The Week That Was: 2014-08-23 (August 23, 2014) Brought to You by SEPP (<u>www.SEPP.org</u>) The Science and Environmental Policy Project

Quote of the Week: "Not the man who hopes when others despair, but the man who despairs when others hope, is admired by a large class of persons as a sage." John Stuart Mill [H/t Matt Ridley]

THIS WEEK:

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

The Dance: The greenhouse effect takes place in the atmosphere. We now have over 1/3 of a century of global atmospheric satellite temperature records. They are far more globally comprehensive and reliable than any other temperature records. Yet, the UN Intergovernmental Panel on Climate Change (IPCC), and other entities that follow it, use surface-air temperatures records, which are far less comprehensive and subject to significant biases such as changes in land use (e.g. urban heat island effect).

The most closely followed surface-air temperature record, that of the Met Office Hadley Center and the Climatic Research Unit (HadCRUT), shows no significant warming for more than 17 years, which contradicts temperature forecasts from the models the IPCC uses and suggests something is wrong that prevailing IPCC mind-set that atmospheric carbon dioxide (CO2) is the major driver of global warming/climate change.

Now, there is a flurry of papers attempting to explain the failure of the surface record to show a continuing of the late 20th century warming trend. Consistent with the IPCC mind-set, the authors of many of these papers assume that the models are correct and that increased CO2 should be causing a continuation of the warming trend. Based on model projections, some of the authors calculate to be X amount heat and term X to be the missing heat.

On August 22, *Science* published a paper by Xianyao Chen and Ka-Kit Tung who state that the missing heat is hiding in the deep oceans, now in the north Atlantic, rather than the Pacific or the southern oceans. The cause of the missing heat is a change in the rate of flow of the Atlantic part of Meridonal Overturning Circulation (MOC), a well-known phenomenon, which transports heat from the tropics to the extreme north Atlantic, e.g. the Gulf Stream. The circulation sets up a global circulation of ocean transport known thermohaline circulation or MOC. The paper is well-discussed in the links below.

There are numerous issues. One issue is that the instrument record is not sufficiently complete to measure the heat transport into the deep Atlantic – so the hypothesis cannot be directly tested for years to come. A second issue is that the press release, but not the published paper, states that the authors earlier proposed that one-half of the late 20th century warming was due to human emissions of CO2 and the other half caused by the Atlantic Ocean cycle that kept more heat near the surface of the Atlantic. If the explanation is correct, then the greater than 95% certainty the IPCC expressed in its 2013 Summary for Policymakers of the Fifth Assessment Report (AR-5) is wrong.

As Judith Curry states: "I find the extremely likely IPCC confidence level to be logically insupportable"

Further, as Nic Lewis brings out, if the paper is correct, then the estimate of global warming from a doubling of CO2 used by the IPCC is far too high. Such a correction will eliminate the justification for many reports that produce frightening conclusions of dire consequences from CO2-caused global warming/climate change, such as massive species extinctions and dramatic sea level rise.

But, there is a more fundamental issue – there is no reason to assume that the IPCC models are correct, or even partially correct. None of the models have been verified and validated. Further, all this ignores the elephant in the room – there has been no atmospheric warming for over a decade. So there is no logical reason to assume there is any greenhouse gas heat missing. Perhaps we should classify such attempted explanations as The Dance of the Missing Heat. See links under Questioning the Orthodoxy.

The Sun: By analyzing trace elements in ice cores from Greenland and cores in cave formations from China, a research team has reconstructed a record of solar activity from around 22,000 to 10,000 years ago. The period covers the maximum of the last ice age and the beginning of the current warm period, the Holocene. The team found that reduced solar activity could lead to colder winters in Northern Europe and warmer winters in Greenland, with greater snowfall and more storms. The study suggests that total solar energy output, not just irradiance (approximately visible light), is important to understanding the solar influence on climate. They attribute much of the findings to the indirect effects of solar changes on atmospheric circulation. Other than irradiance; ultraviolet light, solar magnetism, and the solar wind can influence the earth's climate. The authors state that climate models should consider influence of reduced solar activity.

This finding should not be a surprise. In their book, **Unstoppable Global Warming**, Fred Singer and Dennis Avery discuss the cyclical nature of the solar influence based upon evidence, which was first identified by Dansgaard and Oeschger. These shorter cycles are superimposed on longer term ice age-interglacial cycles. The Dansgaard- Oeschger (D-O) events are an important part of understanding global warming/climate change and are largely ignored by the IPCC.

Loehle and Singer found that the D-O events continued through the current warm period, the Holocene, though they may have been less pronounced than during the last ice age. An August 13 paper by Xu Zhang et al. claims that the D-O events were limited to the ice ages and emphasize the period 110,000 to 23,000 years ago. The new paper states that the extreme events took place during the periods during which sea levels were lower than today, but higher than during the maximum of the last ice age. It is not clear if these findings are incompatible with the Loehle and Singer finding of the D-O events continuing through the Holocene.

See links under Science: Is the Sun Rising?, Commentary: Is the Sun Rising?, and Changing Climate.

ENSO the Cause? A paper by Markus Huber & Reto Knutti finds that there is little wrong with the climate models, once they are adjusted for current observations of the El Niño/Southern Oscillation (ENSO), and solar influences, and stratospheric aerosol forcing. Apparently, it did not occur to these researchers that if the models are solid, they would not need adjustments for current

observations. Contrary to their purpose, the authors provide further evidence that the IPCC misspoke when it expressed greater than 95% certainty in its work. See links under Un-Science or Non-Science?

Methane: Much is being made of human emissions of methane and its influence on global warming/climate change. SEPP President Fred Singer wrote, perhaps, the first paper on the influence of methane and calculate human emissions [*Nature* 1971]. He has now modified his position on methane's contribution to global warming. One, methane has a short lifetime in the atmosphere. Two, atmospheric water vapor absorption of infrared radiation overlaps partly with that of methane – and you can't absorb the same radiation twice. And, three, methane's infrared absorption is in a region of the spectrum where the earth normally emits little energy-- unlike for CO2. For an example of press coverage see link under Oil Spills, Gas Leaks & Consequences **********

Extreme Claims: Patrick Michaels of CATO presented a report exposing some of the extreme claims being made by the climate establishment in so-called scientific reports and in the publicizing of the reports. The planet is not warming. Apparently, the climate establishment and the green industry must make ever-more shrill claims to keep the Federal money and foundation donations flowing. See link under Communicating Better to the Public – Make things up. **********

The Real 97%: Writing in Quadrant, John McLean reviews certain passages in the Summary for Policymakers of the scientific section of AR-5 by the IPCC (2013). McLean carefully translates the bureaucratic-speak into plain English. For example:

"... an analysis of the full suite of CMIP5 historical simulations (...) reveals that 111 out of 114 realisations show a GMST trend over 1998–2012 that is higher than the entire HadCRUT4 trend ensemble (... CMIP5 ensemble-mean trend is 0.21 °C per decade)." [chapter 9, text box 9.2, page 769]

In simple terms this passage means that 111 (or 97%) of 114 executions of climate models (with some models run more than once) predicted warming greater than that calculated from temperature measurements. Compare the trends in the two extracts above and it seems the average prediction of climate models, at 0.21°C/decade, is at least four times higher than the temperature trend calculated from data from temperature observations.

We note here that the true 97% is not of climate scientists but of climate model runs that overestimate temperature measurements. See link under Challenging the Orthodoxy.

Necessity or Luxury? In isolated areas, where there are no alternatives, electricity from unreliable solar or wind is better than no electricity. But, modern civilization requires reliable electricity. It is needed for motors, lighting, refrigeration, communications (cell phones, internet), transport (subways, elevators), etc. Under circumstances of ample, reliable electricity, adding solar or wind power can be considered luxury good – it may be emotionally appealing but it serves no real need. Many promoters of solar and wind power called them sustainable, a concept that is repudiated every time the sun goes down or the wind fails without notice.

The US Department of Energy has announced a program to promote wind power and the wind production wind tax credit to Americans "'As a readily expandable, domestic source of clean, renewable energy, wind power is paving the way to a low-carbon future that protects our air and water while providing affordable, renewable electricity to American families and businesses,"

said Energy Secretary Ernest Moniz. "However, the continued success of the U.S. wind industry highlights the importance of policies like the Production Tax Credit that provide a solid framework for America to lead the world in clean energy innovation while also keeping wind manufacturing and jobs in the U.S. [Boldface added.]

Call it marketing, advertising, propaganda, or whatever, a US government agency promoting special tax considerations for a luxury good is no longer acting for the benefit of public health and welfare. Instead, it is undermining the Constitutional justification for a Federal government. See links under Communicating Better to the Public – Make things up and http://breakingenergy.com/2014/08/18/energy-department-reports-highlight-strength-of-u-s-wind-energy-industry/

Additions and Corrections: TWTW reader Tom Hayward inquired why many people state there has been no warming for 17 years, yet the graph of UAH satellite data indicates the period is far shorter. <u>http://www.drroyspencer.com/latest-global-temperatures/</u>

It all depends on the dataset and the judgment of the analyst. The 1998 El Niño throws things for a loop. It is generally accepted that 1998 warming was caused by an unusually strong El Niño. Those proclaiming no warming for 17 years generally refer to surface data – for example HadCRUT, and eliminate the El Nino. Others refer to the satellite data set by RSS, with the El Niño eliminated, indicating no warming for over 17 years.

In July, Christopher Monckton did an analysis of 5 datasets and showed no warming for 13 years, 4 months. <u>http://wattsupwiththat.com/2014/07/29/temperature-analysis-of-5-datasets-shows-the-great-pause-has-endured-for-13-years-4-months/</u>

SEPP thinks the surface data sets are too incomplete and have been manipulated too much to be really useful. Of the two sets of satellite datasets, SEPP prefers the one by University of Alabama in Huntsville because John Christy, and others, maintain that set with scrupulous transparency to the public. That is why TWTW states no significant temperature trend in the atmosphere for more than a decade. <u>http://nsstc.uah.edu/climate/2014/july2014/graph072014.png</u>

Number of the Week: 36 to 82% more greenhouse gases. Many political leaders, and others promoting fear of CO2-caused global warming, have pointed to programs China is undertaking to control urban pollution. Too bad these leaders did not read the details, or if they did they did, they did not understand the language.

One such program is converting coal to synthetic natural gas (SNG) in rural areas and sending the SNG via pipelines to natural gas-power plants in urban areas. According to reports, scientists at Tsinghua University and Ford Motor Co. estimate the process emits between 36 and 82 percent more greenhouse gases, dominantly CO2, than directly burning coal to produce electricity.

Contrary to Western alarmists, it appears China does not consider CO2 to be a pollutant. If so, SEPP agrees with China's view. See links under Energy Issues – Non-US and http://people.duke.edu/~cy42/SNG.pdf

ARTICLES:

For the numbered articles below, please see this week's TWTW at: **www.sepp.org**. The articles are at the end of the pdf.

1. The Misdeeds of a Few Companies Don't Warrant Fracking Bans

A proposed ban in Denton, Texas, could cost the city more than \$251 million in economic activity. By Chris Faulkner, WSJ, Aug 15, 2014

http://online.wsj.com/articles/chris-faulkner-the-misdeeds-of-a-few-companies-dont-warrant-fracking-bans-1408141235?tesla=y&mg=reno64-wsj

2. Cheeseburgers Won't Melt the Polar Ice Caps

The next targets of the climate change enforcers will be livestock and all Americans who eat meat.

By Jayson Lusk, WSJ, Aug 17, 2014

http://online.wsj.com/articles/jayson-lusk-cheeseburgers-wont-melt-the-polar-ice-caps-1408317541

3. The Golden Age of Neuroscience Has Arrived

We have learned more about the thinking brain in the last 10-15 years than in all of human history. By Michio Kaku, WSJ, Aug 20, 2014

http://online.wsj.com/articles/michio-kaku-the-golden-age-of-neuroscience-has-arrived-1408577023?tesla=y&mod=djemMER_h&mg=reno64-wsj

4. Banking in a Time of Cholera

NEWS YOU CAN USE:

Science: Is the Sun Rising?

Sun's Activity Impacts Climate Change By Staff Writers, Laboratory Equipment, Aug 18, 2014 [H/t SPPI] http://www.laboratoryequipment.com/news/2014/08/sun%E2%80%99s-activity-impacts-climatechange Link to paper: Persistent link between solar activity and Greenland climate during the Last Glacial Maximum By Florian Adolphi, et al. Nature Geoscience, Aug 17, 2014 http://www.nature.com/ngeo/journal/vaop/ncurrent/full/ngeo2225.html

Commentary: Is the Sun Rising?

Hundred-Year Period Of Increased Solar Activity Coming To An End By Juha Merimaa, Helsinki Times, Via GWPF, Aug 18, 2014 http://www.thegwpf.org/hundred-year-period-of-increased-solar-activity-coming-to-an-end/

New paper shows solar activity is linked to the Greenland climate even 20,000 years ago By Jo Nova, Her Blog, Aug 20, 2014

http://joannenova.com.au/2014/08/new-paper-shows-solar-activity-is-linked-to-the-greenlandclimate-even-20000-years-ago/

New paper finds the Sun controls Greenland climate

By Staff Writer, The Hockey Schtick, Aug 18, 2014 <u>http://hockeyschtick.blogspot.com/2014/08/new-paper-finds-sun-controls-greenland.html</u> [SEPP Comment: See like immediately above.]

Challenging the Orthodoxy -- NIPCC

Academics Must Take Skeptics Seriously By Joe Bast, Somewhat Reasonable, Aug 18, 2014 http://blog.heartland.org/2014/08/academics-must-take-skeptics-seriously/

Challenging the Orthodoxy

The Real Story By Joe D'Aleo, ICECAP, Aug 23, 2014 <u>http://icecap.us/index.php/go/new-and-cool/the_real_story/</u> [SEPP Comment: Debunking claims CO2 is a health hazard and other issues.]

The heat is on. Bureau of Meteorology 'altering climate figures' — The Australian By Jo Nova, Her Blog, Aug 23, 2014 <u>http://joannenova.com.au/2014/08/the-heat-is-on-bureau-of-meteorology-altering-climate-figures-the-australian/</u>

Parsing the IPCC's Piffle By John McLean, Quadrant, Aug 19, 2014 http://quadrant.org.au/opinion/doomed-planet/2014/08/parsing-ipccs-innumerate-piffle/

On The Recent Record-High Global Sea Surface Temperatures – The Wheres and Whys

By Bob Tisdale, WUWT, Aug 16, 2014 http://wattsupwiththat.com/2014/08/16/on-the-recent-record-high-global-sea-surface-temperatures-the-wheres-and-whys/

UHI – worse than we thought

By Anthony Watts, WUWT, Aug 20, 2014 http://wattsupwiththat.com/2014/08/20/uhi-worse-than-we-thought/

An Unsettling Climate

Global-warming proponents betray science by shutting down debate. By Rupert Darwall, City Journal, Summer 2014 [H/t Timothy Wise] http://www.city-journal.org/2014/24_3_global-warming.html

Defending the Orthodoxy

Meeting the Climate-Change Challenge By John Holdren, President, AAAS, Nov 3, 2006 <u>http://www.whrc.org/resources/PPT/JPH_MBL_11-03-06_Clim-Chg-Challenge.ppt</u> [SEPP Comment: Slides from a 2006 presentation by the President's science advisor.

Why Energy Efficiency is About to Come Roaring Back By RP Siegel, Triple Pundit, Aug 12, 2014 [H/t Climate Etc.]

http://www.triplepundit.com/2014/08/energy-efficiency-come-roaring-back/

[SEPP Comment: Energy efficiency applies to major cost- effective projects. Unfortunately, all too often it is applied to consumer products where bureaucrats do not calculate the inefficiencies to the consumers.]

Questioning the Orthodoxy

Cause of hiatus found deep in the Atlantic Ocean By Judith Curry, Climate Etc. Aug 21, 2014 http://judithcurry.com/2014/08/21/cause-of-hiatus-found-deep-in-the-atlantic-ocean/ Press Release: Has Earth's Missing Heat Been Found By Becky Oskin, Live Science, Aug 21, 2014 http://www.livescience.com/47487-new-theory-global-warming-pause.html Link to paper: Varying planetary heat sink led to global-warming slowdown and acceleration By Xianyao Chen & Ka-Kit Tung, Science, Aug 22, 2014 http://www.sciencemag.org/content/345/6199/897

It's the Atlantic wot dunnit

By Andrew Montford, Bishop Hill, Aug 22, 2014 <u>http://bishophill.squarespace.com/blog/2014/8/22/its-the-atlantic-wot-dunnit.html</u> [SEPP Comment: See link immediately above.]

Will the Next El Niño Bring an End to the Slowdown in Global Surface Warming?

By Bob Tisdale, WUWT, Aug 21, 2014 http://wattsupwiththat.com/2014/08/21/will-the-next-el-nino-bring-an-end-to-the-slowdown-inglobal-surface-warming/

Lewis on Chen and Tung

By Nic Lewis, Bishop Hill, Aug 22, 2014 http://bishophill.squarespace.com/blog/2014/8/22/lewis-on-chen-and-tung.html

An alarmist embraces the label "alarmist"

By Luboš Motl, Reference Frame, Aug 21, 2014

http://motls.blogspot.com/2014/08/an-alarmist-embraces-label-alarmist.html#more

In particular, I am a climate denier, not a climate skeptic. The term "skeptic" often indicates that there is a serious "case" to be made about the bold hypothesis and that one is seriously openminded to both possibilities. Well, I am not. There won't be any CO2-driven global catastrophe in the next 50, 100, or 200 years. I deny the claims that there exists a scientific or otherwise rational basis for the climate panic which clearly makes me a "denier".

Another Climate Apocalypse Prediction Goes Up In Smoke

By Sierra Rayne, American Thinker, Aug 19, 2014 [H/t Timothy Wise] http://www.americanthinker.com/blog/2014/08/another_climate_apocalypse_prediction_goes_up_ in_smoke.html

Climate scientists' views on aerosols

By Andrew Montford, Bishop Hill, Aug 19, 2014 <u>http://bishophill.squarespace.com/blog/2014/8/19/climate-scientists-views-on-aerosols.html</u> [SEPP Comment: Another survey that makes little sense.]

Shock! Leading Climate Institute Just Discovers That Ice Age Climate Behaves Differently Than Today's!

By P Gosselin, No Tricks Zone, Aug 19, 2014 http://notrickszone.com/2014/08/19/shock-leading-climate-institute-just-discovers-that-ice-ageclimate-behaves-differently-than-todays/

Summer sea ice melt and polar bear maternity dens

By Susan Crockford, Polar Bear Science, Aug 20, 2014 http://polarbearscience.com/2014/08/20/summer-sea-ice-melt-and-polar-bear-maternity-dens/

Can Natural Variability Save Climate Models?

By Marlo Lewis, Global Warming.org, Aug 17, 2014 http://www.globalwarming.org/2014/08/17/can-natural-variability-save-climatemodels/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+globalwarmi ngorg+%28GlobalWarming.org%29

Charismatic Meteorologist Kachelmann Expresses Skepticism Over Weather Alarmism, Slams Seasonal Forecasting

By P Gosselin, No Tricks Zone, Aug 16, 2014 http://notrickszone.com/2014/08/16/charismatic-meteorologist-kachelmann-expresses-skepticismover-weather-alarmism-slams-seasonal-forecasting/

Problems in the Orthodoxy

Effective UN Climate Agreement Not Likely

By Staff Writers, The Research Council of Norway, Via GWPF, Aug 15, 2014 http://www.thegwpf.org/effective-un-climate-agreement-not-likely/

India deals a blow to climate negotiations

By Zack Colman, Washington Examiner, Aug 14, 2014 http://washingtonexaminer.com/india-deals-a-blow-to-climate-negotiations/article/2552045

Seeking a Common Ground

How to Talk About Climate Change So People Will Listen: A Skeptic's View By Joe Bast, Somewhat Reasonable, Aug 18, 2014 http://blog.heartland.org/2014/08/how-to-talk-about-climate-change-so-people-will-listen-askeptics-view/

Institutionalizing Dissent

By Judith Curry, Climate Etc. Aug 19, 2014 http://judithcurry.com/2014/08/19/institutionalizing-dissent/ [SEPP Comment: Rather than institutionalizing those who dissent?]

The Kardashians and Climate Change: Interview with Judith Curry

By James Stafford, Oil Price.com, Aug 20, 2014 H/t Tom Sheahen] http://oilprice.com/Interviews/The-Kardashians-and-Climate-Change-Interview-with-Judith-Curry.html

Review of Recent Scientific Articles by NIPCC For a full list of articles see <u>www.NIPCCreport.org</u>

Could Earth's Coral Reefs Adapt to Any Future Global Warming?

Reference: Palumbi, S.R., Barshis, D.J., Traylor-Knowles, N. and Bay, R.A. 2014. Mechanisms of reef coral resistance to future climate change. *Science* 344: 895-898. <u>http://nipccreport.org/articles/2014/aug/13aug2014a1.html</u>

Antarctic Sea Ice Trends of the Southern Ocean

Reference: Fan, T., Deser, C. and Schneider, D.P. 2014. Recent Antarctic sea ice trends in the context of Southern Ocean surface climate variations since 1950. *Geophysical Research Letters* 41: 2419-2426.

http://nipccreport.org/articles/2014/aug/13aug2014a2.html

The Climate Envelope Concept Is Not Applicable to the Real World

Reference: Wieters, E.A., Medrano, A. and Quiroga, G. 2013. Spatial variation in photosynthetic recovery of intertidal turf algae from acute UVB and temperature stress associated with low tides along the central coast of Chile. *Journal of Experimental Marine Biology and Ecology* 449: 340-348.

http://nipccreport.org/articles/2014/aug/13aug2014a3.html

Models v. Observations

Climate Model Credibility Gap

By Doug Hoffman, The Resilient Earth, Aug 15, 2014 [H/t GWPF] http://theresilientearth.com/?q=content/climate-model-credibility-gap

Measurement Issues

NOAA analysis reveals significant land cover changes in US coastal regions By Staff Writers, Washington DC (SPX), Aug 19, 2014 <u>http://www.spacedaily.com/reports/NOAA analysis reveals significant land cover changes in</u> US coastal regions 999.html

[SEPP Comment: The emphasis on coastal areas is the current fad.]

Trees and shrubs invading critical grasslands, diminish cattle production

By Staff Writers, Tempe AZ (SPX), Aug 19, 2014 <u>http://www.seeddaily.com/reports/Trees_and_shrubs_invading_critical_grasslands_diminish_cattl</u> <u>e_production_999.html</u>

[SEPP Comment: Critical grasslands are becoming critical forest areas. How does this fit with NOAA land cover change cited above?]

Changing Weather

Increase in reported flooding a result of higher exposure By Staff Writers, Phys.org, Aug 19, 2014 [H/t GWPF] <u>http://phys.org/news/2014-08-result-higher-exposure.html</u> Link to paper: 'Trends in reported flooding in the UK: 1884-2013' By Andrew J. Stevens, et al, Hydrological Sciences Journal, Aug 7, 2014 <u>http://www.tandfonline.com/doi/abs/10.1080/02626667.2014.950581#.U_SQcfldV-4</u> [SEPP Comment: Urbanization and population growth exposes more in urban areas to flooding?]

New Satellite Data Will Help Farmers Facing Drought

By Staff Writers, Pasadena CA (JPL), Aug 19, 2014

http://www.spacedaily.com/reports/New_Satellite_Data_Will_Help_Farmers_Facing_Drought_99 9.html

[SEPP Comment: Doubt if it will prevent judges and bureaucrats from ordering release of irrigation water to "save" fish.]

Changing Climate

Claim: study published in Nature shows that small variations in the climate system can result in dramatic temperature changes

By Anthony Watts, WUWT, Aug 21, 2014

http://wattsupwiththat.com/2014/08/21/claim-new-report-published-in-nature-shows-that-smallvariations-in-the-climate-system-can-result-in-dramatic-temperature-changes/ Link to paper: Abrupt glacial climate shifts controlled by ice sheet changes By Xu Zhang, Gerrit Lohmann, Gregor Knorr, & Conor Purcell, Nature, Aug 13, 2014 http://www.nature.com/nature/journal/v512/n7514/full/nature13592.html

Irish Famines, Politics, and Climate History

By Tim Ball, WUWT, Aug 20, 2014 http://wattsupwiththat.com/2014/08/20/irish-famines-politics-and-climate-history/

New paper finds Chilean ocean temperatures were consistently warmer than present-day over most of past 12,000 years

By Staff Writers, The Hockey Schtick, Aug 22, 2014 http://hockeyschtick.blogspot.com/2014/08/new-paper-finds-chilean-ocean.html

Changing Seas

New paper finds groundwater extraction & 2004 earthquake are the primary causes of sea level rise in Thailand

By Staff Writer, The Hockey Schtick, Aug 19, 2014 <u>http://hockeyschtick.blogspot.co.uk/2014/08/new-paper-finds-groundwater-extraction.html</u> Link to paper: Spatial variations of sea level along the coast of Thailand: impacts of extreme land subsidence, earthquakes and the seasonal monsoon By Suriyan Saramula, Tal Ezerb Global and Planetary Change, Aug 19, 2014 <u>http://www.sciencedirect.com/science/article/pii/S0921818114001775</u>

Changing Cryosphere – Land / Sea Ice

The Sun In July 2014 And Arctic Sea Ice In Mid Summer

By Frank Bosse and Prof. Fritz Vahrenholt, <u>http://notrickszone.com/2014/08/21/piomass-data-analysis-unparalleled-3-sigma-low-arctic-sea-</u> ice-melt-in-july-lowest-on-satellite-record/

Historic Variations in Arctic Sea Ice – Part Two

By Tony Brown, WUWT, Aug 22, 2014 http://wattsupwiththat.com/2014/08/22/historic-variations-in-arctic-sea-ice-part-two/

Ice is low, but record unlikely

By Staff Writers, Arctic Sea Ice News & Analysis, Aug 19, 2014 [H/t Tom Hayward] http://nsidc.org/arcticseaicenews/

[SEPP Comment: Minimizing the changed trend in the Arctic.]

Life found below Antarctica's ice sheet

Confirmed: 800 meters beneath Antarctic ice sheet, subglacial lake holds viable microbial ecosystems By Anthony Watts, WUWT, Aug 22, 2014 http://wattsupwiththat.com/2014/08/22/life-found-below-antarctica/

Agriculture Issues & Fear of Famine

Pro-GMO movement continues to gain support, while anti-GMO movement spirals downward

By Staff Writer, ACSH, Aug 18, 2014

http://acsh.org/2014/08/pro-gmo-movement-continues-gain-support-anti-gmo-movement-spiralsdownward/

Decision Could Boost Use of Popular Weed Killer

By Mary Clare Jalonick, AP, Aug 13, 2014 [H/t Climate Etc.] <u>http://bigstory.ap.org/article/decision-could-boost-use-popular-weed-killer</u> [SEPP Comment: GM crops and selected herbicides benefit no-till agriculture.]

Shale gas to drag world agro prices lower

Diminishing ethanol demand will trigger a fall in corn prices and also lead to lower wheat/rice values.

By Tejinder Narang, Financial Express, Aug 19, 2014 [H/t GWPF] http://www.financialexpress.com/news/shale-gas-to-drag-world-agro-prices-lower/1280505/0 [SEPP Comment: The grains trade analyst sees the dark side of good news to the consumer.]

Un-Science or Non-Science?

Excuse #31 for 'the pause' - El Niño and longer solar cycles

By Anthony Watts, WUWT, Aug 19, 2014

http://wattsupwiththat.com/2014/08/19/excuse-31-for-the-pause-el-nino-and-longer-solar-cycles/ Link to paper: Natural variability, radiative forcing and climate response in the recent hiatus reconciled

By Markus Huber & Reto Knutti, Nature Geoscience, Aug 17, 2014

http://www.nature.com/ngeo/journal/vaop/ncurrent/full/ngeo2228.html

We conclude that there is little evidence for a systematic overestimation of the temperature response to increasing atmospheric CO2 concentrations in the CMIP5 ensemble.

The Climate Sensitivity Dutch Auction

By Eric Worrall, WUWT, Aug 22, 2014 http://wattsupwiththat.com/2014/08/22/the-climate-sensitivity-dutch-auction/ [SEPP Comment: Critique on the paper immediately above.]

Lowering Standards

Global warming slowdown 'could last another decade' By Matt McGrath, BBC, Aug 21, 2014 [H/t GWPF] http://www.bbc.com/news/science-environment-28870988

BBC Fail To Understand AMO

By Paul Homewood, Not a Lot of People Know That, Aug 22, 2014 http://notalotofpeopleknowthat.wordpress.com/2014/08/22/bbc-fail-to-understand-amo/

Atlantic Ocean key to global-warming pause

Changing currents could be driving heat into the deep sea. By Richard A. Lovett, Nature, Aug 21, 2014 <u>http://www.nature.com/news/atlantic-ocean-key-to-global-warming-pause-1.15755</u> [SEPP Comment: See link immediately above.]

Global warming 'hiatus': Scientists duel over which ocean steals some heat

Many scientists say natural climate variability is behind a slowdown in the pace of global warming over the past 15 years. And the key to the variability is the way oceans can act as heat sinks.

By Pete Spotts, Christian Science Monitor, Aug 21, 2014 [H/t GWPF] http://www.csmonitor.com/Environment/2014/0821/Global-warming-hiatus-Scientists-duel-overwhich-ocean-steals-some-heat

Met Office Rejects Research Findings On UK Flooding

By Hannah Devlin, The Times, Via GWPF, Aug 14, 2014 http://www.thegwpf.org/met-office-rejects-research-findings-on-uk-flooding/

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

NOAA's Misleading Propaganda On Tornadoes

By Paul Homewood, Not a Lot of People Know That, Aug 21, 2014 <u>http://notalotofpeopleknowthat.wordpress.com/2014/08/21/noaas-misleading-propaganda-on-tornadoes/</u> [SEPP Comment: Unfortunately, NOAA is no longer a trust-worthy source on weather records.]

Climate change reflected in altered Missouri River flow, report says

By Maya Srikrishnan, Los Angles Times, Aug 17, 2014 <u>http://www.latimes.com/nation/la-na-missouri-river-20140817-story.html</u> [SEPP Comment: The multitude of dams built in the 1950s to 70s has nothing to do with it?]

World's primary forests on the brink

By Staff Writers, Brisbane, Australia (SPX), Aug 19, 2014

http://www.terradaily.com/reports/Worlds_primary_forests_on_the_brink_999.html

The analysis shows that almost 98 per cent of primary forest is found within 25 countries, with around half of that located in five developed countries: the U.S., Canada, Russia, Australia and New Zealand.

[SEPP Comment: Who would have thought these forests of the five developed countries would survive development? Could it be that the countries used fossil fuels rather than forests for fuel? Plugging for climate change treaties and other non-science.]

New analysis links tree height to climate

By Staff Writers, Madison WI (SPX), Aug 19, 2014 http://www.terradaily.com/reports/New_analysis_links_tree_height_to_climate_999.html [SEPP Comment: That trees tend to grow better in moist areas than in dry areas is news?]

Communicating Better to the Public – Make things up.

Is the Sky Really Falling? A Review of Recent Global Warming Scare Stories By Patrick Michaels, CATO, Aug 23, 2014 http://www.cato.org/publications/policy-analysis/is-sky-really-falling-review-recent-globalwarming-scare-stories

No bodies

By Rud Istvan, Climate Etc. Aug 20, 2014 http://judithcurry.com/2014/08/20/no-bodies/ [SEPP Comment: Other extreme predictions from the IPCC.]

Reality Check: Germany Does Not Get Half of its Energy from Solar Panels

By Robert Wilson, The Energy Collective, Aug 18, 2014 [H/t GWPF] <u>http://theenergycollective.com/robertwilson190/456961/reality-check-germany-does-not-get-half-its-energy-solar</u>

DOE promotes wind power in reports

By Timothy Cama, The Hill, Aug 18, 2014 <u>http://thehill.com/policy/energy-environment/215375-doe-promotes-wind-power-in-reports</u>

Fear: The Strategy of Activists

By Donn Dears, Power For USA, Aug 19, 2014 http://ddusmma.wordpress.com/2014/08/19/fear-the-strategy-of-activists/

In retwardian, "grossly misleading" means "correct"

By Andrew Montford, Bishop Hill, Aug 21, 2014 http://bishophill.squarespace.com/blog/2014/8/21/in-retwardian-grossly-misleading-meanscorrect.html

Expanding the Orthodoxy

NHS To Save The World From Global Warming!!

By Paul Homewood, Not a Lot of People Know That, Aug 21, 2014 http://notalotofpeopleknowthat.wordpress.com/2014/08/21/nhs-to-save-the-world-from-globalwarming/

[SEPP Comment: More waste of resources by the National Health Service. The US expenditures on climate change alternative energy exceed NIH expenditures on clinical research.]

Climate Change in Polar and Mountainous Regions

An IAEA Project Studying Impact of Climate Change on Land and Water-Ecosystems in Polar and Mountain Regions Moves Into Next Phase

By Staff Writers, IAEA, Aug 18, 2014

http://www.iaea.org/newscenter/news/2014/polarregions.html

What's happening to the Earth's polar and mountainous regions is unprecedented in **recorded human history,** and it is important we learn as much as we can about it. [Boldface added.] [SEPP Comment: Don't bother trying to understand geological history, or the disappearance of the Harappan civilization, for which we have no written records – it does not have the right propaganda message.]

Meet the companies that are trying to profit from global warming

Bu Brad Plumer, Vox, Aug 23, 2014 http://www.vox.com/2014/8/18/6031219/how-to-profit-off-of-global-warming

Questioning European Green

The disastrous revolution By Andrew Montford, Bishop Hill, Aug 17, 2014 <u>http://bishophill.squarespace.com/blog/2014/8/17/the-disastrous-revolution.html</u> [SEPP Comment: Spain's Photovoltaic Revolution, from boom to bust.]

The Failure of the UK Climate Change Act

By Roger Pielke, Jr. His Blog, Aug 16, 2014 http://rogerpielkejr.blogspot.com/2014/08/the-failure-of-uk-climate-change-act.html

EU Enviro-Totalitarians Impose Restrictions On Woodstoves...Vacuum Cleaners Limited To 900 Watts In 2017!

By P Gosselin, No Tricks Zone, Aug 19, 2014 http://notrickszone.com/2014/08/19/eu-enviro-totalitarians-impose-restrictions-on-woodstovesvacuum-cleaners-limited-to-900-watts-in-2017/

Questioning Green Elsewhere

Trampling on Coal Country Families By Paul Driessen, Townhall, Aug 17, 2014 <u>http://townhall.com/columnists/pauldriessen/2014/08/17/trampling-on-coal-country-familiesn1879570</u>

The crazy world of Renewable Energy Targets

By Jo Nova and Tom Quirk, Her Blog, Aug 20, 2014 http://joannenova.com.au/2014/08/the-crazy-world-of-renewable-energy-targets/#more-37714

Non-Green Jobs

Oil production in Permian causes pipeline bottleneck in Texas

By Catherine Nigai, Reuters, Aug 12, 2014 [H/t Toshio Fufita] <u>http://www.reuters.com/article/2014/08/12/oil-crude-permian-infrastructure-idUSL2N0QH1XQ20140812</u>

Subsidies and Mandates Forever

Spanish Wind Power Hits Buffers As Subsidies Slashed

By Paul Homewood, Not a Lot of People Know That, Aug 20, 2014 <u>http://notalotofpeopleknowthat.wordpress.com/2014/08/20/spanish-wind-power-hits-buffers-as-subsidies-slashed/</u>

EPA and other Regulators on the March

Toxic air pollution has dropped dramatically, EPA tells Congress By Timothy Cama, The Hill, Aug 21, 2014 http://thehill.com/policy/energy-environment/215675-toxic-air-pollution-has-droppeddramatically-epa-tells-congress Link to the report: Second Integrated Urban Air Toxics Report to Congress By Staff Writers, EPA, Aug 21, 2014 http://www2.epa.gov/urban-air-toxics/second-integrated-urban-air-toxics-report-congress [SEPP Comment: Makes current EPA claims of health benefits from controlling CO2 from coalfired power plants seem trivial.]

EU rules against powerful vacuum cleaners ban 'best' models, Which? warns

Consumers warned to "act quickly" before top-rated powerful vacuum cleaners sell out forever By Emily Gosden, Telegraph, UK, Aug 21, 2014 [H/t GWPF] <u>http://www.telegraph.co.uk/news/worldnews/europe/eu/11047127/EU-rules-against-powerful-vacuum-cleaners-ban-best-models-Which-warns.html</u>

Energy Issues – Non-US

The availability of energy

By John Brignell, Number Watch, Aug 20, 2014 http://www.numberwatch.co.uk/2014%20August.htm#availability

..."it is not just the presence of energy that matters, it is also its availability (to do work). Energy is abundant, but available energy is not, particularly nowadays if you take into account the vital element of constancy of supply."

Coal Gas Boom in China Holds Climate Change Risks

By Jack Chang, AP, Aug 22, 2014 <u>http://bigstory.ap.org/article/coal-gas-boom-china-holds-climate-change-risks</u> Link to IER report: China to Build 50 Coal Gasification Facilities By Staff Writers, Institute for Energy Research, Aug 6, 2014 <u>http://instituteforenergyresearch.org/analysis/china-build-50-coal-gasification-facilities/</u> *[SEPP Comment: The AP article is excessively long and flowery.]*

Sorry, Mr. Obama, Africa needs coal

Africa faces a dilemma: It's vulnerable to climate change but needs coal to grow robustly. So which way are Africans going? By Ken Silverstein, Christian Science Monitor, Aug 15, 2015 [H/t GWPF] http://www.csmonitor.com/Environment/Energy-Voices/2014/0815/Sorry-Mr.-Obama-Africaneeds-coal

Belgium asks "Can I borrow your power cable?"

By Andrew Montford, Bishop Hill, Aug 20, 2014 http://bishophill.squarespace.com/blog/2014/8/20/belgium-asks-can-i-borrow-your-powercable.html

Energy policy, reform roll-back put German economy in uncertainty

By Staff Writers, Reuters, Aug 15, 2014 <u>http://www.gulf-times.com/eco.-bus.%20news/256/details/404396/energy-policy,-reform-roll-back-put-german-economy-in-uncertainty</u>

Oil Companies Turning Away From The Middle East

By Claude Salhani, Oil Price.com, Aug 19, 2014 [H/t GWPF] http://oilprice.com/Energy/Crude-Oil/Oil-Companies-Turning-Away-From-The-Middle-East.html

Energy Issues -- US

Oil production in Permian causes pipeline bottleneck in Texas By Catherine Nigai, Reuters, Aug 12, 2014 [H/t Toshio Fufita] <u>http://www.reuters.com/article/2014/08/12/oil-crude-permian-infrastructure-idUSL2N0QH1XQ20140812</u>

Alexander: Obama goes around Congress to help 'Big Wind'

By Ramsey Cox, The Hill, Aug 22, 2014 http://thehill.com/blogs/floor-action/senate/215749-alexander-obama-goes-around-congress-tohelp-big-wind

More Harsh Winters Could Spell Disaster For The Electrical Grid

By Michael Bastasch, Daily Caller, Aug 15, 2014 [H/t SPPI] http://dailycaller.com/2014/08/15/more-harsh-winters-could-spell-disaster-for-the-electrical-grid/

Washington's Control of Energy

Natural gas execs fear they're next for regs By Timothy Cama and Benjamin Goad, The Hill, Aug 17, 2014 <u>http://thehill.com/policy/energy-environment/215298-natural-gas-execs-fear-theyre-next-for-obama-regulations</u>

[SEPP Comment: With good reason. Green pressure groups, such as the Sierra Club, have made the shift from anti-coal to anti-gas. In some parts of the country natural gas combined-cycle power plants cannot be built.]

Arctic drilling rule sent to White House

By Laura Barron-Lopez, The Hill, Aug 18, 2014 <u>http://thehill.com/policy/energy-environment/215357-arctic-drilling-rule-sent-to-white-house</u> [SEPP Comment: What's the rush, it's been only five years?]

Enbridge Avoids U.S. Review With Plan to Boost Oil Sands

By Jim Snyder and Rebecca Penty, Bloomberg, Aug 22, 2014 <u>http://www.bloomberg.com/news/2014-08-22/enbridge-avoids-u-s-review-with-plan-to-boost-oil-</u> sands.html

Ethanol mandate goes to White House for review

By Timothy Cama, The Hill, Aug 22, 2014 http://thehill.com/policy/energy-environment/215759-ethanol-mandate-goes-to-white-house-forreview [SEPP Comment: The supposed deadline for a final determination for the year 2014 expired November 2013.]

Oil and Natural Gas – the Future or the Past?

Refracking brings 'vintage' oil and gas wells to life By Anna Driver and Ernest Scheyder, Reuters, Aug 20, 2014 <u>http://www.reuters.com/article/2014/08/20/energy-refracking-idUSL2N0QP28220140820</u> [SEPP Comment: Addressing the issue of rapid drop in production.]

Turn natural gas into gasoline for \$1 per gallon By Staff Writer, Peak Oil, Aug 21, 2014 [H/t Tom Sheahen] <u>http://peakoil.com/consumption/turn-natural-gas-into-gasoline-for-1-per-gallon</u> [SEPP Comment: Big question! But, great if correct.]

COLUMN-Natural gas can keep those motors running: By John Kemp, Reuters, Aug 19, 2014 [H/t GWPF] http://uk.reuters.com/article/2014/08/19/lng-autos-usa-kemp-idUKL5N0QP16Z20140819

Return of King Coal?

Oregon agency stings coal industry as it nixes key permit By Zack Colman, Washington Eximiner, Aug 18, 2014 <u>http://washingtonexaminer.com/oregon-agency-stings-coal-industry-as-it-nixes-key-</u> <u>permit/article/2552155?utm_campaign=Washington%20Examiner:%20Politics%20Today&utm_s</u> <u>ource=Washington%20Examiner:%20Politics%20Today%20-%2008/19/14&utm_medium=email</u>

Too late for Oregon's coal terminal: Exporting US coal to Asia could drop emissions 21 percent

By Anthony Watts, WUWT, Aug 19, 2014 <u>http://wattsupwiththat.com/2014/08/19/too-late-for-oregons-coal-terminal-exporting-us-coal-to-asia-could-drop-emissions-21-percent/</u>

Oil Spills, Gas Leaks & Consequences

Methane leaking from Sacramento gas pipelines adds to greenhouse effect By Edward Ortiz, The Tribune, Aug 17, 2014 http://www.sanluisobispo.com/2014/08/17/3197251/methane-leaking-from-sacramento.html

Nuclear Energy and Fears

Banking on nuclear By Ron Cameron, WNN, Aug 18, 2014 http://www.world-nuclear-news.org/E-Banking-on-nuclear-1808201401.html

Fukushima's legacy

By Staff Writers, Washington DC (SPX), Aug 21, 2014 http://www.terradaily.com/reports/Fukushimas_legacy_999.html

Alternative, Green ("Clean") Solar and Wind

A birds-eye view of the bird scorching Ivanpah solar electric power plant By Anthony Watts, WUWT, Aug 18, 2014 <u>http://wattsupwiththat.com/2014/08/18/a-birds-eye-view-of-the-bird-scorching-ivanpah-solar-power-plant/</u>

Biggest Solar Project Falls as Australia Reviews Policy

By Iain Wilson, Bloomberg, Aug 18, 2014 [H/t GWPF] http://www.bloomberg.com/news/2014-08-18/silex-unit-scraps-solar-station-as-australia-reviewsrenewables.html

The cost of wind By Andrew Montford, Bishop Hill, Aug 18, 2014 http://bishophill.squarespace.com/blog/2014/8/18/the-cost-of-wind.html

Industrial Wind Needs Blowback (Siemens ad campaign targeting U.S. taxpayers) By Mary Kay Barton, Master Resource, Aug 20, 2014 http://www.masterresource.org/2014/08/siemens-ad-us-taxpayers/#more-31432

California Dreaming

Spot the portion of California drought caused by 'climate change'

By Anthony Watts, WUWT, Aug 18, 2014

http://wattsupwiththat.com/2014/08/18/spot-the-portion-of-drought-caused-by-climate-change/

Oh Mann!

Yet Another Misrepresentation in the Mann Pleadings

By Steve McIntyre, Climate Audit, Aug 19, 2014 <u>http://climateaudit.org/2014/08/19/yet-another-misrepresentation-in-the-mann-pleadings/#more-19489</u>

Hopefully Dr. Michael E. Mann Doesn't Sue Me For This Column

By Trevor Burrus, Forbes, Aug 14, 2014 [H/t Timothy Wise] http://www.forbes.com/sites/trevorburrus/2014/08/14/hopefully-dr-michael-e-mann-doesnt-sueme-for-this-column/?&_suid=140834130449503757775945123285

Environmental Industry

Big Green Hypocrites — Part III By Tony Thomas, Quadrant, Aug 16, 2014 <u>http://quadrant.org.au/opinion/tony-thomas/2014/08/big-green-hypocrites-part-iii/</u>

American Lung Association in Cahoots with EPA

By Megan Tooms, Cornwall Alliance, Via ICECAP, Aug 18, 2014 http://icecap.us/index.php/go/new-and-cool/american_lung_association_in_cahoots_with_epa/

Activists urge EU to scrap science advisor job

By Staff Writers, Brussels (AFP), Aug 19, 2014 http://www.seeddaily.com/reports/Activists urge EU to scrap science advisor job 999.html [SEPP Comment: How about a trade, the EU science advisor for the US President's science advisor?]

EPA pressed for time limits on chemical trade secrets

By Laura Barron-Lopez, The Hill, Aug 21, 2014 http://thehill.com/policy/energy-environment/215714-groups-press-epa-for-time-limits-onchemical-industry-trade-secrets

Meet BPA-Free, The New BPA

By Steve Hentges, Science 2.0 Aug 18, 2014 [H/t ACSH] http://www.science20.com/steve_hentges/meet_bpafree_the_new_bpa-142600

Other News that May Be of Interest

Knowledge By Donn Dears, Power For USA, Aug 22, 2014 http://ddusmma.wordpress.com/2014/08/22/knowledge/

Copper foam turns CO2 into useful chemicals

By Staff Writers, Providence RI (SPX), Aug 18, 2014 [H/t Toshio Fujita] http://www.spacedaily.com/reports/Copper_foam_turns_CO2_into_useful_chemicals_999.html [SEPP Comment: As compared with useless plant food?]

BELOW THE BOTTOM LINE:

Greens warn climate change could ruin 'outdoor' experience

By Laura Barron-Lopez, The Hill, Aug 19, 2014

http://thehill.com/policy/energy-environment/215517-greens-warn-climate-change-could-ruin-the-outdoor-american

Pointless Ohio State study predicts the obvious with models – fish will die as streams dry out By Anthony Watts, WUWT, Aug 18, 2014

http://wattsupwiththat.com/2014/08/18/pointless-ohio-state-study-predicts-the-obvious-withmodels-fish-will-die-as-streams-dry-out/

ARTICLES:

1. The Misdeeds of a Few Companies Don't Warrant Fracking Bans

A proposed ban in Denton, Texas, could cost the city more than \$251 million in economic activity. By Chris Faulkner, WSJ, Aug 15, 2014 <u>http://online.wsj.com/articles/chris-faulkner-the-misdeeds-of-a-few-companies-dont-warrant-fracking-bans-1408141235?tesla=y&mg=reno64-wsj</u>

While considering a ban on hydraulic fracturing this summer, the city council in Denton, Texas, heard some compelling testimony from concerned residents. As the CEO of an energy company based in Dallas, just south of Denton, and having witnessed the eight-hour hearing there, I can see why some Americans in cities like Denton are looking to prohibit fracking.

Too many citizens in oil- and gas-rich regions around the country have suffered at the hands of a few irresponsible energy firms. But the misdeeds of a handful of companies don't warrant sweeping fracking bans—especially when such prohibitions come with extraordinary economic and environmental costs. Instead of rejecting promising new energy-extraction techniques, citizens should work with responsible energy companies to preserve the benefits of fracking, while stamping out current abuses.

The continuing debate in Denton is representative of fracking controversies around the country. In Denton, a large number of locals are legitimately concerned about the proximity of fracking operations to their homes. Energy extraction is loud. Fracking rigs are ugly. Truck traffic can seem endless when an operation gets under way. Studies haven't supported claims of water contamination, but the perception exists.

A new city ordinance in Denton requiring a 1,200-foot setback between drilling sites and residences was supposed to put such worries to rest. The problem is, the new rule doesn't apply to many existing wells already located near homes—a loophole that has been exploited by several companies.

Similar abuses have been well publicized in recent years. Consider the case of Gary Gless, who bought a modernist house in Los Angeles overlooking a golf course in 2002, only to have his view obstructed by drilling wells soon after. Or Susan Fowler of Cleveland, who had to sell her home at half its appraised value last year after a well sprang up next to her backyard. Like highways and power lines, fracking wells have an impact on a home's value—for the worse.

In instances like these, residents are understandably outraged. But such horror stories are hardly the norm. And the misbehavior of a few irresponsible companies shouldn't be grounds for across-the-board fracking bans.

First off, fracking restrictions have disastrous effects on local economies. According to an estimate from the Perryman Group, an economic and financial analysis firm, Denton's proposed ban would cost the city more than \$251 million in economic activity and prevent the creation of more than 2,000 jobs over the next decade.

A recent study from researchers at the University of Colorado in Boulder, meanwhile, found that a statewide fracking ban would cost the Colorado economy \$12 billion and nearly 100,000 jobs by 2040.

The national effects of local prohibitions are even more troubling. Among other things, fracking bans lend momentum to a nationwide anti-fracking movement that stands as the chief obstacle to America's domestic-energy revolution.

The adoption of new fracking methods across the country is expected to produce well over three million new jobs by 2020, according to a recent report from IHS. By 2025, according to the same report, new drilling techniques will increase the disposable income of the average American household by around \$3,500 by lowering energy prices.

Since electricity plants are increasingly moving away from coal in favor of natural gas, hydraulic fracturing has also helped the U.S. slash carbon emissions by an astonishing 12% between 2005 and 2012. Plus, thanks almost entirely to fracking, our country is now less dependent on energy resources from volatile regions like the Middle East.

In light of fracking's significant benefits, Americans shouldn't be so quick to ban the practice.

For citizens concerned about the effects of nearby fracking projects, a more reasonable approach is to collaborate with the industry. In Erie, Colo., for example, Town Administrator A.J. Krieger recently reached a voluntary agreement with two energy companies mandating the use of vapor-recovery units, which capture pollutants that can be vented into the air during the fracking process.

My company strives to always deploy such units. Like most others in the industry, we also recycle or reuse 100% of the water we use in fracking operations.

Last year, the city council in Loveland, Colo., struck a deal with Anadarko Petroleum Corp. for a new 1,000-foot drilling setback. The accommodation is working well, as evidenced by Loveland voters' recent rejection of a citywide moratorium on fracking.

As these examples demonstrate, most oil-and-gas companies—my own included—are sensitive to how their operations affect citizens, and are willing to collaborate with local residents in finding solutions.

U.S. energy firms have fracked more than 1.2 million wells since 1947. Citizens in places like Denton are right to fight back against fracking operations that compromise their community and way of life. But the actions of a few misbehaving energy companies shouldn't be enough to halt America's energy revolution.

Mr. Faulkner is CEO of Breitling Energy Corp. and author of "The Fracking Truth" (Platform Press, 2014) He is also the producer of the coming documentary, "Breaking Free: The Shale Rock Revolution."

2. Cheeseburgers Won't Melt the Polar Ice Caps

The next targets of the climate change enforcers will be livestock and all Americans who eat meat.

By Jayson Lusk, WSJ, Aug 17, 2014 http://online.wsj.com/articles/jayson-lusk-cheeseburgers-wont-melt-the-polar-ice-caps-1408317541

The documentary film "Cowspiracy," released this week in select cities, builds on the growing cultural notion that the single greatest environmental threat to the planet is the hamburger you had for lunch the other day. As director Kip Andersen recently told the Source magazine: "A lot of us are waking up and realizing we can choose to either support all life on this planet or kill all life on this planet, simply by virtue of what we eat day in and day out. One way to eat takes life, while another spares as many lives (plant, animal and otherwise) as possible."

James McWilliams, vegan author of the 2013 book "The Politics of the Pasture," argues that modern agricultural, and the cattle industry in particular, are part of a global food-supply system so damaging that the only moral solution is to give up eating meat entirely.

Each to his own, you might say. But these ideas are working their way into government policy proposals. For example, Angela Tagtow, a self-described "environmental nutritionist" formerly with the Minnesota Institute for Sustainable Agriculture, was recently tapped to head the U.S. Department of Agriculture's effort to revise federal dietary guidelines. This is a sign that the new recommendations are likely to go beyond nutritional science to incorporate environmental considerations. Many observers believe that meat will be specifically targeted for scrutiny.

Environmental nutritionists argue that the social and environmental costs of meat production obesity, chronic disease, the production of green-house gases such as methane, etc.—are not reflected in prices at the grocery store or restaurant. "The big-ticket externalities are carbon generation and obesity," New York Times columnist Mark Bittman recently wrote. He argues that beef prices don't reflect these externalities and that "industrial food has manipulated cheap prices for excess profit at excess cost to everyone."

That the price of meat is too low might come as news to food consumers who, according to data from the Bureau of Labor Statistics, paid 14% higher prices for ground beef this June than they did in June 2013 and 29% more than two years ago. Recent droughts and high corn prices—due in part to Washington's support for ethanol—are largely to blame. It is unclear how high prices must rise to overcome the view that meat is "too cheap." Some industry critics have even called for new "meat taxes" to discourage consumption.

Those who promote sustainable agriculture often push for more "natural" production systems, such as grass fed, local, or organic beef. But these result in lower productivity, greater water and land use, and higher carbon footprints. More broadly, the argument that modern agriculture is a leading cause of global warming is tenuous at best.

The Environmental Protection Agency estimates that U.S. agriculture, including livestock production, accounts for only about 8% of total greenhouse-gas emissions in the country. Livestock in the U.S. have lower greenhouse-gas footprints than in other parts of the world. This is partly because American producers generally use higher-quality feeds, higher-yielding breeds, and more productivity-enhancing technologies such as probiotics, vaccines and growth hormones. Future improvements in feed and animal genetics could further reduce animal-agriculture's impact. As economists have shown, one should not underestimate the ability of innovation, markets, the courts and private negotiation to resolve the adverse effects of externalities.

Moreover, the concept of externalities when applied to food is nebulous. At a recent Institute of Medicine meeting I attended, a room full of Ph.D.s struggled to understand exactly what to measure.

We would never trust a group of experts to set the price of beef, milk or automobiles. We rely on a decentralized marketplace to aggregate disparate information unknown to any single person or expert committee. And yet there is a belief among some that public-health experts can accurately divine a single true and just cost for a hamburger that will help prevent the melting of the polar ice caps and save millions of lives and billions of dollars in health-care costs.

Never mind that the nutritional composition of beef provides much-needed protein, vitamins and iron. Studies have shown that higher beef prices lead to iron deficiency and more cases of anemia. It is hard to project the unintended consequences of policy-induced reductions in meat consumption, but they are likely to include reduced incomes for family farmers and rural communities and cast uncertainty over the use of millions of acres of grassland that currently support cattle producers.

Let us also not gloss over what is beef's most obvious benefit: Livestock take inedible grasses and untasty grains and convert them into a protein-packed food most humans love to eat. We may be able to reduce our impact on the environment by eating less meat, but we can also do the same by using science to make livestock more productive and environmentally friendly.

3. The Golden Age of Neuroscience Has Arrived

We have learned more about the thinking brain in the last 10-15 years than in all of human history. By Michio Kaku, WSJ, Aug 20, 2014

http://online.wsj.com/articles/michio-kaku-the-golden-age-of-neuroscience-has-arrived-1408577023?tesla=y&mod=djemMER_h&mg=reno64-wsj

More than a billion people were amazed this summer when a 29-year-old paraplegic man from Brazil raised his right leg and kicked a soccer ball to ceremonially begin the World Cup. The sight of a paralyzed person whose brain directly controlled a robotic exoskeleton (designed at Duke University) was thrilling.

We are now entering the golden age of neuroscience. We have learned more about the thinking brain in the last 10-15 years than in all of previous human history. A blizzard of the new technologies using advanced physics—resulting in scans and tests we know as fMRI, EEG, PET, DBS, CAT, TCM and TES—have allowed scientists to observe thoughts as they ricochet like a

pong ball inside the living brain, and then begin the process of deciphering these thoughts using powerful computers.

The Pentagon, witnessing the human tragedy of the wounded warriors from Iraq and Afghanistan, has invested more than \$150 million in the military's Revolutionary Prosthetics program, so that injured veterans can bypass damaged limbs and spinal cords and mentally control state-of-the-art mechanical arms and legs. Already, the technology exists to let you walk into a room and mentally turn on the lights, control appliances, surf the Web, write and send emails, play videogames, dictate articles, control a distant robot or avatar, and even drive a car.

Not just our bodies, but even our memories are now being digitized. Last year at Wake Forest University and the University of Southern California, scientists for the first time were able to record and upload memories directly into an animal brain, which is something straight out of a sci-fi movie like "The Matrix." Scientists there trained mice to perform certain simple tasks, which can be recorded by sensors placed in their brains. After they forget the task, the digitized memory can be reinserted back into their brain, allowing them to remember.

One short-term research goal is to create a "brain pacemaker" for Alzheimer's patients. By pushing a button, a person might be able to remember where they live and where they are. But one can imagine a day in the future when we might even be able to upload the memory of a vacation that we never had, or the math course that we never passed.

Although the technology is still in its infancy, there may come a day when the Internet might be replaced by a Brain-net, in which emotions, sensations, memories and thoughts are sent over the Internet. Think about it: Instead of using clumsy symbols like :), teenagers would go crazy sending all their adolescent emotions and feelings on a mentalized version of Facebook.

A Brain-net could revolutionize every aspect of our life, including education and entertainment. The movies (basically a flat screen with sound) would be replaced by total-immersion entertainment, where we would experience the totality of sensations experienced mentally by the actors. It might also reduce barriers between people, as we would be able to experience their suffering and life stories.

Scientists at the University of California at Berkeley have already made progress in photographing our thoughts. A subject is placed in an Magnetic Resonance Imaging machine, which scans your brain as you watch a picture or video. A super computer analyzes this mass of MRI data and then reconstructs a reasonable approximation of the original image. One can imagine the day when we might wake up and watch a video of the dream we had the previous night.

Although years of hard work remain to perfect this technology, the stunning pace of progress has caught the attention of politicians. The European Union and President Obama have collectively pledged more than \$1 billion to spearhead this technology. In the U.S. it's called the Brain Initiative, and one objective is to completely map all the circuits of the entire brain.

The short-term goal is to alleviate the suffering caused by mental illness. (According to the National Alliance on Mental Illness, one in four adults will suffer from some form of mental illness in any given year.) But over time the impact of brain-circuit mapping could be as profound as the Human Genome Project, which has revolutionized medicine. In the future, we might have

two disks. One disk will contain our genome, containing a genetic blueprint of our body. But the other disk will have our "connectome," storing all the circuits of our brain, conceivably containing our emotions, memories and personality traits.

Even if we die, our genome and connectome will live on. One day we might have a "library of souls," in which we can have a scintillating discussion with our long-dead ancestors or even historical figures. We could talk to a hologram of an ancestor, for instance, which can access all that person's memories and personality.

So the promise of this new revolution in neuroscience is profound, holding out the ability to someday alleviate suffering and enhance our true mental potential. This technology has the power to radically change the medical, scientific, social and even political landscape for the benefit of humanity.

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4. Banking in a Time of Cholera

Bank of America pays \$16.65 billion for doing the feds a favor. Editorial, WSJ, Aug 21, 2014 <u>http://online.wsj.com/articles/banking-in-a-time-of-cholera-1408664042</u> [SEPP Comment: Can any major financial institution trust Washington again?]

America fancies itself a nation of laws, but you can forgive Bank of America shareholders if they have some doubts this week. They might be better off under the prehistoric appeasement the natives practiced in "King Kong." Maybe during every full moon they should roll out into the street someone who worked at its Countrywide Financial unit as a legal sacrifice to the giant beast known as the U.S. government. The monster could grab the poor sap in its paw, beat its chest, and retreat back into the jungle.

As a matter of justice, such a system makes no less sense than the arbitrary, invented \$16.65 billion settlement that the Justice Department imposed on BofA on Thursday. "The largest such settlement on record," bragged Attorney General Eric Holder, as if justice is measured by dollars paid.

The better way to understand this settlement is as Bank of America's punishment for having been foolish enough to buy Countrywide and Merrill Lynch during the financial panic. On Thursday Justice issued a 30-page "statement of facts" concerning BofA's alleged sins when issuing flawed mortgage-backed securities. But only a page and a quarter concerned mortgage securities issued by Bank of America before its acquisitions of the two flawed firms. The rest concerned Countrywide and Merrill.

To put that in monetary terms, from 2004-2008 Bank of America, Merrill and Countrywide issued some \$965 billion in mortgage securities. Nearly three-fourths of those were from Countrywide, the subprime mortgage factory that was the intimate business partner of Fannie Mae FNMA and Freddie Mac. The government mortgage giants were only too happy to buy or guarantee the

subprime loans that Countrywide churned out because it helped them meet their political "affordable housing" goals.

Of that \$965 billion in mortgage securities, about \$245 billion have either defaulted or qualified as seriously delinquent. But only some \$9 billion, or 4%, of those bad securities were issued by Bank of America itself. The rest were issued by Countrywide and Merrill before BofA acquired them.

The irony is that during the crisis the feds were delighted that a bank with reservoirs of private capital was willing to rescue the two firms from bankruptcy. As we've previously documented ("No Good Rescue Goes Unpunished," Aug. 8), BofA spared the Treasury or Federal Reserve from having to intervene and perhaps write a big taxpayer check. In the case of Merrill, Treasury Secretary Hank Paulson threatened to fire then-CEO Ken Lewis when he later tried to back out of the deal.

For that public service, BofA will now be relieved of about nine months of its net income. The message for rational CEOs is that, come the next crisis, steer as far as possible from Treasury invitations to buy a failing company. The real purchase price will be what you pay at the time plus whatever the feds decide you should pay down the road if the politics of retribution demands it.

The Justice Department claims only \$5 billion of the fine is a formal "civil penalty" and \$7 billion will go to unspecified "consumer relief." The latter requires special legal conjuring because the victims who were harmed by the alleged BofA fraud are the investors who bought the securities. Yet the relief will presumably go to the very mortgage borrowers whose failure to stay current on their loans caused the losses to those investors.

Please also don't look for an analysis of how and why the fine was calculated because it doesn't seem to exist. For all we can tell the lawyers made it up. That includes the \$300 million that will be divided among the six states that are parties to the settlement. No doubt it's merely a coincidence that all six—California, New York, Illinois, Delaware, Maryland and Kentucky—have Democratic attorneys general.

The BofA extortion continues the Administration's second-term campaign to appease its populist left by punishing banks one by one. The left is upset that Mr. Holder couldn't find enough bankers to indict for actual crimes, despite five years of tireless effort. Maybe that's because they didn't commit any crimes. Instead like everyone else, bankers were swept away in a classic financial mania that super-easy Federal Reserve policy, Fannie and Freddie guarantees, and affordable housing policies did so much to promote. Bankers were bad risk managers, like their regulators.

But we are banking in a time of cholera, and so Mr. Holder has been demanding that CEOs bow down and write big checks. In a Dodd-Frank world in which all banks are public utilities, no CEO can afford to disagree publicly with the government, much less resist a settlement. See J.P. Morgan CEO Jamie Dimon for details. So pay up, and hear the politicians roar.