

The Week That Was: 2012-09-015 (September 15, 2012)
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The Science and Environmental Policy Project

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Quote of the Week: If Canada continues to extract oil from its tar sands, “*it will be game over for the climate.*” James Hansen, NYT

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Number of the Week: 20 Billion Gallons

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THIS WEEK:

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

Climate Change Change? An article on Roger Pielke Sr’s web site states that the draft *Summary for Policymakers* by UN Intergovernmental Panel on Climate Change (IPCC) has a new definition of climate change. “Climate change may be due to natural internal processes or external forcings, or to persistent anthropogenic changes in the composition of the atmosphere or in land use.” The past definition emphasized human caused changes, particularly activities that alter the composition of the atmosphere.

Does this mean a greater recognition of human influences that are unrelated to the atmosphere (carbon dioxide (CO2)) emissions? Recognition of natural causes, instead efforts to dismiss them? At this time one cannot know what will come out in the final reports. Recently, discussion of the Medieval Warm Period and the Little Ice Age has become more prevalent in the literature after being suppressed by the third IPCC Assessment Report in 2001 with its notorious “hockey-stick.” If natural causes become part of the open discussion, it will be interesting to see how government agencies such as the US EPA will handle the possibility that their pronouncements of the science being certain were, actually, uncertain. Please see link under Challenging the Orthodoxy.

Further Challenges: A study published in *Nature* challenges the assumption that moist soils promote afternoon rains over these areas. Instead, it suggests that the rain generally falls on dryer soils. If this conclusion is thoroughly tested and confirmed, than climate models need to be reworked and many conclusions need to be reexamined.

Physicist Donald Rapp reviews a book by Bob Tisdale, essentially self-published, which Rapp finds to be extraordinary. According to Rapp, the book gives a detailed description of El Niño Southern Oscillation (ENSO) events, with particular emphasis on the last 30 years. Among key points are that the atmosphere does not warm oceans, sunlight warms oceans, and that the recent global warming is largely explained by warm surface waters during and after El Niños. These assertions are food for thought. Please links under Challenging the Orthodoxy.

Breakfast with James Hansen: The public relations agent for James Hansen requested that Hansen be given an opportunity to address Americans for Tax Reform (ATR). ATR used the request to arrange a breakfast meeting with Hansen and some global warming skeptics or doubters of Hansen’s theories.

Hansen’s goal was to provide scientific support for his latest proposal of a carbon dioxide tax starting at \$15 per ton and increasing by \$10 per ton for ten years to a total of \$115 per ton. All

the tax revenues would be immediately distributed to the households of the nation. Ivory tower economics at its most ideal!

To justify the tax, Hansen used his latest research published in the Proceedings of the National Academy of Science, which has been the subject of comment in TWTW for several weeks. Among other issues, Hansen does not demonstrate a scientific basis for declaring extreme weather events will become more frequent and more dire in the future. He used this year's drought in the Great Plains as an example. But, it was modest compared to the years of drought in the 1930s when the much of the Great Plains was called the Dust Bowl. Hansen's analysis does not begin until 1950, avoiding this fact.

The respectively conducted question and answer was more illuminating of the man, than of the science. Fred Singer pointed out that Hansen's prediction of sea level rise by 2100 was 6 meters (almost 20 feet) and far above the greatest amount predicted by the IPCC of 59 cm (23 inches). Singer stated he supports the low end of the IPCC prediction of 18 to 20 cm (7 to 8 inches) and suggested that Hansen is a contrarian with respect to the IPCC reports. Hansen responded only with wiry simile.

Patrick Michaels produced a graph showing Hansen's predictions of temperatures during his famous global warming hearing in 1988 and the latest NASA-GISS published temperatures. Hansen's predictions were far higher than the actual trend. Hansen accused Michaels of manipulating the data.

When Fred Singer asked Hansen for his best physical evidence that human emissions of carbon dioxide caused the recent warming, Hansen accused Singer and Michaels of obfuscation. Requesting clear physical evidence is obfuscation of empirical science?

Another attendee asked Hansen why he so adamantly opposed the Keystone Pipeline to bring crude oil from Canada to Gulf Coast refineries, as illustrated in the Quote of the Week. Hansen stated that he opposed any non-traditional development of oil and natural gas resources, including hydraulic fracturing for these resources.

Randy Randol, a co-founder of VA-SEEE, asked Hansen what was the end game? After a few prompts, Hansen said an atmosphere in which CO₂ concentrations were below 350 parts per million. They are above that now.

When twice asked to compare atmospheric temperature trends with surface temperature trends, Hansen ignored the atmospheric measurements. When Ken Haapala pushed on the significant differences in patterns between the Northern Hemisphere and Southern Hemisphere as shown in the atmospheric measurements with the warming trends concentrated in the northern part of the Northern Hemisphere, Hansen remarked that the oceans were hiding the warming of the Southern Hemisphere. The greenhouse effect takes place in the atmosphere, yet somehow it gets into the deep oceans without a trace? [Note the contrast to occasional El Niños causing a warming of the atmosphere as discussed Bob Tisdale's book reviewed above.]

It is particularly striking that the head of NASA's Goddard Institute for Space Studies (GISS) avoids space-age technology when discussing temperature measurements.

As to Jim Hansen's press relations agent – it is none other than David Fenton of Fenton Communications who created the very successful Alar scare for the Natural Resources Defense Council "Intolerable Risk: Pesticides in Our Children's Food." A ripening agent mostly for apples, not a pesticide, Alar had been shown in questionable studies to possibly be linked with cancer or tumors in mice when mice are feed massive doses beyond acceptable scientific limits, and far beyond what humans could consume when eating apples or drinking apple juice. This questionable link did not prevent Fenton from demonizing Alar and terrifying parents, teachers, etc. from serving and eating apples. Apple growers financially suffered, enormously.
http://www.acsh.org/publications/pubid.865/pub_detail.asp

Skeptics should be prepared for a media blitz for a carbon tax similar to what happened to the apple growers, who were caught unaware.

Wind Panic: It appears that Congress will be departing next week to prepare for the elections and leaving a number of issues unresolved, including, for the third year in a row, the Senate has failed to vote on a budget. The Wind Industry is heavily lobbying Congress to extend the Production Tax Credit (PTC), which is scheduled to expire at the end of 2012. Without this subsidy, the Wind Industry is claiming it will virtually vanish and thousands of green jobs will be lost. The subsidies and the number of green jobs have been topics in TWTW in the past few weeks.

The calls that traditional forms of electricity generation are being subsidized are increasingly specious. For example, the Department of Energy grants subsidies for research and development into more efficient and less polluting means of generating electricity. These, perhaps, may be a needed function of government. It is something again to subsidize the actual deployment of a form of electricity generation that is not cost effective – which is exactly what the Production Tax Credit does.

Increasingly, nations and some states that have spent significant monies on wind are finding that early beliefs that increasing use of wind will decrease the need for traditional sources of electricity were wrong. Weather systems are huge, and wind can fail in a vast geographic region, requiring reliable power from traditional sources. Further, wind power often fails at times it is needed the most. As such, wind power is actually a secondary source of electricity, and the traditional sources are primary. The issue is: why build a secondary source of electricity, which cannot deliver when needed the most, unless it reduces overall costs? Wind power does not?

Race with China? Many promoters of wind and solar power justify subsidies by claiming the West is in a race with China for leadership in 21st century energy. Reports from China on bankruptcies of over-subsidized firms indicate China may be withdrawing from the race. Please see Article # 2.

Show Me the Data: Space architect Larry Bell wrote an illuminating interview with air and space pioneer Burt Rutan focusing on why Rutan became skeptical of the claims that humans are causing unprecedented and dangerous global warming / climate change. Please see link under Challenging the Orthodoxy.

Number of the Week: 20 Billion Gallons. According to Donn Dears, the Energy Independence and Security Act (EISA) of 2007 with its Renewable Fuel Standard (RFS) mandate requires that 20 Billion Gallons of Cellulosic Biofuels be mixed into the US liquid fuel supply by 2022. Cellulosic biofuels are experimental, and the only plant that produced them has gone bankrupt. In a state of the union speech, President Bush held out the promise of cellulosic biofuels and Congress, controlled by Democrats, responded. Impractical optimism is bi-partisan. Please see link under Alternative, Green (“Clean”) Energy – Other.

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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. Remembering Neil Armstrong

Consummate test pilot, extraordinary leader, quiet advocate for space exploration.

By Buzz Aldrin, WSJ, Sep 12, 2012

http://online.wsj.com/article/SB10000872396390444426404577647340690331430.html?mod=IT_P_opinion_0

2. China's Solyndra Economy

Government subsidies to green energy and high-speed rail have led to mounting losses and costly bailouts. This is not a road the U.S. should travel.

By Patrick Chovanec, WSJ, Sep 11, 2012

http://online.wsj.com/article/SB10000872396390443686004577634220147568022.html?mod=IT_P_opinion_0

3. Making Sense of the U.S. Oil Boom

Daniel Yergin talks about where it's coming from and what it will mean for the U.S.—and the world

By Ángel Gonzalez, WSJ, Sep 13, 2012

http://online.wsj.com/article/SB10000872396390444301704577631820865343432.html?mod=W_SJ_Energy_leftHeadlines

4. Should the U.S. Export Natural Gas?

Supporters of the idea say it would enhance American sway abroad, but skeptics see economic risks

By Benjamin Lefebvre, WSJ, Sep 13, 2012

http://online.wsj.com/article/SB10000872396390444226904577561300198957854.html?mod=W_SJ_Energy_leftHeadlines

[SEPP Comment: Who would have thought this even a few years ago?]

5. Seeds of Hope for the Dry Midwest—and the World

Monsanto's DroughtGard corn and other genetically modified food may also be an environmental boon.

By R. Paul Thompson, WSJ, Sep 9, 2012

http://online.wsj.com/article/SB10000872396390444327204577617131256432156.html?mod=IT_P_opinion_0

[SEPP Comment: Another target for the greens?]

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NEWS YOU CAN USE:

Challenging the Orthodoxy

Were 2009 and 2010 The Warmest Years In India Since 1901? By S. Raghavan

By S. Raghavan, Pielke Climate Science, Sep 14, 2012

<http://pielkeclimatesci.wordpress.com/2012/09/14/were-2009-and-2010-the-warmest-years-in-india-since-1901-by-s-raghavan/>

[SEPP Comment: Redefinition of Climate Change.]

Afternoon rain more likely over drier soils

By Christopher M. Taylor, et al, Nature, Sep 12, 2012

<http://www.nature.com/nature/journal/vaop/ncurrent/full/nature11377.html>

Book Review By Donald Rapp Of “Who Turned on the Heat? – The Unsuspected Global Warming Culprit, El Niño-Southern Oscillation”

By Donald Rapp, Pielke Climate Science, Sep 12, 2012

<http://pielkeclimatesci.wordpress.com/2012/09/12/book-review-by-donald-rapp-of-who-turned-on-the-heat-the-unsuspected-global-warming-culprit-el-nino-southern-oscillation-the-unsuspected-global-warming-culprit-el-nino-southern/>

A Cool-Headed Climate Conversation With Aerospace Legend Burt Rutan

By Larry Bell, Forbes, Sep 9, 2012

<http://www.forbes.com/sites/larrybell/2012/09/09/a-cool-headed-climate-conversation-with-aerospace-legend-burt-rutan/>

“I consider this failure to speak up just as unethical as the behavior of those who put out the false catastrophic claims.”

Obama’s Democratic Convention Climate Change Comments Fail Fact Checking.

By Tim Ball, A Different Perspective, Sep 10, 2012

<http://drtimball.com/2012/obamas-democratic-convention-climate-change-comments-fail-fact-checking/>

[SEPP Comment: Critiquing the speech from the standpoint of global warming / climate change.]

Questioning the Orthodoxy

German Academy Of Sciences And Engineering Calls Off Climate Catastrophe – Coping Will Not Be A Problem

By P Gosselin, No Tricks Zone, Sep 10, 2012 [H/t GWPF]

<http://notrickszone.com/2012/09/10/german-academy-of-sciences-and-engineering-calls-off-climate-ctastrophe-coping-will-not-be-a-problem/>

Ulli Kulke: The Climate Alarmists’ Fear Of Contact

From Die Welt, GWPF, Sep 14, 2012

<http://www.thegwgf.org/ulli-kuhlke-the-climate-alarmists-fear-of-contact/>

Warmism's ebbing tide

By Des Moore, Quadrant, Sep 12, 2012

<http://www.quadrant.org.au/blogs/doomed-planet/2012/09/warmism-s-ebbing-tide>

[SEPP Comments: Australian states are rebelling against the Federal governments exaggerated claims of sea level rise.]

The Alarmists are the True Deniers.

By Geoff Brown, Carbon Skeptics Party, Sep 12, 2012

<http://theclimatescepticsparty.blogspot.com.au/2012/09/the-alarmists-are-true-deniers.html>

The IPCC Sinks to a New Low

By Roger Pielke, Jr, His Blog, Sep 13, 2012

<http://rogerpielkejr.blogspot.co.uk/2012/09/ipcc-sinks-to-new-low.html?sref=tw>

[SEPP Comment: Responding to Pielke's challenge on unsubstantiated claims of disaster trends, the IPCC invited specific comments. When Pielke supplied them, it responded using the best Bureaucratic Science.]

Report demolishes Stern Review on climate change

By Jo Ann Lawrence, Beacon News, Sep 11, 2012 [H/t Tom Harris]

<http://beaconnews.ca/blog/2012/09/report-demolishes-stern-review-on-climate-change/>

[SEPP Comment: More on the British Peter Lilley report, which contradicts the widely believed Stern Review of the costs of global warming.]

Perception Is Not a Science

By Robert Peltier, Power, Sep 1, 2012

http://www.powermag.com/issues/departments/speaking_of_power/Perception-Is-Not-a-Science_4889.html?hq_e=el&hq_m=2521457&hq_l=18&hq_v=5e660500d0

Questioning European Green

The winds of change are blowing: so what next ?

By Ben Acheson, Think Scotland, No Date, [H/t GWPF]

http://www.thinkscotland.org/thinkpolitics/articles.html?read_full=11627&article=www.thinkscotland.org

[SEPP Comment: Government energy policy leading to fuel poverty. Thoughts on effectively complaining against wind farms.]

Exclusive: EU to limit use of crop-based biofuels - draft law

By Charlie Dunmore, Reuters, Sep 10, 2012 [H/t Bishop Hill]

<http://uk.reuters.com/article/2012/09/10/us-eu-biofuels-idUKBRE8890SJ20120910>

The futility of the EU

By Andrew Montford, Bishop Hill, Sep 13, 2012

<http://bishophill.squarespace.com/blog/2012/9/13/the-futility-of-the-eu.html>

[SEPP Comment: Limits on the biofuel mandates that only benefit a few.]

Questioning Green Elsewhere

A fracking good story

By Bjorn Lomborg, Eco-Business, Sep 13, 2012 [H/t GWPF]

<http://www.eco-business.com/opinion/a-fracking-good-story/>

The amazing truth is that fracking has succeeded where Kyoto and carbon taxes have failed.
[SEPP Comment: Estimates the shift to natural gas reduced emissions in the US by twice the drop in emissions by Kyoto countries. Influences of wind, solar, etc. are small by comparison.]

Expanding the Orthodoxy

The CSIRO sold us a PUP

By Tony Thomas, Quadrant, Sep 9, 2012

<http://www.quadrant.org.au/blogs/doomed-planet/2012/09/the-csiro-sold-us-a-pup>

[SEPP Comment: One more expensive conference on gloom and doom, at taxpayer expense.]

Trouble in the Orthodoxy

Russia will not cut emissions under extended Kyoto climate pact

By Nastassia Astrasheuskaya, Reuters, Sep 13, 2012 [H/t GWPF]

<http://www.reuters.com/article/2012/09/13/us-russia-kyoto-idUSBRE88C0QZ20120913>

Obama's U-Turn: UN Climate Talks Going Nowhere

By Steve Milloy, Junk Science, Sep 7, 2012

<http://junkscience.com/2012/09/07/obamas-u-turn-un-climate-talks-going-nowhere/>

Kyoto Protocol May End With the Year

Analysis by Marwaan Macan-Markar, IPS, Sep 9, 2012

<http://www.ipsnews.net/2012/09/kyoto-protocol-may-end-with-the-year/>

[SEPP Comment: The Kyoto Protocol is as out of date as the data used by the author who terms the US the world's worst polluter – assuming CO2 is a pollutant.]

Seeking a Common Ground

Too much advocacy?

By Judith Curry, Climate Etc, Sep 10, 2012

<http://judithcurry.com/2012/09/10/too-much-advocacy/#more-9730>

[SEPP Comment: Constant exaggeration by a few, may lead to loss of credibility among all scientists.]

New Paper “Climate Feedback–Based Provisions For Dam Design, Operations, And Water Management In The 21st Century” By Hossain Et Al 2012

By Roger Pielke Sr, Climate Science, Sep 13, 2012

<http://pielkeclimatesci.wordpress.com/2012/09/13/new-paper-climate-feedback-based-provisions-for-dam-design-operations-and-water-management-in-the-21st-century-by-hossain-et-al-2012/>

[SEPP Comment: Major dams can alter local climate and expressing doubt that CO2 emissions dominate climate change.]

National Strategy for Advancing Climate Models

By Judith Curry, Climate Etc, Sep 14, 2012

<http://judithcurry.com/2012/09/14/national-strategy-for-advancing-climate-models/#more-9757>

[SEPP Comment: Rigorous hypothesis testing of basic assumptions would be a start.]

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

On suffering fools

By Michael Kile, Quadrant, Sep 10, 2012

<http://www.quadrant.org.au/blogs/doomed-planet/2012/09/on-suffering-fools>

[SEPP Comments: More pseudo-science attacks on skeptics.]

An Ounce of Prevention in New York City

By Mireya Navarro, NYT, Sep 11, 2012

<http://green.blogs.nytimes.com/2012/09/11/an-ounce-of-prevention-in-new-york-city/?ref=mireyanavarro>

[SEPP Comment: Spend money preparing for a dubious threat – a 55 inch (140 cm) sea level rise by 2100.]

An Assessment of Current Alarmist Propaganda

By Pointman, His Blog, Sep 7, 2012 [H/t GWPF]

<https://thepointman.wordpress.com/2012/09/07/an-assessment-of-current-alarmist-propaganda/>

[SEPP Comment: Extreme exaggeration is wearing thin.]

Climate Scientists Face Organized Harassment in U.S.

By Katherine Bagley, Bloomberg, Sep 10, 2012

<http://www.bloomberg.com/news/2012-09-10/climate-scientists-face-organized-harassment-in-u-s-.html>

[SEPP Comment: No specifics and no analysis of the abuse global warming skeptics receive.]

Communicating Better to the Public – Make things up.

Climatologist Dr. Tim Ball rebuts NYT's Gillis, notes endless eco-scares:

By Tim Ball, posted by Marc Morano, Climate Depot, Sep 9, 2012

<http://www.climatedepot.com/a/17395/NYT-warmist-Justin-Gillis-Perhaps-the-biggest-single-question-about-climate-change-is-whether-people-will-have-enough-to-eat-in-coming-decades>

NASA Finishes Erasing The 1930s And The Ice Age Scare

By Steven Goddard, Real Science, Sep 11, 2012

<http://stevengoddard.wordpress.com/2012/09/11/nasa-finishes-erasing-the-1930s-and-the-ice-age-scare/>

Lewandowsky gets \$1.7m of taxpayer funds to denigrate people who disagree with him

By Jo Nova, Her Blog, Sep 14, 2012

<http://joannenova.com.au/2012/09/lewandowsky-gets-1-7m-of-taxpayer-funds-to-demonize-people-who-disagree-with-him/#more-23878>

Models v. Observations

The weatherman is not a moron

By Judith Curry, Climate Etc, Sep 9, 2012

<http://judithcurry.com/2012/09/09/the-weatherman-is-not-a-moron/#more-9718>

[SEPP Comment: The predictions of the weather models are repeatedly tested, and re-tested. All this is publically known. Weathermen know that models have significant weaknesses and which must be adjusted if they repeatedly fail tests. Climate modelers ignore such tests.]

Error found in climate modelling: Too many droughts predicted

By Lewis Page, The Register, Sep 14, 2012

http://www.theregister.co.uk/2012/09/14/climate_models_too_many_droughts/

More CMIP5 Regional Model Shortcomings

By Roger Pielke Sr, Climate Science, Sep 11, 2012

<http://pielkeclimatesci.wordpress.com/2012/09/11/more-cmip5-regional-model-shortcomings/>

Measurement Issues

We've a new way to get Big Freeze forecasts right weeks in advance, says Met Office

The Met Office claim to have developed a far better way of predicting cold snaps weeks in advance

Forecasters have developed a computer program which tracks changes in the atmosphere thought to be key to extreme cold spells

By Tamara Cohen, Daily Mail, Sep 13, 2012 [H/t Malcolm Ross]

<http://www.dailymail.co.uk/news/article-2202988/Met-Office-Better-way-forecast-Big-Freeze.html#ixzz26PMpTgFq>

[SEPP Comment: Remains to be seen.]

Changing Weather

Helping at-risk populations survive tornadoes

By Matthew Biddle and David R. Legates, Canada Free Press, Sep 12, 2012 [H/t Paul Driessen]

<http://www.canadafreepress.com/index.php/article/49465>

Death Valley Claims New World Temperature Record

WMO Release, ICECAP, Sep 14, 2012

http://icecap.us/index.php/go/joes-blog/death_valley_claims_new_world_temperature_record/

[SEPP Comment: Measured in 1913.]

Here they go again - warning snow droughts a thing of the future - ignoring reality

By Staff Writer, ICECAP, Sep 11, 2012

<http://icecap.us/index.php/go/joes->

[blog/here_they_go_again_warning_snow_droughts_a_thing_of_the_future_ignoring_rea/](http://icecap.us/index.php/go/joes-blog/here_they_go_again_warning_snow_droughts_a_thing_of_the_future_ignoring_rea/)

Changing Climate

Droughts are pushing trees to the limit

By Staff Writers, Tucson AZ (SPX), Sep 13, 2012

http://www.terraily.com/reports/Droughts_are_pushing_trees_to_the_limit_999.html

[SEPP Comment: Yet they have somehow survived more severe droughts in the past.]

Changing Seas

NASA Voyage Set to Explore Link Between Sea Saltiness and Climate

By Maria-Jose Vinas for NASA Earth Science News

Greenbelt MD (SPX) Sep 13, 2012

[SEPP Comment: An effort to further understand the thermohaline circulation?]

Sea Level Acceleration: Not so Fast

By Patrick Michaels, World Climate Report, Sep 10, 2012

<http://www.worldclimaterreport.com/index.php/2012/09/10/sea-level-acceleration-not-so-fast/#more-552>

[SEPP Comment: Possible oscillations in sea level which would indicate decadal variation rather than long term trend.]

Changing Sea Ice

The Truth Behind the Shrinking Arctic Ice Cap

By Joe Bastardi, ICECAP, Sep 13, 2012

http://icecap.us/index.php/go/new-and-cool/the_truth_behind_the_shrinking_arctic_ice_cap/

[SEPP Comment: Strong storms and oscillation of the oceans are the cause of the disappearance of ice in the Arctic.]

Changing Earth

Istanbul and the earthquake risk of a megacity

By Staff Writers, Munich, Germany (SPX), Sep 12, 2012

http://www.terraily.com/reports/Istanbul_and_the_earthquake_risk_of_a_megacity_999.html

Review of Recent Scientific Articles by NIPCC

For a full list of articles see www.NIPCCreport.org

US East Coast Winter Storms: Are They Becoming More Extreme?

Reference: Bernhardt, J.E. and DeGaetano, A.T. 2012. Meteorological factors affecting the speed of movement and related impacts of extratropical cyclones along the U.S. east coast. **Natural Hazards** 61: 1463-1472.

<http://www.nipccreport.org/articles/2012/sep/11sep2012a1.html>

North Atlantic Storms: Medieval Warm Period vs. Little Ice Age

Reference: Trouet, V., Scourse, J.D. and Raible, C.C. 2012. North Atlantic storminess and Atlantic Meridional Overturning Circulation during the last millennium: Reconciling contradictory proxy records of NAO variability. *Global and Planetary Change* 84-85: 48-55.

<http://www.nipccreport.org/articles/2012/sep/11sep2012a4.html>

Arctic Amplification and Extreme Weather

Reference: Francis, J.A. and Vavrus, S.J. 2012. Evidence linking Arctic amplification to extreme weather in mid-latitudes. *Geophysical Research Letters* 39: L06801 doi:10.1029/2012GL051000.

<http://www.nipccreport.org/articles/2012/sep/11sep2012a5.html>

Another Take on the Airborne Fraction of Anthropogenic CO₂

Reference: Le Quere, C., Raupach, M.R., Canadell, J.G., Marland, G., Bopp, L., Ciais, P., Conway, T.J., Doney, S.C., Feely, R.A., Foster, P., Friedlingstein, P., Gurney, K., Houghton, R.A., House, J.I., Huntingford, C., Levy, P.E., Lomas, M.R., Majkut, J., Metzl, N., Ometto, J.P., Peters, G.P., Prentice, I.C., Randerson, J.T., Running, S.W., Sarmiento, J.L., Schuster, U., Sitch, S., Takahashi, T., Viovy, N., van der Werf, G.R. and Woodward, F.I. 2009. Trends in the sources and sinks of carbon dioxide. *Nature Geoscience* 10.1038/ngeo689.

<http://www.nipccreport.org/articles/2012/sep/12sep2012a4.html>

The Political Games Continue

Democrats Don't Think Climate Change Winning Issue

By Marita Noon, Townhall, Sep 10, 2012

http://finance.townhall.com/columnists/maritanoon/2012/09/10/democrats_dont_think_climate_change_winning_issue

Litigation Issues

AGW Law: New Zealand, Judgement day

By Anthony Cox, NCTCS, Sep 12, 2012

<http://theclimatescepticsparty.blogspot.com.au/2012/09/agw-law-new-zealand-judgement-day.html>

[SEPP Comment: More on the New Zealand Courts not tolerating challenges to official science.]

Think tank sues EPA for official's secret emails

By Mark Tapscott, Washington Examiner, Sep 11, 2012

http://washingtonexaminer.com/think-tank-sues-epa-for-officials-secret-emails/article/2507646?utm_source=Washington%20Examiner:%20Opinion%20Digest%20-%2009/12/2012&utm_medium=email&utm_campaign=Washington%20Examiner:%20Opinion%20Digest#.UFB131HI_ro

[SEPP Comment: Avoiding transparency by conducting official business using secret email addresses.]

Cap-and-Trade and Carbon Taxes

A Dangerous Delusion Is Back In The Form Of Carbon Tax

By Kathleen Harnett White, IBD, Sep 11, 2012 [H/t Paul Redfern]

<http://news.investors.com/ibd-editorials-perspective/091112-625366-carbon-tax-would-hurt-economys-most-productive-sector.htm?p=full>

Global carbon trading system has 'essentially collapsed'

The UN clean development mechanism, designed to give poor countries access to green technologies, is in dire need of rescue

By Fiona Harvey, The Guardian, UK, Sep 10, 2012 [H/t GWPF]

<http://www.guardian.co.uk/environment/2012/sep/10/global-carbon-trading-system>

[SEPP Comment: Be merciful, let it die.]

Subsidies and Mandates Forever

Ethanol Mandate Waiver: Decks Stacked Against Petitioners

By Marlo Lewis, Cooler Heads, Sep 10, 2012

<http://www.globalwarming.org/2012/09/10/ethanol-mandate-waiver-decks-stacked-against-petitioners/>

EPA and other Regulators on the March

Republicans blast EPA taxpayer funded grants to China

By Michael Bastasch, Daily Caller, Sep 12, 2012

<http://dailycaller.com/2012/09/12/republicans-blast-epa-taxpayer-funded-grants-to-china/>

[SEPP Comment: Now, about that pig manure project in China ...]

EPA Argues for Subsidizing Domestic Oil Production

By David Kreutzer, The Foundry, Sep 5, 2012 [H/t Cooler Heads]

<http://blog.heritage.org/2012/09/05/epa-argues-for-subsidizing-domestic-oil-production/>

[SEPP Comment: An amusing twist on EPA arguments of benefits from increased fuel economy standards. For each barrel of crude oil the US does not import, EPA calculates benefits of \$13.42. Therefore, should not one also calculate that each barrel of domestic production yields \$13.42 in additional benefits?]

EPA's (Anti) Energy Agenda: What About Wealth and Welfare?

By Paul Driessen, Master Resource, Sep 10, 2012

<http://www.masterresource.org/2012/09/epa-anti-energy-agenda/>

EPA official: GOP bill would 'cripple' global climate efforts

By Zack Colman, The Hill, Sep 11, 2012

<http://thehill.com/blogs/e2-wire/e2-wire/248759-epa-official-gop-house-bill-would-handcuff-global-climate-efforts>

[SEPP Comment: US paying for CO2 programs (lobbying) in other countries.]

Energy Issues – Non-US

What Brussels holds in store for the energy sector

By Sonja van Renssen, European Energy Review, Sep 13, 2012

http://www.europeanenergyreview.eu/site/pagina.php?email=ken@haapala.com&id_mailing=309&toegang=eddea82ad2755b24c4e168c5fc2ebd40&id=3849

[SEPP Comment: Beware, the bureaucrats are back.]

Will North America Be The Next Middle East?

By Staff Writer, Seeking Alpha, Sep 13, 2012 [H/t GWPF]

<http://seekingalpha.com/article/865651-will-north-america-be-the-next-middle-east>

Shell's Pearl proves its worth, but it's early days yet for gas-to-liquids

By Alex Forbes, European Energy Review, Sep 10, 2012

http://www.europeanenergyreview.eu/site/pagina.php?email=ken@haapala.com&id_mailing=308&toegang=a8c88a0055f636e4a163a5e3d16adab7&id=3846

[SEPP Comment: A lengthy article on the gas-to-liquids plant in Qatar that successfully underwent initial operational tests and is expected to be profitable even at oil prices of \$70 per barrel.]

Gas glut threatens climate battle-IEA

* Indebted governments seen likely to switch to gas

* IEA says new supplies will pressure gas prices lower

By Emma Farge, Reuters, Sep 13, 2012 [H/t GWPF]

<http://uk.reuters.com/article/2012/09/13/energy-iea-gas-idUKL5E8KD4ZJ20120913>

Oil sands development about to exceed Alberta's new pollution limits: documents

By Bob Weber, Canadian Press, Sep 12, 2012

<http://business.financialpost.com/2012/09/12/oil-sands-development-about-to-exceed-albertas-new-pollution-limits-documents/>

Energy Issues -- US

Where More Is Not Merrier: The Battle Between Wind and Water in the Pacific Northwest

By Kiran Kumaraswamy, Power, Sep 1, 2012

http://www.powermag.com/issues/features/Where-More-Is-Not-Merrier-The-Battle-Between-Wind-and-Water-in-the-Pacific-Northwest_4885.html?hq_e=el&hq_m=2521457&hq_l=20&hq_v=5e660500d0

Return of King Coal?

Welcome to Earth Where Networks Gobble Power – and Coal

By Mark Mills, Energy Facts, Sep 10, 2012

<http://us1.campaign-archive2.com/?u=29bc7d5d85828d574f86c157a&id=f7ef15e968&e=>

Oil Spills, Gas Leaks & Consequences

At least 200,000 tons of oil and gas from Deepwater Horizon spill consumed by gulf bacteria

By Staff Writers, Rochester NY (SPX), Sep 14, 2012

http://www.energy-daily.com/reports/At_least_200000_tons_of_oil_and_gas_from_Deepwater_Horizon_spill_consumed_by_gulf_bacteria_999.html

[SEPP Comment: Early in the spill TWTW speculated that microbes in the Gulf were enjoying a feast. Natural gas and oil seeps have been recorded before ships began to use oil and long before drilling for oil started in the Gulf.]

Remember those tarballs that washed ashore during Isaac – that’s nothing compared to Natural oil pollution

By Anthony Watts, WUWT, Sep 12, 2012

<http://wattsupwiththat.com/2012/09/12/remember-those-tarballs-that-washed-ashore-during-isaac-thats-nothing-compared-to-natural-oil-pollution/>

Nuclear Energy and Fears

Two-year hiatus in US licensing

By Staff Writers, WNN, Sep 7, 2012

http://www.world-nuclear-news.org/RS_Two_year_hiatus_in_US_licensing_0709121.html

Nuclear Technologies Secure Food For Future

Press Release, IAEA, Sep 11, 2012

<http://www.iaea.org/newscenter/pressreleases/2012/prn201221.html>

[SEPP Comment: Another target for the greens?]

Alternative, Green (“Clean”) Solar and Wind Solar Eclipsed?

By Peter Glover, Energy Tribune, Sep 13, 2012

<http://www.energytribune.com/articles.cfm/11672/Solar-Eclipsed?>

More accurate wind energy forecasts

By Staff Writers, Munich, Germany (SPX), Sep 13, 2012

http://www.winddaily.com/reports/More_accurate_wind_energy_forecasts_999.html

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

Misbegotten Ethanol Policy

By Donn Dears, Power for USA, Sep 11, 2012

<http://dddusmma.wordpress.com/2012/09/11/misbegotten-ethanol-policy/>

Predicting Wave Power Could Double Marine-Based Energy

By Staff Writers, Tel Aviv, Israel (SPX) Sep 13, 2012

http://www.energy-daily.com/reports/Predicting_Wave_Power_Could_Double_Marine_Based_Energy_999.html

High-altitude winds have large potential as a source of clean energy

By Staff Writers, Washington DC (SPX), Sep 13, 2012

http://www.winddaily.com/reports/High_altitude_winds_have_large_potential_as_a_source_of_clean_energy_999.html

[SEPP Comments: The weight of the cables to collect the electricity and to stabilize the multi-ton turbines in the sky would be interesting.]

Alternative, Green (“Clean”) Vehicles

Insight: GM's Volt: The ugly math of low sales, high costs

By Bernie Woodall and Paul Lienert and Ben Klayman, Reuters, Sep 10, 2012

<http://www.reuters.com/article/2012/09/10/us-generalmotors-autos-volt-idUSBRE88904J20120910>

[SEPP Comment: Could marginal cost pricing save it? The sunk costs of the development and tooling are written off and vehicles are priced based on the costs of manufacturing, distribution, etc. The screams in Washington would be amusing.]

Environmental Industry

Sierra Club Energy: Beyond Affordable

By Lance Brown, Master Resource, Sep 12, 2012

<http://www.masterresource.org/2012/09/sierra-club-energy-beyond-affordable/#more-21732>

Other News that May Be of Interest

Indian PM defends spending on space exploration

By Staff Writers, New Delhi (AFP), Sept 9, 2012

http://www.marsdaily.com/reports/Indian_PM_defends_spending_on_space_exploration_999.html

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BELOW THE BOTTOM LINE:

Wind could meet world power demand by 2033, say Stanford researchers

Adapting a sophisticated climate model, researchers show that there is plenty of wind available to supply half to several times the world's total energy needs within the next two decades.

By Andrew Myers, Merco Press, Sep 12, 2012 [H/t Dennis Ambler]

<http://en.mercopress.com/2012/09/12/wind-could-meet-world-power-demand-by-2013-say-stanford-researchers#comment163264>

[SEPP Comment: So can solar, tides, waves, etc. It is only a matter of cost.]

Carbon Free Food Sources

By Geoff Brown, Climate Sceptics Party, Sep 14, 2012

<http://theclimatescepticsparty.blogspot.com.au/2012/09/carbon-free-food-sources.html>

[SEPP Comment: The fear of carbon has become so absurd that a sugar company is advertising carbon-free sugar.]

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ARTICLES:

1. Remembering Neil Armstrong

Consummate test pilot, extraordinary leader, quiet advocate for space exploration.

By Buzz Aldrin, WSJ, Sep 12, 2012

<http://online.wsj.com/article/SB10000872396390444426404577647340690331430.html?mod=IT>
[P opinion 0](#)

As America pays tribute to Neil Armstrong in a memorial service Thursday at the National Cathedral in Washington, I would like to reflect on the life and legacy of this great space-exploration pioneer.

The memorial service, I note, falls one day after the 50th anniversary of President Kennedy's "moon speech" at Rice University in Houston, a speech that fired the nation's imagination and energies to undertake "the most hazardous and dangerous and greatest adventure on which man has ever embarked."

I was deeply saddened to learn of Neil's passing—my good friend and Apollo 11 crewmate along with Michael Collins. It never occurred to me that our mission commander might be the first of us to pass.

Thinking about Neil, I was reminded of the statement attributed to Sir Isaac Newton in the 17th century, when he attempted to explain how he was able to develop a powerful understanding of physics and mathematics: "If I have seen further, it is because I have stood on the shoulders of giants."

For the Apollo program, Neil was that giant. He was the consummate test pilot and astronaut whose skills were demonstrated repeatedly throughout his career, whether expanding the envelope of the X-15 space plane to the very edge of space (207,500 feet) at nearly 4,000 mph; gaining control of his spinning spacecraft during Gemini 8 in 1966 and guiding it safely back to Earth; ejecting at the last possible moment before the Lunar Lander Training Vehicle crashed, then quietly returning to his office to analyze the cause of the malfunction and file a mishap report; or, most especially, skillfully guiding the Apollo 11 Lunar Module Eagle to a safe landing in a boulder-strewn lunar expanse.

I still vividly recall standing with Neil on the barren, desolate, yet beautiful surface of the moon, looking at the small, brilliant-blue planet Earth, suspended in the blackness of space, while Mike orbited above us awaiting our return, as virtually the entire world took that journey with us.

Neil did not see Apollo 11 as an ending—rather, he regarded the moon landing as a first small step for humankind into the cosmos. If Neil was an extraordinary engineer, astronaut and leader, he was also soft-spoken and reserved, preferring to advocate quietly for space exploration from behind the scenes. He didn't seek fame or praise for the work that he knew countless others had done to make the moon landing possible.

The last time Neil and I met at the White House, which we did periodically to boost the space policy with a succession of presidents, we talked about where the next step into the future should lie: to the moon or Mars? I said Mars. Neil said: "No!" He thought that we had much to learn from the moon before moving on to other challenges. But in the end, while we differed at times on where next to go and how best to get there, we always shared a common belief that America must lead in space.

As we contemplate his passing, let us also pause to remember those who gave their lives in pursuit of achieving the dream of space exploration: the crews of Apollo 1, Challenger and Columbia. We can honor them all, and the president who first set the moon-landing challenge before the nation, by renewing our dedication to space exploration—and resolving to pursue it with the same determination and enduring commitment to excellence personified by Neil Armstrong.

Dr. Aldrin, an astronaut on Apollo 11 and Gemini 12, is the CEO of Buzz Aldrin Enterprises.

2. China's Solyndra Economy

Government subsidies to green energy and high-speed rail have led to mounting losses and costly bailouts. This is not a road the U.S. should travel.

By Patrick Chovanec, WSJ, Sep 11, 2012

http://online.wsj.com/article/SB10000872396390443686004577634220147568022.html?mod=IT_P_opinion_0

On Aug. 3, the owner of Chengxing Solar Company leapt from the sixth floor of his office building in Jinhua, China. Li Fei killed himself after his company was unable to repay a \$3 million bank loan it had guaranteed for another Chinese solar company that defaulted. One local financial newspaper called Li's suicide "a sign of the imminent collapse facing the Chinese photovoltaic industry" due to overcapacity and mounting debts.

President Barack Obama has held up China's investments in green energy and high-speed rail as examples of the kind of state-led industrial policy that America should be emulating. The real lesson is precisely the opposite. State subsidies have spawned dozens of Chinese Solyndras that are now on the verge of collapse.

Unveiled in 2010, Beijing's 12th Five-Year Plan identified solar and wind power and electric automobiles as "strategic emerging industries" that would receive substantial state support. Investors piled into the favored sectors, confident the government's backing would guarantee success. Barely two years later, all three industries are in dire straits.

This summer, the NYSE-listed LDK Solar, the world's second largest polysilicon solar wafer producer, defaulted on \$95 million owed to over 20 suppliers. The company lost \$589 million in the fourth quarter of 2011 and another \$185 million in the first quarter of 2012, and has shed nearly 10,000 jobs. The government in LDK's home province of Jiangxi scrambled to pledge \$315 million in public bailout funds, terrified that any further defaults could pull down hundreds of local companies.

Chinese solar companies blame many of their woes on the antidumping tariffs recently imposed by the U.S. and Europe. The real problem, however, is rampant overinvestment driven largely by subsidies. Since 2010, the price of polysilicon wafers used to make solar cells has dropped 73%, according to Maxim Group, while the price of solar cells has fallen 68% and the price of solar modules 57%. At these prices, even low-cost Chinese producers are finding it impossible to break even.

Wind power is seeing similar overcapacity. China's top wind turbine manufacturers, Goldwind and Sinovel, saw their earnings plummet by 83% and 96% respectively in the first half of 2012, year-on-year. Domestic wind farm operators Huaneng and Datang saw profits plunge 63% and 76%, respectively, due to low capacity utilization. China's national electricity regulator, SERC, reported that 53% of the wind power generated in Inner Mongolia province in the first half of this year was wasted. One analyst told China Securities Journal that "40-50% of wind power projects are left idle," with many not even connected to the grid.

A few years ago, Shenzhen-based BYD (short for "Build Your Dreams") was a media darling that brought in Warren Buffett as an investor. It was going to make China the dominant player in electric automobiles. Despite gorging on green energy subsidies, BYD sold barely 8,000 hybrids and 400 fully electric cars last year, while hemorrhaging cash on an ill-fated solar venture. Company profits for the first half of 2012 plunged 94% year-on-year.

China's high-speed rail ambitions put the Ministry of Railways so deeply in debt that by the end of last year it was forced to halt all construction and ask Beijing for a \$126 billion bailout. Central authorities agreed to give it \$31.5 billion to pay its state-owned suppliers and avoid an outright default, and had to issue a blanket guarantee on its bonds to help it raise more. While a handful of high-traffic lines, such as the Shanghai-Beijing route, have some prospect of breaking even, Prof. Zhao Jian of Beijing Jiaotong University compared the rest of the network to "a 160-story luxury hotel where only 11 stories are used and the occupancy rate of those floors is below 50%."

China's Railway Ministry racked up \$1.4 billion in losses for the first six months of this year, and an internal audit has uncovered dangerous defects due to lax construction on 12 new lines, which will have to be repaired at the cost of billions more. Minister Liu Zhijun, the architect of China's high-speed rail system, was fired in February 2011 and will soon be prosecuted on corruption charges that reportedly include embezzling some \$120 million. One of his lieutenants, the deputy chief engineer, is alleged to have funneled \$2.8 billion into an offshore bank account.

Many in Washington have developed a serious case of China-envy, seeing it as an exemplar of how to run an economy. In fact, Beijing's mandarins are no better at picking winners, and just as prone to blow money on boondoggles, as their Beltway counterparts.

In his State of the Union address earlier this year, President Obama declared, "I will not cede the wind or solar or battery industry to China . . . because we refuse to make the same commitment here." Given what's really happening in China, he may want to think again.

Mr. Chovanec is an associate professor of practice at Tsinghua University's School of Economics and Management in Beijing, China.

3. Making Sense of the U.S. Oil Boom

Daniel Yergin talks about where it's coming from and what it will mean for the U.S.—and the world

By Ángel Gonzalez, WSJ, Sep 13, 2012

http://online.wsj.com/article/SB10000872396390444301704577631820865343432.html?mod=W_SJ_Energy_leftHeadlines

The U.S. has long been seen as an energy hog. Thanks to hydraulic fracturing and deep water technology, it is now pumping more oil than it has in more than a decade, and its growing status as a crude producer is taking the world by storm.

In a conversation with The Wall Street Journal, Daniel Yergin, the energy industry's most prominent chronicler, talks about the American oil renaissance and its profound implications for the U.S. in a changing world. Mr. Yergin, currently vice chairman of IHS, a consulting firm in Englewood, Colo., is the author of "The Quest: Energy, Security, and the Remaking of the Modern World." His history of the oil industry, "The Prize," earned a Pulitzer Prize.

Here are edited excerpts from the conversation.

WSJ: The U.S. is experiencing an unprecedented boom in oil production. How did this happen? Where is it taking us?

MR. YERGIN: The last time we had a presidential election, the U.S. was going to run out of oil. Since then, U.S. oil production has grown about 25%. As has happened in the past, technology has opened doors people didn't know were there or didn't think could be opened.

We expect to see tight-oil production [oil extracted from dense rock formations] grow dramatically over the rest of this decade. If you take what's happening in the U.S. and what's happening in Brazil and Canada, we're going to see a rebalancing of global oil flows. By the end of this decade, the Western Hemisphere may be importing very little oil from the Eastern Hemisphere.

WSJ: What difference does that make to U.S. oil consumers?

MR. YERGIN: Until a couple of years ago, people didn't focus on the economic impact of domestic energy production. Over one million jobs have been created by the development of unconventional gas. It makes the U.S. more competitive. You can see how the growing recognition of the economic impact is changing the political discourse about energy in the U.S., including, very clearly, in the presidential campaign. You would not have had this kind of discussion about energy in 2008.

[The new flow] changes the geopolitical perspective about energy. The U.S. is going to be relatively more self-sufficient and less dependent on foreign energy. We're already independent in terms of coal and natural gas; greater reliance on regional and domestic supplies increases our sense of security.

WSJ: Will this weaken the U.S.-Saudi relationship?

MR. YERGIN: We don't get a lot of our oil from the Middle East as it is today, but the strategic interests are very strong; obviously they're highlighted by continuing tension over Iran's nuclear program.

WSJ: What is China's role after the rebalancing of global oil?

MR. YERGIN: There was much heightened concern about energy security in China in the middle of the last decade; now there's much more self-confidence in their ability to buy what they need, a bigger appreciation of a flexible global market. But China clearly intends to have a bigger presence on the world stage; it is participating in antipiracy efforts off the coast of Somalia.

In some ways, China will become a partner—it will come to have a role in the security of the flow of energy. This can go on a very constructive, cooperative fashion, or it can go on in a fashion which creates greater risk. This is going to be one of the major focuses of the U.S.-China relationship.

WSJ: Critics have said the potential of unconventional fields—shale and tight oil—is exaggerated. Is this boom real?

MR. YERGIN: The proof is in the numbers. Shale gas (2% of U.S. gas production at the start of the century) is now almost 40% of U.S. gas production. And using this technology in new areas and established oil fields has really revitalized U.S. oil production.

WSJ: Can you put this boom in historical perspective?

MR. YERGIN: During the oil industry's first century, the U.S. was the world's dominant oil producer. During World War II, six out of seven barrels of oil used by the Allies came from the U.S. After World War II, the U.S. became a net importer of oil, and it was during the 1970s that it came to be a huge importer.

The last time we had a presidential campaign, the U.S. seemed set to continue along this path. The only question seemed to be: At what pace would imports grow? Since then, we've seen a big turnaround—from importing 60% of our crude in 2005 to 42% today. This is a big change, and that number will continue to go down as production increases and we continue to be more efficient in terms of the automobiles that we drive.

The U.S. is not going to go back to its position as the unquestioned major source of world oil. But our production will continue to grow. It is a great turnaround.

WSJ: What sparked it?

MR. YERGIN: The main thing here is the new ability to use in oil fields technologies that were developed for shale gas. It's technology and entrepreneurship, initiative, people having different ideas and acting on them.

WSJ: Can the U.S. boom be replicated elsewhere?

MR. YERGIN: It's what happens above ground in terms of policy, fiscal regime, infrastructure, logistics, pipelines. All those things are critical.

Our analysis suggests that China has a bigger unconventional gas potential than the U.S. But the timing will be different. In Argentina, it's not only the resource. There are very problematic government policies combined with great uncertainty about the fiscal regime and prices. The timing will be controlled not by the physical resource, but by the whole system above ground.

The Russians are very interested in tight oil in western Siberia, which could be a whole new renaissance for that area. But it's still early days.

Next Challenges

WSJ: What are the big challenges to U.S. development of unconventional energy?

MR. YERGIN: In the mid-Atlantic states there's still a lot of controversy about shale-gas development. Public acceptability is important. The environmental question needs to be addressed—it will be addressed. There's a much more intense focus on the water aspect than a few years ago. Also, transportation, pipelines and terminals in North America are struggling to catch up with the new production.

4. Should the U.S. Export Natural Gas?

Supporters of the idea say it would enhance American sway abroad, but skeptics see economic risks

By Benjamin Lefebvre, WSJ, Sep 13, 2012

http://online.wsj.com/article/SB10000872396390444226904577561300198957854.html?mod=W_SJ_Energy_leftHeadlines

[SEPP Comment: Who would have thought this even a few years ago?]

The U.S. is awash in natural gas—a historic surplus that has driven domestic prices to lows not seen in decades. But amid this sea change, a surprising debate has arisen: Are gas exports bad for the U.S. economy?

Shipping natural gas outside North America can't occur without a green light from the U.S. Department of Energy, which isn't expected to weigh in on the issue until after the November elections.

In the meantime, the debate has split into two camps. Supporters see little negative impact and, on the contrary, benefits for U.S. political influence abroad. The other side argues, among other things, that natural-gas exports are likely to give rise to an international cartel similar to OPEC which would compete with U.S. exports and put further pressure on the U.S. economy.

The Wall Street Journal recently sat down with two opponents in the export debate: Leslie Paltiguzman, an analyst with the global energy and natural-resources consulting group Eurasia Group; and Anne Korin, an adviser to the U.S. Energy Security Council and co-director of the Institute for the Analysis of Global Security, an energy-security think tank.

Here are edited excerpts of the discussion.

WSJ: Should Washington allow increased exports of liquefied natural gas?

Leslie Palti-Guzman: 'The U.S. gas bonanza is giving Washington an opportunity to back away from the Middle East and help key allies.'

MS. PALTI-GUZMAN: There is no question that LNG exports could have numerous economic benefits. It could increase GDP, create jobs, and reverse account deficits as well as reduce international energy prices.

There are also numerous energy-security benefits associated with LNG exports. The U.S. gas bonanza is giving Washington a key geostrategic opportunity to reposition itself in Asia-Pacific, and slowly away from the Middle East, and to help key allies.

MS. KORIN: I don't support government action to restrict exports of LNG. That said, exporting gas may not be the most economic use of that commodity. Once gas is exported., local excess supply falls and the domestic price of gas begins to rise.

Suppose an American company signs a long-term contract to sell LNG to Japan at \$15 per million British thermal units. At that moment, the difference between U.S. and Japanese gas prices will begin to shrink rapidly, with U.S. natural-gas prices rising and Japanese prices falling.

Price Predictions

WSJ: So, Ms. Palti-Guzman, you don't think that exporting gas will increase prices for U.S. consumers or manufacturers?

MS. PALTI-GUZMAN: Beyond 2015, Henry Hub [U.S. benchmark] prices could experience a lot of volatility and rise to \$5 to \$6 per million BTUs and above. But current gas prices are down to levels that are unsustainable for producers.

AIGS

Anne Korin: 'Once gas is exported from the U.S., local excess supply falls and the domestic price of gas begins to rise.'

MS. KORIN: I think it would be imprudent to make price predictions for such a volatile market. Seven years ago we were in a natural-gas crisis and nobody could have predicted prices below \$2 per million BTUs. It's the same situation today, possibly with the reverse trajectory.

WSJ: Is there an amount we could export without hobbling U.S. manufacturers?

MS. PALTI-GUZMAN: The amount of LNG exports allowed will depend on the priority of the next administration—whether it is to reduce the trade imbalance or create jobs, for instance. The most likely scenario is that two or three projects—six billion cubic feet a day—will export U.S. shale-gas-based LNG by 2020. This is not enough to put an end to the economic advantage of U.S. manufacturers.

MS. KORIN: Before rushing to export our gas bonanza, investors ought to compare the economics of exporting natural gas "as is" with those of selling higher-value products made from that gas.

For example, natural gas can be easily converted into the liquid fuel methanol, which can be used in flexible-fuel vehicles [cars and trucks that can use other fuels in addition to gasoline]. At today's natural-gas prices, methanol costs about 35 cents a gallon to produce. When adjusted for markups, taxes and energy content, it's significantly less costly than gasoline. Such fuel switching would have a profound impact on our trade deficit, and would be a boon for the natural-gas industry and for the economy.

Global Strategic Effects

WSJ: Ms. Palti-Guzman, you said that exporting gas could be a boon to U.S. foreign policy. How so?

MS. PALTIGUZMAN: The U.S. has never been closer to energy independence since President Nixon launched in 1975 the concept of energy security through self-sufficiency. Washington has a unique opportunity to become a net exporter of gas and oil products. The U.S. could become by decade's end the world's third-largest LNG exporter, after Qatar and Australia.

The U.S. gas bonanza is giving Washington a key geostrategic opportunity to reposition itself in Asia and the Pacific, to slowly back away from the Middle East and help key allies. The U.S. may have a future role to play for governance over natural-gas flow in Asia, especially if it becomes a key LNG exporter.

MS. KORIN: But as LNG plays a larger part in international natural-gas trading and the commodity becomes fungible, the other gas giants—Russia, Iran, Qatar, Saudi Arabia and the United Arab Emirates—will have every incentive to concretize their discussions on forming an OPEC-like natural-gas cartel. They'll be able to restrict supply to the market and counterbalance the U.S.

That will drive the newly global natural-gas price—and thus prices in the U.S.—higher than it would have gone otherwise. That will certainly benefit those who own and sell the gas, but through higher electricity and chemical prices, it would overall be a drain on the economy.

Mr. Lefebvre is a reporter in Houston for Dow Jones Newswires. He can be reached at ben.lefebvre@dowjones.com.

5. Seeds of Hope for the Dry Midwest—and the World

Monsanto's DroughtGard corn and other genetically modified food may also be an environmental boon.

By R. Paul Thompson, WSJ, Sep 9, 2012

http://online.wsj.com/article/SB10000872396390444327204577617131256432156.html?mod=IT_P_opinion_0

[SEPP Comment: Another target for the greens?]

Midwestern corn farmers who have suffered through one of the worst droughts since Dust Bowl days can at least look forward to 2013 in the knowledge that, even if rainfall remains sparse, seeds for a new drought-resistant hybrid corn produced by Monsanto will be available.

But the implications of DroughtGard—and other seeds reducing water use that are sure to follow—extend far beyond the fields of Iowa and Nebraska. As the World Wildlife Fund notes: "Globally, the agricultural sector consumes about 69 percent of the planet's fresh water—more than twice that of industry (23 percent) and dwarfing municipal uses (8 percent)." The use of fresh water to grow food will only increase as world population increases—from seven billion in 2011 to eight billion by 2025, according to several major international organizations.

Rising world-wide affluence, particularly in countries such as China and India, will place ever greater demands on food production and, in turn, on water resources. These increases will amplify agriculture's negative impact on the environment.

Better to act now to blunt those effects by learning how to produce food using less water, fewer pesticides, herbicides and synthetic fertilizers. Drought-resistant crops may become a vital tool in achieving those aims.

In rich countries, the current abundance and variety of food at reasonable cost is a direct result of science and technology. For example, tractors and synthetic fertilizers, as well as the knowledge and techniques of hybridization and selective breeding, have transformed the quantity and quality of food. Now biotechnology is answering new challenges in agriculture.

Monsanto's DroughtGard corn is the latest development in molecular crop science. A gene from the bacterium *Bacillus subtilis* is inserted in the DNA of corn; the resulting plants tolerate drought more effectively and require less water in nondrought conditions. Anything that reduces the devastation of drought and reduces water consumption in "normal" times warrants attention.

Some critics see little to celebrate about DroughtGard. The Union of Concerned Scientists, for example, has said: "Despite many years of research and millions of dollars in development costs, DroughtGard doesn't outperform the non-engineered alternatives." The claim is contentious on many levels but most significantly it misses an important point. DroughtGard is the first step in a new technology that has the potential to benefit the environment and enhance food security.

Almost all new technologies, from Edison's light bulb to flat-screen televisions, are expensive and immature upon their introduction. To object to a technology from the beginning because it's expensive and its benefits are marginal over existing technologies is to ignore the history of technology. Unless there are known harms, or unmanageable and intolerable risks, the maturing of the technology through research deserves support.

Technologies, new and old, always involve risks—as do driving a car and walking down stairs. Vigilance is essential. Since the appearance of genetically-modified crops 17 years ago, the results have been encouraging.

The risks that were initially known, and those that have emerged, have been managed well—every bit as well as new technologies in medicine and consumer products. The dire risks of GM crops that many warned about have not materialized.

Inexplicably, unease about genetic modification seems not to apply in medicine, where the practice has a longer history than in agriculture and where its employment is more pervasive and the risks are hardly less substantial. Few want to halt technological advances in medicine, mostly because modern medicine is clearly important to our well-being despite its many flaws.

A reliable supply of affordable food is equally important. Pursuing technologies that enhance food security, while reducing environmental impacts, is in our individual and collective interest.

Mr. Thompson is professor of ecology and evolutionary biology, and the history and philosophy of science at the University of Toronto. His latest book is "Agro-Technology" (Cambridge, 2011). He did some consulting for Monsanto between 2001 and 2004.

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