The Week That Was: 2012-10-13 (October 13, 2012)
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The Science and Environmental Policy Project

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Quote of the Week: *"I'm going to talk about why the evidence in the record shows that the endangerment finding should be vacated. I want to be clear at the outset that we are not asking the Court to adjudicate a disputed question of science. Instead –"*
"Good." Exchange between Attorney Harry MacDougald and David Sentelle, Chief Justice of the US Court of Appeals, DC Circuit

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Number of the Week: $96/MWh

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

Quote of the Week: The above quote was taken from the transcript of the litigation by the Coalition for Responsible Regulation, et al, against the EPA challenging EPA's endangerment finding. This is but one small example of the reluctance of Federal judges to challenge Federal agencies that declare their proclamations are scientifically correct.

The transcript also reveals the intolerance Federal judges for challenges to the logic used by government bodies declaring themselves to be scientific. Harry MacDougald asserted that the EPA, and the UN Intergovernmental Panel for Climate (IPCC) Fourth Assessment Report (AR4), has no logical basis for concluding that it is 90 to 99 percent certain that humans are the cause of most of the recent warming.

The key point is that of the 16 variables identified in the IPCC report as forcing agents of global warming / climate change used in its models (a number of natural forcing agents are missing), the IPCC report specifies that the level of understanding for 11 is very low to low. Yet the IPCC comes up with a 90 to 99 % certainty in the results of its models.

The judges recognized that the EPA looked at three studies, IPCC AR4, the reports the US Climate Change Science Program (now the US Global Change Research Program) and the National Research Council. The last two are little more than rubber stamps of the IPCC. The EPA called the three reports independent, yet all have the same basis for lack of certainty

The judges would have none of MacDougald's argument that it is illogical to conclude that three reports, each with virtually identical low degrees of certainty, can be combined to produce a high degree of certainty. It is as if one meteorologist predicts that there is a 30% chance tomorrow will be a bright sunshiny day, and this is repeated by two other meteorologists, one can logically conclude tomorrow will be a bright, sunshiny day.

Not only is science at jeopardy in Federal courts, but logic is as well. Uncertainty can be made certainty by repetition – it is additive?

The consolidated case number is 09-1322 and the dates of the oral arguments were February 28 and 29, 2012. The transcripts are not available on the web. The relevant pages are 15 to 25.
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Ad Hoc Science: As expressed in TWTW, over the past two weeks, satellite measurements of the Arctic show that the sea ice this summer was at its lowest since satellite measurements began in 1979. This year the winter sea ice of the Antarctic reached its maximum extent since satellite measurements began. Now some scientists are maintaining that the expansion of Antarctic sea ice is consistent with human caused global warming. The increase in Antarctic ice is in response to increased wind and the ozone hole. However, the reduction in Arctic ice was also in response to increased wind, which broke up the ice.

In advocating the solar-cosmic ray hypothesis, that cosmic rays, modulated by the sun, can cause changes in cloud cover, Sevensmark stated the hypothesis is consistent with the apparent oscillation of temperatures (and sea ice) between the two poles. When cloud cover is reduce, the Arctic warms because it receives more solar energy, but the Antarctic cools because the bright ice of the Antarctic reflects more solar energy. Please see links under Communicating Better to the Public – Make things up and Changing Sea Ice.
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Historic Temperature Data: David Whitehouse reports that the historic HadCRU4 database of surface temperatures has been altered somewhat from the earlier database in March of this year. This should not be disturbing assuming there are solid reasons for the alterations. However, none were given. The failure to give reasoning is similar to NASA-GISS, which makes significant alterations to the historic database, particular in early years.

There has been a new report in resolving biases in sea surface temperatures introduced by different methods of measuring sea surface temperatures. These biases were discussed in the 2008 NIPCC Report, *Nature, Not Human Activity, Rules the Climate*. If the research holds up, the results are very interesting. The surface data show a cooling from about 1940 to about the mid-70s. NASA-GISS recently removed this cooling from its surface data. Please see links under Measurement Issues and the link on a warming bias under NIPCC Reports.
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PSYOPS: The US Army has a specialization called Psychological Warfare, Psychological Operations, or, simply Psyops. The Department of Defense defines Psychological Warfare as: "The planned use of propaganda and other psychological actions having the primary purpose of influencing the opinions, emotions, attitudes, and behavior of hostile foreign groups in such a way as to support the achievement of national objectives."
http://en.wikipedia.org/wiki/Psychological_warfare

Given the rash of opinion polls of scientists that have been manipulated to produce a desired result – the 97% claim – and the opinions expressed by psychologists about the attitudes of skeptics of the claim that human emissions of greenhouse gases, especially carbon dioxide, are causing unprecedented and dangerous global warming, one may infer that Psyops are being used.

The question is against whom? Are the targets the skeptics, or are the targets politicians and decision makers that may be persuaded that skeptics have no scientific basis to be skeptical of the pronouncements of the IPCC and its followers? Certainly, US Senators citing the scientifically preposterous survey claiming that from over 10,000 scientists surveyed, 75 out of 77 believe that humans are causing dangerous global warming indicates the targets are politicians and other decision makers. Please see links under PSYOPS and the September 1, 2012 TWTW.
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Export Crude? A controversy is brewing that few would have considered possible even two years ago. Shell Oil has requested permission from the Department of Commerce to export crude petroleum from the US. As of this time, the amount, source, and destination are not specified. According to law, the Federal government must grant permits for the export of crude petroleum. BP has a permit to export crude to Canada for refining. Shell has extensive oil leases in south Texas and in North Dakota. The destination of the Shell permit promises to bring political fireworks. Please see Article # 3.

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Rebranding Global Warming: Apparently the EU finds that fears of global warming / climate change no longer motivates the public in accepting outrageous increases in electricity costs from green energy. It has now started a publicity campaign for green energy called Worldulike. Perhaps publicity campaign could use the slogan "Give up carbon for a healthy planet and a healthy you." Of course, carbon includes foods, breathing, etc. But why bother with details? Please see link under Problems in the Orthodoxy.

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What's the best climate question to debate? Judith Curry asked that question on her web site. TWTW proposes the one Fred Singer asked of James Hansen several weeks ago: "What it the most compelling physical evidence you have that late 20th century warming was caused by greenhouse gas emissions?" In response, he labeled Singer to be an obfuscator. Please see link under Seeking a Common Ground and September 21, 2012 TWTW.

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Number of the Week: $96 / MWh. In July 2012 the Energy Information Agency (EIA) published estimates of the levelized cost of generating electricity, starting in 2017. The cost for onshore wind was $98 / MWh, which, on the surface, compares favorable with the levelized cost of generating electricity from coal of $97.7 / MWh. The wind industry is using these numbers to claim that wind power will be competitive with other sources within a few years. The claim is false.

The EIA has two sets of rankings. One is for dispatchable technologies and the second for non-dispatchable technologies. A dispatchable technology is one that can be relied upon when the electricity is demanded – humans control. The non-dispatchable technology is one that cannot be relied upon – nature controls. The technologies are not comparable.

The modern world requires reliable electricity to turn on lights, run factories, operate elevators, traffic signals, electric motors, etc. Dispatchable technologies meet the needs of modern society. Non-dispatchable technologies do not. Thus, dispatchable technologies are the primary sources of electricity and non-dispatchable technologies are the secondary sources. The only economic justification for implementing non-dispatchable technologies is that they reduce total costs to the consumer. Increasingly, the evidence is compiling that they do the opposite. Green advocates ignore the critical distinction between dispatchable and non-dispatchable technologies, and many politicians do not understand it – reliability.

Even the *Wall Street Journal* failed to make this critical distinction. Please see Article # 1, which gives the Journal's cost comparisons at the bottom of the article. For the EIA rankings, please see http://www.eia.gov/forecasts/aeo/electricity_generation.cfm. For a fuller discussion of the EIA estimates, please see the July 21, 2012 TWTW.

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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. Do We Need Subsidies for Solar and Wind Power?
By Marc Muro v. David Kreutzer, WSJ, Oct 8, 2012
http://online.wsj.com/article/SB10000872396390444032404578008183300454400.html

2. The Perils of Always Ignoring the Bright Side
By Matt Ridley, WSJ, Oct 6, 2012
http://online.wsj.com/article/SB10000872396390444004704578030340322277954.html
[SEPP Comment: Many greens oppose technologies that are proven to cut carbon dioxide emissions.]

3. Shell Seeks to Export U.S. Oil
By Ben Lefebvre, WSJ, Oct 12, 2012
http://online.wsj.com/article/SB10000872396390444799904578051741108019214.html?mod=WSJ_Energy_leftHeadlines

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NEWS YOU CAN USE:

Climategate Continued
The Afterlife of IPCC 1990 Figure 7.1
By Steve McIntyre, Climate Audit, Oct 9, 2012
http://climateaudit.org/2012/10/09/the-afterlife-of-ipcc-1990-figure-7-1/#more-16892
[SEPP Comment: A long post on the efforts to get rid of the inconvenient graph of temperatures that included a Medieval Warm Period (warmer than 1990) and Little Ice Age. The graph was based on the work of HH Lamb and appeared in the first two IPCC reports.]

Defending the Orthodoxy
The New "Golden Age of Oil" That Wasn't
By Michael T. Klare, European Energy Review, Oct 8, 2012
http://www.europeanenergyreview.eu/site/pagina.php?email=ken@haapala.com&id_mailing=316&toegang=3fe94a002317b5f9259f82690aeea4cd&id=3891
[SEPP Comment: The good professor of peace and world security may not have a good grasp of what is happening in North American oil and gas.]

Study maps greenhouse gas emissions to building, street level for US cities
By Staff Writers, Tempe, AZ (SPX), Oct 10, 2012
http://www.terradaily.com/reports/Study_maps_greenhouse_gas_emissions_to_building_street_level_for_US_cities_999.html
[SEPP Comment: A prelude for the carbon police?]

Questioning the Orthodoxy
The Perils Of Confirmation Bias
By Matt Ridley, GWPF, Oct 8, 2012
http://www.thegwpf.org/matt-ridley-the-perils-of-confirmation-bias/

The modus operandi of the Intergovernmental Panel on Climate Change (IPPC) has been to accumulate evidence to champion rather than challenge a hypothesis, namely that rising carbon dioxide levels will in future cause dangerous climate change.
[SEPP Comment: Link to a pamphlet containing columns in the Wall Street Journal on the issue.]

Questioning European Green

'The Government needs to radically re-think energy policies'
For the sake of the economy, the UK needs to invest in gas and nuclear power and drop the wind farms and disadvantageous "green policies", writes Ruth Lea.
By Ruth Lea, Telegraph, UK, Sep 11, 2012
http://www.telegraph.co.uk/sponsored/earth/statoil/9527745/economical-view-government-energy-policies.html?utm_source=tmg&utm_medium=TD_rethinkRuthLea&utm_campaign=statoil1110
[SEPP Comment: Comparing costs of alternative methods of generating electricity in England. When calculating wind, the costs of providing an additional source to provide reliable electricity when wind fails must be included.]

German renewable surcharge to rise by 47 percent: source
By Tom Kaeckenhoff and Christoph Steitz, Reuters, Oct 10, 2012 [H/t GWPF]
http://uk.reuters.com/article/2012/10/10/us-germany-energy-renewables-idUKBRE8990PC20121010
The so-called 'Umlage' -- charges levied on German consumers to support renewable power -- will rise to 5.3 euro cents per kilowatt hour (kWh) in 2013 from 3.6 cents in 2012, the source said.

German Energy Plan Plagued by Lack of Progress
By Staff Writers, Spiegel, Oct 10, 2012 [H/t GWPF]
http://www.spiegel.de/international/germany/energy-turnaround-in-germany-plagued-by-worrying-lack-of-progress-a-860481.html

'Soviet-style' wind farm subsidies to face the axe
"Soviet-style" green subsidies for wind farms must be scrapped because turbines are blighting local communities, the new Environment Secretary said on Tuesday.
By Rowena Mason, Telegraph, UK, Oct 9, 2012
http://www.telegraph.co.uk/earth/energy/9597461/Soviet-style-wind-farm-subsidies-to-face-the-axe.html

Political storms threaten Europe's offshore wind goals
By Barbara Lewis and Karolin Schaps, Reuters, Oct 10, 2012 [H/t GWPF]
http://uk.reuters.com/article/2012/10/10/us-eu-power-offshore-idUKBRE8990RR20121010
"The delays will no doubt come if (finance minister George) Osborne keeps making comments which industry finds unhelpful."
[SEPP Comment: Things become difficult when the finance minister does his job by questioning the financial sense of subsidizing wind power.]

Powering the Nation
By Andrew Montford, Bishop Hill, Oct 10, 2012
http://bishophill.squarespace.com/blog/2012/10/10/powering-the-nation.html

[SEPP Comment: 1) Force the shutdown of existing power plants. 2) Create a crisis for future electricity. 3) Demand the government spend a hundred billion pounds to address the crisis. The energy bureaucrats dream. It will fund friends who will generously reward the bureaucrat upon retiring from "public service."]

Why Wind Won't Work
Big wind will take any problem you are trying to solve — and make it worse.
By Al Fin, on GWPF, Oct 7, 2012
http://www.thegwpf.org/why-wind-wont-work/
[SEPP Comment: Good intentions are not enough.]

UK Tories warned by EU against stifling green agenda
By Fiona Harvey, EurActiv, Oct 9, 2012 [H/t Bishop Hill]
http://www.euractiv.com/climate-environment/uk-tories-warned-eu-stifling-gre-news-515259

Expanding the Orthodoxy
Biodiversity: A Major Deception By Environmentalists.
By Tim Ball, A Different Perspective, Oct 10, 2012
http://drtimball.com/2012/biodiversity-a-major-deception-by-environmentalists/

Biodiversity meeting begins with funding plea
By Staff Writers, Hyderabad, India (AFP), Oct 8, 2012
http://www.terradaily.com/reports/Biodiversity_meeting_begins_with_funding_plea_999.html

Now The European Union Starts To Ban Recycling
By Tim Worstall, Forbes, Oct 7, 2012 [H/t Bishop Hill]
http://www.forbes.com/sites/timworstall/2012/10/07/now-the-european-union-starts-to-ban-recycling/
[SEPP Comment: The health bureaucrats in the EU want to ban reuse of jelly jars.]

Problems in the Orthodoxy
Climate scientist loses faith in the IPCC
By Ben Cubby, Brisbane Times, Oct 12, 2012 [H/t Climate Change Weekly]
http://www.brisbanetimes.com.au/environment/climate-change/climate-scientist-loses-faith-in-the-ipcc-20121011-27fk8.html
[SEPP Comment: Long time alarmist and Climategate team member Kevin Trenberth, the head of the climate analysis section at the US National Centre for Atmospheric Research, expresses displeasure in the direction the IPCC is taking. Trenberth claims the science is solid.]

Climate change: EU rebrands green energy campaign
By Roger Harrabin, BBC, Oct 8, 2012 [H/t Bishop Hill]
http://www.bbc.co.uk/news/world-europe-19868580

No new EU climate targets until 2015 at earliest
By Staff Writers, EurActiv, Oct 8, 2012 [H/t GWPF]
http://www.euractiv.com/climate-environment/new-eu-climate-targets-2015-earl-news-515238

Seeking a Common Ground

What Exactly Is Critical Thinking?
By Paul Gary Wyckoff, Inside Higher Ed, Oct 11, 2012 [H/t Climate, Etc.]
http://www.insidehighered.com/views/2012/10/11/essay-what-political-campaign-shows-about-need-critical-thinking#ixzz28zYu2Aw6
[SEPP Comment: Well taken points, the examples may or may not apply. Also see comments in Climate Etc.]
http://judithcurry.com/2012/10/11/what-exactly-is-critical-thinking/#more-10172

What's the best climate question to debate?
By Judith Curry, Climate, Etc, Oct 8, 2012
http://judithcurry.com/2012/10/08/whats-the-best-climate-question-to-debate/

Pielke Sr Summary Of Several Climate Science Issues – October 2012
By Roger Pielke Sr, Climate Science, Oct 12, 2012
http://pielkeclimatesci.wordpress.com/2012/10/12/pielke-sr-summary-of-several-climate-science-issues-october-2012/
[SEPP Comment: Pielke will be traveling for the next two weeks and makes 7 assertions some readers may wish to challenge. Among these is the statement there has been warming in over the last several decades, as measured by the ocean heat content. The warming has been less than predicted by the IPCC models.]

Communicating uncertainties in natural hazards research
By Judith Curry, Climate Etc, Oct 10, 2012
http://judithcurry.com/2012/10/10/communicating-uncertainties-in-natural-hazards-research/#more-10158

The Importance Of Land Use/Land Cover As A First Order Climate Forcing
By Roger Pielke Sr, Climate Science, Oct 11, 2012
http://pielkeclimatesci.wordpress.com/2012/10/11/the-importance-of-land-useland-cover-as-a-first-order-climate-forcing/

Great Lake Water Levels
By Donn Dears, Power For USA, Oct 9, 2012
http://dddusmma.wordpress.com/2012/10/09/great-lake-water-levels/

PSYOPS

The stink at UWA: More than academic
By Michael Kile, Quadrant, Oct 8, 2012
http://www.quadrant.org.au/blogs/doomed-planet/2012/10/the-stink-at-uwa-more-than-academic

Climate Change, Narcissism, Denial, Apocalypse. We must not turn away!
By Robert D. Stolorow, Feeling, Relating, Existing, Psychology Today, Oct 5, 2012
http://www.psychologytoday.com/blog/feeling-relating-existing/201210/climate-change-narcissism-denial-apocalypse
[SEPP Comment: The article he is responding to another article that features quotes by none other than Michael Mann.]

Now, alarmists are making the public believe in the extreme weather boogeyman
By Anthony Watts, WUWT, Oct 9, 2012
http://wattsupwiththat.com/2012/10/09/now-alarmists-are-making-the-public-believe-in-the-extreme-weather-boogeyman/

Communicating Better to the Public – Exaggerate, or be Vague?
Oceans' rising acidity a threat to shellfish — and humans
As carbon dioxide continues to build up in the atmosphere as a result of burning fossil fuels, the seas absorb much of it.The full effects have yet to be felt.
By Kenneth R. Weiss, Los Angeles Times, October 06, 2012
http://articles.latimes.com/2012/oct/06/local/la-me-acidic-oceans-20121007
"The oceans will become hot, sour and breathless."
"We found corrosive water everywhere we looked, particularly off California and Oregon,"
[SEPP Comment: By talking to journalists in the manner quoted, the researchers have ceased to be scientists. No where does the article state that acidity is measured by pH. Prior reports state the measured pH and it is not that of an acid and indicated that the problem with the hatchery may be the placement of the intake pipes. The pH varied, but measured a base.]

Communicating Better to the Public – Make things up.
Experts: Global warming means more Antarctic ice
By Seth Borenstein, AP, Oct 10, 2012
http://news.yahoo.com/experts-global-warming-means-more-antarctic-ice-194009890.html

Scary Pictures
By Bjørn Lomborg, Project Syndicate, Oct 10, 2012
http://www.project-syndicate.org/commentary/the-questionable-science-behind-genetically-modified-food-and-climate-change-by-bj-rn-lomborg
[SEPP Comment: Studies that greatly exaggerate possible health risks have no place in science. The second study is ridiculous and is probably written in hopes of pleading for money.]

Report: Climate change behind rise in weather disasters
By Doyle Rice, USA Today, Oct 10, 2012
http://www.usatoday.com/story/weather/2012/10/10/weather-disasters-climate-change-munich-re-report/1622845/
[SEPP Comment: See link immediately below.]

Guest Commentary: Climate spin is rampant
By Roger Pielke Jr. Denver Post, Oct 12, 2012
http://www.denverpost.com/opinion/ci_21752735/climate-spin-is-rampant
[SEPP Comment: See link immediately above.]

Models v. Observations
Quotes From Peer Reviewed Paper That Document That Skillful Multi-Decadal Regional Climate Predictions Do Not Yet Exist
By Roger Pielke Sr, Climate Science, Oct 9, 2012

http://pielkeclimatesci.wordpress.com/2012/10/09/quotes-from-peer-reviewed-paper-that-document-that-skillful-multi-decadal-regional-climate-predictions-do-not-yet-exist/
[SEPP Comment: A list of studies that assert global climate models have no skill for regional predictions.]

Measurement Issues

Resolving the biases in century-scale sea surface temperature measurements reveals some interesting patterns
By Anthony Watts, WUWT, Oct 7, 2012
http://wattsupwiththat.com/2012/10/07/resolving-the-biases-in-century-scale-sea-surface-temperature-measurments-reveals-some-interesting-patterns/

Consistent near-surface ocean warming since 1900 in two largely independent observing networks
Viktor Gouretski,1 John Kennedy,2 Tim Boyer,3 and Armin Köhl4 [H/t WUWT]
Geophysical Research Letters, Oct 5, 2012
http://www.leif.org/EOS/2012GL052975.pdf
[SEPP Comment: Study linked from the link immediate above.]

An Updated Hadcrut4 – And Some Surprises
By David Whitehouse, GWPF, Oct 10, 2012
http://www.thegwpf.org/an-updated-hadcrut4-and-some-surprises/
The overall conclusion is that global temperature datasets are fluid and change from month to month, and this must be taken into account in any analysis. It would be nice to have explanations for such changes.

Changing Weather

New Paper: Normalized Tornado Damage in the United States: 1950-2011
By Roger Pielke Jr, His Blog, Oct 8, 2012
http://rogerpielkejr.blogspot.com/2012/10/new-paper-normalized-tornado-damage-in.html
[SEPP Comment: Adjusted for wealth, income, population, etc, there has been a decrease in costs of tornado damage since 1950 in the US. Roughly, tornados cause twice the damage of earthquakes, and hurricanes cause twice that of tornados.]

Changing Seas

The Oceans Are Neither Rising, Nor Turning to Acid
By Alan Caruba, Warning Signs, Oct 10, 2012
http://factsnotfantasy.blogspot.com/2012/10/the-oceans-are-neither-rising-nor.html
[SEPP Comment: It would be more correct to say that the rise in sea levels is not increasing.]

The 27–year decline of coral cover on the Great Barrier Reef and its causes
Glenn De'atha,1, Katharina E. Fabriciusa, Hugh Sweatmana, and Marji Puotinenb
Proceedings of the National Academy of Sciences, Sep 5, 2012
http://www.pnas.org/content/early/2012/09/25/1208909109.full.pdf+html
[SEPP Comment: The study states three major causes of decline of coral cover, in order: 1) tropical cyclones 48%; 2) crown of thorns starfish 42%; and 3) coral bleaching 10%. The study

assumes that human caused global warming / climate change are the major causes of tropical cyclones and coral bleaching. See link immediately below.]

Reef Alarmists Jump The Shark
By Walter Starck, Quadrant, Oct 9, 2012
http://www.quadrant.org.au/blogs/doomed-planet/2012/10/reef-alarmists-jump-the-shark
[SEPP Comment: See link immediately above.]

Changing Sea Ice
Thinning Arctic Ice; More Al Gore Aided and Abetted Misinformation?
By Tim Ball, WUWT, Oct 9, 2012
http://wattsupwiththat.com/2012/10/09/thinning-arctic-ice-more-al-gore-aided-and-abetted-misinformation/

Antarctic Sea Ice Reaches New Maximum Extent
By Staff Writers, New York NY (SPX), Oct 12, 2012
http://www.terradaily.com/reports/Antarctic_Sea_Ice_Reaches_New_Maximum_Extent_999.html

Antarctic consensus "flips". Warmer water means *more* sea ice!
By Jo Nova, Her Blog,
http://joannenova.com.au/2012/10/antarctic-concensus-flips-warmer-water-means-more-sea-ice/#more-24229

Agriculture Issues & Fear of Famine
Biorefining: The new green wave
By Staff Writers, Paris (AFP), Oct 07, 2012
http://www.biofueldaily.com/reports/Biorefining_The_new_green_wave_999.html
[SEPP Comment: In the US, corn has long been refined into a multitude of products.]

Review of Recent Scientific Articles by NIPCC
For a full list of articles see www.NIPCCreport.org
The MWP at the Tivoli North Bay of New York's Hudson Estuary
Reference: Sritairat, S., Peteet, D.M., Kenna, T.C., Sambrotto, R., Kurdyla, D. and Guilderson, T. 2012. A history of vegetation sediment and nutrient dynamics at Tivoli North Bay, Hudson Estuary, New York. *Estuarine, Coastal and Shelf Science* 102-103: 24-35.
http://www.nipccreport.org/articles/2012/oct/9oct2012a2.html

Simulating the Equatorial Pacific Cold Tongue
Reference: Zheng, Y., Lin, J.-L. and Shinoda, T. 2012. The equatorial Pacific cold tongue simulated by IPCC AR4 coupled GCMs: Upper ocean heat budget and feedback analysis. *Journal of Geophysical Research* 117: 10.1029/2011JC007746.
http://www.nipccreport.org/articles/2012/oct/9oct2012a4.html

The Importance of Long-Term Temperature and CO2 Data
Reference: Drake, B.L. 2012. The influence of climatic change on the Late Bronze Age Collapse and the Greek Dark Ages. *Journal of Archaeological Science* 39: 1862-1870.

http://www.nipccreport.org/articles/2012/oct/10oct2012a1.html

A Warming Bias in the U.S. Temperature Record???
Reference: Balling Jr., R.C. and Idso, C.D. 2002. Analysis of adjustments to the United States Historical Climatology Network (USHCN) temperature database. *Geophysical Research Letters* 10.1029/2002GL014825.
http://www.nipccreport.org/articles/2012/oct/10oct2012a4.html

The Political Games Continue

Obama and Romney answer questions about science policy
The presidential candidates answer questions from ScienceDebate.org on technology, climate change and other science policy issues.
By Karen Kaplan, LA Times, Oct 5, 2012
http://www.latimes.com/news/science/la-sci-science-debate-part-1-20121006,0,930121.story?track=rss&utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+latimes%2Fnews%2Fscience+%28L.A.+Times+-+Science%29
[SEPP Comment: Unfortunately what appeared to be a solid effort to clearly mark the deference between the candidates is becoming less so. For example, the web site is referencing reports such as ocean acidification – a non-scientific, alarmist term.]

Energy Scorecard: Romney vs. Obama
By Larry Bell, Master Resource, Oct 8, 2012
http://www.masterresource.org/2012/10/romney-vs-obama-energy/#more-22141

Republicans seek audit of energy subsidies
By Zack Colman, The Hill, Oct 10, 2012
http://thehill.com/blogs/e2-wire/e2-wire/261333-gop-lawmakers-call-for-audit-on-energy-subsidies
[SEPP Comment: This would be interesting. There has been no government-wide audit in 15 years and partial reports recognize that accounting definitions are different among the agencies.]

2012 Presidential Debate: Not One Word about Climate Change
By Steve Goreham, News Blaze, Oct 9, 2012
http://newsblaze.com/story/20121009195737zzzz.nb/topstory.html

Cap-and-Trade and Carbon Taxes

Carbon Tax Will Double U.K. Electricity Bills
By Staff Writers, NCPA, Oct 9, 2012
http://www.ncpa.org/sub/dpd/index.php?Article_ID=22448&utm_source=newsletter&utm_medium=email&utm_campaign=DPD

Crisis in the ETS comes to a head
By Sonja van Renssen, European Energy Review, Oct 11, 2012
http://www.europeanenergyreview.eu/site/pagina.php?email=sonja.b-c@hull.ac.uk&id_mailing=317&toegang=5b8add2a5d98b1a652ea7fd72d942dac&id=3895

Subsidies and Mandates Forever

Is time running out for renewable energy subsidies?
By Martin Livermore, Scientific Alliance, Oct 12, 2012
http://www.scientific-alliance.org/scientific-alliance-newsletter/time-running-out-renewable-energy-subsidies
[SEPP Comment: To separate the facts from the rhetoric on the increase in electricity costs, one must separate the increase costs of fuel in traditional sources of electricity generation and the increase in costs from wind, including the costs of the systems needed to provide needed electricity when wind fails.]

The Production Tax Credit: Just the Facts
By Robert Bradley Jr., Master Resource, Oct 9, 2012
http://www.masterresource.org/2012/10/ptc-just-facts/#more-22151

Merkel Curbs Renewables to Limit Voter Anger on Power Bills
By Stefan Nicola and Tino Andresen. Bloomberg, Oct 12, 2012
http://www.businessweek.com/news/2012-10-11/merkel-curbs-renewables-to-limit-voter-backlash-on-power-bills

EPA and other Regulators on the March
Salazar approves massive Wyoming wind farm project
Mead Gruver, AP, Oct 10, 2012
http://www.seattlepi.com/news/article/Salazar-approves-massive-Wyoming-wind-farm-project-3933033.php
"Our strategy is getting us within grasp of energy independence in the United States," Salazar said.
[SEPP Comment: Salazar delays approvals for the far more promising hydraulic fracturing for oil and gas on US lands and offshore drilling.]

More US coal plants to retire due to green rules: study
By Scott DiSavino, Reuters, Oct 8, 2012
http://www.chicagotribune.com/business/sns-rt-us-utilities-brattle-coalbre8970lv-20121008,0,674814.story

Report: EPA struggling to keep pace with 'fracking' boom
By Ben Geman, The Hill, Oct 9, 2012
http://thehill.com/blogs/e2-wire/e2-wire/261033-report-epa-struggling-to-keep-pace-with-fracking-boom
[SEPP Comment: More reason it should be regulated by the states and not the Federal government.]

Energy Issues – Non-US
US Shale's Seismic Shaking of Gazprom (and Putin)
By Peter C Glover, Energy Tribune, Oct 10, 2012
http://www.energytribune.com/articles.cfm/11791/US-Shales-Seismic-Shaking-of-Gazprom-and-Putin

Revenge of the fossil fuels: Setbacks mount for renewable energy sector

By Yadullah Hussain, Financial Post, Oct 4, 20122
http://business.financialpost.com/2012/10/04/revenge-of-the-fossil-fuels/

Power market headed for potential oversupply
By Twan Vollebregt, European Energy Review, Oct 8, 2012
http://www.europeanenergyreview.eu/site/pagina.php?email=ken@haapala.com&id_mailing=316&toegang=3fe94a002317b5f9259f82690aeea4cd&id=3887

Energy Issues -- US
Shale: The Energy and Economic Engine
By Mark Green, Energy Tomorrow, Oct 9, 2012, [H/t GWPF]
http://energytomorrow.org/blog/shale-the-energy-and-economic-engine#/type/all
[SEPP Comment: The Price-Waterhouse-Cooper report offers insights into the industries and products that can benefit from low cost natural gas and natural gas liquids. According to the report, thanks to the natural gas revolution, the US is now the lowest cost ethylene producer which goes into a multitude of products, particularly plastics.]

Industry touts expanded drilling as way to cut deficit
By Zack Colman, The Hill, Oct 10, 2012
http://thehill.com/blogs/e2-wire/e2-wire/261199-report-expanded-drilling-efficiency-measures-needed-for-energy-self-sufficiency

Debate Over Exports and Fracking
By Donn Dears, Power for USA, Oct 12, 2012
http://dddusmma.wordpress.com/2012/10/12/debate-over-exports-and-fracking/

BP to export U.S. crude to Canada, Shell seeks permit
By David Sheppard and Chris Baltimore, Reuters. Oct 12, 2012
http://business.financialpost.com/2012/10/12/bp-to-export-u-s-crude-to-canada-shell-seeks-permit/

Oil and Natural Gas – the Future or the Past?
Regulators Approve First New Power Plant to Use Marcellus Shale Gas in Penn.
By Sonal Patel, Power News, Oct 11, 2012
http://www.powermag.com/POWERnews/5050.html?hq_e=el&hq_m=2540315&hq_l=5&hq_v=5e660500d0

Ireland 'close to oil billions'
By Andy Martin, BBC, Oct 10, 2012
http://www.bbc.co.uk/news/uk-northern-ireland-19889948
[SEPP Comment: Will drilling yield hundreds of millions of barrels of oil off the coast of County Cork in South Ireland as the promoters claim?]

Washington's Control of Oil and Gas
Oil sands producers fighting for pipeline space
By Jeremy van Loon and Rebecca Penty, Bloomberg News, Oct 11, 2012
http://business.financialpost.com/2012/10/11/oil-sands-producers-fighting-for-pipeline-space/

[SEPP Comment: Pipeline space will continue to be a major problem as long as Washington refuses to approve needed pipelines.]

Return of King Coal?

Coal to displace gas in Europe through 2017 – IEA
By Staff Writers, Coal guru, Oct 11, 2012 [H/t GWPF]
http://www.coalguru.com/other_region/coal_to_displace_gas_in_europe_through_2017_iea/4283

Global -coalification
By Terence Corcoran, Financial Post, Oct 10, 2012
http://opinion.financialpost.com/2012/10/10/terence-corcoran-global-%C2%ADcoalification/

Nuclear Energy and Fears

Growth Spurt Foreseen for Global Nuclear Capacity as Japan Resumes Construction of ABWR
By Sonal Patel, POWERnews, Oct 11, 2012
http://www.powermag.com/POWERnews/5052.html?hq_e=el&hq_m=2540315&hq_l=6&hq_v=5e660500d0

Alternative, Green ("Clean") Solar and Wind

US confirms tariffs on China's solar industry
By Zack Colman, The Hill, Oct 10, 2012
http://thehill.com/blogs/e2-wire/e2-wire/261363-us-hits-china-with-solar-tariffs
[SEPP Comment: Getting into a trade war over a technology that is inefficient, costly, erratic, and requires subsidies makes no sense.]

China denounces solar tariffs
By Staff Writers, Beijing (UPI), Oct 11, 2012
http://www.solardaily.com/reports/China_denounces_solar_tariffs_999.html

Report: US green energy subsidies jeopardize American companies, global markets
By Michael Bastasch, Daily Caller, Oct 9, 2012
http://dailycaller.com/2012/10/09/report-green-energy-subsidies-jeopardize-us-companies-global-markets/

Report: Mid-Atlantic offshore wind industry would create 70,000 jobs, generate billions
By Staff Writers, AP, Oct 10, 2012
http://www.washingtonpost.com/business/report-mid-atlantic-offshore-wind-industry-would-create-70000-jobs-generate-billions/2012/10/10/ab391dd2-12bc-11e2-9a39-1f5a7f6fe945_story.html
[SEPP Comment: Google is touted as a supporter and it is cash rich. Thus, there is no need for subsidies or mandates. The gas and oil industries using hydraulic fracturing did not need subsidies or mandates to develop what promises to be a strong, thriving industry. Why should off shore wind need them?]

Sandia Labs benchmark helps wind industry measure success
By Staff Writers, Albuquerque NM (SPX), Oct 08, 2012

http://www.winddaily.com/reports/Sandia_Labs_benchmark_helps_wind_industry_measure_success_999.html
[SEPP Comment: Operational Availability at 97% is not the same as Capacity Factor at 36%, which the article fails to mention.]

Renewable money
By Andrew Montford, Bishop Hill, Oct 11, 2012
http://bishophill.squarespace.com/blog/2012/10/11/renewable-money.html
[SEPP Comment: Only governments would get away with calling throwing money into the wind as an investment.]

Proud NIMBYISM Against Windpower
By Nick Stanger, Master Resource, Oct 11, 2012
http://www.masterresource.org/2012/10/proud-nimbyism-against-windpower/#more-22180
[SEPP Comment: A significant issue to the author. For years, environmental organizations stopped or tried to stop residential development with concepts such as view-shed – the traditional sightlines of the valley or the mountains that must be preserved. Most environmental organizations have been very quiet when it comes to industrial wind.]

Alternative, Green ("Clean") Energy -- Other

U.S. Biofuel Expansion Cost Developing Countries $6.6 Billion: Tufts
By Marlo Lewis, Global Warming, Oct 12, 2012
http://www.globalwarming.org/2012/10/12/u-s-biofuel-expansion-cost-developing-countries-6-6-billion-tufts/

Biofuels benefit billionaires
By Jo Nova, Her Blog, Oct 13, 2012
http://joannenova.com.au/2012/10/biofuels-benefit-billionaires/#more-24258
[SEPP Comment: Links to earlier studies on the economic and health consequences of Biofuels, particularly in low income countries.]

Alternative, Green ("Clean") Vehicles

Electric Cars Hurt the Environment
By Walter Russell Mead, American Interest, Oct 6, 2012 [H/t Timothy Wise]
http://blogs.the-american-interest.com/wrm/2012/10/06/electric-cars-hurt-environment/
The world needs better environmental policies; unfortunately, environmentalists are often some of the biggest obstacles to clear thinking and smart policy. The movement isn't ready for prime time.

Electric cars are worse for the environment
By Jo Nova, Her Blog, Oct 10, 2012
http://joannenova.com.au/2012/10/electric-cars-are-worse-for-the-environment/#more-24224

Carbon Schemes

Down the carbon drain
By Andrew Montford, Bishop Hill, Oct 12, 2012
http://bishophill.squarespace.com/blog/2012/10/12/down-the-carbon-drain.html

California Dreaming

Sacramento's Role in California's Gasoline Price Spike
By Geoffrey Styles, Energy Tribune, Oct 12, 2012
http://www.energytribune.com/articles.cfm/11793/Sacramentos-Role-in-Californias-Gasoline-Price-Spike
[SEPP Comment: Boutique gasoline blends result it sharp price increases from minor disruptions in production.]

Prop 65 Has its Perks for Plaintiffs' Lawyers in Coffee Litigation
By Anastasia Killian, Forbes, Oct 10, 2012
http://www.forbes.com/sites/wlf/2012/10/10/prop-65-has-its-perks-for-plaintiffs-lawyers-in-coffee-litigation/
[SEPP Comment: A cancer or birth defect threat in virtually every product.]

LADWP Board Approves New Solar Power Agreements
By Staff Writers, Los Angeles CA (SPX), Oct 10, 2012
http://www.solardaily.com/reports/LADWP_Board_Approves_New_Solar_Power_Agreements_999.html
[SEPP Comment: Solar is a sustainable form of reliable electricity generation? Will the politicians bet their pensions that they are right? Notice the role of natural gas is not emphasized.]

Environmental Industry

Aid Groups Push for Clean Energy
By Christopher Schuetze, International Herald Tribune, Oct 8, 2012
http://rendezvous.blogs.nytimes.com/2012/10/08/aid-groups-push-for-clean-energy-policies/

Other Scientific News

Fraud Breeds Retractions
An analysis of retractions dating back to 1977 shows that most papers are retracted due to misconduct.
By Sabrina Richards, The Scientist, Oct 1, 2012 [H/t Catherine French]
http://www.the-scientist.com/?articles.view/articleNo/32687/title/Fraud%20Breeds%20Retractions

Untested claim: increased CO2 helps glacier ice to crack
By Anthony Watts, WUWT, Oct 10, 2012
http://wattsupwiththat.com/2012/10/10/untested-claim-increased-co2-helps-glacier-ice-to-crack/

Super-microbes engineered to solve world environmental problems
By Staff Writers, Seoul, Korea (SPX) Oct 10, 2012
http://www.biofueldaily.com/reports/Super_microbes_engineered_to_solve_world_environmental_problems_999.html

Australia unveils colossal telescope
By Staff Writers, Sydney (AFP), Oct 5, 2012
http://www.spacedaily.com/reports/Australia_unveils_colossal_telescope_999.html

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BELOW THE BOTTOM LINE:

Journey to the Center of the Mirth

By Anthony Watts, WUWT, Oct 9, 2012

http://wattsupwiththat.com/2012/10/09/journey-to-the-center-of-the-mirth/#more-72142

[SEPP Comment: The project of drilling 6 kilometers to the earth's mantle may significantly contribute to scientific knowledge of the earth's crust and mantle. But the press release also states: "Understanding the complex working of our planet, its interplay with life, and the potential changes to global climate and environment caused by human activity is simply no longer just an option to satisfy scientific curiosity:" Human caused climate change is a justification for drilling to the mantle?]

http://www.iodp.org/why-does-scientific-ocean-drilling-matter-to-you

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ARTICLES:

1. Do We Need Subsidies for Solar and Wind Power?

By Marc Muro v. David Kreutzer, WSJ, Oct 8, 2012

http://online.wsj.com/article/SB10000872396390444032404578008183300454400.html

At a time of intense debate over the federal budget, government subsidies for wind and solar power are more contentious than ever. The question of whether those subsidies are justified has taken on fresh urgency with the looming expiration of a major wind subsidy.

The federal tax credit for wind-power producers will expire at the end of this year unless Congress extends it. There is widespread agreement that pulling the plug on the subsidy at this point could hobble the wind-power industry. Meanwhile, the biggest federal subsidy for solar power, a tax credit for 30% of the cost of installed equipment, is set to drop to 10% at the end of 2016. A cash grant for up to 30% of solar equipment costs expired at the end of last year.

Proponents say wind and solar subsidies are needed for a few more years to allow these clean, renewable sources of energy to develop to the point where they can compete on price with electricity produced from coal and natural gas. But opponents of the subsidies say that they simply cost too much, and that the supposed benefits of wind and solar power are overstated.

Mark Muro, a senior fellow and the policy director at the Metropolitan Policy Program at the Brookings Institution, argues in favor of the subsidies. David Kreutzer, a research fellow in energy economics and climate change at the Heritage Foundation, presents the case against them.

Yes: They Are Doing Their Job

By Mark Muro

Federal subsidies for wind and solar power production are working. In fact, they're working so well that they don't need to continue much longer. But we do need to extend them for a few more years so that they can fulfill their purpose.

Let's remember the point of these temporary subsidies: to help emerging clean-energy technologies gain toeholds in challenging markets and advance toward unsubsidized price-competitiveness.

The ultimate reward is cheaper, cleaner energy and greater energy diversity, which will help guard against price shocks, keep energy costs down through competition and lessen the damage our energy consumption does to the environment, among other things. The benefits are well worth the cost of temporarily extending these subsidies, which are a trivial portion of the federal budget.

Getting Close

Wind and solar need the help because the barriers for new technologies in the energy industry are tougher than those in any other industry in this country. Fossil fuels, with the help of their own government subsidies over the years, are thoroughly entrenched, with trillions of dollars' worth of infrastructure in place. At the same time, utilities tend to favor established business models and are required by regulators to provide the lowest-cost power, all of which steers them toward fossil fuels.

Against this background, providing temporary support for wind and solar technologies so they can gain the level of scale and efficiency necessary to compete is one of the few ways the nation can reasonably hope to promote energy diversity.

Is it working? The evidence is overwhelming that it is: Supported by subsidies but also by rapid technical advances, onshore wind and solar photovoltaic installations are way up, and the price of delivered renewable energy is way down.

Onshore wind power is on track to reach grid parity—the point where its cost equals the base-line price of power on the grid—starting in 2016, according to estimates from Bloomberg New Energy Finance, a research arm of Bloomberg LP. Solar photovoltaic energy will be largely cost-competitive at the residential level in California without the current subsidy by 2017 and in many other states shortly thereafter, according to Shayle Kann, a vice president at the GTM Research unit of Greentech Media Inc.

In sum, onshore wind is likely just a few years away from true subsidy independence, while several forms of solar aren't far beyond.

So Congress should finish the job it started by extending the present subsidies. But it shouldn't just extend them for a year or two and then stage yet another politicized, all-or-nothing confrontation when the next expiration dates near.

A New Kind of Extension

Instead, Congress should provide a predictable, continual prod toward innovation and cost reduction by extending the subsidies further than it usually does but at the same time establishing a cutoff date. For example, the subsidy for wind power could be renewed and then phased out over four years or so. Key members of Congress already are discussing this "extend but discipline" approach.

Meanwhile, to help wind and solar meet new subsidy-independence deadlines, more attention should be given to expanding the opportunities for private investment. Currently, solar and wind infrastructure can't be financed using master limited partnerships or real-estate investment trusts, two powerful tools. State governments also could pitch in by ratcheting up the requirements for utilities to generate a certain amount of their power from renewable sources. They could also

dedicate some of the significant funds they manage through state energy offices to financing renewables, and establish clean-energy-finance banks.

It all starts, though, with a new approach to subsidies. When key wind and solar supports come up for renewal, Congress should extend them so it can then end them.

Mr. Muro is a senior fellow and the policy director at the Metropolitan Policy Program at the Brookings Institution, which is based in Washington, D.C. He can be reached at reports@wsj.com.

No: The Benefits Are a Myth
By David Kreutzer

The problem with subsidizing wind and solar power is that subsidies don't make these unaffordable energy sources affordable, they just change who pays. Taxpayers foot a large part of the bill, instead of the producers and consumers of wind and solar power. And the costs that imposes on the economy aren't justified by any of the supposed benefits of these energy sources.

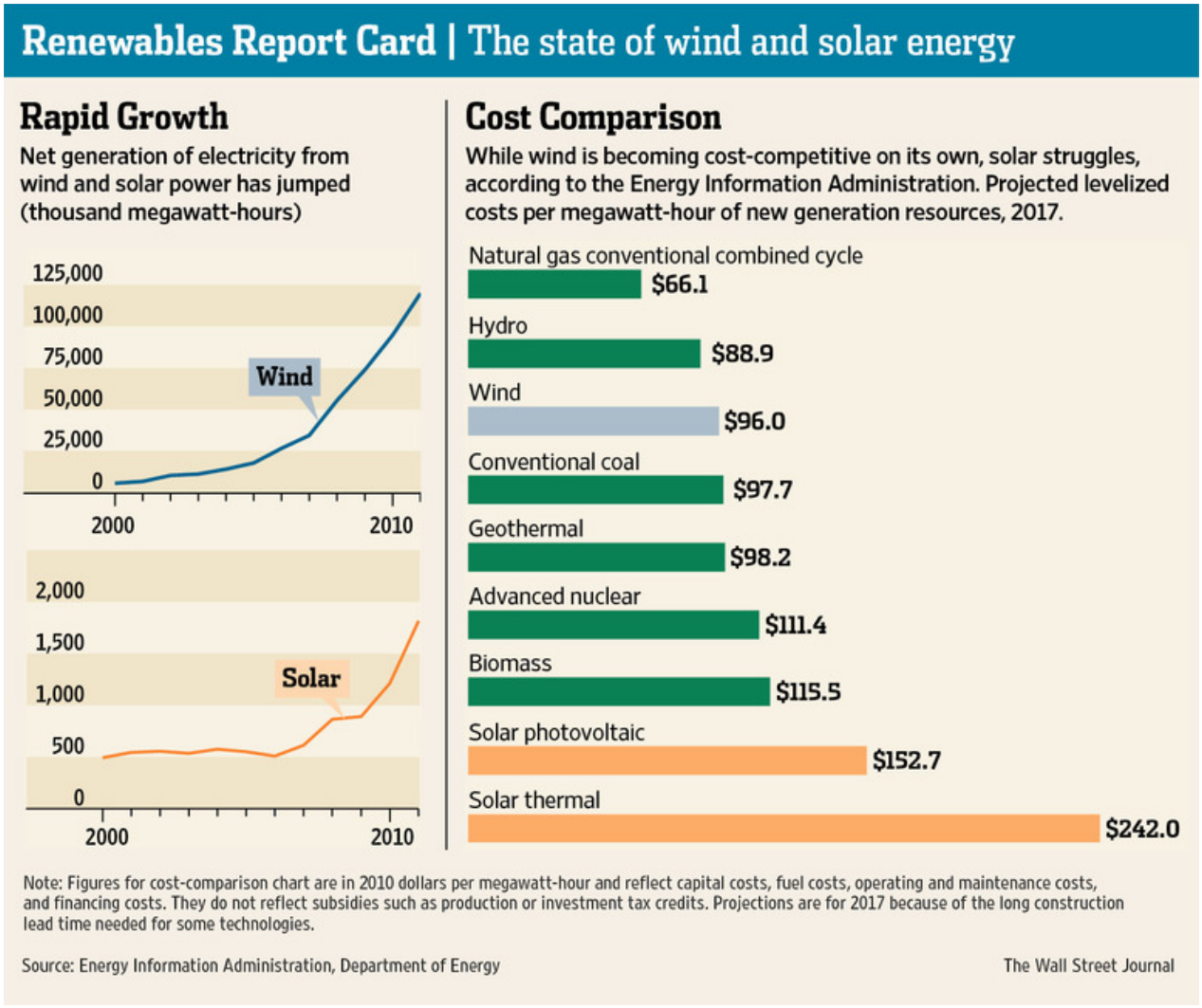
The argument that wind and solar energy are on the verge of being cost-effective is an old one, dating at least to the early 1990s. And yet we are still handing out subsidies that supposedly will push them over that line in just a few more years. It's time to stop. With a phaseout or not, extending subsidies is just more of the same.

Economic Myths
Numerous studies purport to show that energy subsidies will stimulate the economy by creating jobs. But these studies consistently ignore the fact that draining taxes out of the general economy to pay for those subsidies runs the broader job-creating mechanism in reverse. The net effect is to shrink the economy, not grow it.
Another myth is that we need subsidies to stay competitive with countries whose economies will increasingly be propelled by wind and solar energy. That argument needs to be written on a dry-erase board, because the country that is supposedly outcompeting us on this front keeps changing. That's because our competitors keep bailing out of their subsidy schemes. The purported European models, such as Spain and Germany, have drastically cut their subsidies, because they were unaffordable and unworkable.

The current name on the board is China. This is an economic role model? China's per capita income ranks 92nd in the world. Yes, China's economy has grown dramatically in recent decades, but only because they moved toward freer markets—that is, toward an economy a little more like ours. In any event, China's total carbon-dioxide emissions are skyrocketing. Whatever they may be doing with wind and solar power pales in comparison with what they are doing with coal-fired electricity.

No Need
A third myth asserts that these subsidies will save the planet. Broad agreement that man-made carbon-dioxide emissions warm the Earth doesn't mean we are headed to environmental catastrophe. Even the Intergovernmental Panel on Climate Change, for instance, projects a sea-

level rise of about seven to 24 inches over the next century—not 20 feet. Recent trends argue more strongly for the lower end of that range.



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2. The Perils of Always Ignoring the Bright Side

By Matt Ridley, WSJ, Oct 6, 2012
http://online.wsj.com/article/SB10000872396390444004704578030340322277954.html
[SEPP Comment: Many greens oppose technologies that are proven to cut carbon dioxide emissions.]

Generally, technologies are judged on their net benefits, not on the claim that they are harmless: The good effects of, say, the automobile and aspirin outweigh their dangers. Today, arguably, adopting certain new technologies is harder not just because of a policy of precaution but because of a bias in much of the media against reporting the benefits.

Shale gas is one example, genetically modified food another, where the good news is deemed less newsworthy than the bad. A recent French study claimed that both pesticides and GM corn fed to cancer-susceptible strains of rats produced an increase in tumors. The study has come in for

withering criticism from mainstream scientists for its opaque data, small samples, unsatisfactory experimental design and unconventional statistical analysis, yet it has still gained headlines world-wide. (In published responses, the authors have stood by their results.)

The French study contradicts a Japanese paper that used larger samples, longer trials and accepted experimental designs, yet received virtually no notice because it found no increase in cancer in rats fed on GM crops. This is a problem that's bedeviled GM technology from the start: Studies that find harm are shouted from the media rooftops, those that do not are ignored.

So to redress the balance, I thought I'd look up the estimated benefits of genetically modified crops. After 15 years of GM planting, there's ample opportunity—with 17 million farmers on almost 400 million acres in 29 countries on six continents—to count the gains from genetic modification of crop plants. A recent comprehensive report by Graham Brookes and Peter Barfoot for a British firm, PG Economics, gives some rough numbers. (The study was funded by Monsanto, MON -1.34% which has major operations in biotech, but the authors say the research was independent of the company and published in two peer-reviewed journals.)

The most obvious benefit is yield increase. In 2010, the report estimates, the world's corn crop was 31 million tons larger and the soybean crop 14 million tons larger than it would have been without the use of biotech crops. The direct effect on farm incomes was an increase of $14 billion, more than half of which went to farmers in developing countries (especially those growing insect-resistant cotton).

In addition, a range of non-pecuniary benefits have been recorded, from savings in fuel, time and machinery to a better health and safety record on the farm (since less pesticide is needed), shorter growing cycles and better quality of product. In India—where the International Service for the Acquisition of Agri-Biotech Applications says 88% of cotton is now genetically modified to resist pests and insecticide use has halved—bee keepers are losing fewer bees.

As this illustrates, the most striking benefits are environmental. The report calculates that a cumulative total of 965 million pounds of pesticide have not been used because of the adoption of GM crops. The biggest impacts are from insect-resistant cotton and herbicide-tolerant maize, both of which need fewer sprayings than their conventional equivalents.

The use of less fuel in farming GM crops results in less carbon-dioxide emission. In addition, herbicide-tolerant GM crops can often be grown with little or no plowing in stubble fields that are sprayed with herbicides. The result is to allow more carbon to remain in the soil, since plowing releases carbon as microbial exhalation. Taken together, Messrs. Brookes and Barfoot estimate, this means that the GM crops grown in 2010 had an effect on carbon-dioxide emissions equivalent to taking 8.6 million cars off the road.

There is a rich irony here. The rapidly growing use of shale gas in the U.S. has also driven down carbon-dioxide emissions by replacing coal in the generation of electricity. U.S. carbon emissions are falling so fast they are now back to levels last seen in the 1990s. So the two technologies most reliably and stridently opposed by the environmental movement—genetic modification and fracking—have been the two technologies that most reliably cut carbon emissions.
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3. Shell Seeks to Export U.S. Oil

By Ben Lefebvre, WSJ, Oct 12, 2012
http://online.wsj.com/article/SB10000872396390444799904578051741108019214.html?mod=WSJ_Energy_leftHeadlines

HOUSTON—Royal Dutch Shell said late Thursday it has applied for a permit from the U.S. Department of Commerce to export crude oil in a sign of how a boom in U.S. oil production from shale rock is reshaping the country's role in the global energy marketplace.

The U.S. currently exports less than less than one half of 1% of its total oil imports, according to data from the Energy Information Administration. However, the revolution in hydraulic fracturing technology that has coaxed large volumes of light sweet oil from shale rock previously thought unprofitable has generated an unprecedented boom that the EIA says will bring U.S. production to its highest level in nearly two decades next year.

Oil production in the U.S. totaled 194 million barrels of crude oil in July, the most in 14 years according to the latest data from the EIA. Oil production in the Eagle Ford area of South Texas—where Shell has significant operations—and the Bakken region in North Dakota are producing more oil than pipelines are currently able to carry to market.

This week, the glut of oil production in the center of the country pushed the U.S. benchmark oil price, West Texas Intermediate, to its lowest level in a year relative to international benchmark, Brent crude.

A decades-old law bars the export of crude oil produced in the U.S., although special permits can be given in some cases, including shipping oil to Canada. The U.S. exports about 41,000 barrels a day of oil already, less than one half of 1% of its total oil imports, according to the EIA.

Shell declined to say how much oil the company planned to export or to which destinations.

"Crude trades on a global scale, and imports and exports will follow supply and demand," Shell spokeswoman Kayla Macke said.

BP which already has a license to export U.S. crude oil, sends it to Canada for refining, said a person familiar with the company's operations.

The U.S. will become a net oil exporter but probably not until the end of the decade, said Pavel Molchanov, analyst at Raymond James. Companies now seeking an export license are most likely working to build the logistical networks needed for the future, Mr. Molchanov said.

"I don't think these companies are literally looking to get tankers ready in the Port of Galveston to take shipments to China tomorrow," Mr. Molchanov said. "They're getting ready in advance for the big surge in U.S. oil production."

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