

The Week That Was: 2014-08-30 (August 30, 2014)
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The Science and Environmental Policy Project

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Quote of the Week: *I have been asked to talk about what I consider the most important challenge facing mankind, and I have a fundamental answer. The greatest challenge facing mankind is the challenge of distinguishing reality from fantasy, truth from propaganda. Perceiving the truth has always been a challenge to mankind, but in the information age (or as I think of it, the disinformation age) it takes on a special urgency and importance.* Michael Crichton
September 15, 2003

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Number of the Week: 67%

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THIS WEEK:

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

A Hint of Desperation? The synthesis report of UN Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5) has been leaked to friendly media organizations such as Bloomberg and the New York Times. The IPCC schedule has the discussion of the report and approval during a meeting in Copenhagen from October 24 to October 31, 2014. (During the Copenhagen meeting, on October 26, the future work of the IPCC will be discussed.) The schedule has the presentation and distribution of the synthesis report from December 3 to December 14. One question about the timing of the leak quickly arises: is the IPCC trying to influence the US election on November 4?

Based on comments from journalists who are friendly with the IPCC, the synthesis report is more strident than past reports. Seth Borenstein of the Associated Press wrote:

Global warming is here, human-caused and probably already dangerous — and it's increasingly likely that the heating trend could be irreversible, a draft of a new international science report says.

There is little in the report that wasn't in the other more-detailed versions, but the language is more stark and the report attempts to connect the different scientific disciplines studying problems caused by the burning of fossil fuels, such as coal, oil and gas.

"Continued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems," the report says.

According to the publicly available atmospheric temperature data compiled by the University of Alabama in Huntsville (UAH), there has been no warming trend for over a decade. Surface data show no warming for about 17 years.

We now have more than 30 explanations for the failure of the earth to warm. Many explanations have come from members of the Climate Establishment that have benefited from the IPCC and the enormous expenditure of funds from countries such as the United States. Many of these

explanations suggest causes of natural climate change that the IPCC failed to consider in its AR5 Summary for Policymakers.

Yet, in addressing the trend of no warming, Andy Revkin wrote: *“What’s firmly established is that the climate is warming, that the buildup of human-generated heat-trapping greenhouse gases is contributing substantially to the warming ...”*

Alarmists are announcing greater certainty in the work, without bothering to ask the central question. How can we know it was CO₂ in the recent past, if it isn’t CO₂ now? The only answer seems to be appeal to authority, in this case the IPCC. See links under Defending the Orthodoxy and http://www.ipcc.ch/scripts/calendar_template.php?wg=8

IPCC Illogic I – Circular Reasoning: When studying algebra many learned that when presented with an equation such as $A+B=10$, it is impossible to determine the value of A without knowing the value of B. Similarly, it is impossible to determine the value of B without knowing the value of A. In the AR5 Summary for Policymakers, the IPCC tries to get around this simple logic problem by using models to solve for the values of A & B simultaneously. [Assume A is human influences on climate and B is natural influences on climate and that the calculated values are 7 and 3, respectively.] This creates another problem. The models have not been verified and validated, how does one know that the calculated values are correct?

At this point the IPCC engages in circular reasoning. If A, equal to 7, is removed from the equation, an absurd result occurs, namely $3 = 10$. However, a similar absurd result occurs regardless of the values of A and B, as long as the sum of A and B equals 10. The value of A or B must be determined empirically.

Andrew Montford points out another major issue with these presentations. The variations in temperature data have been obfuscated (smoothed) by using decadal averages. As statistician Matt Briggs insists, smoothing time series data can dramatically fool the researcher into being more certain about the final results than warranted by the data. See links under Challenging the Orthodoxy.

IPCC Illogic II: The current trend of no global warming has prompted Richard Betts of the UK Met Office to discount the value of climate models for public policy by claiming they are useful for short-term regional projections but not for long-term global projections. Betts is one of the lead authors of IPCC AR5, working group 2, which “assesses the vulnerability of socio-economic and natural systems to climate change, negative and positive consequences of climate change.” Andrew Montford in Bishop Hill, and Bob Tisdale in WUWT, demolish the argument by Betts. It is the fear of long-term global warming, based on projections from the faulty models, that drives funding of the Climate Establishment. See links Models v. Observations and http://www.ipcc.ch/working_groups/working_groups.shtml

IPCC Illogic III: An article by Alex Morales in *Bloomberg* on the leaked synthesis report stated:

The pace of temperature increases slowed to about 0.05 of a degree per decade from 1998 through 2012 from 0.12 degrees per decade for the longer period spanning from 1951 to 2012. The IPCC said 111 out of 114 climate models predicted a greater warming trend than was observed from 1998 to 2012. And for the period from 1984 to 1998, most models showed less warming than was finally recorded, they said.

Over longer periods, the climate models seem to be more accurate. From 1951 to 2012, “simulated surface warming trends are consistent with the observed trend,” the IPCC researchers said. If models cannot make short-term forecasts, there is no logical reason to assume they will be successful at making long-term forecasts. As pointed out by Bob Tisdale, the models show increasing warming trends later in the 21st century than in the early part of the century. (These trends are 0.23 Deg C/Decade 2000 to 2033, 0.27 Deg C/Decade 2034 to 2066, 0.31 Deg C/Decade, 2067 to 2100.) See links under Defending the Orthodoxy and Model Issues.

Is the Trend of No Global Warming Caused by humans? Examination of the University of Alabama in Huntsville (UAH) graph of Monthly Global Lower Troposphere Anomaly from December 1978 through July 2014 can prompt such a question. After discounting the strong El Niño year of 1998, there is little warming until about 2002-2003, when a jump (step) in temperatures occurred. There is no clear trend thereafter, particularly if one discounts the El Niño year of 2010. The late 20th century warming appears in the surface record, which is subject to many human influences other than carbon dioxide.

Fred Singer, and others, have suggested that the surface records exaggerate late 20th century warming, whatever the reason. If so, then the current period of no warming may be an adjustment to this record. See <http://nsstc.uah.edu/climate/2014/july2014/graph072014.png>

Avoiding Congress on Climate: Section 2.2 of the Constitution of the United States contains the following: “He [the President] shall have Power, by and with the Advice and Consent of the Senate, to make Treaties, provided two thirds of the Senators present concur...” There is nothing stopping President Obama from submitting the Kyoto Protocol to Congress for approval as a Treaty except his realization it would be an embarrassing failure.

According to reports President Obama has given up on extending the Kyoto Protocol or seeking a Treaty. The Administration is trying to devise a binding agreement for the US without the approval of Congress. Many of those who question the quality of the science used by the EPA to declare that greenhouse gas emissions, mainly carbon dioxide, endanger public health and welfare were disappointed that the Federal Courts turned a blind eye to the poor quality of the science. Will the courts turn a blind eye to this apparent effort to ignore Congress and the Constitution? See links under Problems in the Orthodoxy.

EROI: In the August 23 TWTW, unreliable solar and wind power to produce electricity, which cannot be stored on a commercial scale, were identified as luxury goods. They are expensive goods that are not needed in a modern society. This week Andrew Montford is blunter. These renewables cannot sustain civilization. Montford links to a study by John Morgan, posted on the Energy Collective, covering the Energy Return On Invested (EROI) for various types of energy technologies. According to studies, modern civilizations such as Germany and the US, require an EROI of about 7. Needless to say, wind and PV solar do not make the grade. Although one can quibble about the numbers, the report is sobering and should be considered when one is faced with promises blowing in the wind. See links under Challenging the Orthodoxy.

Capital Intensive – Green Jobs: The International Energy Agency, proponents of renewable energy, has published a new report of the mid-term future of renewable energy to 2020. Newspapers covering the publication reported largely what they thought was promising news for

renewables. However, the report was not so optimistic, unless governments keep policies of mandating and subsidizing renewables. An interesting paragraph in the press release:

The annual report highlights the potential energy security implications of energy use for heat, which accounts for more than half of world final energy consumption and is dominated by fossil fuels. But the contribution of renewables to meet heating and cooling needs remains underdeveloped, with more limited policy frameworks compared with the electricity and transport sectors. Although modern renewable energy sources are expected to grow by almost 25% to 2020, their share in energy use for heat[ing] rises to only 9%, [of the total] up from 8% in 2013.

The electricity from solar and wind is not there when needed the most.

The report did recognize that, generally, renewables are capital intensive, thus provide few permanent “green jobs.” So much for the green jobs myths promoted by politicians. See links under Energy Issues Non-US

Electricity Efficiency: Bureaucrats at the US Department of Energy and European Union are busily determining the desired energy consumption of ordinary appliances used by households. Unfortunately, less energy consumption for the bureaucrats means less efficiency in the appliance for the user. More human work! Drying clothes outside in the sun consumes less electricity than in a clothes dryer – even if it is winter and below freezing. John Brignell has succinct comments on this effort.

The effort by the Department of Energy was funded, in part, by \$16.8 Billion in the so-called 2009 stimulus bill. And the politicians do not know why the stimulus failed? See links under Challenging the Orthodoxy, EPA and other Regulators on the March, and Washington’s Control of Energy

Missing Emails: US Internal Revenue Service Commissioner John Koskinen told Congress he had “moved heaven and earth” in his effort to recover emails by Lois Lerner detailing her efforts to deny special tax status to organizations that appeared to be political opponents to the Administration. The tax status was customarily granted to political supporters of the Administration. It appears that moving heaven and earth was not necessary. The US government has a comprehensive back-up system.

Recovery of missing emails may give some EPA officials discomfort. Efforts to uncover emails from EPA officials with members of green organizations have been thwarted. Perhaps they may reveal questionable relationships. Only time will tell. See links under Litigation Issues

Streams & Waterbodies: The EPA is contemplating expanding its powers under the Clean Water Act. Opponents claim the EPA will be using the Act to seize effective control of vast amounts of private land. EPA denies this, but who would have thought that after Congress failed to pass cap-and-trade, the EPA would embark on controlling carbon dioxide emissions from existing power plants? Given this regulatory overreach of the EPA, there is no reason to believe that the EPA does not have designs on controlling private lands

The Republican Chairman of the House Science Committee released one such map. Among the portions that stand out is that the dry Southwest is virtually covered with intermittent and ephemeral (short-lived) streams. See links under EPA and other Regulators on the March.

Iceberg Ride: Professional adventurer and motivational speaker Alex Bellini has announce that to draw attention to global warming (and himself) he will live on an iceberg off the coast of Greenland. TWTW is not impressed. He no doubt will have appropriate food and equipment, much of it made from petroleum products.

If Mr. Bellini desired to impress, he could try to replicate Captain Tyson’s marvelous drift. Abandoned on a small ice flow with few provisions and limited equipment, starting October 16, 1872 Tyson’s party drifted about 1800 miles from Northwest Greenland through the Davis Strait to off the coast of Labrador where they were picked up on April 30, 1873. There were 18 survivors including 5 children. They had no proper lamp, let alone 20th century equipment. They survived on game the Inuit hunters caught – eating flesh and fat, often without cooking. Yet, without fresh fruits or vegetables, let alone modern vitamin pills, the party made it without noticeable scurvy, the most common killer of sailors during the voyages of discovery. That would be a real adventure. See link under Below the Bottom Line.

Number of the Week 67%, EPA Air Quality Trends, 1980 to 2012, show that combined amount of six pollutants in the air has declined by 67% from 1980 to 2012; 72% from 1970. The pollutants are carbon monoxide, lead, nitrogen dioxide, particulate matter (10) and sulfur dioxide. Several issues become obvious. One, any studies to justify new regulations using data that are older than say, 10 years, are obsolete. And, two, asthma cases have increased as the air has become cleaner. EPA has no justification to claim that new regulations will reduce asthma cases. Yet, EPA administrator Gina McCarthy claimed that *“In just the first year these standards go into effect, we’ll avoid up to 100,000 asthma attacks and 2,100 heart attacks — and those numbers go up from there.”* See links under EPA and Other Regulators on the March and <http://dailycaller.com/2014/08/27/epa-chief-co2-regulations-are-about-justice-for-communities-of-color/#ixzz3C03Uxu24>

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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. Six Threats Bigger Than Climate Change

The Obama administration talks global warming as the world burns.

By John Barrasso, WSJ, Aug 28, 2014

<http://online.wsj.com/articles/john-barrasso-six-threats-bigger-than-climate-change-1409270527>

2. Notable & Quotable: On Biofuels and Nature

The renewable energy paradigm requires an unprecedented industrial reengineering of the landscape.

Will Boisvert writing at thebreakthrough.org, Feb. 11, WSJ Aug 27, 2014

<http://online.wsj.com/articles/notable-quotable-on-biofuels-and-nature-1409179097>

3. Germany's Expensive Gamble on Renewable Energy

Companies Worry [about, sic] Cost of Plan to Trim Nuclear, Fossil Fuels Will Undermine Competitiveness

By Matthew Karnitschnig, WSJ, Aug 26, 2014

http://online.wsj.com/articles/germanys-expensive-gamble-on-renewable-energy-1409106602?mod=trending_now_2

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NEWS YOU CAN USE:

Science: Is the Sun Rising?

New paper describes another solar amplification mechanism that affects low clouds

By Staff Writer, The Hockey Schtick, Aug 28, 2014

<http://hockeyschtick.blogspot.co.uk/2014/08/new-paper-describes-another-solar.html>

Link to paper: Solar-wind-driven geopotential height anomalies originate in the Antarctic lower troposphere

By Mai Mai Lam, Gareth Chisham and Mervyn P. Freeman, Geophysical Research Letters, Aug 28, 2014

<http://onlinelibrary.wiley.com/doi/10.1002/2014GL061421/abstract>

Commentary: Is the Sun Rising?

Sunspot Trends Suggest Global Cooling Ahead

By Larry Bell, Newsmax, Aug 25, 2014

<http://www.newsmax.com/LarryBell/Climate-Change-Sunspots-Global-Warming/2014/08/25/id/590671/>

Climategate Continued

Misrepresentations and the Tainted Narrative of Mann's Complaint

By Steve McIntyre, Climate Audit, Aug 26, 2014

<http://climateaudit.org/2014/08/26/misrepresentations-and-the-tainted-narrative-of-manns-complaint/#more-19535>

Who wrote the EPA documents?

By Jean S, Climate Audit, Aug 27, 2014

<http://climateaudit.org/2014/08/27/who-wrote-the-epa-documents/#more-19597>

Suppressing Scientific Inquiry

Partisanship and silencing science

By Judith Curry, Climate Etc. Aug 29, 2014

<http://judithcurry.com/2014/08/29/partisanship-and-silencing-science/#more-15507>

Challenging the Orthodoxy

Hiding the pause

By Andrew Montford, Bishop Hill, Aug 28, 2014

<http://bishophill.squarespace.com/blog/2014/8/28/hiding-the-pause.html>

Do not smooth times series, you hockey puck!

By Matt Briggs, His Blog, Sep 6, 2008

<http://wmbriggs.com/blog/?p=195>

The (Latest) Answer To the "Pause"

By David Whitehouse, GWPF, Aug 26, 2014

<http://www.thegwpf.org/the-latest-answer-to-the-pause/>

[SEPP Comment: Discussed in the August 23 TWTW.]

Renewables cannot sustain civilization

By Andrew Montford, Bishop Hill, Aug 27, 2014

<http://www.bishop-hill.net/blog/2014/8/27/renewables-cannot-sustain-civilisation.html>

[SEPP Comment: See link immediately below.]

The Catch-22 of Energy Storage

By John Morgan, The Energy Collective, Aug 25, 2014 [H/t WUWT]

<http://theenergycollective.com/barrybrook/471651/catch-22-energy-storage>

The scientific simpletons strike again – Brussels sprouts a new absurdity

By John Brignell, Number Watch, Aug 23, 2014

<http://www.numberwatch.co.uk/2014%20August.htm#vacuum>

Sustainability: The Universal Solvent of Private Property Rights

By Charles Battig, American Thinker, Aug 26, 2014

http://www.americanthinker.com/2014/08/sustainability_the_universal_solvent_of_private_property_rights.html

NZClimate Truth Newsletter no 334

By Vincent Gray, The Australian Climate Sceptics, Aug 26, 2014

<http://theclimatescepticsparty.blogspot.com.au/2014/08/climate.html>

Susan Crockford: Healthy Polar Bears, Less Than Healthy Science

By Susan Crockford, GWPF, Aug 28, 2014

<http://www.thegwpf.org/susan-crockford-healthy-polar-bears-less-than-healthy-science/>

Link to paper of same name and author

<http://www.thegwpf.org/content/uploads/2014/08/Health-Polarbears.pdf>

[SEPP Comment: Very critical of establishment polar bear scientists.]

Defending the Orthodoxy

UN panel: Global warming human-caused, dangerous

By Seth Borenstein, AP, Aug 26, 2014 [H/t Clyde Spencer]

http://hosted2.ap.org/APDEFAULT/3d281c11a96b4ad082fe88aa0db04305/Article_2014-08-26-US-SCI-Climate%20Report/id-4b61cfcf53ef4235b8ab22a23cce0d9a

Link to IPCC AR5

<http://www.ipcc.ch/>

A Closer Look at Turbulent Oceans and Greenhouse Heating

By Andrew Revkin, NYT, Aug 26, 2014 [H/t Clyde Spencer]

http://dotearth.blogs.nytimes.com/2014/08/26/a-closer-look-at-turbulent-oceans-and-greenhouse-heating/?_php=true&_type=blogs&partner=rss&emc=rss&_r=0

U.N. Draft Report Lists Unchecked Emissions' Risks

By Justin Gillis, NYT, Aug 26, 2014

http://www.nytimes.com/2014/08/27/science/earth/greenhouse-gas-emissions-are-growing-and-growing-more-dangerous-draft-of-un-report-says.html?emc=edit_th_20140827&nl=todaysheadlines&nid=59831859

Irreversible Damage Seen From Climate Change in UN Leak

By Alex Morales, Bloomberg, Aug 27, 2014

<http://www.bloomberg.com/news/2014-08-26/irreversible-damage-seen-from-climate-change-in-un-leak.html>

A climate for change: The country's sinking debate over global warming

Editorial, Washington Post, Aug 24, 2014

http://www.washingtonpost.com/opinions/the-countrys-sinking-climate-debate/2014/08/24/d4d4aeca-29ff-11e4-86ca-6f03cbd15c1a_story.html

[SEPP Comment: The debate is raging because the advocates claimed the science is settled it is not.]

Climate Change Costs By 2100: Doing Nothing Has the Same Price Tag as Doing Something

Adapting to climate change would cost roughly the same as trying to slow it.

By Ronald Bailey, Reason.com, Aug 29, 2014

<http://reason.com/archives/2014/08/29/climate-change-costs-by-2100>

[SEPP Comment: If we do not know the causes, there is no reason to assume the costs to address climate change will not be a complete waste.]

Coal's continued dominance of global industrialization must be made more vivid in climate change accounting

By Holly Welles, Princeton Environmental Institute [H/t GWPF]

<http://www.princeton.edu/main/news/archive/S40/84/62I06/index.xml>

[SEPP Comment: We do not know the costs of current emissions, if any. But now we must calculate the costs of future emissions?]

Questioning the Orthodoxy

A Single Meteorologist Explains What \$165 Billion In Government-Funded Climate Science Couldn't

Large scale oceanic oscillations responsible for most of the post 1980 "warming"

By Joe Bastardi, No Tricks Zone, Aug 24, 2014

<http://notrickszone.com/2014/08/24/a-single-meteorologist-explains-what-165-billion-in-government-funded-climate-science-couldnt/#comment-969386>

[SEPP Comment: The headline by P Gosselin is not quite correct. Of the more than \$165 billion in expenditures, about \$35 billion was categorized as climate science.]

Before the deluge

By Andrew Montford, Bishop Hill, Aug 23, 2014

<http://bishophill.squarespace.com/blog/2014/8/23/before-the-deluge.html>

[SEPP Comment: A deluge of papers on the failure of the earth to warm, largely after the IPCC declared over 95% certainty in its work.]

Climate Alarmism: When Is This Bozo Going Down?

By Patrick Michaels and Paul C. "Chip" Knappenberger, CATO, Aug 27, 2014

<http://www.cato.org/blog/climate-alarmism-when-bozo-going-down>

When Global Warming Stopped

By Chris Dawson, Lord Monckton Foundation, Aug 28, 2014

<http://theclimatescepticsparty.blogspot.com.au/2014/08/when-global-warming-stopped.html>

Climate change cools off

Al Gore can't even give away treats from his ice-cream truck
Editorial, Washington Times, Aug 25, 2014

<http://www.washingtontimes.com/news/2014/aug/25/editorial-climate-change-cools-off/>

More on GCMs and public policy

By Andrew Montford, Bishop Hill, Aug 27, 2014

<http://bishophill.squarespace.com/blog/2014/8/27/more-on-gcms-and-public-policy.html>

Nils-Axel Mörner Calls Global Warming "A Large-Scale Hysteria"...Antarctic Sea Ice Expansion "Not Surprising"

By P Gosselin, No Tricks Zone, Aug 26, 2014

<http://notrickszone.com/2014/08/26/nils-axel-moerner-calls-global-warming-a-large-scale-hysteria-antarctic-sea-ice-expansion-not-surprising/>

Letter: Cut the Costly Climate Chatter

By Viv Forbes, Carbon Sense, Via WUWT, Aug 25, 2014

<http://wattsupwiththat.com/2014/08/25/cut-the-costly-climate-chatter/>

Social Benefits of Carbon

New book: About Face! Why the World Needs More Carbon Dioxide

Description of book by Hughes, Khandekar, and Ollier, By Anthony Watts, Aug 27, 2014

<http://wattsupwiththat.com/2014/08/27/new-book-about-face-why-the-world-needs-more-carbon-dioxide/>

The Warming-Induced Evolution of Terrestrial Plants

By Staff Writers, SPPI, Aug 27, 2014

http://scienceandpublicpolicy.org/originals/the_warming_induced_evolution_of_terrestrial_plants.html

Problems in the Orthodoxy

Obama Pursuing Climate Accord in Lieu of Treaty

By Coral Davenport, NYT, Aug 26, 2014

http://www.nytimes.com/2014/08/27/us/politics/obama-pursuing-climate-accord-in-lieu-of-treaty.html?emc=edit_th_20140827&nl=todaysheadlines&nid=59831859

[SEPP Comment: The article claims CO2 is a pollutant and scientists warn human-caused global warming is causing more severe drought and stronger wildfires, rising sea levels and more devastating storms. None of these claims can be substantiated by physical evidence.]

Good-Bye, Treaty

The administration plans to sign a non-binding climate-change accord. Good luck with that.

By Rupert Darwall, National Review Online, Aug 28, 2014

<http://www.nationalreview.com/article/386639/good-bye-treaty-rupert-darwall>

Obama Resorts to "Political Magic" to Carry Out His Stealthy Global Climate Change Strategy

By Ronald Bailey, Reason.com, Aug 27, 2014

<http://reason.com/blog/2014/08/27/obama-resorts-to-political-magic-to-carr>

Obama seeks to bypass Congress for U.N. climate change deal: report

U.S. wants ‘politically binding’ commitments on carbon dioxide emissions reductions

By Victor Morton, Washington Times, Aug 26, 2014

<http://www.washingtontimes.com/news/2014/aug/26/obama-seeks-bypass-congress-un-climate-change-deal/>

Is Atlantic holding Earth's missing heat?

By Eli Kintisch, Science, Aug 22, 2014

<http://www.sciencemag.org/content/345/6199/860>

[SEPP Comment: Ignores the central issue – is CO2 the cause?]

Wow, we never saw this coming: ‘Trash burning worldwide significantly worsens air pollution’

By Anthony Watts, WUWT, Aug 26, 2014

<http://wattsupwiththat.com/2014/08/26/wow-we-never-saw-this-coming-trash-burning-worldwide-significantly-worsens-air-pollution/>

Link to paper: Global emissions of trace gases, particulate matter, and hazardous air pollutants from open burning of domestic waste.

By Wiedinmyer C1, Yokelson RJ, & Gullett BK, Environmental Science Technology, Aug 19, 2014

<http://www.ncbi.nlm.nih.gov/pubmed/25019173>

Seeking a Common Ground

Climate Change Nonensus [Non-Consensus]: Only 52% of meteorologists think global warming is mostly man-made

By Staff Writer, The Hockey Shtick, Aug 24, 2014 [H/t GWPF]

<http://hockeyshtick.blogspot.co.uk/2014/08/climate-change-nonsensus-only-52-of.html>

Link to survey: Meteorologists' Views About Global Warming: A Survey of American Meteorological Society Professional Members

By Neil Stenhouse, et al. Bulletin of AMS, July 2014

<http://journals.ametsoc.org/doi/full/10.1175/BAMS-D-13-00091.1>

[SEPP Comment: A similar result was obtained by SEPP in 1990; is the AMS finally starting to realize that its policy statement on climate is not dearly embraced by all?]

Atlantic vs Pacific vs AGW

By Judith Curry, Climate Etc. Aug 28, 2014

<http://judithcurry.com/2014/08/28/atlantic-vs-pacific-vs-agw/#more-16735>

Models v. Observations

A Note on the 50-50 Attribution Argument between Judith Curry and Gavin Schmidt

By Bob Tisdale, WUWT, Aug 28, 2014

<http://wattsupwiththat.com/2014/08/28/a-note-on-the-50-50-attribution-argument-between-judith-curry-and-gavin-schmidt/>

Global Warming ‘Slowdown’ Could Continue for a Decade, Study

By Staff Writers, Canada Journal, Aug 22, 2014 [H/t Deke Forbes]

<http://canadajournal.net/science/global-warming-slowdown-could-continue-for-a-decade-study-13800-2014/>

Model Issues

A Lead Author of IPCC AR5 Downplays Importance of Climate Models

By Bob Tisdale, WUWT, Aug 26, 2014

<http://wattsupwiththat.com/2014/08/26/a-lead-author-of-ipcc-ar5-downplays-importance-of-climate-models/>

GCMs and public policy

By Andrew Montford, Bishop Hill, Aug 24, 2014

<http://bishophill.squarespace.com/blog/2014/8/24/gcms-and-public-policy.html>

Diary dates, modelling edition

By Andrew Montford, Bishop Hill, Aug 27, 2014

<http://bishophill.squarespace.com/blog/2014/8/27/diary-dates-modelling-edition.html>

Measurement Issues

How Much of Atmospheric CO2 Increase is Natural?

By Roy Spencer, His Blog, Aug 27, 2014

<http://www.drroyspencer.com/2014/08/how-much-of-atmospheric-co2-increase-is-natural/>

Measuring the Duration of the Pause in Global Warming

By Ross McKittrick, His Blog, Aug 29, 2014

<http://www.rossmckittrick.com/index.html>

Link to paper: HAC-Robust Measurement of the Duration of a Trendless Subsample in a Global Climate Time Series

By Ross McKittrick, Open Journal of Statistics, August 2014

file:///C:/Users/Owner/Downloads/OJS_2014082814175187.pdf

‘Missing heat’ in the Atlantic – It doesn’t work like that

By David Archibald, WUWT, Aug 24, 2014

<http://wattsupwiththat.com/2014/08/24/missing-heat-in-the-atlantic-it-doesnt-work-like-that/>

Problems with Statistical Tests of Pre-1958 Atmospheric CO2 Concentration Data

By James McCown, WUWT, Aug 29, 2014

<http://wattsupwiththat.com/2014/08/29/problems-with-statistical-tests-of-pre-1958-atmospheric-co2-concentration-data/>

USHCN Monthly Temperature Adjustments

By Walter Dnes, WUWT, Aug 24, 2014

<http://wattsupwiththat.com/2014/08/23/ushcn-monthly-temperature-adjustments/>

Changing Weather

Cold summer: US daily record minimums outnumbering record maximums 3 to 1 in the last 30 days

By Anthony Watts, WUWT, Aug 23, 2014

<http://wattsupwiththat.com/2014/08/23/cold-summer-us-daily-record-minimum-outnumbering-record-maximums-3-to-1-in-the-last-30-days/>

Hurricane Development Region Sea Surface Temperature Update – August 2014

By Bob Tisdale, WUWT, Aug 23, 2014

<http://wattsupwiththat.com/2014/08/23/hurricane-development-region-sea-surface-temperature-update-august-2014/>

U.S. Tornado Intensity Index Shows No Upward Trend

By Paul Homewood, WUWT, Aug 25, 2014

<http://wattsupwiththat.com/2014/08/25/u-s-tornado-intensity-index-shows-no-upward-trend/>

Changing Seas

New paper shows equatorial Pacific sea surface temperatures were about the same in 1930's as end of 20th century

By Staff Writer, The Hockey Schtick, Aug 29, 2014

<http://hockeyschtick.blogspot.com/2014/08/new-paper-shows-equatorial-pacific-sea.html>

Link to paper: Investigation of sea surface temperature changes from replicated coral Sr/Ca variations in the eastern equatorial Pacific (Clipperton Atoll) since 1874

By Wu, et al, Palaeogeography, Palaeoclimatology, Palaeoecology, Oct 16, 2014

<http://www.sciencedirect.com/science/article/pii/S0031018214003940>

Global sea level rise a bit more than 1mm a year for last 50 years, no acceleration

By Jo Nova, Her Blog, Aug 26, 2014

<http://joannenova.com.au/2014/08/global-sea-level-rise-a-bit-more-than-1mm-a-year-for-last-50-years-no-acceleration/#more-37953>

Link to paper: Tide gauge location and the measurement of global sea level rise

By Beenstock, et al. Environmental and Ecological Statistics, May 23, 2014

<http://link.springer.com/article/10.1007/s10651-014-0293-4>

Changing Cryosphere – Land / Sea Ice

New paper shows ice mass stable to increasing over most of Antarctic ice sheet

By Staff Writer, The Hockey Schtick, Aug 29, 2014

<http://hockeyschtick.blogspot.com/2014/08/new-paper-shows-ice-mass-stable-to.html>

Link to paper: Snow- and ice-height change in Antarctica from satellite gravimetry and altimetry data

By Mémina, et al, Earth and Planetary Science Letters, Oct 15, 2014

<http://www.sciencedirect.com/science/article/pii/S0012821X14005068>

NOAA Data Show Southern Oceans Getting Colder...Contributing To Rapid South Polar Sea Ice Expansion

North Pole and South Pole Ice

By Ed Caryl, No Tricks Zone, Aug 25, 2014

<http://notrickszone.com/2014/08/25/noaa-data-show-southern-oceans-getting-colder-contributing-to-rapid-south-polar-sea-ice-expansion/>

Global Warming Causes Cooling In Antarctica (Or Maybe It's Just Natural!)

By Paul Homewood, Not a Lot of People Know That, Aug 26, 2014

<http://notalotofpeopleknowthat.wordpress.com/2014/08/26/global-warming-causes-cooling-in-antarctica-or-maybe-its-just-natural-2/>

Great Graphic of Ocean Circulation

MIT Scientists Confirm Antarctica Is Cooling

By Paul Homewood, Not a Lot of People Know That, Aug 27, 2014

<http://notalotofpeopleknowthat.wordpress.com/2014/08/27/mit-scientists-confirm-antarctica-is-cooling/>

Link to paper: The ocean's role in polar climate change: asymmetric Arctic and Antarctic responses to greenhouse gas and ozone forcing

By Marshall, et al. Philosophical Transaction of the Royal Society A, Jun 2, 2014

<http://rsta.royalsocietypublishing.org/content/372/2019/20130040>

[SEPP Comment: Homewood's headline may be exaggerated, but the paper raises questions about greenhouse gas and ozone forcing. If both IPCC claimed forcing are correct, then they should be occurring at both poles.]

Changing Earth

Severe drought is causing the western US to rise

By Staff Writers, San Diego CA (SPX), Aug 25, 2014

http://www.terraily.com/reports/Severe_drought_is_causing_the_western_US_to_rise_999.html

Agriculture Issues & Fear of Famine

A doubleheader of GMO stupidity—From the two most populous countries in the world.

By Staff Writers, ACSH, Aug 25, 2014

<http://acsh.org/2014/08/doubleheader-gmo-stupidity-two-populous-countries-world/>

The Next-Generation Greenhouse

By Esther Dyson, Project Syndicate, Aug 27, 2014

<http://www.project-syndicate.org/commentary/esther-dyson-extols-the-promise-of-vertical--plant-production-units->

[SEPP Comment: Can one imagine the cost of growing grains in a climate controlled building?]

Un-Science or Non-Science?

Temperature hiatus periods to become a 'thing of the past' as emissions soar

By Peter Hannam, Sydney Morning Herald, Aug 28, 2014 [H/t WUWT]

<http://www.smh.com.au/environment/climate-change/temperature-hiatus-periods-to-become-a-thing-of-the-past-as-emissions-soar-20140827-1091p3.html>

Link to paper: Drivers of decadal hiatus periods in the 20th and 21st centuries

By Nicola Maher, et al. Geophysical Research Letters, Aug 20, 2014

<http://onlinelibrary.wiley.com/doi/10.1002/2014GL060527/abstract>

Lowering Standards

Kiwis Await Our Climate Victims

By Tony Thomas, Quadrant, Aug 26, 2014

<http://quadrant.org.au/opinion/tony-thomas/2014/08/kiwis-await-climate-victims/>

[SEPP Comment: The New Zealand Royal Society does not grasp the difference between a Nobel Peace Prize and a Nobel Prize for science or who the recipients of the former were.]

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

Global Warming 'Pause' Could Last For 30 Years

The 39th Theory About The Global Warming 'Pause' (And Counting) See the full list here

By Anthony Watts, WUWT, Aug 27, 2014

<http://wattsupwiththat.com/2014/08/27/global-warming-pause-could-last-for-30-years/>

Government's green deal ad ruled 'misleading'

Decc adverts implied energy savings were guaranteed and did not back up claim scheme boosted property prices, says ASA

By Staff Writers, Press Association, Guardian, UK, Aug 27, 2014 [H/t GWPF]

<http://www.theguardian.com/media/2014/aug/27/government-green-deal-ad-decc-asa>

Sunlight, not microbes, key to CO2 in Arctic

By Staff Writers, Corvallis OR (SPX), Aug 25, 2014

http://www.terraily.com/reports/Sunlight_not_microbes_key_to_CO2_in_Arctic_999.html

[SEPP Comment: Contrary to the article, other studies indicate that the thawing of the permafrost results in a blossoming of plant life absorbing the CO2.]

UEA [University of East Angila] Add Dengue Fever To The List

By Paul Homewood, Not a Lot of People Know That, Aug 28, 2014

<http://notalotofpeopleknowthat.wordpress.com/2014/08/28/uea-add-dengue-fever-to-the-list/>

Communicating Better to the Public – Make things up.

Green Journalism; Mainstream Media Creating Climate Stories

By Tim Ball, WUWT, Aug 28, 2014

<http://wattsupwiththat.com/2014/08/28/green-journalism-mainstream-media-creating-climate-stories/>

Who's going to be sacked for making-up global warming at Rutherglen?

By Jennifer Marohasy, Her Blog, Aug 27, 2014 [H/t WUWT]

<http://jennifermarohasy.com/2014/08/whos-going-to-be-sacked-for-making-up-global-warming-at-rutherglen/>

Big adjustments? BOM says Rutherglen site shifted, former workers there say “No”

By Jo Nova, Her Blog, Aug 27, 2014

<http://joannenova.com.au/2014/08/bom-claims-rutherglen-data-was-adjusted-because-of-site-move-but-it-didnt-happen/#more-37863>

BOM finally explains! Cooling changed to warming trends because stations “might” have moved!

By Jo Nova, Her Blog, Aug 26, 2014

<http://joannenova.com.au/2014/08/bom-finally-explains-cooling-changed-to-warming-trends-because-stations-might-have-moved/>

Dixon's cunning plan

By Andrew Montford, Bishop Hill, Aug 23, 2014

<http://bishophill.squarespace.com/blog/2014/8/23/dixons-cunning-plan.html>

We learned, for example, that Lord Stern had said that the shale gas industry was founded on "baseless economics". Now while lesser mortals might have thought that this would mean that the industry was doomed to failure, we also learned that it was going to poison us all, with reports of cancer causing chemicals and endocrine disrupters from fracking.

NASA – Erasing The Arctic Past

By Steve Goddard, Real Science, Aug 21, 2014 [H/t Climate Depot]

<http://stevengoddard.wordpress.com/2014/08/21/nasa-erasing-the-arctic-past/>

More on Cook's 97%

By Andrew Montford, Bishop Hill, Aug 29, 2014

<http://bishophill.squarespace.com/blog/2014/8/29/more-on-cooks-97.html>

[SEPP Comment: Some of papers strangely listed as supporting the 97% consensus – including “Initial public perceptions of deep geological and oceanic disposal of carbon dioxide.”]

Senior Meteorologist Demolishes, Mocks Alfred Wegener Institute Claims Of “Unprecedented Antarctica Ice Loss”

Antarctic Melt Alarm by the AWI ...at -93°C! [minus 93 °C]

By EIKE meteorologist Klaus-Eckart Puls, Trans, edited by P. Gosselin, No Tricks Zone, Aug 27, 2014

<http://notrickszone.com/2014/08/27/senior-meteorologist-demolishes-mocks-alfred-wegener-institute-claims-of-unprecedented-antarctica-ice-loss/>

[SEPP Comment: The Institute claimed “...to prove that the ice sheets of both regions [Arctic and Antarctic] are momentarily declining at an unprecedented rate.”

Communicating Better to the Public – Use Propaganda on Children

Green Weenies for Third Graders

By Steven Hayward, Power Line, Aug 26, 2014

<http://www.powerlineblog.com/archives/2014/08/green-weenies-for-third-graders.php>

Questioning European Green

Fritz Vahrenholt: How The Green Energy Transition Is Destroying Germany’s Nature

By Fritz Vahrenholt, Die Welt, Translated by Philipp Mueller, GWPF, Aug w8, 2014

<http://www.thegwpf.org/fritz-vahrenholt-how-the-green-energy-transition-is-destroying-german-nature/>

Environmentalism and the Fear of Disorder

Greens engage in rituals to allay their anxieties.

By Ronald Bailey, Reason, Aug 22, 2014

<http://reason.com/archives/2014/08/22/environmentalism-and-the-fear-of-disorde>

Germany needs coal to balance dependency on Russian gas –watchdog

By Christoph Steitz, Reuters, Aug 27, 2014 [H/t GWPF]

<http://www.reuters.com/article/2014/08/27/germany-energy-regulator-idUSL5N0QX0QT20140827>

Questioning Green Elsewhere

Climate Change and Renewable Energy Target Scheme [AU]

By Des Moore, Institute of Private Enterprise, Aug 30, 2014

<http://theclimatescepticsparty.blogspot.com.au/2014/08/climate-change-and-renewable-energy.html>

Funding Issues

Liebreich: Climate Change Talks – The Rocky Road to Paris

By Michael Liebreich, Bloomberg New Energy Finance, Aug 26, 2014

<http://about.bnef.com/blog/liebreich-climate-change-talks-rocky-road-paris/>

In summary, the science, technology, economics, and finance all point to a deal being more likely in Paris in 2015 than in Copenhagen in 2009. The politics, however, remains hard to call: in much of the world it has improved, in a few countries it has worsened considerably.

[SEPP Comment: The science is imploding, but the financiers have hope of making big profits.]

The Political Games Continue

Climate plan spooks Dems

By Timothy Cama and Scott Wong, The Hill, Aug 27, 2014

<http://thehill.com/policy/energy-environment/216084-climate-plan-spooks-dems>

[SEPP Comment: Are they saying, great plan Mr President, but we cannot publically embrace it?

Litigation Issues

Climate Change and Existing Law: A Survey of Legal Issues Past, Present, and Future

By Robert Meltz, Congressional Research Service, Aug 20, 2014 [H/t Timothy Wise]

<http://fpc.state.gov/documents/organization/231269.pdf>

[SEPP Comment: A multitude of issues arising from the unfortunate Supreme Court decision that greenhouse gases, namely carbon dioxide, can be regulated under the Clean Air Act.]

States: EPA climate regs illegally left out data

By Timothy Cama, The Hill, Aug 26, 2014

<http://thehill.com/policy/energy-environment/215917-states-epa-climate-regs-illegally-left-out-data>

Link to letter to Gina McCarthy, Aug 25, 2014

<http://www.ago.wv.gov/pressroom/Documents/Section%20307%20Letter%20%28August%2025%2c%202014%29.pdf>

IRS Admits That Lois Lerner Emails Were Never Lost

Editorial, IBD, Aug 27, 2014

<http://news.investors.com/ibd-editorials/082714-715029-justice-department-admits-lois-lerner-emails-exist.htm?p=full>

Missing IRS Emails Exist After All, DOJ Says

By John Hinderaker, Power Line, Aug 25, 2014

<http://www.powerlineblog.com/archives/2014/08/missing-irs-emails-exist-after-all-doj-says.php>

Why did the government wait until now to disclose doomsday email backup?

Editorial, Washington Examiner, Aug 26, 2014

http://washingtonexaminer.com/why-did-the-government-wait-until-now-to-disclose-doomsday-email-backup/article/2552486?utm_campaign=Washington%20Examiner:%20Opinion%20Digest&utm_source=Washington%20Examiner:%20Opinion%20Digest%20-%2008/27/14&utm_medium=email

Subsidies and Mandates Forever

Obama's Green Unicorn

The true cost of renewable energy is being masked by government subsidies and bailouts.

By Peter Roff, US News, Aug 25, 2014 [H/t GWPF]

<http://www.usnews.com/opinion/blogs/peter-roff/2014/08/25/obamas-green-energy-push-and-subsidies-make-no-economic-sense>

Real 20 per cent Renewable Energy Target would decimate industry

By Staff Writers, Canberra, Australia (SPX), Aug 22, 2014

http://www.winddaily.com/reports/Real_20_per_cent_Renewable_Energy_Target_would_decimate_industry_999.html

[SEPP Comment: Has unreliable, renewable become too big to fail? Cutting subsidies and mandates will turn green energy into red. Who is preventing the construction of these facilities?]

EPA and other Regulators on the March

EPA Air Quality Trends 1980 to 2012

By Staff Writers, EPA, Apr 21, 2014

<http://www.epa.gov/airtrends/aqtrends.html>

1970 to 2012

http://www.epa.gov/airtrends/images/y70_12_lineStyles.png

EPA staff backs new ozone restrictions

By Timothy Cama, The Hill, Aug 29, 2014

<http://thehill.com/policy/energy-environment/216269-epa-staff-backs-new-ozone-restrictions>

[SEPP Comment: Surprise! Surprise!]

GOP chairman: EPA maps out power grab

By Benjamin Goad, The Hill, Aug 27, 2014

<http://thehill.com/regulation/energy-environment/216080-in-epa-maps-gop-chairman-sees-looming-power-grab>

Link to USGS map: Streams and Waterbodies in the United States

<http://science.edgeboss.net/sst2014/documents/epa/national2013.pdf>

EPA blasts ‘myths’ on water jurisdiction rule

By Timothy Cama, The Hill, Aug 28, 2014

<http://thehill.com/policy/energy-environment/216202-epa-blasts-myths-on-water-jurisdiction-rule>

[SEPP Comment: See link immediately above.]

EPA appeals to minorities for climate rule

By Timothy Cama, The Hill, Aug 27, 2014

<http://thehill.com/policy/energy-environment/216099-epa-appeals-to-minorities-for-climate-rule>

EPA: Ignore our previous statements on Ocean Acidification

Hoisted with their own petard fighting a lawsuit

By Eric Worrall, WUWT, Aug 25, 2014

<http://wattsupwiththat.com/2014/08/25/epa-ignore-our-previous-statements-on-ocean-acidification/>

Feds act to protect coral species

By Timothy Cama, The Hill, Aug 27, 2014

<http://thehill.com/policy/energy-environment/216110-feds-act-to-protect-coral-species>

Link to rule: NOAA Lists 20 New Corals as Threatened Under the Endangered Species Act.

By Staff Writers, NOAA Fisheries, Aug 27, 2014

http://www.fisheries.noaa.gov/stories/2014/08/corals_listing.html

[SEPP Comment: The NOAA report states: “The amount of scientific information sought, obtained, and analyzed was unprecedented.” Unprecedented does not mean it was accurate or significant for the task.]

Why EPA Rules Often Cost More Than They Are Worth

By Tim Phillips, IBD, Aug 25, 2014

<http://news.investors.com/ibd-editorials-perspective/082514-714661-epa-rules-often-a-result-of-politics-not-economics-or-common-sense.htm>

EU to change climate with hair dryers, kettles, lawn mowers

By Jo Nova, Her Blog, Aug 29, 2014

<http://joannenova.com.au/2014/08/eu-to-change-climate-with-hair-dryers-kettles-lawn-mowers/>

No wrongdoing in 'social cost of carbon' development, says federal watchdog

By Zack Colman, Washington Examiner, Aug 25, 2014

http://washingtonexaminer.com/no-wrongdoing-in-social-cost-of-carbon-development-says-federal-watchdog/article/2552428?utm_campaign=Washington%20Examiner:%20Politics%20Today&utm_source=Washington%20Examiner:%20Politics%20Today%20-%2008/26/14&utm_medium=emailhttp://washingtonexaminer.com/no-wrongdoing-in-social-cost-of-carbon-development-says-federal-watchdog/article/2552428?utm_campaign=Washington%20Examiner:%20Politics%20Today&utm_source=Washington%20Examiner:%20Politics%20Today%20-%2008/26/14&utm_medium=email

[SEPP Comment: Did they include the social benefits of carbon? Of course not.]

Vanishing bird ignites debate over endangered species rules

By Timothy Cama, The Hill, Aug 23, 2014

<http://thehill.com/policy/energy-environment/215814-vanishing-bird-ignites-debate-over-endangered-species-rules>

Energy Issues – Non-US

What is energy?

By Andrew Montford, Bishop Hill, Aug 26, 2014

<http://bishophill.squarespace.com/blog/2014/8/26/what-is-energy.html>

Energy agency predicts \$1.6T in renewable investments through 2020

By Timothy Cama, The Hill, Aug 28, 2014

<http://thehill.com/policy/energy-environment/216136-iea-predicts-16-trillion-in-renewable-investments-through-2020>

Link to report: Policy uncertainty threatens to slow renewable energy momentum

By Staff Writers, IEA, Aug 28, 2014

<http://www.iea.org/newsroomandevents/pressreleases/2014/august/name-125080-en.html>

India may face blackouts as coal shortage cuts power output

By Staff Writers, Reuters, Aug 28, 2014

<http://economictimes.indiatimes.com/industry/energy/power/india-may-face-blackouts-as-coal-shortage-cuts-power-output/articleshow/41116046.cms>

Bihar village clamours for real electricity

By Giridhar Jha, India Today, Aug 6, 2014 [H/t GWPF]

<http://indiatoday.intoday.in/story/bihar-village-dharnai-nitish-kumar-clamours-for-real-electricity/1/375733.html>

[SEPP Comment: The villagers realize that electricity from solar power is substandard.]

Energy Issues -- US

How fracking insulates USA: Our view

It eases security threats emanating from both the Middle East and Vladimir Putin.

Editorial, USA Today, Aug 26, 2014

<http://www.usatoday.com/story/opinion/2014/08/26/oil-prices-fracking-economy-middle-east-editorials-debates/14650749/>

Our Navy Should Go Nuclear, Not Green

By Donn Dears, Power For USA, Aug 29, 2014

<http://dddusmma.wordpress.com/2014/08/29/our-navy-should-go-nuclear-not-green/>

Growing Role of Gas Turbines in Power Generation

By Donn Dears, Power For USA, Aug 26, 2014

<http://dddusmma.wordpress.com/2014/08/26/growing-role-of-gas-turbines-in-power-generation/>

Winter blackouts could hit Midwest, Mid-Atlantic, regional grid operator warns

By Zach Colman, Washington Examiner, Aug 27, 2014 [H/t ICECAP]

<http://washingtonexaminer.com/winter-blackouts-could-hit-midwest-and-mid-atlantic-grid-operator-warns/article/2552483v>

Washington's Control of Energy

In Obama Power Grab, Climate Trumps Constitution

Editorial, IBD, Aug 29, 2014

<http://news.investors.com/ibd-editorials/082914-715406-obama-bypasses-constitution-with-climate-accord.htm?p=full>

Obama pushes green standards for everything but the kitchen sink

By Tim Davaney, The Hill, Aug 29, 2014

<http://thehill.com/regulation/energy-environment/216186-obama-pushes-green-standards-for-everything-but-kitchen-sink>

The push for tougher efficiency standards was initially ushered in with the 2009 stimulus bill, which included \$16.8 billion for the Energy Department to promote efficiency.

White House reviews federal-land fracking rules

By Timothy Cama, The Hill, Aug 29, 2014

<http://thehill.com/policy/energy-environment/216249-white-house-reviews-federal-land-fracking-rules>

[SEPP Comment: It has been over 5 years. If it was decided by Washington, there would be no shale revolution and US dependence on foreign oil would be increasing, not decreasing.]

Oil and Natural Gas – the Future or the Past?

Fracking Boom Continues To Drive Gas[oline] Prices Downward

By Michael Bastasch, Washington Times, Aug 26, 2014

<http://dailycaller.com/2014/08/26/fracking-boom-continues-to-drive-gas-prices-downward/>

Hundreds of methane plumes erupting along East Coast

By Becky Oskin, Live Science, Aug 25, 2014 [H/t Clyde Spencer]

<http://news.msn.com/science-technology/hundreds-of-methane-plumes-erupting-along-east-coast>

Methane Is Discovered Seeping From Seafloor Off East coast, Scientists Say

By Henry Fountain, NYT, Aug 24, 2014 [H/t Clyde Spencer]

<http://www.nytimes.com/2014/08/25/science/methane-is-seeping-from-seafloor-off-east-coast-scientists-say.html?partner=rss&emc=rss&r=0>

Link to paper: Widespread methane leakage from the sea floor on the northern US Atlantic margin

By A. Skarke, Nature Geoscience, Aug 24, 2014

<http://www.nature.com/ngeo/journal/vaop/ncurrent/full/ngeo2232.html>

Return of King Coal?

Coal-fired power plant installations rise in China

By Staff Writers, World Coal, Aug 22, 2014

http://www.worldcoal.com/news/power/articles/Chinese-coal-power-capacity-to-rise-in-short-term-1242.aspx#.U_ygSvmwJqJ

[SEPP Comment: The article's author assumes that the central government's policy to reduce pollution also includes reducing CO2 – a big assumption.]

Is Coal winning the energy battle?

By Mike Jonas, WUWT, Aug 27, 2014

<http://wattsupwiththat.com/2014/08/27/is-coal-winning-the-energy-battle/>

Under assault from Big Green, coal is fighting back

By Ron Arnold, Washington Examiner, Aug 26, 2014

http://washingtonexaminer.com/under-assault-from-big-green-coal-is-fighting-back/article/2552478?utm_campaign=Washington%20Examiner:%20Opinion%20Digest&utm_source=Washington%20Examiner:%20Opinion%20Digest%20-%2008/27/14&utm_medium=email

Nuclear Energy and Fears

What was deadly at Fukushima?

By Malcolm Grimston, WNN, Aug 26, 2014

<http://www.world-nuclear-news.org/E-What-was-deadly-at-Fukushima-2608141.html>

A Universally Acceptable and Economical Energy Source?

Transatomic Power's Molten Salt Nuclear Reactor

By Kent Beuchert, WUWT, Aug 27, 2014

<http://wattsupwiththat.com/2014/08/27/a-universally-acceptable-and-economical-energy-source/>

[SEPP Comment: Another type of nuclear power plant? Is it universally accepted?]

The Energy to Fight Injustice

By James Hansen, Chemistry World, Jul 23, 2014 [H/T Master Resource]

<http://www.rsc.org/chemistryworld/2014/07/energy-fight-injustice-james-hansen>

Alternative, Green (“Clean”) Solar and Wind

Bearings: The Achilles Heel of Wind Turbines

By Eric Worrall, WUWT, Aug 26, 2014

<http://wattsupwiththat.com/2014/08/26/bearings-the-achilles-heel-of-wind-turbines/>

[SEPP Comment: Do doubt salt spray on offshore turbines will do marvels for the bearings!]

Alternative, Green (“Clean”) Energy -- Other

The Economics of Biofuels

By Staff Writers, SPPI, Aug 27, 2014

http://scienceandpublicpolicy.org/originals/the_economics_of_biofuels.html

Carbon Schemes

Global warming pioneer calls for CO2 to be taken from atmosphere and stored underground

By Anthony Watts, WUWT, Aug 28, 2014

<http://wattsupwiththat.com/2014/08/28/global-warming-pioneer-calls-for-co2-to-be-taken-from-atmosphere-and-stored-underground/>

California Dreaming

Analysis finds California 'solar' plant reduces CO2 emissions at cost of \$1,800 per ton

By Staff Writer, The Hockey Schtick, Aug 29, 2014

<http://hockeyschtick.blogspot.com/2014/08/analysis-finds-california-solar-plant.html>

[SEPP Comment: The study is in German, cannot vouch for its rigor.]

California drivers brace for costly new gas tax

By William La Jeunesse and Laura Prabucki, Fox News, Aug 27, 2014 [H/t WUWT]

<http://www.foxnews.com/politics/2014/08/27/california-hidden-gas-tax/>

[SEPP Comment: A Global Warming Solutions Act tax.]

Oh Mann!

The “Discovery” of the EPA Inquiry

By Steve McIntyre, Climate Audit, Aug 24, 2014

<http://climateaudit.org/2014/08/24/the-discovery-of-the-epa-inquiry/#more-19503>

Environmental Industry

“WORLD WAR III Has Broken Out” Shrill German Climate Conference Declares...Enemy Man “Against Nature”

By P Gosselin, No Tricks Zone, Aug 29, 2014

<http://notrickszone.com/2014/08/29/world-war-iii-has-broken-out-german-climate-conference-declares-enemy-man-against-nature/>

Other Scientific News

Younger Dryas climate event solved via nanodiamonds – it was a planetary impact event

By Anthony Watts, WUWT, Aug 29, 2014

<http://wattsupwiththat.com/2014/08/29/younger-dryas-climate-event-solved-via-nanodiamonds-it-was-a-planetary-impact-event/>

Link to press release: Nanodiamonds Are Forever

A UCSB professor’s research examines 13,000-year-old nanodiamonds from multiple locations across three continents

By Julie Cohen, UCSB, Aug 28, 2014

<http://www.news.ucsb.edu/2014/014368/nanodiamonds-are-forever>

[SEPP Comment: Remains to be evaluated.]

The Price Tag of Scientific Fraud

Each paper retracted because of research misconduct costs taxpayers roughly \$400,000, according to a report.

By Kerry Grens, The Scientist, Aug 15, 2014 [H/t Catherine French]

<http://www.the-scientist.com/?articles.view/articleNo/40783/title/The-Price-Tag-of-Scientific-Fraud/>

[SEPP Comment: If the misconduct results in expensive government policy decisions, then the costs may be far greater than estimated.]

BBC R4: "Everything we know is wrong"

By Andrew Montford, Bishop Hill, Aug 28, 2014

<http://bishophill.squarespace.com/blog/2014/8/28/bbc-r4-everything-we-know-is-wrong.html>

Can a Scientist's Writing Style Reveal Fraud?

By Rosa Pomeroy, Real Clear Science, Aug 28, 2014

http://www.realclearscience.com/journal_club/2014/08/28/can_a_scientists_writing_reveal_fraud_108809.html

Composition of Earth's mantle revisited

By Staff Writers, Argonne IL (SPX), Aug 27, 2014

http://www.terraily.com/reports/Composition_of_Earths_mantle_revisited_thanks_to_research_at_Argonnes_Advanced_Photon_Source_999.html

Other News that May Be of Interest

A way Texas can grow while being green

By William McKenzie, Dallas News, Aug 24, 2014

<http://www.dallasnews.com/opinion/latest-columns/20140824-a-way-texas-can-grow-while-being-green.ece>

[SEPP Comment: No mention of costs. According to reports from Israel, desalination uses lots of energy.]

Genetic engineering may lead to a cure for Ebola and other life-threatening diseases

By Staff Writers, ACSH, Aug 26, 2014

<http://acsh.org/2014/08/genetic-engineering-may-lead-cure-ebola-life-threatening-diseases/>

Washington State's Elwha River now dam-less, runs free

By Brooks Hays, Olympic National Park, Wash. (UPI) Aug 27, 2014

http://www.terraily.com/reports/Washington_States_Elwha_River_now_dam-less_runs_free_999.html

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BELOW THE BOTTOM LINE:

Man to live on melting iceberg for one year to urge climate change action

By Jo Nova, Her Blog, Aug 24, 2014

<http://joannenova.com.au/2014/08/man-to-live-on-melting-iceberg-for-one-year-to-urge-climate-change-action-an-unthreaded-thread/#more-37919>

Claim: Climate change puts endangered Devils Hole pupfish at risk of extinction

By Anthony Watts, WUWT, Aug 28, 2014

<http://wattsupwiththat.com/2014/08/28/claim-climate-change-puts-endangered-devils-hole-pupfish-at-risk-of-extinction/>

Hey U.N. – show us your tipping points!

By Anthony Watts, WUWT, Aug 27, 2014

<http://wattsupwiththat.com/2014/08/27/hey-u-n-show-us-your-tipping-points/>

Hilarious! Sierra Club & 350.org ditch polar bears as climate mascot, try ‘cat videos’ for climate change instead

By Anthony Watts, WUWT, Aug 25, 2014

<http://wattsupwiththat.com/2014/08/25/hilarious-sierra-club-350-org-ditch-polar-bears-as-climate-mascot-try-cat-videos-for-climate-change-instead/>

[SEPP Comment: Maybe the polar bears could not stand the heat of the adoring fans.]

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ARTICLES:

1. Six Threats Bigger Than Climate Change

The Obama administration talks global warming as the world burns.

By John Barrasso, WSJ, Aug 28, 2014

<http://online.wsj.com/articles/john-barrasso-six-threats-bigger-than-climate-change-1409270527>

Secretary of State John Kerry said during his January 2013 confirmation hearings that he would be a "passionate advocate" on climate-change issues, and he's living up to that promise. In a speech this month in Hawaii, Mr. Kerry called climate change "the biggest challenge of all that we face right now." Not 10, 20 or 100 years from now—right now.

If only Mr. Kerry were right. Unfortunately, America faces much bigger immediate challenges and threats than climate change. Our enemies around the world are intent on harming us—right now. America's secretary of state should worry more about them and less about the Earth's temperature decades from now.

Here's a list of a few challenges, all of which pose a greater threat to the world than climate change. It might help the president and his colleagues understand why Mr. Obama's foreign-policy approval rating is about 36%, according to an August poll by Gallup.

- Iraq is a greater challenge than climate change. While the president now likes to pretend that he didn't force a total withdrawal of U.S. troops, Americans remember his 2008 campaign promise to do exactly that. When the U.S. leaves a vacuum, others will fill it. The barbaric Islamic State of Iraq and al-Sham, or ISIS, is trying to build a base of operations in Iraq and Syria from which to attack the U.S. and its allies. The recent beheading of American journalist James Foley showed how serious ISIS is about "drowning" our nation in blood, as the group said in the video of the murder posted on YouTube.
- Afghanistan. The administration says it still intends to pull out the remaining 30,000 troops by the end of 2016. If it does, the country will quickly become a terrorist haven once again. As with Iraq, the timetable seems to be mostly about the political calendar. The Obama administration seems to have lost the will to win. The terrorists have not.

- Russia. President Obama was so intent on "resetting" U.S. relations with the Kremlin that he telegraphed a lack of resolve. President Vladimir Putin has only become more aggressive. That's led to Russian troops in Ukraine and Russian-supplied weapons shooting a passenger plane out of the sky.
- An Iranian nuclear weapon. America's enemies have shown they are content to stall for time, while President Obama gets distracted. That's what's happening as the president continues to negotiate indefinitely on Iran's illicit nuclear program. An Obama administration desperate to strike a deal is likely to strike a bad one. It could leave in place an enrichment program that would be a pathway to a nuclear-armed Iran.
- Syria. It has been more than three years since President Obama said the time had come for President Bashar Assad to step aside. The administration drew a "red line" on the use of chemical weapons, then did nothing when Assad crossed that line last summer. ISIS already has strongholds in Syria, while the Free Syrian Army desperately needs more U.S. assistance.
- North Korea. The North Koreans continue to test nuclear weapons. They have held multiple tests of missile technology designed to reach the continental U.S. President Obama has done nothing at all about this.

The White House has said its foreign policy rule is "don't do stupid stuff," but putting climate change ahead of global threats fails that simple test. The United Nations will hold yet another conference on climate change next month, while the world burns.

The greatest threat to Americans "right now" is not climate change. The greatest threat is people with the intent and capacity to do us harm—and the president's failure to lead the fight against them. Mr. Kerry's fixation on climate change is one reason America's friends no longer trust us and our enemies no longer fear us. The world is growing more dangerous as a result.

Dr. Barrasso, a Republican, is a U.S. senator from Wyoming.

2. Notable & Quotable: On Biofuels and Nature

The renewable energy paradigm requires an unprecedented industrial reengineering of the landscape.

Will Boisvert writing at thebreakthrough.org, Feb. 11, WSJ Aug 27, 2014

<http://online.wsj.com/articles/notable-quotable-on-biofuels-and-nature-1409179097>

On the face of it, bioenergy would seem to embody the ecological vision: an energy source rooted in the soil, attuned to the seasons, and governed by life's cycling rhythms of growth, decay, and reuse. But today, that expression of the ecological vision is destroying nature in order to save it. From the production forests of Germany to the rainforests of Southeast Asia to the American Midwest, we are using millions of square miles of land for crops to feed our cars and power plants that could be used to feed people or become wilderness.

As the scale of the carnage has become evident, a growing number of environmentalists have turned against biofuels. But the change of heart about present generation biofuels hasn't stopped their rapid expansion. Biofuels represent one of the fastest growing wedges of the renewables pie. Germany's heavy investments in solar and wind get most of the attention, but 29 percent of its renewable electricity comes from burning woody biomass in power plants. Throw in liquid

biofuel production and wood-fired space heating and biomass provides 38 percent of Germany's non-fossil-fueled energy.

Half of Germany's timber harvest is now burned for fuel, and 17 percent of its arable land is used to grow energy crops for biodiesel, ethanol, and biogas production, a proportion that may rise to one third by 2020. The rest of Europe is also turning to biomass heating and electricity generated in refitted coal plants as an easy way to meet renewable energy mandates, using millions of tons of domestic and imported wood. Energy derived from ethanol in the United States far outstrips the power generated by the wind and solar sectors.

The growing reliance upon biofuels as public commitments to renewables have grown is neither an accident nor a coincidence. The renewable energy paradigm requires an unprecedented industrial reengineering of the landscape: lining every horizon with forty-story wind turbines, paving deserts with concentrating solar mirrors, girdling the coasts with tidal and wave generators, and drilling for geological heat reservoirs; it sees all of nature as an integrated machine for producing energy.

3. Germany's Expensive Gamble on Renewable Energy

Companies Worry Cost of Plan to Trim Nuclear, Fossil Fuels Will Undermine Competitiveness

By Matthew Karnitschnig, WSJ, Aug 26, 2014

http://online.wsj.com/articles/germanys-expensive-gamble-on-renewable-energy-1409106602?mod=trending_now_2

WILSTER, Germany—In a sandy marsh on the outskirts of this medieval hamlet, Germany's next autobahn will soon take shape.

The Stromautobahn, as locals call it, won't carry Audis and BMW but high-voltage electricity over hundreds of miles of aluminum and steel cables stretching from the North Sea to Germany's industrial corridor in the south.

The project is the linchpin of Germany's Energiewende, or energy revolution, a mammoth, trillion-euro plan to wean the country off nuclear and fossil fuels by midcentury and the top domestic priority of Chancellor Angela Merkel.

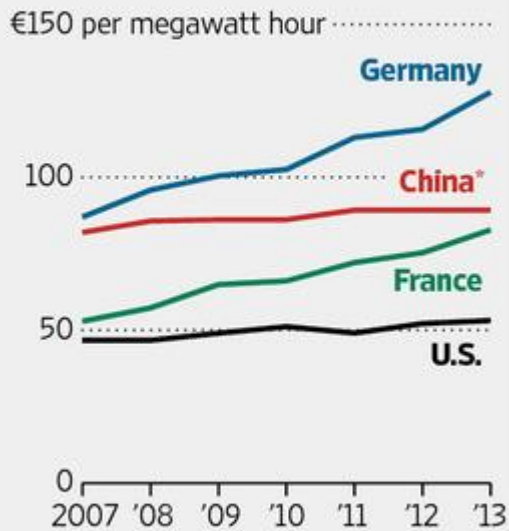
But many companies, economists and even Germany's neighbors worry that the enormous cost to replace a currently working system will undermine the country's industrial base and weigh on the entire European economy. Germany's second-quarter GDP decline of 0.6% reported earlier this month, put a damper on overall euro-zone growth, leaving it flat for the quarter.

Average electricity prices for companies have jumped 60% over the past five years because of costs passed along as part of government subsidies of renewable energy producers. Prices are now more than double those in the U.S.

"German industry is going to gradually lose its competitiveness if this course isn't reversed soon," said Kurt Bock, chief executive of BASF SE, the world's largest chemical maker.

Price Shock

Electricity prices paid by industry



Note: €1 = \$1.32

*Guangdong Province

Source: IHS

The Wall Street Journal

The European Union has set a series of binding renewable energy targets for all of its members. The goals, in which about 35% of Europe's electricity is projected to come from renewable sources by 2020, are considered ambitious by international standards. But Germany's "lonely revolution," as some call it, goes much further. By 2025, Germany aims to produce 40%-45% of its electricity from renewable sources, rising to at least 80% by 2050. Most countries in the EU are holding to the lower target for now and are continuing to use nuclear energy.

Ms. Merkel, who ordered Germany's accelerated exit from nuclear power after the Fukushima disaster in 2011, has declared the Energiewende both a major contribution in the battle against global warming and a historic step toward ending the world's reliance on nuclear power.

"No country of Germany's scale has pursued such a radical shift in its energy supply," Ms. Merkel said in a speech earlier this year. "I'm convinced that if any country can successfully implement the Energiewende, it's Germany."

One government estimate projects the Energiewende by 2040 to cost up to €1 trillion, or about \$1.4 trillion, or almost half Germany's GDP and nearly as much as the country spent on the reunification of East and West Germany.

Despite the weak second quarter, Germany's economy—Europe's largest—is still benefiting from strong demand for German machinery and autos in China and elsewhere, which helped Germany weather the Continent's debt crisis with little damage. This year, the economy is expected to expand by about 1.5%, solid growth by European standards.

Yet nearly 75% of Germany's small- and medium-size industrial businesses say rising energy costs are a major risk, according to a recent survey by PricewaterhouseCoopers and the Federation of German Industry.

A similar percentage of the U.S. companies operating in Germany said the Energiewende had made the country a less attractive place for business, according to a separate poll by the U.S. Chamber of Commerce. And for the first time since 2008, German companies cited rising overall costs at home as a motivation to invest abroad in a recent survey by the German Chambers of Commerce and Industry.

"Germany's current path of increasingly high-cost energy will make the country less competitive in the world economy, penalize Germany in terms of jobs and industrial investment, and impose a significant cost on the overall economy and household income," warned Daniel Yergin, vice chairman of research firm IHS



The German government says it is committed to limiting the negative impact on the broader economy. Once Germany's renewable infrastructure is complete, electricity prices should fall, the government has said.

The government also argues that by establishing German industry as the leader in green technology, the Energiewende will give German business another lucrative export. Ms. Merkel has pointed to eventual technological advances in solar and wind power generation, grid management systems and power storage technologies.

BASF, which consumes as much electricity every year at its main German plant as the entire country of Denmark, said in May it would substantially reduce its investments in Germany as a

result of the country's energy policy. It said its plan for the next five years is to cut investment in Germany to one-fourth the €20 billion global total investment, from one-third currently, and that it would invest in Asia and the U.S. instead. BASF has more than 50,000 employees in Germany, about half the company's total workforce.

SGL Carbon, a maker of carbon-based products, in May decided to invest an additional \$200 million to its plant in Washington state on top of \$100 million previously invested instead of investing in its home base of Germany. The company, which makes carbon fibers used to lighten the body of BMW's new electric car at the Washington facility, said electricity at the site costs less than one-third German rates.

Basi Schöberl GmbH, an industrial gases company based in southwestern Germany, shelved plans this year to expand production at home. Instead, it will invest more than €10 million to build out its French base near Strasbourg. An investment in Germany was too risky due to uncertainty over government policy and the effect the Energiewende will have on energy prices, said Chief Executive Ingo Nawrath. "We're standing with our backs up against the wall," he said.

So far, the main beneficiaries of the Energiewende are investors in wind and solar installations. Private individuals and local community groups control about half of Germany's onshore wind and solar energy markets. Institutional investors, including many insurance companies, own roughly half of the country's solar energy and 40% of its onshore wind power generation. Germany has few hydropower resources.

Rewiring the world's fourth-largest economy hasn't been easy. The undertaking, the biggest infrastructure project in Germany since World War II, has been plagued by cost overruns, regulatory disputes and questions of conservation. One issue: how to keep bats and endangered birds from flying into the rotors of thousands of wind turbines going up across the country.

A more immediate concern is the soaring cost of energy.

To encourage the expansion of green power production, the government guaranteed prices for electricity fed into the grid from renewable sources, such as wind turbines or solar panels. The price guarantees, which vary depending on when the system was installed and its generating capacity, are binding for 20 years.

The government passes the subsidy cost on to consumers in a surcharge. While the flood of new energy sources has lowered market prices for electricity, consumer prices have actually increased as the surcharge has risen to make up the difference between the market and government-guaranteed prices. On the spot market, a kilowatt-hour of electricity costs 3.2 cents, half what it did in 2011. The average guaranteed price under the government's price fixing regime is 17 cents. The renewable energy surcharge levied on German households and businesses has nearly tripled since 2010 and now accounts for about 18% of a German household's electric bill. All told, the subsidies amount to about €24 billion a year, according to Germany's economics ministry.

Alarmed by the rising costs, Ms. Merkel's government revised the law authorizing the green energy subsidies in June. With a combination of caps on the number of new solar and wind installations eligible for the subsidy and other measures, it hopes to forestall further surcharge increases.

About 2,000 of Germany's heavy industrial users—including BASF and SGL—are largely exempt from paying the surcharge until at least 2017, when the EU wants to scrutinize whether the exemption is an unfair trade support, among other issues.

Berlin has vowed to fight any attempt by the EU to fundamentally change the subsidy program.

The companies, which save about €5 billion annually because of the surcharge exemption, say the questions surrounding the program make it impossible to plan and say the higher energy costs are passed on to them from smaller suppliers and contractors who aren't exempted.

Nonexempt companies also complain of the disparity. "Whereas some sectors are exempt from the renewable-energy surcharge, high-tech companies have to bear an additional burden," AGInfinion Technologies Chief Executive Reinhard Ploss complained to investors earlier this year. Mr. Ploss said his company, Germany's largest chip maker, would pay €25 million less in Austria for the power it uses in Germany this year.

The incentives, introduced in 2000, have worked to increase renewable-energy production. Wind turbines now dot the horizon in almost every corner of the country. Farmers and suburbanites from Bavaria to Berlin have installed solar panels on their barns and homes to earn extra money from the government subsidy.

But not all rollouts have been smooth. In the north, to protect Germany's shoreline ecosystems and ocean views, the government ordered wind parks be built as far as 60 miles off the coast. Rough conditions in the North Sea, coupled with depths of more than 150 feet have hampered the projects and sent costs soaring.

Last August, Germany's biggest North Sea wind park went into operation, three years over schedule and with a price tag of about €3 billion, nearly double the projected cost. Called Bard 1, the farm's 80 turbines can produce enough electricity to power Munich. But a fire in a transmission station in March and other problems forced it to shut down.

Bard's management says that it hopes to get the wind park up and running by September and that it has put together a task force to determine the cause of the technical problems.

Overall, distributing the power has proved more complicated than producing it. Electricity generated from wind in Germany's gusty northern reaches must be moved to the country's energy hungry industry in the south.

Germany doesn't have a single north-south power transmission corridor. The country's grid evolved over decades around local power plants that served their communities so there was no need to send power across long distances.

The government wants to build and modernize more than 4,000 miles of high-voltage power lines, both offshore and through densely populated areas. So far, amid delays and indecision, only 220 miles of the expansion have been completed, meaning power can't get to users.

Günther Oettinger, Europe's top energy official, compares Germany's strategy to building a train station before the tracks have been laid. Germany has built "wind park after wind park after wind park" instead of focusing on how it will transmit the electricity to where it is needed, he said.

Winning over local communities along the main grid corridors is the biggest hurdle toward construction.

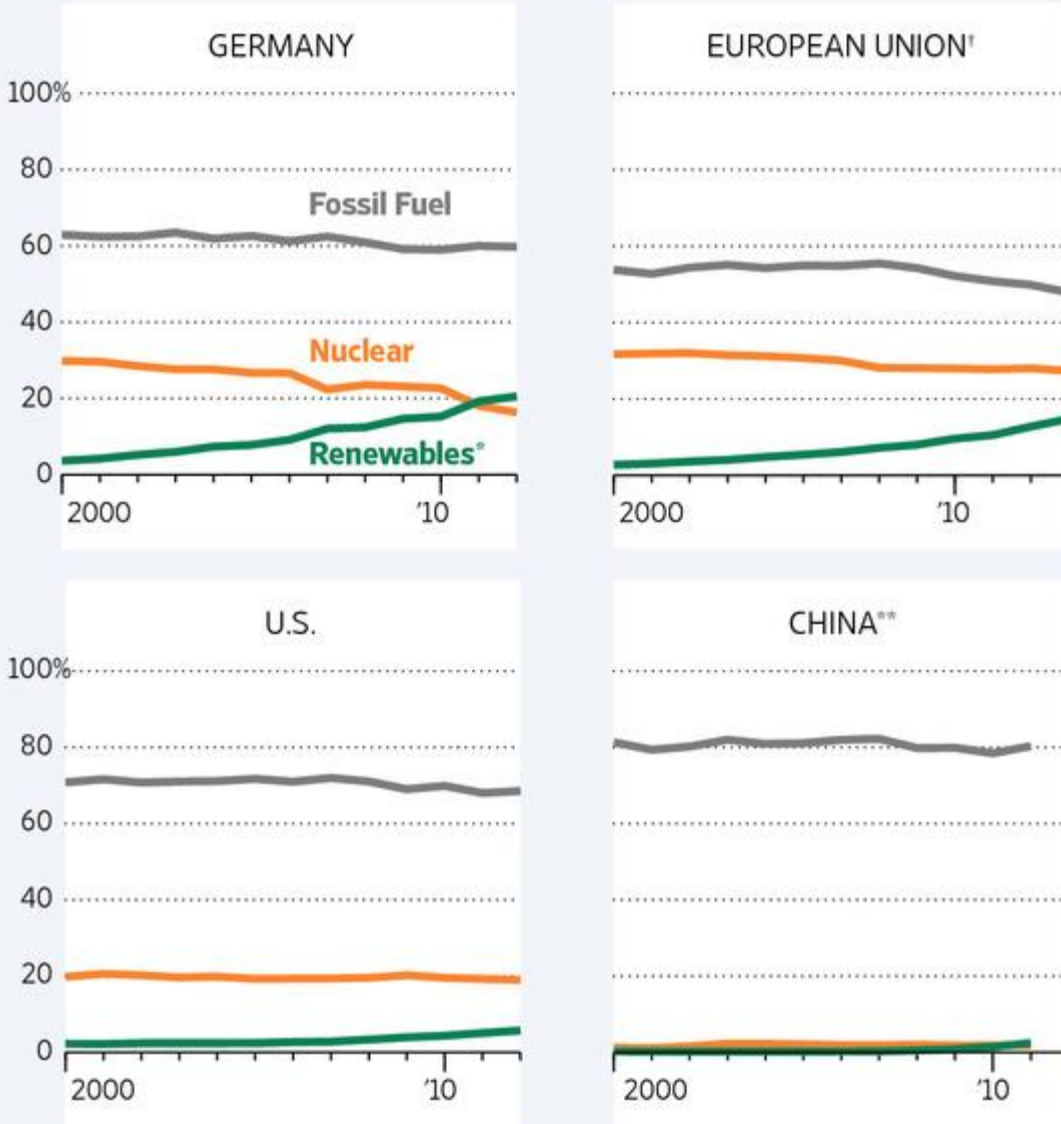
The Wilster Marsh is the on-ramp for the Stromautobahn, which translates as "electricity highway," and would be a 500-mile-long north-south corridor. The region, a windswept landscape of dairy farms about 45 miles north of Hamburg on the Elbe River, is where the power from more than 1,000 off- and onshore wind farms will flow through a converter station and be shipped south.

Though most locals here support the Energiewende, few want to see 230-foot transmission towers in their neighborhood.

"Some people who were for this are now on their back foot saying, 'but not in my backyard,' " said Matthias Block, the chief of Wilster's department of building.

Energy Revolution

Germany has reduced nuclear power and increased renewables faster than some economies. Percentage of total electricity generation



*Not including hydroelectric

†Not including Bulgaria, Cyprus, Hungary, Latvia, Lithuania, Malta and Romania **2012 data not available

Source: U.S. Department of Energy

The Wall Street Journal

At a recent meeting in Bad Brückenau, a resort town in northern Bavaria, officials of TenneT, the state-owned Dutch company building the transmission corridor, were greeted by hundreds of protesters carrying noisemakers and homemade signs saying "Stop the power-line madness" and other slogans. A score of similar citizen groups have sprouted along the Stromautobahn route.

"The corridor they're planning would destroy everything we've done to improve the environment in this region," said Ingo Queck, a local organizer of a citizen action committee that wants to prevent construction of the line.

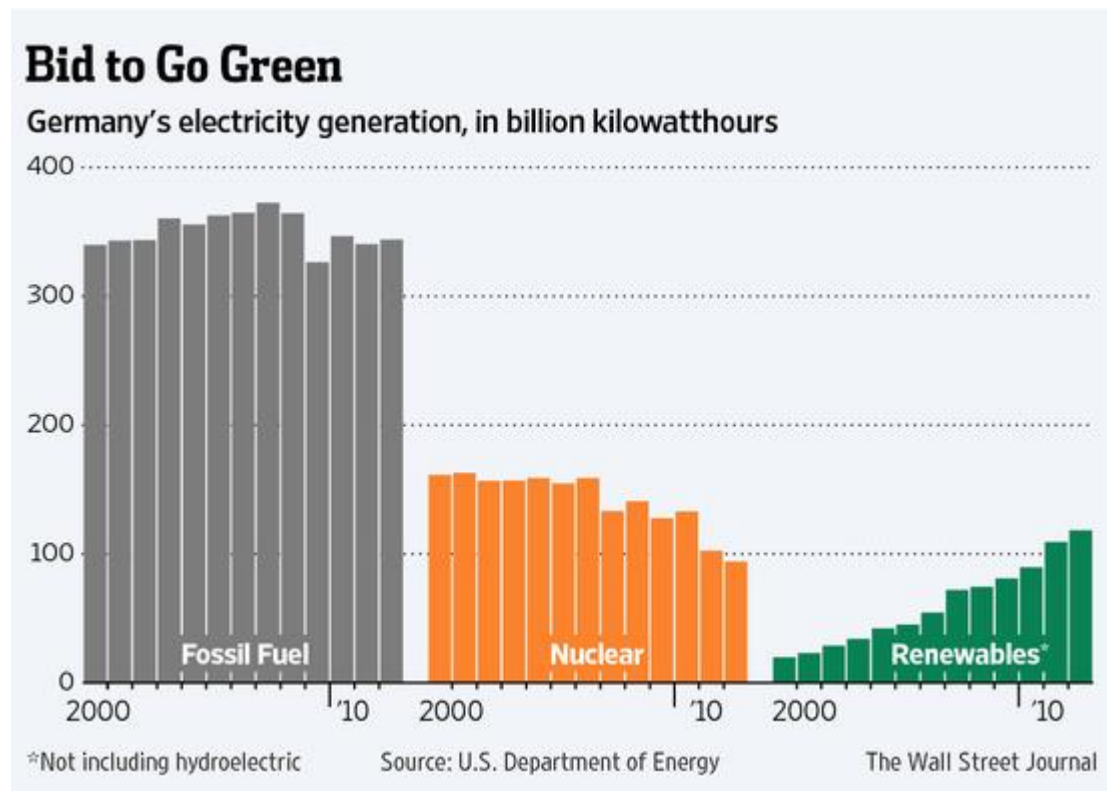
Mr. Queck and the other groups worry power lines will destroy the landscape and make the region unattractive for tourism, and say radiation from the high-voltage lines could damage health. TenneT says the electromagnetic radiation from the lines would be well within accepted limits and say it has taken pains to ensure as little impact as possible to the environment by proposing a corridor along existing infrastructure, such as highways.

Polls show strong support in Germany for the Energiewende. Germans' embrace of renewable energy is rooted in their visceral opposition to nuclear power. The movement has been gathering strength since the 1960s, and popular and political opposition was intensified after a violent confrontation between police and 100,000 demonstrators against a new nuclear power plant in 1981 in the Wilster Marsh.

With Germany's nine remaining nuclear power plants set to be closed by 2022, a substantial delay in building the transmission corridor could force the country to revert to conventional energy sources.

The nuclear exit has already triggered an increase in Germany's greenhouse gas emissions over the past two years, because utilities have turned to cheap coal to replace the power capacity lost from the eight nuclear plants that have already been switched off.

The government says the trend is temporary and that emissions will drop once more wind and solar farms go into operation.



But critics say "grid instability," or the unpredictable nature of renewable power, could force the continued use of coal plants.

Because the technology is so new and no one has ever built a renewable-based infrastructure on this scale before, there is concern among industry about the reliability of the electricity supply—in precision manufacturing, a power loss for even a millisecond can throw a production line out of kilter. That presents a particular risk for companies such as Infineon and other tech hardware companies.

Skeptics, meanwhile, say the program's overall environmental impact will be limited if other big countries don't follow suit. Germany accounts for just over 2% of global greenhouse gas emissions.

In June the EU admonished Berlin to "keep the overall costs of transforming the energy system to a minimum" and said Germany needed to do more to coordinate its energy policy with neighboring countries, which worry about the stability of their own infrastructure.

"Initially, there was this enthusiasm that Germany would be at the head of the parade," said IHS's Mr. Yergin, who has chronicled the global energy sector for decades. "But now the Germans look back and see there aren't that many people behind them."

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