

The Week That Was: 2016-10-01 (October 1, 2016)
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The Science and Environmental Policy Project

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Quote of the Week. *"As a human being, one has been endowed with just enough intelligence to be able to see clearly how utterly inadequate that intelligence is when confronted with what exists."* – Albert Einstein

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Number of the Week: 45,185 feet (13,772 meters or 8.56 miles)

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THIS WEEK:

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

Hubris: Michael Kelly, Emeritus Prince Philip Professor of Technology of Cambridge University has written an excellent, short book review of *Hubris: The Troubling Science, Economics and Politics of Climate Change* by Michael Hart, a scholar who has spent a decade working on the book.

Kelly's comments reflect many of the views held by SEPP (British spellings):

"[T]he global climate is changing, and has always been changing. The earth has warmed by 1C over the last 150 years. That is not the issue. The issue is whether the human emissions of carbon dioxide since 1850 are heralding an imminent and certain global climate catastrophe that could be averted by engineering projects."

To which SEPP would add...or require drastic national and international energy policy restricting the emissions of carbon dioxide (CO2). Kelly goes on to state:

"This is the most complete book to date that takes a critical look across the whole of the recent history of climate change as science, as input to policy, and as a driver of far-reaching societal change. My own interest in the subject starts from the totally unrealistic engineering outcomes being assumed and implied by a decarbonisation of the world economy by 2050, and even a simplistic attempt to undertake a cost-benefit analysis of the decarbonisation project as far as engineering and technology will make a difference. The scale of the investment for the unknowability of the measureable outcomes implied by 'solving the climate change problem' represents hubris of the grandest order.

"The opportunity costs dwarf any possible outcomes. If one then goes back into the 'post-modern science' from which the imperative to decarbonise originates, several cans of worms are waiting. I fear that when this whole enterprise collapses, as certainly as the tulip bubble evaporated in 1637, there will be a backlash against trust in science that will herald a dark age in which scientists are routinely regarded as untrustworthy shamans. My concern is that the integrity of science is under great threat and that my own subject, engineering, will get caught in the backlash, even though engineers have been among the most vociferous critics of the projects of imminent global catastrophe caused by humans. It is the human desires for comfort, secure and variable food, health, education, mobility, communications, defence and other fruits of the industrial revolution that lead to the scale of human emissions of carbon dioxide, and only a deep

and dramatic curtailment of these desires by everyone, but especially those living in the developed countries, will reduce carbon emissions in the next 30 years.” [Boldface added.]

Being able to distinguish between valuable science and the claims of untrustworthy shamans is a goal of SEPP, and TWTW, no matter how imperfectly accomplished. See link under Challenging the Orthodoxy.

Distinguished Opposition: TWTW is privileged to receive excellent criticism of its expressed views – criticism which supports the concept that human emissions of CO2 are causing significant climate change, which eventually will be dire. Physicist Donald Rapp is one such critic. He has written several accomplished books on the subject especially *Assessing Climate Change: Temperatures, Solar Radiation and Heat Balance*, which is now in its third edition. Rapp believes that we have sufficient data that rising CO2 produces warming. Even though the warming is “not susceptible to quantitative evaluation, could be significant, and we need to try our best to reduce emissions.” Rapp also finds that the data supporting the theory that climate is governed by galactic cosmic rays “are sparse and unconvincing. This might be a subordinate effect.”

It is vital goal of SEPP to separate the views expressed by scientists such as Rapp from those by what Kelly calls “untrustworthy shamans.” To separate natural variation from human influence, including CO2 emissions, we need more data on what happens following an El Niño Southern Oscillation (ENSO) event, such the one occurring now. Given the sparse nature of surface data, and the relocation of instrumentation to urbanizing areas especially airports, it is unlikely that the influence of CO2 can be separated from the influence of urbanization in the surface data. That is one reason TWTW emphasizes the far more comprehensive satellite data.

Tropical Hot Spot: Last week’s TWTW covered a paper by James Wallace, John Christy, and Joseph D’Aleo stating that, based on statistical analysis, if the ENSO effect is removed from over 50 years of balloon data, the claimed tropical hot spot cannot be found – pronounced warming trends centered at about 10 km (33,000 feet) over the tropics. As described in TWTW, this hot spot was featured in the EPA Endangerment Finding (EF) and in 1996 Assessment Report (AR-2) of the UN Intergovernmental Panel on Climate Change (IPCC).

On the ICECAP web site, which featured the paper, several commentators claimed that the hot spot was not critical to the EPA’s endangerment finding. The authors of the paper addressed these claims. The new claim of insignificant is amusing. The advocates are in effect stating that the attorneys for the EPA convinced the US Federal Court of Appeals that its endangerment finding is significant science using so-called evidence considered trivial? See links under Challenging the Orthodoxy.

Administration’s Power Plan in Court: This week the US Court of Appeals of the District Columbia Circuit heard arguments on the administration’s power plan, called the “clean power plan”, that requires significant change in the generation of electrical power, including from existing power plants. The court is the same one, but somewhat reconstituted, that heard the arguments for EPA’s endangerment finding.

In a dramatic change in procedure, the entire court heard the arguments. Usually, a three-judge panel first hears the arguments and issues a decision. The losing side may appeal to have the entire court hear the arguments, which the court may or may not grant. The hearing is important

for the administration because its power plan will not have the force of law without court approval, regardless of how many international agreements Mr. Obama may sign, if he does not receive approval from the US Senate for a treaty. The Senate does not seem inclined to grant treaty status to Mr. Obama's agreements.

The administration seems to be dismissing the importance of these proceedings or the so-called environmental benefits of the power plan. As stated by attorney Sam Kazman of CEI:

“At a March 22 congressional hearing, one congressman stated: ‘I don’t understand--if it doesn’t have an impact on climate change around the world, why are we subjecting our hard working taxpayers and men and women in the coal fields to something that has no benefit?’

“McCarthy’s answer: ‘We see it as having had enormous benefit in showing sort of domestic leadership as well as garnering support around the country for the agreement we reached in Paris.’

“But demonstrating leadership is not the law’s goal; the underlying statute, after all, is the Clean Air Act, not the Clean Air Politics Act.”

The lead attorneys against the power plan include the Attorney Generals for West Virginia and Texas, Patrick Morrisey and Ken Paxton, respectively. A lead attorney in making constitutional arguments is Lawrence Tribe, Law Professor at Harvard and a liberal icon. The transcriptions of the oral arguments have not been posted as of October 1, and will be discussed in an upcoming TWTW.

At a briefing prior to the court hearing, Paxton and Morrisey explained why they sued. They consider the administration's plan to be a power grab that is in violation of the Constitution, has no basis in law, and violates the Clean Air Act. The fundamental, practical issues include that the administration's actions will dramatically raise utility rates, have a negative effect on the economy, and that key pollutants are regulated under different regulations. These pollutants are called criteria pollutants, specified in the law.

The administration of public utilities is the responsibility of the several states, and the states are responsible for delivering reliable electricity, which wind and solar generation are not. Further, it is a myth that the power plan gives the states flexibility. The attorneys stated that the law is so specified that the EPA cannot take the endangerment finding, which applied to mobile sources of greenhouse gases (carbon dioxide), mostly from automobiles and trucks, and apply it to stationary sources such as coal-fired power plants.

When asked by an attendee if the attorneys considered addressing the scientific foundations of the endangerment finding, which the questioner considered were imploding, the attorneys stated that the legal foundation is so strong, that they emphasized that. The number of pages that can be filed is very limited. According to the attorneys, if the EPA can regulate power plants, then it will be pipelines, the electrical grid, and all critical elements of power production in the US.

According to the attorneys, it is unlikely the Supreme Court will take up the case until the fall of 2017, if ever. See Articles # 1 and # 2 links under The Administration's Plan – Independent Analysis and The Administration's Plan – Push-Back

Reliable Electricity – South Australia: The state of South Australia is more dependent on wind and solar than any other state in Australia. It has about 1,580 MW installed wind capacity. Shortly after 1500 (local time) on September 28, wind energy production went to zero and South Australia suffered from a state-wide black out. The finger-pointing continues. As Paul Homewood (based in England) relates:

“SA’s 18 wind farms have a combined (notional) capacity of 1,580MW.

On 28 September (aka ‘Black Wednesday’), as the wind picked up, output surges by around 900MW, from a trifling 300MW (or 19% of installed capacity) to around 1,200MW.

As we explain below, electricity grids were never designed to tolerate that kind of chaos, but it’s what occurs in the hour before the collapse that matters.

From a peak near 1,200MW, there are drops and surges in output of around 250-300MW (equivalent to having the Pelican Point Combined Cycle Gas plant switched on and off in an instant).

At about 2:30pm there is an almost instantaneous drop of 150MW (1,050 to 900MW), followed by a rapid surge of around 250MW, to hit a momentary peak of about 1,150MW.

Then, in the instant before the blackout, wind power output plummets to around 890MW: a grid killing collapse of 260MW, that occurs in a matter of minutes (it’s all happened before, as we detail below). That 260MW collapse was the deliberate result of an automatic shutdown of the wind farms based in SA’s mid-North, located in the path of the storm front: the final and total collapse in SA’s power supply follows immediately thereafter.”

Will those who advocated wind production stand up? See links under Questioning Green Elsewhere and Energy Issues – Non-US

Carbon Taxes: A special interest group called R-Street has called for a carbon tax in the US, with the revenues distributed to the general population. If carbon dioxide is causing harm, doubtful, then taxing it would be the most efficient way of addressing it, according to many economists. However, tax history calls this view of efficiency into question.

The 100-plus year history of the modern US income tax is littered with dishonored promises. One party or the other has used the tax code to give favors to special interests. President Reagan thought he had a deal with the Democratic Congress to simplify the tax code and to cut spending. The code was simplified by eliminating special tax breaks and reducing tax rates, temporarily. Spending cuts were illusionary. Soon thereafter, special tax breaks appeared, for example, the wind power production tax credit.

Also, special taxes are dishonored. The federal highway tax is a user tax to build highways. But significant funds (about 25%) are diverted for sound barriers, bicycle trails, and planning for public transit, which do not pay these taxes.

Given this history, there is no logical reason to assume that the revenue from a carbon tax will be distributed as claimed.

In an effective democracy, politicians must be held accountable for their actions. Visibility is an advantage of the income tax. The public can hold those in government accountable, however imperfectly. Invisibility is a severe disadvantage of a carbon tax. Politicians who enact and manipulate the tax will hide behind public utilities, blaming utilities for the punitive effects of political actions. See links under Cap-and-Trade and Carbon Taxes.

Oil Prices: An article in the Wall Street Journal has an excellent graph of estimated break-even prices for oil production in various areas of the globe, which is reproduced by the Global Warming Policy Forum (GWPF). Although not stated, usually these cost estimates include capital costs plus a small profit.

Whether or not a new OPEC agreement holds up, it is becoming evident that US oil production from shale has changed the thinking of the Saudis that it can continue to undercut the US producers, as it did in the 1980s. The petro-states are losing too much money needed for government budgets.

Assuming the estimate of \$40 to \$65 per barrel for shale holds, and world prices fall into this range, then the Middle-east and Russia will make significant profits, Venezuela and Nigeria lower profits, Brazil and Angola with deep-water ocean production will become marginal producers, and Canadian Oil Sands will be out in the cold. The shale oil drillers are still improving their techniques, so what their eventual costs will be remains to be seen.

The price estimates do not include Kazakhstan and the Gulf of Mexico. Kazakhstan will be delivering oil in the near future, break-even price unknown. Most of the deep-water production in the Gulf of Mexico is by private, closely-held companies that do not reveal their costs. There are some suggestions that the break-even costs are about \$50 per bbl. See Article # 3 (without graphs) and links under Oil and Natural Gas – the Future or the Past?

Comprehensive Models? With these developments, it is becoming clear that the idea of “peak oil” is off by many years. Since first proposed about 1970, this theory became an accepted “consensus” of some scientific organizations and those who built “state-of-the-art” mathematical models on it, predicting the world would run out of oil by the end of the 20th century

One of the excuses made for the failure of these models is that the modelers did not know of oil extraction by unconventional means. In other words, the models were not comprehensive. It is becoming increasingly apparent that global climate models are not comprehensive as well.

A government should not base policy on mathematical models that have not been validated. Even the experts cannot understand, or know, what may occur in the future. Speculation, no matter how mathematically precise is still speculation. See links under Questioning the Orthodoxy.

Travel: Due to travel, there will be no TWTW on the weekend of October 15. The October 8 TWTW will be brief.

Number of the Week: 45,185 feet (13,772 meters or 8.56 miles) According to the above mentioned article in the Wall Street Journal, a natural gas well was drilled in Ohio that is 26,641 feet (8120 m or 5.05 mi) deep and 18,544 feet (5652 m or 3.51 mi) long. It is not clear if the vertical section is directly vertical or angled, and the actual depth of the horizontal section is not given. Regardless of the exact depth, the drill (bottomhole) assembly, with its sensors and

guidance system, operated at high pressures and temperatures. The development of these miniaturized sensors and guidance systems is a significant accomplishment by the scientists and engineers who did so. See Article # 3.

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NEWS YOU CAN USE:

Science: Is the Sun Rising?

Solar Arctic-Mediated Climate Variation on Multidecadal to Centennial Timescales: Empirical Evidence, Mechanistic Explanation, and Testable Consequences

By Willie W.-H. Soon, *Physical Geography*, May 15, 2013

<http://www.tandfonline.com/doi/abs/10.2747/0272-3646.30.2.144?journalCode=tphy20>

Commentary: Is the Sun Rising?

Test Driving the Solar Notch-Delay Model

Guest essay by David Archibald, WUWT, Oct 1, 2014

<https://wattsupwiththat.com/2014/10/01/test-driving-the-solar-notch-delay-model/>

Suppressing Scientific Inquiry – The Witch Hunt

AGU Rejects #ExxonKnew Agenda, Email shows more implosions from within

By Anthony Watts, WUWT, Sep 26, 2016

<https://wattsupwiththat.com/2016/09/26/agu-rejects-exxonknew-agenda-email-shows-more-implosions-from-within/>

Suppressing Scientific Inquiry – The Witch Hunt – Push-Back

Testimony of Ronald Rotunda, Fowler School of Law, Chapman University

US House Committee on Science, Space, & Technology on September 14, 2016

<https://www.heartland.org/publications-resources/publications/testimony-of-robert-d-rotunda-before-the-house-committee-on-science-space--technology-on-september-14-2016?source=policybot>

Senate Dem Report Attacking EPA Critics Traced to Green Pressure Group

Document scrubbed of traces to environmentalist group after Free Beacon inquiries

By Lachlan Markay, Washington Free Beacon, Sep 28, 2016

<http://freebeacon.com/issues/report-attacking-epa-critics-traced-green-pressure-group/>

The First Climate Change RICO Lawsuit is Filed by DefyCCC.com Editor

By Anthony Watts, WUWT, Sep 27, 2016

<https://wattsupwiththat.com/2016/09/27/the-first-climate-change-rico-lawsuit-is-filed-by-defyccc-com-editor/>

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

<http://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

Hubris: The Troubling Science, Economics and Politics of Climate Change

By Michael Kelly FRS, FEng, Emeritus Prince Philip Professor of Technology, University of Cambridge, GWPF, Sep 30, 2016

Review of book by Michael Hart

<http://www.thegwpc.com/hubris-the-troubling-science-economics-and-politics-of-climate-change/>

The Importance of the Tropical Hot Spot to EPA's Endangerment Finding

By James Wallace, ICECAP, Sep 30, 2016

http://icecap.us/images/uploads/ImportanceoftheHotSpot_093016_.pdf

A Devastating Reassessment of Alarmist Climate Science

By Alan Carlin, Carlin Economics and Science, Sep 29, 2016

<http://www.carlineconomics.com/archives/2986>

Old Tactics Revived as Anthropogenic Global Warming (AGW) Deception Fails. An Open Letter to an Open Letter

Guest Opinion: Dr. Tim Ball, WUWT, Sep 24, 2016

<https://wattsupwiththat.com/2016/09/24/old-tactics-revived-as-anthropogenic-global-warming-agw-deception-fails-an-open-letter-to-an-open-letter/>

Political Science: A Reply to the 375 Concerned Members of the National Academy of Sciences

By Christopher Monckton of Brenchley, William M. Briggs, David R. Legates, Anthony Lupo, Istvan Marko, Dennis Mitchell, & Willie Soon, Breitbart, Sep 25, 2016

<http://www.breitbart.com/big-government/2016/09/25/political-science-reply-375-concerned-members-national-academy-sciences/>

Alarmist Potsdam Climate Scientist Stefan Rahmstorf Extends "Incredible String Of Failures"

Incredible String of Failures by Rahmstorf Continues: New Study Finds no Robust Relationship Between Shrinking Sea Ice and European Cold Waves

By Dr. Sebastian Lüning and Prof. Fritz Vahrenholt (German text translated/edited by P Gosselin), No Tricks Zone, Sep 30, 2016

<http://notrickszone.com/2016/09/30/alarmist-potsdam-climate-scientist-stefan-rahmstorf-extends-incredible-string-of-failures/#sthash.hkGyCmGW.dpbs>

Defending the Orthodoxy

Why Obama Is Right on Clean Energy

By William Ruckelshaus and William Reilly, NYT, Sep 25, 2016 [H/t Timothy Wise]

http://www.nytimes.com/2016/09/26/opinion/why-obama-is-right-on-clean-energy.html?_r=1
[SEPP Comment: Mr. Ruckelshaus banned DDT, claiming it may cause cancer in humans, without evidence. Thus, he began a tradition of EPA political popular bans, without evidence.]

Questioning the Orthodoxy

What Ever Happened to Peak Oil?

By Bill Murray & Carl M. Cannon, Real Clear Politics, Sep 28, 2016

http://www.realclearpolitics.com/articles/2016/09/28/whatever_happened_to_peak_oil_131909.html

[SEPP Comment: Do not base policy on mathematical models that have not been validated. Even the experts cannot understand, or know, what may occur in the future. Speculation, no matter how mathematically precise is still speculation.]

Peak Oil Consensus 2008: Lesson for 'Settled' Climate Science

By Robert Bradley Jr., Master Resource, Sep 29, 2016

<https://www.masterresource.org/peak-oil-quotations/peak-oil-consensus-richard-kerr-november-1998-analogy-settled-climate-science/>

92% in unhealthy air? Another example of a boy who cries wolf

By Václav Klaus, Czech ex-president, with comments by Luboš Motl, The Reference Frame, Sep 28, 2016

<http://motls.blogspot.com/2016/09/92-in-unhealthy-air-another-example-of.html#more>

Are The Promoters Of Global Warming 'Catastrophe' The True Deniers?

By John Tamny Forbes, Sep 25, 2016

<http://www.forbes.com/sites/johntamny/2016/09/25/are-the-promoters-of-global-warming-catastrophe-the-actual-ones-in-denial/#467e1dd4ff44>

World Climate Measured in Foreign-Hype Decrees

By Anthony J. Sadar, American Thinker, Sep 29, 2016

http://www.americanthinker.com/blog/2016/09/world_climate_measured_in_foreignhype_decrees.html

The polar bear problem no one will talk about – the downside to large populations

By Susan Crockford, Polar Bear Science, Sep 28, 2016

<https://polarbearscience.com/2016/09/28/the-polar-bear-problem-no-one-will-talk-about-the-downside-to-large-populations/>

After Paris!

Climate change agreement crosses threshold

By Staff Writers, WNN, Sep 22, 2016

<http://www.world-nuclear-news.org/EE-Climate-change-agreement-crosses-threshold-2209167.html>

Europe has a chance to be "out" when Paris comes to force

By Luboš Motl, The Reference Frame, Sep 24, 2016

<http://motls.blogspot.com/2016/09/europe-has-chance-to-be-out-when-paris.html>

Southeast Asian Nations Plan Huge Expansion Of Fossil Fuel Economy

By John Constable, GWPF, Sep 26, 2016

<http://www.thegwpf.com/southeast-asian-nations-plan-huge-expansion-of-fossil-fuel-economy/>

The Administration's Plan

Judges probe legality of Obama's climate rule

By Timothy Cama, The Hill, Sep 27, 2016

<http://thehill.com/policy/energy-environment/298073-judges-probe-legality-of-obamas-climate-rule>

The Administration's Plan – Independent Analysis

Both sides optimistic on EPA climate rule case

By Timothy Cama, and Devin Henry, The Hill, Sep 28, 2016

<http://thehill.com/policy/energy-environment/298262-epa-opponents-supporters-optimistic-on-climate-rule-case>

Obama's climate legacy on trial

By John Siciliano, Washington Examiner, Sep 25, 2016

<http://www.washingtonexaminer.com/obamas-climate-legacy-on-trial/article/2602616>

The Administration's Plan – Push-Back

It's judgment day for the EPA's clean power plan, America

By C. Boyden Gray, Sam Kazman, Fox News, Sep 27, 2016

<http://www.foxnews.com/opinion/2016/09/27/its-judgment-day-for-epas-clean-power-plan-america.html>

Obama's climate change agenda faces crucial court hearing today

By Joseph Smith, American Thinker, Sep 27, 2016

http://www.americanthinker.com/blog/2016/09/obamas_climate_change_agenda_faces_crucial_court_hearing_today.html

Seeking a Common Ground

The Limits of Knowledge and the Climate Change Debate

By Brian Berry, Jayshree Bihari, and Euell Elliott, Cato Journal, Via GWPF, Sep 24, 2016

<http://www.thegwpf.com/the-limits-of-knowledge-and-the-climate-change-debate/>

Link to paper: The Limits of Knowledge and the Climate Change Debate

<http://object.cato.org/sites/cato.org/files/serials/files/cato-journal/2016/9/cj-v36n3-7.pdf>

Review of Recent Scientific Papers by CO2 Science

Barley Protein Production in a CO2-Enriched and Warmer World

Ingvordsen, C.H., Gislum, R., Jorgensen, J.R., Mikkelsen, T.N., Stockmarr, A. and Jorgensen, R.B. 2016. Grain protein concentration and harvestable protein under future climate conditions. A study of 108 spring barley accessions. *Journal of Experimental Biology* **67**: 2151-2158. Sep 29, 2016

<http://www.co2science.org/articles/V19/sep/a21.php>

Solar Activity Modulates the Frequency of Central European Floods

Czymzik, M., Muscheler, R. and Brauer, A. 2016. Solar modulation of flood frequency in central Europe during spring and summer on inter-annual to multi-centennial timescales. *Climate of the Past* **12**: 799-805. Sep 28, 2016

<http://www.co2science.org/articles/V19/sep/a20.php>

A New Refutation of Dangerous CO2-Induced Global Warming

Gervais, R. 2016. Anthropogenic CO2 warming challenged by 60-year cycle. *Earth-Science Reviews* **155**: 129-135. Sep 27, 2016

<http://www.co2science.org/articles/V19/sep/a19.php>

“And so it is that *real-world data-based refutations* of unsubstantiated climate-alarmist claims of impending catastrophic climatic consequences -- which they associate with the burning of fossil fuels -- continue to grow in number and refute the baseless climate-alarmist contentions, as ever more real-world observations that suggest just the *opposite* continue to find their way into the peer-reviewed scientific literature. And in light of these facts, Gervais concludes that ‘on inspection of a risk of anthropogenic warming thus toned down, a change of paradigm which highlights a benefit for mankind related to the increase of plant feeding and crop yields by enhanced CO2 photosynthesis is suggested.’”

Juvenile Antarctic Rockcod Growing Up in CO2-Acidified Seawater

Davis, B.E., Miller, N.A., Flynn, E.E. and Todgham, A.E. 2016. Juvenile Antarctic rockcod (*Trematomus bernacchii*) are physiologically robust to CO2-acidified seawater. *Journal of Experimental Biology* **219**: 1203-1213. Sep 26, 2016

<http://www.co2science.org/articles/V19/sep/a18.php>

Model Issues

40 Earths: NCAR's Large Ensemble reveals staggering climate variability

Data set an instant hit with climate and Earth system researchers

By Staff Writers, NCAR/UCAR Atmos News, Sep 29, 2016

<http://www2.ucar.edu/atmosnews/perspective/123108/40-earths-ncars-large-ensemble-reveals-staggering-climate-variability>

Link to article: The Community Earth System Model (CESM) Large Ensemble Project: A Community Resource for Studying Climate Change in the Presence of Internal Climate Variability

By J.E. Kay, et al. AMS, Aug 2015

<http://journals.ametsoc.org/doi/full/10.1175/BAMS-D-13-00255.1>

"We gave the temperature in the atmosphere the tiniest tickle in the model — you could never measure it — and the resulting diversity of climate projections is astounding," Deser said. "It's been really eye-opening for people."

[SEPP Comment: Pick the model that fits your needs!]

Measurement Issues – Energy Flow

Errors in Estimating Earth's No-Atmosphere Average Temperature

By Roy Spencer, His Blog, Sep 27, 2016

<http://www.drroyspencer.com/2016/09/errors-in-estimating-earths-no-atmosphere-average-temperature/>

Changing Weather

No big shift in U.S. flood patterns despite climate change: study

By Ian Simpson, Reuters, Sep 28, 2016

<https://www.yahoo.com/news/no-big-shift-u-flood-patterns-despite-climate-194557960.html>

Matthew to Arrive 4,000 days after Last Major Hurricane

By Roy Spencer, His Blog, Sep 29, 2016

<http://www.drroyspencer.com/2016/09/matthew-to-arrive-4000-days-after-last-major-hurricane/>

Tropical Storms Can Strengthen Over Land But Be Careful With Brown Ocean Claims

By Marshall Shepherd, Sep 24, 2016 [H/t Clyde Spencer]

<http://www.forbes.com/sites/marshallshepherd/2016/09/24/tropical-storms-can-strengthen-over-land-but-be-careful-with-brown-ocean-claims/#6dc1a6158ac7>

Coldest Perth September recorded in 120 years of records (must be climate change)

By Jo Nova, Her Blog, Oct 1, 2016

<http://joannenova.com.au/2016/10/coldest-perth-september-recorded-in-120-years-of-records/>
[SEPP Comment: Are records upside-down in Australia?]

A Normal Summer

By Cliff Mass, Weather Blog, Sep 24, 2016

<http://cliffmass.blogspot.com/2016/09/a-normal-summer.html>
[SEPP Comment: Normal over the western U.S.]

A Weakening BLOB

By Cliff Mass, Weather Blog, Oct 1, 2016

<http://cliffmass.blogspot.com/2016/10/a-weakening-blob.html>

Changing Climate

Ancient global cooling gave rise to modern ecosystems

Sea surface temperatures dipped dramatically during a period from 7 million to 5.4 million years ago, a time of massive global ecological change.

Press Release, Brown University, Sep 26, 2016

<https://news.brown.edu/articles/2016/09/miocene?platform=hootsuite>

Changing Seas

Latest Momentous Discovery – The “Parched” Earth Is Getting Wetter!

By Paul Homewood, Not a Lot of People Know That, Sep 30, 2016

<https://notalotofpeopleknowthat.wordpress.com/2016/09/30/latest-momentous-discovery-the-parched-earth-is-getting-wetter/#more-24399>

[SEPP Comment: Has sea level rise been overestimated by alarmists?]

Changing Cryosphere – Land / Sea Ice

Arctic Ice Extent Recovering At Record Pace

By Paul Homewood, Not a Lot of People Know That, Sep 29, 2016

<https://notalotofpeopleknowthat.wordpress.com/2016/09/29/arctic-ice-extent-recovering-at-record-pace/>

Lowering Standards

Arctic Melting Defies Scientists

By Alex Kirby, EcoWatch, Sep 29, 2016 [H/t Clyde Spencer]

<http://www.ecowatch.com/arctic-ice-melting-climate-change-2022733835.html>

"Dramatic and unprecedented warming in the Arctic is driving sea level rise, affecting weather patterns around the world and may trigger even more changes in the climate system.

"The rate of change is challenging the current scientific capacity to monitor and predict what is becoming a journey into uncharted territory."

"The Arctic is a principal, global driver of the climate system and is undergoing an unprecedented rate of change with consequences far beyond its boundaries,"

[SEPP Comment: From the UN World Meteorological Organization and David Grimes, its president!]

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

Climate Exaggeration is Backfiring

By Robert Bradley Jr. Forbes, Sep 23, 2016

<http://www.forbes.com/sites/robertbradley/2016/09/23/climate-exaggeration-is-backfiring/#3e281c2236fc>

How to make climate graphs look scary — a reply to XKCD

By Jo Nova, Her Blog, Sep 25, 2016

<http://joannenova.com.au/2016/09/how-to-make-climate-graphs-look-scary-a-reply-to-xkcd/>

It's Official: Hydropower Is Dirty Energy

By Gary Wockner, EcoWatch, Sep 30, 2016 [H/t Climate Etc.]

<http://www.ecowatch.com/hydropower-methane-climate-change-2024731803.html>

Link to WP article: Reservoirs are a major source of global greenhouse gases, scientists say

By Chris Mooney, Washington Post, Sep 28, 2016

https://www.washingtonpost.com/news/energy-environment/wp/2016/09/28/scientists-just-found-yet-another-way-that-humans-are-creating-greenhouse-gases/?utm_term=.2fadea09d001

“Correction: A prior title of this article suggested that methane emissions from reservoirs are a “key new source of greenhouse gases.” In fact, scientific budgets of global methane emissions have included reservoir emissions in the category of lakes and rivers, according to Harrison. The new research, however, does suggest that reservoir emissions may have been underestimated in such budgets.”

[SEPP Comment: The author of “River Warrior” did not give links to the paper, which may be as much an exaggeration on the presumed influence on methane as the presumed influence of methane is on global temperatures.]

Communicating Better to the Public – Make things up.

Nature paper pushes wild exaggeration of 7-13C “climate sensitivity”! Even Gavin Schmidt calls them out.

By Jo Nova, Her Blog, Sep 27, 2016

<http://joannenova.com.au/2016/09/nature-paper-pushes-wild-exaggeration-of-7-13c-climate-sensitivity-even-gavin-schmidt-calls-them-out/>

Link to paper: Evolution of global temperature over the past two million years

By Carolyn W. Snyder, Nature, Sep 26, 2016

<http://www.nature.com/nature/journal/vaop/ncurrent/full/nature19798.html>

“(Did she study climate science by watching Al Gore?)”

Study: Earth’s roughly warmest in about 100,000 years

By Seth Borenstein, AP, Sep 26, 2016 [H/t Clyde Spencer]

https://www.washingtonpost.com/politics/study-earths-roughly-warmest-in-about-100000-years/2016/09/26/2672bb28-8412-11e6-b57d-dd49277af02f_story.html

[SEPP Comment: See link immediately above;]

**Spiegel: Experts Slam Proclamations Of An Anthropocene As “Political”...
“Unscientific”...”Science Sloganeering”!**

By P Gosselin, No Tricks Zone, Sep 28, 2016

<http://notrickszone.com/2016/09/28/spiegel-experts-slam-proclamations-of-an-anthropocene-apolitical-unscientific-science-sloganeering/#sthash.pkTV61Cu.dpbs>

In Miami, Green Party’s Jill Stein warns of ‘climate meltdown

By David Smiley, Miami Herald, Sep 30, 2016

https://www.yahoo.com/news/m/01ed4d69-89dc-3cf5-a6f2-8c55afa80b41/ss_in-miami%2C-green-party%E2%80%99s-jill.html

Communicating Better to the Public – Do a Poll?

Despite record hottest year even a loaded vague climate survey shows 61% don’t agree with experts

By Jo Nova, Her Blog, Sep 26, 2016

<http://joannenova.com.au/2016/09/despite-record-hottest-year-even-a-loaded-vague-climate-survey-shows-61-dont-agree-with-experts/>

Questioning European Green

Renewable Energy Poses Growing Security Risk, GWPF Warns

By Staff Writers, GWPF, Sep 29, 2016

<http://www.thegwpf.com/renewable-energy-poses-growing-security-risks-gwpf-warns/>

Link to paper: UK Energy Security: Myth and Reality

By Philipp Mueller, GWPF, 2014

<http://www.thegwpf.com/content/uploads/2014/06/Energy-Security.pdf>

Are We Heading for Blackout Britain?

By Staff writers, Centre for Policy Studies, Sep 29, 2016

<http://www.cps.org.uk/files/factsheets/original/160929100405-84AreWeHeadedforBlackoutBritain.pdf>

Questioning Green Elsewhere

Wind Power, Eating the Seed Corn

By Donn Dears, Power For USA, Sep 30, 2016

<https://dddusmma.wordpress.com/2016/09/30/wind-power-eating-the-seed-corn/>

Renewables shift brings threat to power supply

By Brian Robins, Sydney Morning Herald, Sep 15, 2016

<http://www.smh.com.au/business/renewables-shift-brings-threat-to-power-supply-20160921-grl0bs.html>

South Australia pays the price for heavy reliance on renewable energy

By Brian Robins, Sydney Morning Herald, Sep 28, 2016 [H/t GWPF]

<http://www.smh.com.au/business/south-australia-pays-the-price-for-heavy-reliance-on-renewable-energy-20160928-grqq9k.html>

The South Australian black out — A grid on the edge. There were warnings that renewables made it vulnerable

By Jo Nova, Her Blog, Sep 30, 2016

<http://joannenova.com.au/2016/09/the-south-australian-black-out-a-state-running-without-enough-thermal-reserve-to-cope-with-contingencies/>

Ontario stops buying renewable energy

By Anmar Frangoul, CNBC, Sep 28, 2016

<http://www.cnbc.com/2016/09/28/ontario-stops-buying-renewable-energy.html>

The Political Games Continue

Republicans Demand PROOF From Obama That Global Warming Is A National Security Threat

By Michael Bastasch, Daily Caller, Sep 26, 2016

<http://dailycaller.com/2016/09/26/republicans-demand-proof-from-obama-that-global-warming-is-a-national-security-threat/>

Cap-and-Trade and Carbon Taxes

A carbon bargain for conservatives

By Catrina Rorke, R Street, Sep 28, 2016

<http://www.rstreet.org/policy-study/a-carbon-bargain-for-conservatives/>

The carbon tax is not just political; it's ineffective, too

By Benjamin Zycher, The Hill, Sep 28, 2016

<http://thehill.com/blogs/pundits-blog/energy-environment/298285-the-carbon-tax-is-not-just-political-its-ineffective>

[SEPP Comment: No doubt an edict eliminating gasoline-powered automobiles and trucks would appease many fossil fuel opponents and bring claims of “green jobs” being created, without thought of economic consequences. Total control is their goal.]

The Real Problem with Carbon Taxes

By Bruce Everett, CO2 Coalition, Sep 28, 2016

http://co2coalition.org/2016/09/28/the-real-problem-with-carbon-taxes/?utm_source=Everett+-+The+Real+Problem+with+Carbon+Taxes&utm_campaign=happer+RT+google+analytics&utm_medium=email

Link to full essay: (5 pages)

<http://co2coalition.org/wp-content/uploads/2016/09/Everett-The-Real-Problem-with-Carbon-Taxes-4.pdf>

“Economists have long recognized that taxation can be a useful means to discourage consumption if – and only if – there is a reason to do so. Without a clear and defined benefit, such taxes simply divert funds from consumers to the government. Regressive taxes, i.e., those that fall disproportionately on the middle class and the poor, reduce disposable income at a time when families are struggling to meet their needs. The issue is not can we impose a carbon tax, but why should we?”

EU Lawmakers Divided on Post-2020 Emissions-Market Reform

By Ewa Krukowska, Bloomberg, Sep 29, 2016

<http://www.bloomberg.com/news/articles/2016-09-29/eu-lawmakers-brace-for-debate-on-post-2020-carbon-market-reform>

Subsidies and Mandates Forever

Analysis: New York's Clean Energy Standard could pad utility bills by \$3.4B

By Robert Walton, Utility Dive, Sep 29, 20126

<http://www.utilitydive.com/news/analysis-new-yorks-clean-energy-standard-could-pad-utility-bills-by-34b/427254/>

Link to report: Green Overload: New York State's Ratepayer-Zapping Renewable Energy Mandate

By Kenneth Girardin and Annette Brocks, Empire Center, Sep 27, 2016

<http://www.empirecenter.org/publications/green-overload/>

New York City Sets Ambitious Citywide Energy Storage Target

By Sonal Patel, Power Mag, Sep 29, 2016

http://www.powermag.com/new-york-city-sets-ambitious-citywide-energy-storage-target/?hq_e=el&hq_m=3289789&hq_l=9&hq_v=5e660500d0

“New York City is aiming to have 100 MWh of energy storage by 2020 under an unprecedented target set by Mayor Bill de Blasio on September 23.”

[SEPP Comment: How long would it run the city in a black-out – in seconds?]

EPA and other Regulators on the March

EPA Finalizes Two Rules to Reduce Use and Emissions of Potent Greenhouse Gases

Press Release by Enesta Jones, EPA, Sep 26, 2016 [H/t Climate Depot]

<https://www.epa.gov/newsreleases/epa-finalizes-two-rules-reduce-use-and-emissions-potent-greenhouse-gases>

Energy Issues – Non-US

Change and Flexibility

By Martin Livermore, The Scientific Alliance, Sep 30, 2016

<http://scientific-alliance.org/node/1016>

Russia Slams Door on US LNG to Europe

By Jane Collin, Energy Intelligence, Sep 2016

<http://www.energyintel.com/pages/worldopinionarticle.aspx?DocID=937888>

Engineering experts deliver warning on smart meter design

By Diarmaid Williams, Power Engineering, Sep

http://www.powerengineeringint.com/articles/2016/09/engineering-experts-deliver-warning-on-smart-meter-design.html?cmpid=enl_PEI_Digest_2016-09-27&eid=296412419&bid=1538909

Another Statewide Blackout: South Australia's Wind Power Disaster Continues

By Paul Homewood, Not a Lot of People Know That, Sep 29, 2016

<https://notalotofpeopleknowthat.wordpress.com/2016/09/29/another-statewide-blackout-south-australias-wind-power-disaster-continues/>

Entire state of South Australia without electricity as storm hits

By Jo Nova, Her Blog, Sep 28, 2016

<http://joannenova.com.au/2016/09/entire-state-of-south-australia-without-electricity-as-storm-hits/>

The South Australian Statewide Blackout

By Terence Cardwell, Australian Climate Sceptics, Oct 1, 2016

<http://theclimatescepticsparty.blogspot.com.au/2016/10/the-south-australian-statewide-blackout.html#more>

Entire state of South Australia has power black-out because of flawed climate change energy policy

Guest essay by Larry Hamlin, WUWT, Sep 28, 2016

<https://wattsupwiththat.com/2016/09/28/entire-state-of-south-australia-has-power-black-out-because-of-flawed-climate-change-energy-policy/>

Fracking Scare Stories Condemned By UK Watchdog

By Ben Webster, The Times, Via GWPF, Sep 26, 2016

<http://www.thegwpf.com/fracking-scare-stories-condemned-by-uk-watchdog/>

Get drilling! Fracking 'could save UK industry', says boss at major refinery after first shipment of American shale gas arrives in Britain

By Jack Doyle, Daily Mail, UK, Sep 27, 2016

<http://www.dailymail.co.uk/news/article-3809874/First-shipment-American-shale-gas-arrives-Britain-open-virtual-pipeline-despite-fierce-protests-environmentalists.html>

Energy Issues -- US

FERC Adopts GMD Rule and Says Farewell to Tony Clark

By Kennedy Maize, Power Mag, Sep 26, 2016

http://www.powermag.com/ferc-adopts-gmd-rule-and-says-farewell-to-tony-clark/?hq_e=el&hq_m=3289789&hq_l=7&hq_v=5e660500d0

Tribal Consultation At Heart Of Pipeline Fight

By Leigh Paterson, Inside Energy, Sep 23, 2016

<http://insideenergy.org/2016/09/23/tribal-consultation-at-heart-of-pipeline-fight/>

Washington's Control of Energy

U.N. steps into Dakota oil pipeline fight

By Daniel J. Graeber, Geneva, Switzerland (UPI), Sep 23, 2016

<http://www.upi.com/UN-steps-into-Dakota-oil-pipeline-fight/2181474632946/>

[SEPP Comment: Now the UN wants to dictate energy policy to Washington?]

Oil and Natural Gas – the Future or the Past?

Resilient U.S. Shale Firms Ready to Pump More Oil

By Lynn Cook and Bradley Olson, The Wall Street Journal, Via GWPF, Sep 28, 2016

<http://www.thegwpf.com/resilient-shale-firms-ready-to-pump-more-u-s-oil/>

OPEC's 'truce on oil prices' could be quickly shattered by more shale production

By Patti Domm, CNBC, Sep 29, 2016

<http://www.cnbc.com/2016/09/29/opec-truce-on-oil-prices-could-be-shattered-by-shale-production.html>

How Actual Nuts and Bolts Are Bringing Down Oil Prices

Forget shale. There's a broader - much more boring - technological revolution sweeping oil markets.

By Tracy Alloway, Bloomberg, Sep 28, 2016

<http://www.bloomberg.com/news/articles/2016-09-28/how-actual-nuts-and-bolts-are-bringing-down-oil-prices>

[SEPP Comment: Using some of the techniques being used in shale development.]

Addicted to Oil: U.S. Gasoline Consumption is Higher than Ever

By Lucas Davis, The Energy Collective, Sep 27, 2016

<http://www.theenergycollective.com/lucasdavis/2389311/addicted-to-oil-u-s-gasoline-consumption-is-higher-than-ever>

Return of King Coal?

China stokes global coal growth

By Beth Walker, China dialogue, Sep 23, 2016 [H/t GWPF]

<https://www.chinadialogue.net/article/show/single/en/9264-China-stokes-global-coal-growth>

China tells mines to raise thermal coal output again – sources

By Kathy Chen, et al, Reuters, Sep 28, 2016

<http://uk.reuters.com/article/china-coal-idUKL3N1C41WE>

Oil Spills, Gas Leaks, etc. & Consequences

Oil and gas wastewater is changing the Earth's surface, study finds

By Maria Gallucci, Yahoo, Sep 22, 2016 [H/t Clyde Spencer]

<https://www.yahoo.com/news/oil-gas-wastewater-changing-earths-194943238.html>

[SEPP Comment: Wastewater disposal wells are causing problems, which the reporter exaggerates.]

Nuclear Energy and Fears

Fourth Hongyanhe unit enters commercial operation

By Staff Writers, WNN, Sep 20, 2016

<http://www.world-nuclear-news.org/NN-Fourth-Hongyanhe-unit-enters-commercial-operation-2009164.html>

Japan Kills Monju but Not Breeders

By Thomas Overton, Power Mag, Sep 26, 2016

http://www.powermag.com/japan-kills-monju-but-not-breeders/?hq_e=el&hq_m=3289789&hq_l=15&hq_v=5e660500d0

Alternative, Green (“Clean”) Solar and Wind

Hillary’s Solar Future Has a Bad Past

By Robert Bradley, Master Resource, Sep 28, 2016

<https://www.masterresource.org/clinton-hillary/hillarys-solar-future-bad-past/>

“Yet after 40 years of government plans and incentives, the U.S. is not halfway to Bill’s one-million goal.”

Carbon Schemes

Does carbon capture & storage have a future in the UK?

By Roger Andrews, Energy Matters, Sep 28, 2016

<http://euanmearns.com/does-carbon-capture-storage-have-a-future-in-the-uk/#more-15311>

[SEPP Comment: Review of a political document encouraging a policy headed for failure.]

California Dreaming

Millennial's May Have to Delay Buying First Home

By Donn Dears, Power For USA, Sep 27, 2016

<https://dddusmma.wordpress.com/2016/09/27/millennials-may-have-to-delay-buying-first-home/>

“California regulators are establishing rules so that every home built by 2020 is a Zero Net Energy (ZNE) home. ZNE homes must not use more energy than they produce.”

[SEPP Comment: If each home is a Zero Net Energy user, where does it get its energy from when needs it and where does the energy go when it produces too much?]

Oh Mann!

‘Hide The Decline’ Unveiled: 50 Non-Hockey Stick Graphs Quash Modern ‘Global’

Warming Claims

By Kenneth Richard, No Tricks Zone, Sep 27, 2016

<http://notrickszone.com/2016/09/27/hide-the-decline-unveiled-50-non-hockey-stick-graphs-quash-modern-global-warming-claims/#sthash.p6Uj2Yji.dpbs>

Environmental Industry

The Next Environmental Scare?

By Steven Hayward, Power Line, Sep 25, 2016

<http://www.powerlineblog.com/archives/2016/09/the-next-environmental-scare.php>

[SEPP Comment: Earth's loss of O2?]

Endangered species rule changed, angering environmental group

By Lydia Wheeler, The Hill, Sep 26, 2016

<http://thehill.com/regulation/energy-environment/297752-rule-changes-petitioning-process-for-animal-protections>

Other Scientific News

With solar storm in progress, regional impact forecasts set to begin

By Anthony Watts, WUWT, Sep 29, 2016

<https://wattsupwiththat.com/2016/09/29/with-solar-storm-in-progress-regional-impact-forecasts-set-to-begin/>

Peat bogs in northern Alberta, Canada reveal decades of declining atmospheric Pb contamination

By William Shotyk, et al. Geophysical Research Letters, Sep 27, 2016

<http://onlinelibrary.wiley.com/doi/10.1002/2016GL070952/abstract?campaign=wlytk-41855.5282060185>

Other News that May Be of Interest

The Green Universe: A Vision

By Freeman Dyson, New York Review of Books, Oct 13, 2016

<http://www.nybooks.com/articles/2016/10/13/green-universe-a-vision/>

The Faster a Planet Rotates, the Warmer its Average Temperature

By Roy Spencer, His Blog, Sep 28, 2016

<http://www.drroyspencer.com/2016/09/the-faster-a-planet-rotates-the-warmer-its-average-temperature/>

How to constrain the abuse of science by Federal agencies

By David Wojick, Climate Etc. Sep 28, 2016

<https://judithcurry.com/2016/09/28/how-to-constrain-the-abuse-of-science-by-federal-agencies/>

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BELOW THE BOTTOM LINE:

Prostitution caused by man-made global warming

By Geoff Brown, Australian Climate Sceptics, Sep 27, 2016

http://theclimatescepticsparty.blogspot.com.au/2016/09/prostitution-caused-by-man-made-global_27.html

[SEPP Comment: According to US Rep. Barbara Lee (D, DC). *Who has no vote.*]

Earth's obliquity and temperature over the last 20,000 years

By Anthony Watts, from Javier, WUWT, Sep 29, 2016

<https://wattsupwiththat.com/2016/09/29/earths-obliquity-and-temperature-over-the-last-20000-years/>

[SEPP Comment: *A cartoon.*]

Academic Absurdity of the Week: Fake Peer Reviews

By Steven Hayward, Power Line,

“The research team was able to influence the peer review process in one in four cases by throwing fake reviews into the mix, it said.” Sep 22, 2016

<http://www.powerlineblog.com/archives/2016/09/academic-absurdity-of-the-week-fake-peer-reviews.php>

Climate change is all about walking on thin ice!

By Staff Writers, Climate Change Predictions.org, Sep 21, 2016

<http://climatechangepredictions.org/uncategorized/6910>

The melting of the earth's ice cover has already become a source of physical trauma. In Alaska, Inuits report an increase in accidents caused by walking on thin ice.

From: “Climate Change and Human Health” Paul R. Epstein, M.D., M.P.H. The New England Journal of Medicine, 6 Oct 2005, Vol. 353 No. 14

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ARTICLES:

1. ‘Clean Power’ Plays and the Last Stand for Federalism

What will be left of our constitutional order if the EPA's plan passes judicial muster?

By David B. Rivkin, Jr. and Andrew M. Grossman, WSJ, Sep 25, 2016

<http://www.wsj.com/articles/clean-power-plays-and-the-last-stand-for-federalism-1474841482>

These Constitutional attorneys state:

“After Congress turned down President Obama's request to enact a law regulating power plants' greenhouse-gas emissions, the Environmental Protection Agency turned to the states—not with a request, but with instructions to carry out the president's energy policy. The EPA's “Clean Power Plan” now faces the scrutiny of the nation's chief regulatory review court, the U.S. Court of Appeals for the District of Columbia Circuit.

“If the Constitution's federalism is to endure, the Clean Power Plan must be struck down.

“The Constitution establishes a federal government of limited and enumerated powers while the states retain a plenary “police power,” subject only to the specific limitations of federal law. This is what Justice Anthony Kennedy called the Constitution’s “genius”: It “split the atom of sovereignty” to ensure accountability when meeting both local and national concerns, while fostering rivalry between the two levels to curb excessive political ambition that might threaten liberty.

“Only in recent decades did politicians learn how to realize their ambitions through collusion. The federal government now entices states with transfer payments to establish and administer social-welfare programs. And, in schemes that the courts describe as “cooperative federalism,” it offers states the choice to regulate their citizens according to federal dictates, as an alternative to the feds regulating directly and having states get out of the way.

“Even these approaches were not enough for the Obama administration to cajole the states to carry out its energy agenda. So it resolved to obliterate one of the last vestiges of the Constitution’s vertical separation of powers: the bar on federal commandeering of the states and their officials to carry out federal policy.

“The Clean Power Plan is enormously complicated, but its overall approach is straightforward. Previous emissions regulations have focused on reducing emissions from particular facilities, but this one relies on shifting electricity generation from disfavored facilities (coal-fired power plants) to those the EPA prefers (natural gas and renewables). The EPA then determined what, in its view, is the maximum amount of such shifting that each of the nation’s regional electric grids could possibly accommodate and calculated the emissions reductions.

“Parcel those figures out by state, factor in additional reductions due to estimated efficiency improvements at older plants, and the result is state-specific reduction targets. The states can elect to achieve those targets themselves—or, if they decline, the EPA will do it for them. “Textbook cooperative federalism,” says the EPA.

“Not quite. Whether or not the states choose to implement the plan directly, it leaves them no choice but to carry out the EPA’s federal climate policy. That’s because the EPA can destroy but not create. It can regulate emissions of existing facilities, but it lacks the legal authority to facilitate the construction and integration of new power sources, which is ultimately the only way to achieve the plan’s aggressive targets.

“That duty falls to the states, which the plan depends upon to carry out what the EPA calls their “responsibility to maintain a reliable electric system.” Doing nothing, as in the cooperative federalism scenario, is not an option.

“So this is how the plan works: The EPA pushes coal-fired plants off the grid, and then counts on the states to ensure that the resulting reductions in capacity are matched by increases in EPA-preferred forms of power generation. State agencies will have to be involved in decommissioning coal-fired plants, addressing replacement capacity—like wind turbines and solar arrays—addressing transmission and integration issues, and undertaking all manner of related regulatory proceedings. All this to carry out federal policy.

“The Clean Power Plan implicates every evil associated with unconstitutional commandeering. It dragoons states into administering federal law, irrespective of their citizens’ views. It destroys accountability, by directing the brunt of public disapproval for increased electricity costs and lost

jobs onto state officials, when the federal government deserves the blame. And it subverts the horizontal separation of powers, by allowing the executive branch to act where Congress has refused to legislate.

“One can only wonder what will be left of our constitutional order if the plan passes judicial muster.

“The federal government would no longer be a government of limited powers, but instead be able to compel the states to do its bidding in any area. The states, in turn, would be reduced to puppets of a federal ventriloquist, carrying out the dirty work for which federal actors wish to avoid accountability. And the federal executive, in many instances, could effectively create new law by working through the states, free of the need to win over Congress.

“So it is difficult to imagine a U.S. where the Clean Power Plan is the law of the land. It would not be the same country, or the same Constitution, that Americans have enjoyed all these years.”

2. The ‘Clean Power’ Putsch

A watershed case about democratic consent and the separation of powers.

Editorial, WSJ, Sep 25, 2016

<http://www.wsj.com/articles/the-clean-power-putsch-1474841938>

The Editorial states:

“In the American system of cooperative federalism, the federal government is supreme and can pre-empt state laws, and it often does. The EPA has the power, for example, to impose efficiency improvements or air-quality standards on existing power plants. But with the CPP it is stretching this power to unprecedented levels and commandeering state resources.

“At the heart of cooperative federalism is the right of refusal—states must retain the power to opt out of any federal scheme. If that scheme is grounded in a law passed by Congress, the feds can take over and regulate themselves. In this case the EPA has no authority to do anything of the kind.

“Even if the CPP explicitly banned coal-fired power, the EPA cannot mandate that states switch to solar panels and wind turbines. The agency can destroy but it cannot create. Here the EPA is expecting that states will undertake the extensive and costly preparation and regulation to compensate for lost carbon power because they have no other choice to keep the lights on. The EPA is happy to let states take responsibility for problems the EPA is creating.

*The Supreme Court has often policed and struck down such commandeering. In 1992’s *New York v. United States*, the High Court invalidated a command to states related to low-level radioactive waste, while 1997’s *Printz v. United States* overturned a provision on background checks for gun purchasers. As recently as the ObamaCare cases of 2012, the Court ruled that the law’s Medicaid expansion was an unconstitutionally coercive “gun to the head” and gave states the right to opt out.*

The CPP is far more bullying than any of these examples. Redesigning state-based energy systems to replace fossil fuels is a capital-intensive and decades-long transition, to the extent it is possible. It requires power-plant retirements and upgrades, restructuring transmission lines, building new natural-gas pipelines. States must avoid blackouts and service disruptions to protect public safety and the economy.

The EPA says the CPP is run-of-the-mill pollution regulation, but Mr. Obama held an East Room ceremony calling it historic and the rule is the heart of the U.S. commitment to the Paris climate accord. Both claims can't be true. The EPA also claims the CPP "shows a deep respect for states' sovereignty by giving them the opportunity to design an emissions-reduction plan that makes sense for their citizens." In other words, as long as they are willing to suffer, they can suffer in their own way.

*Climate change has become religious faith on the left, and Mr. Obama and Senate Democrats have packed the D.C. Circuit with liberals precisely to bounce cases like this one. The court is hearing *West Virginia v. EPA* en banc because of its extraordinary importance, and the 10-member panel is stocked with more liberals than conservatives. But liberal judges who care about the rule of law should also worry about the danger to the constitutional order and democratic consent from the EPA's breathtaking power grab.*

3. Two Years Into Oil Slump, U.S. Shale Firms Are Ready to Pump More

Shale industry has proved resilient despite low prices thanks to cost cuts, efficiency improvements
By Lynn Cook and Bradley Olson, WSJ, Sep 27, 2016

<http://www.wsj.com/articles/two-years-into-oil-slump-u-s-shale-firms-are-ready-to-pump-more-1474968601>

SUMMARY: The reporters state:

"When oil prices began to plunge two years ago due to a global glut of crude, experts predicted U.S. shale producers would be the losers of the resulting shakeout.

"But the American companies that revolutionized the oil and gas business with hydraulic fracturing and horizontal drilling are surviving the carnage largely unbowed.

"Though the collapse in prices caused a wave of bankruptcies, total U.S. oil production has only fallen by about 535,000 barrels a day so far this year compared with 2015, when it averaged 9.4 million barrels, according to the latest federal data.

"As the oil markets ponder where production will resume when prices pick back up, one clear answer has emerged: America. Goldman Sachs forecasts the U.S. will be pumping an additional 600,000 to 700,000 barrels of oil a day by the end of next year—making up for every drop lost in the bust.

"Few predicted that in the fall of 2014, when Saudi Arabia signaled that it wouldn't curb its output to put a floor under crude prices. Oil pundits concluded that a brutal culling would force higher-cost players known as marginal producers—a group that includes shale drillers—out of the market.

"But the greatest consequence of the Saudi decision and subsequent price drop is that it has delayed costly oil megaprojects, from deep-water platforms off Angola to oil-sands mines in Canada.

"'The U.S. isn't the marginal barrel but the most flexible,' said R.T. Dukes, an analyst at Wood Mackenzie. 'We'll be the fastest to snap back.'

“More than 100 North American energy producers have declared bankruptcy during this downturn, but even companies working through chapter 11 keep pumping oil and gas. Many exit bankruptcy stronger thanks to a balance sheet that has been wiped clean. SandRidge Energy Inc., which filed in May, will exit next month after erasing nearly \$3.7 billion in debt.

“Many shale operators are still struggling at current prices, drilling at a loss and tapping Wall Street for new infusions of cash. But the strongest producers, including EOG Resources Inc. and Continental Resources Inc., soon will be able to generate enough money to pay for new investments and dividends—as well as boost production—even at low prices, analysts say.

“A big reason U.S. oil production has been so resilient is that U.S. producers found ways to cut costs and enhance efficiencies during the lean years. Those innovations are now poised to propel the industry’s resurrection.

“In May, Halliburton Co. helped tap the longest shale well on record—26,641 feet deep and another 18,544 feet long—for Eclipse Resources Corp. in Ohio, 130 miles south of Cleveland. That well was fracked—the process of injecting water, chemicals and sand to coax out oil and gas—an extraordinary 124 times. Typical shale wells are fracked between 30 and 40 times, up from just nine fracks in 2011 at the start of the oil boom, according to Drillinginfo, a data provider for the energy industry.

To put that engineering feat in Manhattan perspective, that is equivalent to burrowing down to the depth of 15 World Trade Centers at One World Trade Center, turning 90 degrees and drilling underground 3.5 miles to Grand Central station. Eclipse saved 30% by supersizing the well, said Chief Operating Officer Tom Liberatore.

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