The Week That Was: 2017-02-25 (February 25, 2017)
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The Science and Environmental Policy Project

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Quote of the Week. *Competing pressures tempt one to believe that an issue deferred is a problem avoided; more often it is a crises invented.* — Henry Kissinger

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Number of the Week: about 72%

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THIS WEEK:

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

TWTW: Due to other commitments requiring refraining from public comments that may be misconstrued as suggesting policy, this TWTW will be short and comments restrained. Responses to correspondence will be limited. Thank you.

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Global Climate Models: Judith Curry wrote a powerful critique of global climate models, "Climate Models for the Layman", that was published by the Global Warming Policy Foundation. A few of the key points are discussed below. For those with a deeper interest in climate science or climate modeling, the entire paper is worthwhile.

In the executive summary, Curry presents several fundamental scientific points on Global Climate Models (GMCs) including:

"GCMs have not been subject to the rigorous verification and validation that is the norm for engineering and regulatory science.

There are valid concerns about a fundamental lack of predictability in the complex nonlinear climate system."

The UN Intergovernmental Panel on Climate Change (IPCC) is well aware of the failure to produce valid models. Five-time Assessment Report (AR) commentator Vincent Gray of New Zealand has repeatedly stated this failure to the IPCC. The IPCC has responded by evasive tactics such as changing terms of predictions to projections and terming highly questionable, evasive procedures as evaluation. Government entities that depend on the IPCC findings follow suit. These include the US Global Change Research Program (USGCRP), including its highly dubious calculations of the "Social Cost of Carbon", and the EPA in its ambiguous finding that greenhouse gases, especially carbon dioxide, endanger public health and welfare.

Curry identifies specific issues concerning the models:

"There are numerous arguments supporting the conclusion that climate models are not fit for the purpose of identifying with high confidence the proportion of the 20th century warming that was human-caused as opposed to natural.

"There is growing evidence that climate models predict too much warming from increased atmospheric carbon dioxide.

"The climate model simulation results for the 21st century reported by the Intergovernmental Panel on Climate Change (IPCC) do not include key elements of climate variability, and hence are not useful as projections for how the 21st century climate will actually evolve."

As demonstrated by the reports of the Nongovernmental International Panel on Climate Change (NIPCC), especially the 2013 report on the Physical Science, there are major problems with IPCC reports such as including natural variation with human influence.

Further, the testimony by John Christy demonstrates that the IPCC models overestimate warming of the atmosphere by 2.5 to 3 times. [To avoid confusion with stratospheric cooling, Christy removed from his analysis atmospheric measurements above 50,000 feet (16,500 meters)]

The recent report by Wallace, et al., concludes that the entire record of atmospheric warming after 1959 (the starting of systematic balloon records) can be explained by natural variation – a combination of the index for the El Niño Southern Oscillation (ENSO) and the Pacific Decadal Oscillation (PDO). The statistical fit for 13 different datasets is far superior than any fit with carbon dioxide (CO2). [The term oscillation is unfortunate because it implies a rhythmic, predictable change and the ENSO and PDO are not predictable.]

The "take-home" message from Curry is:

"Climate models are useful tools for conducting scientific research to understand the climate system. However, the above points support the conclusion that current GCMs are not fit for the purpose of attributing the causes of 20th century warming or for predicting global or regional climate change on timescales of decades to centuries, with any high level of confidence. By extension, GCMs are not fit for the purpose of justifying political policies to fundamentally alter world social, economic and energy systems. It is this application of climate model results that fuels the vociferousness of the debate surrounding climate models."

Curry's conclusion about the use of global climate models is similar that of the Apollo veterans who make up The Right Climate Stuff Team. For Apollo missions, models had to be validated before they were used. After over 35 years, and the US spending over $40 Billion on Climate Science, the failure to produce a verified and valid global climate model is significant. The models should not be used to justify regulation of carbon dioxide because the results of the models cannot be trusted.

One admires the courage of Judith Curry for presenting her frank discussion on the limits of climate models. She knows the consequences to include vilification. No wonder she retired from Georgia Institute of Technology. How can one responsibly teach graduate students, when discussions on the limits of knowledge are forbidden? See links under Challenging the Orthodoxy – NIPCC and Challenging the Orthodoxy.
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Credibility of Government Agency Science: As the paper by Judith Curry illustrates, there are major problems with the credibility of science when used by government agencies. For example, The EPA too often makes unwarranted claims, such as those about dangerous chemicals.

Recent reports state that Malaysian toxicologists revealed that the liquid nerve agent VX was used in the airport assassination of Kim Jong-Nam, the half-brother of the dictator of North Korea. Until President Nixon banned first-use of biological and chemical weapons in 1969, the U.S. had

an active program in the development of such weapons. Military officers were selected to attend the Chemical, Biological, Radiological Warfare officers course in Anniston, Alabama. They received a vivid demonstration of the effectiveness of VX and its antidotes – atropine and oxime.

Wearing protective clothing, instructors carefully placed one drop of VX on the skin of a shaved area of a goat. Within minutes the goat was down. It would have died quickly if the instructors had not interceded by injecting it with atropine and oxime and gave it pressure respiration to restore breathing. After about 15 minutes, the goat was peacefully grazing. At the time, all combat soldiers received training on nerve agents and in use of spring-loaded atropine needles for self-injection.

Several years later, employees of the EPA were claiming that a commonly used chemical, dioxin, was one of the most lethal chemicals existing. They had no idea about what they spoke. It is difficult to consider any agency credible, given such exaggeration.

A similar credibility gap exists with NASA's Goddard Institute for Space Studies (NASA-GISS). The former director, James Hansen, has made 21st century sea level predictions using an exponential model showing massive rise in the last decade of this century. If the model is extended into the 22nd century, one could claim that "soon the earth's sea levels will reach the moon."

Restoring credibility to government agencies that use such exaggeration is a major issue. Too often, such claims are considered protected under freedom of speech. But, freedom of speech and freedom of academic inquiry do not mean freedom from responsibility and accountability. This is particularly true for regulatory agencies and the entities that know their reports will be used in regulations. See link under Other News that May Be of Interest.

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European Energy Use: Problems are continuing with the adaption of "green energy" policies in European countries. Electricity prices to consumers are rising in Britain. These increasing prices are leading some commentators to suggest a new measurement for the effectiveness of green energy is needed. A conventional measure is Energy Return on Energy Invested (EROEI). But, a recent academic paper on solar photovoltaic (solar panels) suggests that in northern latitudes solar photovoltaic may have a return of less than one. The paper is hotly contested.

John Constable of the Global Warming Policy Foundation suggests that: "Rather than just asking whether a technology has a high or low EROEI in an isolated or laboratory sense, we should be asking what the presence of a particular solar PV or wind turbine fleet, for example, does to the EROEI of the overall system of which it is a part." Realizing that the electrical grid is an energized system, the cost to the system is far more important than the cost of an individual part. No doubt, the total system cost will be hotly contested, including by those who are busily calculating the social cost of carbon, leaving out the benefits. The comments by Constable apply to on-grid applications, not necessarily to off-grid applications.

Grid operators in Poland and the Czech Republic are objecting to a new form of "German aggression" – unloading unwanted electricity in times of excess generation from wind. The excess power threatens the stability of the grid.

It should be remembered that much of the push for "green energy" came after the IPCC Fourth Assessment Report (AR-4, 2007), which heavily relied on speculative global climate models. To

make matters worse, further calculations were made based on speculative models derived from global climate models. The UK Climate Change Act of 2008 mandating an 80% reduction in greenhouse gases by 2050 is an example. Fortunately, President Obama's 2009 cap-and-trade proposal, with similar self-punishment, died in the US Senate. See Article # 2 and links under Questioning European Green
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California Dreaming: Now that parts of California are flooding, the finger-pointing by environmental groups continues, but by making different accusations. One is reminded of a comment by Peter Gleick of the Pacific Institute, who falsely posed as a director of The Heartland Institute:

"We've built on all the dam sites,' Pacific Institute's Peter Gleick said. 'Even if we built a couple of dams, we don't have water to fill them. We're tapped out. The traditional answer of building more reservoirs won't solve our problems."

Yet, one must recognize that recent laws and regulations preventing farmers from using traditional water sources continue. See Article # 1 and links under California Dreaming.
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Additions and Corrections: Meteorologist William Kininmonth and physicist Donald Rapp have enlightened TWTW on how to better present a possible flaw in the greenhouse gas theory as presented by the IPCC and its followers. This will be discussed in an upcoming TWTW. It centers on the fact that the expected warming trend in atmosphere, the "hot spot" over the tropics, is not found. [The term "warming trend in the atmosphere", is a correction to the carelessly used "atmospheric warming" in the January 28 bulletin.] TWTW deeply appreciates additions and corrections from such learned readers.
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Number of the Week: About 72%. Eurostat, the statistical arm of the EU, released its findings on energy consumption and fossil fuel use in the EU and its general area for 2015. Fossil fuels comprised about 72% of total EU energy consumption in 2015. Only 3 EU countries have fossil fuels use at less than 50% of total energy consumption – Sweden (30%), Finland (46%), and France (49%). They heavily depend on hydro and nuclear. For some reason, Norway is not included in the 2015 numbers. Other than Denmark (from 91% in 1990 to 69% in 2015), the major declines in fossil fuel percentage occurred in former Soviet block countries, that had very inefficient coal-fired plants. See links under Questioning European Green.

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NEWS YOU CAN USE:

Science: Is the Sun Rising?

3 Recent Studies Indisputably Show Solar Activity Is Very Powerful Climate Driver!
Solar activity fluctuations control the climate: sea level in Venice, tropical storms in Australia, Amazon discharge rates
By Dr. Sebastian Lüning and Prof. Fritz Vahrenholt, (German text translated by P Gosselin), Feb 11, 2017
http://notrickszone.com/2017/02/11/3-recent-studies-indisputably-show-solar-activity-is-very-powerful-climate-driver/#sthash.lmTJv8yi.dpbs

Commentary: Is the Sun Rising?

Solar Cycle Quietest in 200 Years – And Surface Warming Much Slower Than Model Projections!

The sun in January 2017, and: a "pause" or not?
By Frank Bosse and Fritz Vahrenholt, Translated/condensed by P Gosselin, No Tricks Zone, Feb 17, 2017
http://notrickszone.com/2017/02/17/solar-cycle-quietest-in-200-years-and-surface-warming-much-slower-than-model-projections/#sthash.0NeOe5Ra.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

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

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

Challenging the Orthodoxy

New Paper: Computer Predictions Of Climate Alarm Are Flawed
By Staff Writers, GWPF, Feb 21, 2017
http://www.thegwpf.com/new-paper-computer-predictions-of-climate-alarm-are-flawed/
Link to report: Climate Models for the Layman
By Judith Curry, GWPF, 2017
http://www.thegwpf.org/content/uploads/2017/02/Curry-2017.pdf

Prepared Testimony to House Committee on Science, Space & Technology
By John Christy, University of Alabama in Huntsville, 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

https://thsresearch.files.wordpress.com/2016/09/ef-cpp-sc-2016-data-ths-paper-ex-sum-090516v2.pdf

Climate Science and Climatology; Specialization and Generalization; Forest and Trees
Guest opinion: Dr. Tim Ball, WUWT, Feb 20, 2017
https://wattsupwiththat.com/2017/02/20/climate-science-and-climatology-specialization-and-generalization-forest-and-trees/

How Climate Alarmists' "Solution" Ignores Readily Available Scientific Evidence
By Alan Carlin, Carlin Economics and Science, Feb 23, 2017
http://www.carlineconomics.com/archives/3411

Democrats' Real Global Warming Fraud Revealed
By Dennis T. Avery, American Thinker, Feb 18, 2017
http://www.americanthinker.com/articles/2017/02/democrats_real_global_warming_fraud_revealed.html
"All of this is all relatively new science. The Dansgaard-Oeschger cycle wasn't understood until the Greenland ice cap was cored in 1983. The satellites, with their more complete temperature coverage, didn't fly until 1979. The Pacific Oscillation wasn't recognized until 1996. The high-quality sea temperature data from the Argo floats—which Karl dismissed in his paper—has only been gathered since 2000."

Defending the Orthodoxy
Trump to roll back Obama's climate, water rules through executive action
By Juliet Eilperin and Steven Mufson, Washington Post, Feb 20, 2017
https://www.washingtonpost.com/news/energy-environment/wp/2017/02/20/trump-to-roll-back-obamas-climate-water-rules-through-executive-action/?utm_term=.8d23a478f934

Questioning the Orthodoxy
US Congress launches a probe into climate data that duped world leaders over global warming
By David Rose, Mail on Sunday, Feb 18, 2017 [H/t GWPF]
http://www.dailymail.co.uk/news/article-4238806/US-Congress-launches-probe-climate-data.html

Accentuate the positive...
By Martin Livermore, The Scientific Alliance, Feb 24, 2017
http://scientific-alliance.org/node/1038

Change in US Administrations
Will Trump Stand Up to the World on Climate-Change Policy?
By Robert Darwall, National Review, Feb 22, 20177 [H/t GWPF]
http://www.nationalreview.com/article/445121/donald-trump-paris-climate-agreement-teachable-moment-europe

Scott Pruitt EPA Swamp-Draining Fear Brings Crocodile Tears
By Larry Bell, Newsmax, Feb 21, 2016
http://www.newsmax.com/LarryBell/scott-pruitt-epa-justice-alito-drain-the-swamp/2017/02/21/id/774735/

[SEPP Comment: Wet leaves have been sufficient for land declared "waters of the United States."]

Time's misreading of science,
By Anthony Sadar, ICECAP, Feb 21, 2017
http://icecap.us/index.php/go/icing-the-hype/times_misreading_of_science/

Review of Recent Scientific Articles by CO2 Science

Benthic Foraminifers Fighting Extreme pH and Water Temperatures
Engel, B.E., Hallock, P., Price, R.E. and Pichler, T. 2015. Shell dissolution in larger benthic foraminifers exposed to pH and temperature extremes: Results from an *in situ* experiment. *Journal of Foraminiferal Research* **45**: 190-203. Feb 23, 2017
http://www.co2science.org/articles/V20/feb/a14.php
"'individual specimens of four out of seven larger benthic foraminiferal species retained normal symbiont color and thus appeared to survive exposure to temperature fluctuations of up to 60°C and pH fluctuations from 5.9-7.4.' And, therefore, they go on to conclude that 'shells of reef-dwelling foraminifers can substantially resist dissolution' under 'pH conditions sufficiently extreme to erase any fossil footprint.'"

Modelling Northern Hemisphere Atmospheric Blocking Systems
Davini, P. and D'Andrea, F. 2016. Northern Hemisphere Atmospheric Blocking Representation in Global Climate Models: Twenty Years of Improvements? *Journal of Climate* **29**: 8823-8840. Feb 21, 2017
http://www.co2science.org/articles/V20/feb/a13.php

Likely Effects of Ocean Acidification on Undulated Surf Clams
Guo, X., Xu, X., Zhang, P., Huang, M., Luo, X., You, W. and Ke, C. 2016. Early development of undulated surf clam, *Paphia undulate* under elevated *p*CO2. *Journal of Experimental Marine Biology and Ecology* **484**: 23-30. Feb 20, 2017
http://www.co2science.org/articles/V20/feb/a12.php
[SEPP Comment: Negative effects appeared at approximately 5 times the current CO2 concentrations.]

Changing Weather

Watch the 'super-soaker' pineapple express storm hitting California
By Anthony Watts, WUWT, Feb 24, 2017
https://wattsupwiththat.com/2017/02/24/watch-the-super-soaker-pineapple-express-storm-hitting-california/

Another El Niño Could Be On Its Way
There's a 40 percent chance of the pattern later this year
By Erin Blakemore, Smithsonian.com, Feb 17, 2017 [H/t Toshio Fujita]
http://www.smithsonianmag.com/smart-news/another-el-nino-could-be-its-way-180962200/?utm_source=smithsoniandaily&utm_medium=email&utm_campaign=20170217-daily-responsive&spMailingID=27930600&spUserID=NzQwNDU3NzU2NjgS1&spJobID=983459668&spReportId=OTgzNDU5NjY4S0

Changing Seas

As seas rise, city mulls a massive sea barrier across Boston Harbor
By David Abel, Boston Globe, Feb 18, 2017
http://www.bostonglobe.com/metro/2017/02/18/seas-rise-city-mulls-massive-sea-barrier-across-boston-harbor/dxtlbGrfSmYE2zacwUKakJ/story.html?s_campaign=email_BG_TodaysHeadline&s_campaign
Link to report: Climate Ready Boston
Climate Ready Boston is an initiative to develop resilient solutions to prepare our City for climate change.
By Staff Writers, City of Boston, Feb 1, 2017
https://www.boston.gov/environment-and-energy/climate-ready-boston
"But a climate report released in January by the National Oceanic and Atmospheric Administration found that East Coast cities are likely to experience even higher seas than had been predicted. Without drastic reductions in greenhouse gases, the seas could rise as much as 8.2 feet by 2100, up from its previous estimate of 6.6 feet, researchers found."
[SEPP Comment: But why stop at 8.2 feet by 2100? If you believe the model of exponential rise produced by James Hansen, formerly head of NASA-GISS, in the 22nd century rate of sea level rise will approach infinity.]

Ocean State Sea level-Rise Estimate Now Above 9 Feet [Rhode Island]
By Tim Faulkner, ECO RI News, Feb 12, 2017
http://www.ecori.org/climate-change/2017/2/12/see-level-rise-estimate-now-above-9-feet
Link to Technical Report: Global and Regional Sea Level Rise Scenarios for the United States.
By Staff Writers, NOAA, USGS, EPA, and Rutgers University, Under the USGCRP, January 2017
https://tidesandcurrents.noaa.gov/publications/techrpt83_Global_and_Regional_SLR_Scenarios_for_the_US_final.pdf

Changing Cryosphere – Land / Sea Ice

Observations Show No Warming Trend, Mostly Stable Glaciers In The Himalayas…Contradicting IPCC's 'Fake News'
By Kenneth Richard, No Tricks Zone, Feb 23, 2017
http://notrickszone.com/2017/02/23/observations-show-no-warming-trend-mostly-stable-glaciers-in-the-himalayas-contradicting-ipccs-fake-news/#sthash.Gq8pJGgM.dpbs

Agriculture Issues & Fear of Famine

The scandal behind the ban on neonicotinoids
By Matt Ridley, Rational Optimist, Feb 19, 2017
http://www.rationaloptimist.com/blog/neonicotinoids-and-bees/

Communicating Better to the Public – Make things up.

Mid 20thC Increase In Arctic Sea Ice
By Paul Homewood, Not a Lot of People Know That, Feb 24, 2017
https://notalotofpeopleknowthat.wordpress.com/2017/02/24/mid-20thc-increase-in-arctic-sea-ice/#more-26565
[SEPP Comment: Exposing more non-science in aerosol analysis.]

Antarctic Sea Ice Claims Don't Stand Up To Scrutiny
By Paul Homewood, Not a Lot of People Know That, Feb 23, 2016

https://notalotofpeopleknowthat.wordpress.com/2017/02/23/antarctic-sea-ice-claims-dont-stand-up-to-scrutiny/
"To claim a record low based on a difference of 0.1% is clearly statistically nonsense. Worse than that, it is dishonest."

Questioning European Green

Energy Return and Economic Planning
By John Constable, GWPF, Feb 22, 2016
http://www.thegwpf.com/energy-return-and-economic-planning/

EU Sees Almost No Fossil Fuel Consumption Progress Despite Hundreds Of Billions Of Euros Invested!
By P Gosselin, No Tricks Zone, Feb 24, 2017
http://notrickszone.com/2017/02/24/eu-sees-almost-no-fossil-fuel-consumption-progress-despite-hundreds-of-billions-of-euros-invested/#sthash.vFyKyaZd.dpbs
Link to Eurostat News Release: Energy consumption in the EU below its 1990 level..... but EU dependency on fossil fuel imports on the rise
By Staff Writers, Eurostat, Feb 20, 2017
http://ec.europa.eu/eurostat/documents/2995521/7882431/8-20022017-AP-EN.pdf/4f3e5e6a-5c1a-48e6-8226-532f08e3ed09

More Green Madness: £450m Lost Over Failed Green Power Programme
By Ben Webster, The Times, Via GEPF, Feb 23, 2016
http://www.thegwpf.com/more-green-madness-450m-lost-over-failed-green-power-programme/
"Drax, Britain's biggest power station, received more than £450 million in subsidies in 2015 for burning biomass, which was mostly American wood pellets. The report says that the government's assessment of the impact on the climate of switching from coal to wood pellets is flawed because it ignores emissions from burning pellets in power stations. The assessment counts only emissions from harvesting, processing and transporting wood pellets."

Questioning Green Elsewhere

An Independent Evaluation of the El Hierro Wind & Pumped Hydro System
Guest post by Dipl.-Ing. Benjamin Jargstorf, Energy Matters, Feb 23, 2017
http://euanmearns.com/an-independent-evaluation-of-the-el-hierro-wind-pumped-hydro-system/#more-17185
[SEPP Comments: A detailed post explaining the problems encountered at El Hierro. The headlines declaring "Tiny Spanish Island Nears Its Goal: 100 Percent Renewable Energy" should be retracted, but remembered as an example that such a system is not successful until it works in operations.]

Funding Issues

How Is Science Funded In The United States?
By Julianna LeMieux, ASCH, Feb 7, 2017
http://acsh.org/news/2017/02/07/how-science-funded-united-states-10816
"Grants given by the government are the lifeline of academic researchers. Without money to fund your research, an institution is unlikely to keep you on their faculty. This is largely because a portion of the funds from the government go directly to the school. These 'indirect costs', which range from 50% - 75% of the total grant get split between the university, the dean and the departments. They pay only for the 'support of research' which generally means keeping the

building maintained. That is lights, natural gas lines, and management of the facilities - not people, equipment, or supplies."

Deciding Which Science Gets Funded: The Review Process
By Julianna LeMieux, ASCH, Feb 9, 2017
http://acsh.org/news/2017/02/09/deciding-which-science-gets-funded-review-process-10834

High Risk List
By Staff Writers, GAO, 2017 [H/t Timothy wise]
http://www.gao.gov/highrisk/overview

The Political Games Continue
Congress Slashes Funding For NASA's Global Warming Research
By Andrew Follett, Daily Caller, Feb 20, 2016
http://dailycaller.com/2017/02/20/congress-slashes-funding-for-nasas-global-warming-research/
"The agency now spends more on environmental research than many of its other science functions, including astrophysics and space technology. Those programs only get $781.5 million and $826.7 million, respectively."
[SEPP Comment: The FY 2015 budget has $5.255 billion as the total for science: Earth Sciences, 1.773 billion, Planetary Sciences 1.438 billion; Astrophysics $685 million; James Webb Telescope $645 million and Heliosphysics $662 million.]

Subsidies and Mandates Forever
If Greens cared about CO2 they would dump renewable targets
By Jo Nova, Her Blog, Feb 21, 2017
http://joannenova.com.au/2017/02/if-greens-cared-about-co2-they-would-dump-renewable-targets/
[SEPP Comment: Includes analysis by nuclear physicist Tom Quirk.]

Oil and Natural Gas – the Future or the Past?
Shale Drilling Is on a Roll as OPEC Cuts Keep Oil Above $50
By Bailey Lipschultz, Bloomberg, Feb 17, 2017
https://www.bloomberg.com/news/articles/2017-02-17/u-s-oil-drilling-stays-on-a-roll-as-opec-cuts-prop-up-prices

Nuclear Energy and Fears
Risk and Nuclear Power Plants
By Andy May, WUWT, Updated Feb 21, 2017
https://wattsupwiththat.com/2017/02/20/risk-and-nuclear-power-plants/

Alternative, Green ("Clean") Solar and Wind
Household solar storage increases emissions, study concludes
By Tereza Pultarova, Engineering and Technology, Jan 31, 2017 [H/t GWPF]
https://eandt.theiet.org/content/articles/2017/01/household-solar-storage-increases-emissions-study-concludes/
Link to paper: The impacts of storing solar energy in the home to reduce reliance on the utility
By Robert Fares and Michael Webber, Nature Energy, Jan 30, 2017
http://www.nature.com/articles/nenergy20171

California Dreaming

California's past megafloods – and the coming ARkStorm
Guest Essay By Larry Kummer. Posted at the Fabius Maximus website., WUWT, Feb 17, 2017
https://wattsupwiththat.com/2017/02/17/californias-past-megafloods-and-the-coming-arkstorm/
[SEPP Comment: More on the need to prepare for significant flooding in California.]

Conservatives Blame California's Drought on Environmentalists
By Rebecca Leber, New Republic, **April 23 2015**
https://newrepublic.com/article/121605/conservatives-make-environmentalists-cause-california-drought

Other News that May Be of Interest

VX: the banned, deadly nerve agent that killed Kim
By Staff Writers, AFP, Feb 24, 2017
https://www.yahoo.com/news/vx-banned-deadly-nerve-agent-killed-kim-071639579.html

Particles from outer space are wreaking low-grade havoc on personal electronics
By Staff Writers, Nashville TN (SPX), Feb 21, 2017
http://www.spacedaily.com/reports/Particles_from_outer_space_are_wreaking_low_grade_havoc_on_personal_electronics_999.html

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BELOW THE BOTTOM LINE:

Baby corals learn from mummy corals warming lessons
By Jo Nova, Her Blog, Feb 22, 2017
http://joannenova.com.au/2017/02/baby-corals-learn-from-mummy-corals-warming-lessons/

Models as fictions
By Staff Writers, Climate Change predictions.org, Feb 23, 2017
http://climatechangepredictions.org/uncategorized/7854

"In spite of its attractions for other sorts of physicists, realism seems to be an inappropriate way to conceive of climate physics: arguments regarding the truth content of our best models seem beside the point when one considers that the horizontal extent of every cloud in HadCM3 is some integer multiplied by its grid resolution 2.5×3.75°.

"Rather than seeing models as describing literal truth, we ought to see them as convenient fictions which try to provide something useful. "– Dr David Frame, climate modeler, Oxford University.

"Probabilistic climate forecasts and inductive problems
By D.J Frame, N.E Faull, M.M Joshi, M.R Allen
The Royal Society, Philosophical Transaction. August 2007 Volume: 365 Issue: 1857
http://rsta.royalsocietypublishing.org/content/365/1857/1971.full

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ARTICLES:

1. Amid the Downpour, California's Regulatory Drought Continues
Dams are spilling over, but decades of meddling by green groups means the water can't get to my farm.
By Jean Sagouspe, WSJ, Feb 24, 2017

https://www.wsj.com/articles/amid-the-downpour-californias-regulatory-drought-continues-1487978524?cx_campaign=poptart&mod=cx_poptart#cxrecs_s

SUMMARY: The author, an almond farmer, in California's Central Valley discusses how recent government regulations, promoted by green organizations, have damaged farming by denying access to traditional water.. He writes:

"I own 1,800 acres of almonds and 835 acres of pistachios. But neither my farm nor the rest of the broader Central Valley—which provides about a quarter of the country's food—can survive off groundwater alone. For decades we have received water from the federally managed Central Valley Project and its state counterpart. This series of canals and aqueducts moves water from the wet northern part of the state to the dry valley.

"But a scorched-earth campaign by environmentalists has created a regulatory drought that exceeds anything mother nature has produced. A 1992 federal law, the Central Valley Project Improvement Act, diverted 1.5 million acre-feet of water—roughly a fifth of the total water delivery—annually to wildlife and green hobbyhorses. That ultimately means flushing it out into the ocean. "Basically, they've now legislated a permanent drought in the San Joaquin Valley,"

"Subsequent lawsuits by environmental groups like the Natural Resources Defense Council have tightened restrictions even more. The San Joaquin River Restoration Program, the result of a 2006 settlement in a lawsuit over fish habitat, took away another some 225,000 acre-feet of water annually. Environmentalists have repeatedly sued the government for ostensibly violating the Endangered Species Act and failing to protect the delta smelt and other fish.

"This has significantly curtailed water flows at two major pumping stations that serve the valley. As a result, more than 1.4 trillion gallons of water has drained out to sea since 2008. California also has fewer places to store water than it used to. Since 2000, dozens of dams in the state have been removed, according to a tally by the conservation group American Rivers, eliminating storage that could have helped harness floodwaters for crops.

"This regulatory drought has real effects on people like me. Over the past three years I have been forced to kill over half my almond trees—more than 980 acres. This has caused me to lose more than $7 million in almond revenue, and it has eliminated about $10 million of my farm's value. I've been forced to lay off 25% of the people who helped grow these crops. Some of these employees had worked with me for 20 years.

"My story is typical. Across the Central Valley, hundreds of thousands of acres have turned fallow, tens of thousands of jobs have been lost, and billions of dollars of economic activity has evaporated. The Great Recession may be over, but unemployment in the valley is about double the national average."

The writer suggests that "saving fish" may be a cover story hiding the purpose of regulations: to destroy farming.

"Perhaps saving the smelt is only a secondary goal. Two years ago Rep. Devin Nunes, who represents parts of the San Joaquin Valley, wrote about a meeting of environmental activists that he attended in 2002, before he was elected to Congress. "Their goal was to remove 1.3 million acres of farmland from production," Mr. Nunes wrote. "They showed me maps that laid out their

whole plan: From Merced all the way down to Bakersfield, and on the entire west side of the Valley as well as part of the east side, productive agriculture would end and the land would return to some ideal state of nature. I was stunned by the vicious audacity of their goal."

"President Trump can put an end to this madness. Last year Congress passed, and President Obama signed, a water infrastructure bill that gives the interior secretary more latitude to approve new dams and storage facilities. The Trump administration should make good use of this authority to sign off on projects that have been held up for decades by regulatory hurdles.

"The alternative is more of California's status quo: drought in a time of flooding, which is something only a bureaucrat could dream up."
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2. Germany's Renewables Revolution Destabilizes Neighbors' Electrical Grid
By Zeke Turner, WSJ, Via GWPF, Feb 18, 2017
http://www.thegwpf.com/germanys-renewables-revolution-threatens-neighbours-with-grid-collapse/

SUMMARY: The writer reports:

"A battle is raging in Central Europe over the balance of power—the electrical kind.

"Poland and the Czech Republic see Germany as an aggressor, overproducing electricity and dumping it across the border. Germany sees itself as a green-energy pioneer under unfair attacks from less innovative neighbors.

"As part of Chancellor Angela Merkel's Energiewende , or energy revolution, Germany will shut its nuclear power plants by 2022 and replace them with its rapidly expanding wind and solar power.

"But the volatile renewables don't always perform, and the Germans are also relying on coal- and gas-powered plants to keep the lights on.

"That creates problems on windy and sunny days when Germany produces far more electricity than it needs. Excess power spills over the border into Polish and Czech territory, threatening their electrical grids with collapse, companies and governments there say."

A great deal of the blame passing involves claims of outdated grids.

"But the problem has been aggravated by Germany's decadelong struggle to build high-voltage power lines that can carry energy from windmills in its gale-battered north to its industrial power gluttons in the south. That delay has forced it to use its neighbors' grids to shuttle power southward, putting their local networks under heavy stress and at risk of blackouts."

"To bear the weight of German power, Prague and Warsaw are now investing millions in higher voltage wires and installing transformers at the border to redirect the power back to German turf."
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3. Southern Co.'s New 'Clean Coal' Plant May Not Be Cost-Efficient
Company reports sharp drop in profit

By Russell Gold, WSJ, Feb 22, 2016
https://www.wsj.com/articles/southern-co-profit-falls-1487768832

SUMMARY: According to the report:

"Southern Co. said it has nearly completed a first-of-its-kind "clean coal" power plant, though a new analysis suggests it might not make sense to burn coal in it.

?After taking nearly seven years and $7.1 billion to build, the Kemper County, Miss., facility, which can burn coal and capture much of the carbon-dioxide output, should be fully operational by the middle of next month, the company said.

"But a required economic analysis of the project, the most expensive fossil-fuel power plant ever built in the U.S., found that lower natural gas prices and higher-than-expected operating costs "negatively impact the economic viability" of the facility.

"The company analysis, disclosed this week, concludes that only if natural gas prices are high would the economics of the clean-coal plant compare favorably to a gas-burning plant. The Kemper facility was initially forecast to cost $3 billion in 2010."

The issue is who will be responsible for this hedge against high gas prices begun before hydraulic fracturing became wide-spread.

"The project looks to be a very expensive hedge. If Southern had built a natural gas power plant of comparable size, it would have cost about $700 million—one-tenth of the facility's overall cost, according to widely used capital construction cost estimates.

Southern is now headed toward a showdown over who should pay for the plant's extra costs.

"It plans to ask state officials to approve passing on $4.2 billion in costs to ratepayers of Mississippi Power. But the company has critics who contend the plant was ill conceived and poorly executed, and are expected to ask regulators to approve only a portion of those costs.

Lawsuits are increasing but the issue will remain:

"The Kemper plant was proposed as a showcase of clean-coal technology. It can turn locally mined coal into a synthetic gas, capturing the majority of the carbon dioxide. It plans to sell the carbon dioxide to oil companies that will inject it into older oil fields to extract more hydrocarbons.

"At the time the facility was conceived, few predicted the impact that added natural gas supplies would have on the economics of U.S. electricity production. Government and business officials were also eager to test technology to burn inexpensive coal while limiting the carbon dioxide emissions."

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