreaming

Jerry Brown: California 'ready to fight' Trump on climate change

By Jennifer Calfas, The Hill, Dec 15, 2016

http://thehill.com/blogs/blog-briefing-room/news/310512-california-gov-were-ready-to-fight-trump-on-climate-change

"'If Trump turns off the satellites, California will launch its own damn satellite,' Brown said."

Other Scientific News

Vacuum QED effects detected around Neutron Stars?

By Nir Shaviv, Science Bits, Dec 10, 2016

http://sciencebits.com/vacuum birefringence

Other News that May Be of Interest

Life Expectancy for Americans Drops for First Time Since 1993

By Erik Lief, ACHS, Dec 12, 2016

http://acsh.org/news/2016/12/12/life-expectancy-americans-drops-first-time-1993-10574

BELOW THE BOTTOM LINE:

Can jet engines clean up Delhi's foul air?

By Soutik Biswas, BBC News, Dec 13, 2016

http://www.bbc.com/news/world-asia-india-38285567

[SEPP Comment: To blow a hole through a thermal inversion?]

Past Potty Predictions that have Passed Away!

By Geoff Brown, Australian Climate Sceptics, Dec 14, 2016

http://theclimatescepticsparty.blogspot.com.au/2016/12/past-potty-predictions-that-have-passed.html

Monsoons decrease & Monsoons increase

By Staff Writers, Climate Change Predictions.org, Dec 14, 2016

http://climatechangepredictions.org/uncategorized/7517

http://climatechangepredictions.org/uncategorized/7515

We have presented evidence from observations that the equatorial Indian Ocean has warmed by about 0.6 to 0.8K during 1950 to 2002, accompanied by a dramatic weakening of the summertime SST gradient in the NIO.

In the model, the weakening of the meridional NIO_SST gradient leads to a large decrease in Indian rainfall during summer months, ranging from 2 to 3 mm per day. Reduction in the NIO_SST gradient basically weakens the model monsoonal circulation and shifts model rainfall from India to sub-Saharan Africa.

<u>Chul Eddy Chung and V. Ramanahan, American Meteorological Society, Journal of Climate, Vol19 Issue 10 (May 2006)</u>

Despite weakening of the dynamical monsoon circulation, atmospheric buildup due to increased greenhouse gases and consequent temperature increase results in a larger moisture flux and more precipitation for the Indian monsoon. (Douville et al 2000, IPCC 2001, Ashrit et al 2003, Meehl and Arblaster 2003, May 2004, Ashrit et al 2005) IPCC: Climate Change 2007: Working Group 1: The Physical Science Basis 10.3.5.2 Monsoons

ARTICLES:

1. In Oil Face-Off, Saudis, Shale Both Claim Victory

Both sides look to take advantage of higher prices
By Benoit Faucon, Alison Sider and Georgi Kantchev, WSJ, Dec 15, 2016
http://www.wsj.com/articles/in-oil-face-off-saudis-shale-both-claim-victory-1481803202

[SEPP Comment: The battle was costly, but the consumer, standing on the sidelines, was the clear winner, though not recognized by the authors.]

SUMMARY: The authors write:

"A two-year battle for global oil supremacy that pit Saudi Arabia, head of the powerful oil cartel, against upstart U.S. shale producers left them both badly wounded but with each side claiming victory.

"The Organization of the Petroleum Exporting Countries deal last month to cut oil production has sparked a powerful rally after crude prices had fallen in half over the past two years. That slide followed OPEC's decision in late 2014 to maintain production levels, despite a global glut.

"For U.S. shale companies, it was two years of shrinking profits and mass layoffs as dozens of producers scaled back output or sought bankruptcy protection. But the survivors became much more efficient and are now eager to grab market share at their foreign competitors' expense.

"'Definitely, the U.S. is going to win the next two years because OPEC is cutting and U.S. shale is taking off,' said Scott Sheffield, chief executive of <u>Pioneer Natural Resources</u> Co., a U.S. producer that is already ramping up drilling in the Permian Basin.

"In Saudi Arabia, two years of lower oil prices have greatly slowed economic growth, widened a budget gap and led the government to slash fuel and other popular subsidies in moves that risked stirring public discontent.

"Yet the collapse in crude prices didn't stop OPEC from gaining global market share as shale retreated. It also helped jump-start the kingdom's plans to move away from a decades long

dependency on oil. Saudi Arabia raised a record \$17.5 billion with its first global bond deal in October."

The budgetary losses for Saudi Arabia are significant – from a surplus of over 10% of GDP in 2011 to a deficit of over 10% in 2016 and an economic growth of 10% in 2011 to less than 2% in 2016 (for graphs see link under Energy Issues – Non-US).

2. Companies Should Report Possible Climate Costs, Say Global Executives

The information should routinely appear in financial statements, according to recommendations to be presented to G-20 leaders

By Jason Douglas, WSJ, Dec 14, 2016

http://www.wsj.com/articles/companies-should-report-possible-climate-costs-say-global-executives-1481716801

[SEPP Comment: Michael Bloomberg and Mark Carney of the Bank of England are showing their climate alarmism. Speculating on top of speculation.]

SUMMARY: The author writes:

"Companies should publish an assessment of the losses they could suffer through climate change as part of their routine financial statements, according to a panel of financial and business executives chaired by Michael Bloomberg.

"The Task Force on Climate-related Financial Disclosures, headed by the former New York City Mayor, in a report Wednesday said that greenhouse gas emissions pose a serious risk to the global economy and investors need better information to assess which firms are most vulnerable to shifting weather patterns and related threats.

"'What gets measured better gets managed better,' Mr. Bloomberg said in a letter to Mark Carney, governor of the Bank of England and chairman of the Financial Stability Board, a group of global regulators, which commissioned the 73-page report.

The call for greater transparency over climate-related risks is part of a wider push to prod companies to disclose more climate-related information, a contentious effort that implies such issues are material to a company's performance.

It also comes amid heightened uncertainty over the future of efforts to cut carbon emissions following President-elect Donald Trump's victory in the U.S. presidential election in November. Mr. Trump has pledged to dismantle the Obama administration's climate agenda and chose a global-warming skeptic to lead the U.S. Environmental Protection Agency.

The panel's recommendations, which include broad suggestions applicable to all companies' financial statements and specific proposals aimed at banks, insurers and the financial sector, will be presented to leaders of the Group of 20 leading economies in July.

3. High-Energy Rick Perry

Revive Yucca Mt.'s nuclear waste site, then close Energy down.

Editorial, WSJ, Dec 14, 2016 http://www.wsj.com/articles/high-energy-rick-perry-1481762970

SUMMARY: The editorial states:

"Donald Trump is not without a sense of irony, as witness his choice of Rick Perry to run the Energy Department, which the former Texas Governor couldn't even recall in a 2011 presidential debate and which he wanted to eliminate. Now is his chance.

"During three terms as Governor, Mr. Perry promoted the development of Texas's vast oil and gas resources. He streamlined permitting while doling out subsidies for green energy. Under his stewardship, the state invested more than \$50 million in algae, biomass, solar cells and other political indulgences.

"Jimmy Carter established DOE in 1977 to promote energy development and protect the nation's nuclear resources. Nuclear security and modernization constitute nearly two-thirds of the department's \$30 billion budget, and most of this could be moved to the Defense Department. The remainder is primarily dedicated to scientific research and development, however broadly construed.

"The 2009 stimulus blowout gave the Obama Administration heaps of cash to throw at green companies, some of which like solar-panel manufacturer Solyndra and electric-car maker Fisker went kaput. The stimulus funding authorizations for most energy grants and loan guarantees have expired, and one of Mr. Perry's responsibilities will be to wind down DOE's investment portfolio.

"Another should be to shutter the Office of Energy Efficiency and Renewable Energy. DOE sets efficiency standards for 60 some appliances including televisions, furnaces, toilets and even showerheads. The Obama Administration cranked up the standards in part to disguise the costs of its renewable binge on consumer utility bills. DOE even attempted to ban the incandescent light bulb.

"But many high-efficiency appliances break down before their estimated lifespans, and the upfront costs often exceed long-term savings. DOE's own data show that 64% of senior-only households and 59% of low-income consumers will spend more on a new high-efficiency dishwasher than they will recoup in energy savings. Mr. Perry may not be able to roll back rule-makings for each individual appliance, but he could impose a moratorium on new standards.

"If Mr. Perry won't close Energy down, then he ought to work with Congress to revive the Yucca Mountain nuclear repository in Nevada that President Obama and Harry Reid tried to kill. DOE has paid more than \$4 billion to settle lawsuits for breach-of-contract claims by nuclear power plants for not storing spent fuel. Cleaning up the waste will become even more urgent as more nuclear plants retire due to competition from natural gas."

Additional comment: Adding to appliances breaking before calculated lifespans, homeowners are discovering other costs. For example, a high-efficiency water heater may not fit into the old space because insulation requirements made it too large. Doubtful that increased plumbing costs are included in government calculated "savings."