The Week That Was: 2012-10-27 (October 27, 2012) Brought to You by SEPP (<u>www.SEPP.org</u>) The Science and Environmental Policy Project

Quote of the Week: "It is in the admission of ignorance and the admission of uncertainty that there is a hope for the continuous motion of human beings in some direction that doesn't get confined, permanently blocked, as it has so many times before in various periods in the history of man." Richard Feynman [H/t Roger Cohen]

Number of the Week: 70%

THIS WEEK:

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

APS: In 2007 the American Physical Society (APS) issued an absolutist statement on Climate Change that greatly disturbed a number of its senior fellows. In 2009, about 300 physicists petitioned the APS petitioned to modify the statement. The statement was not modified, but augmented with a lengthy addition. The turmoil continues. Roger Cohen, a Fellow of the Society has posted on the web site of Anthony Watts his expression of dissatisfaction with the APS. This has led to an exchange with Warren S. Warren. The exchange is an excellent read on what is wrong when a few in a science society take an absolutist position concerning a subject that requires open investigation and debate. Please see links under APS Frontline.

PBS Frontline: The Public Broadcasting System aired a special on its "Frontline" series titled "Climate of Doubt." The first part consisted of interviews and clips of those who express skepticism to the view that human emissions of greenhouse gases (GHG), especially carbon dioxide (CO2), are causing unprecedented and dangerous global warming. This was followed by interviews with alarmists who were presented as the mainstream scientists. Certainly the alarmists are mainstream in that they are the ones who receive extensive government support. Later, in private comments, Fred Singer thought his interview was well presented, especially when compared with presentations in the past. The views of others varied. Roy Spencer was disturbed because part of his head and comments were used in the trailer, but he was not interviewed for the program.

Perhaps more revealing of the entire episode was a Live Chat on Thursday afternoon with those who organized the program. They were the film's producer, Catherine Upin, the correspondent, John Hockenberry, and the "resident expert", Elizabeth Kolbert, of the New Yorker. Prior to the chat, SEPP submitted three questions on topics covered. One was the frequently cited 97 to 98% percent of climate scientists "consensus" claims, which are based on extensively manipulated of opinion polls, making the results trivial. The second was on the recent statement from HadCRU that there has been no appreciable increase in temperatures for 16 years, a period in which the models project an increase of about 0.3 deg C (over 0.5 deg F). What would it take for journalists to realize there are major problems with the climate models and the 90 to 99% certainty is based on opinion not rigorous science? The third question focused on the constant, largely unsubstantiated claims that oil companies are funding skeptics and the failure of journalists to report the extent of government funding of the alarmists.

During the Live Chat, SEPP submitted four comments. One on the burden of proof – climate alarmists have not performed adequate testing of a hypothesis on CO2 caused global warming. A second challenging a statement that the poll appearing in the Proceedings of the National Academy of Science was peer reviewed, but it is trivial nonetheless. The third comment challenged the "resident expert" Elizabeth Kolbert who stated: "A very interesting look at the connections between the tobacco industry and the climate "skeptic" industry can be found in the book *Merchants of Doubt*." The response challenged Ms. Kolbert to read and comment on Fred Singer's rebuttal to this book's ad hominem attacks.

But most revealing was a comment by correspondent John Hockenberry:

"The saddest thing about this story is that we heard mostly absolute certainty and dismissive confidence among our skeptic friends while it was our scientist friends were quick to say that doubt is how science is conducted, people questioning each other's work all the time. The doubt of the scientists was always real but was always about how much we know about the planet and need to know not about the trend of global warming. Their search for truth and quest to challenge each other's findings was exploited as "debate" and "uncertainty" by people in the political world. In some ways the scientists didn't have a chance in this battle... but that is my personal opinion and some of our scientists would not have agreed with me."

To which SEPP inquired: did you ever ask the climate establishment scientists why the IPCC declared a 90 to 99% certainty in the models and their findings? The 90 to 99% certainty was in the EPA endangerment finding and was accepted by the US Court of Appeals for the District of Columbia.

Given the slow pace, and the long pauses in the program, it was obvious tough questions of these global warming / climate change expert journalists would not be aired. Also, it was apparent the opinion polls weigh heavily on these expert journalists.

The saddest thing about this story is the blatant irresponsibility of PBS to understand the story. Please see links under PBS Frontline.

ADDENDUM: Months ago Patrick Michaels announced he and a few collogues are preparing a point by point rebuttal to the report by the US Global Change Research Program (USGCRP): *Global Climate Change Impacts in the US (2009)*. Along with the 2007 report be the UN Intergovernmental Panel on Climate Change, and a report by National Research Council, the USGCRP report provide the foundation for the EPA questionable finding that GHG, particularly CO2, emissions endanger human life and welfare. Now alarmists are outraged that the advance copies of the new report, *ADDENDUM: Global Climate Change Impacts in the United States* looks like the previous report. The CATO imprint on the back cover is apparently overlooked by the alarmists. Please see link under Challenging the Orthodoxy.

US Overtaking Saudi Arabia in Oil? Some analysts are projecting that the US will overtake Saudi Arabia in oil production in the near future – around 2020. Others object to these statements stating they are based on statistical sleights of hand. Whether or not the US (or North America) overtakes Saudi Arabia is not that important. What is important is that thanks to modern hydraulic

fracturing of dense shale and offshore drilling (whenever permitted), oil production in the US is expanding greatly. Since production costs in the US remain high, there is doubt if the era of "cheap oil" will return in the near future. Oil is traded on the global market, and US production influences that market but does not determine it. The lower cost producers that have significant capability of expanding are more influential determinants, such as Saudi Arabia.

Some economists are questioning the belief that affordable energy is vital for economic growth. Certainly, affordable energy is not a sufficient condition for economic growth. That is, other conditions, or components, are needed. For example, oil is heavily subsidized in Egypt and Iran, but they are not experiencing significant growth. But under proper conditions, affordable energy can promote growth. For example, affordable energy is vital to modern agriculture. Modern fertilizers need oil or natural gas feedstock. Areas of the US where natural gas is low cost and appears to be affordable for a long term are experiencing significant growth, which the country as a whole is not.

External costs are other complications added by economists to the issue. Sometimes these are real, such as in cities in the US in the 20s. But, economic growth allowed the country to devote significant resources to clean up these external costs. Now, in the US external costs are largely exaggerated, such as by the EPA. Please see links Energy Issues – US and Articles # 2 and # 3.

EPA on the Verge: A number of commentators, including Fred Singer, are expressing concern about the plans of EPA immediately after the election on November 6. It is clear that EPA has held back proposed regulations that are highly controversial. Please see Article #1, #3 and #5, and links under EPA and other Regulators on the March ************

Oh' Mann: Michael Mann has sued the National Review Online and the Competitive Enterprise Institute for defamation and "intentional infliction of emotional distress." (from the Washington Post.). The complaint states that: "… Mr. Man and his colleagues were awarded the Nobel Peace Prize." and "… personal defamation of a Nobel prize recipient."

The award was given to the IPCC, not personally to Mr. Mann, who was a participant in the IPCC. Some may consider the distinction to be just a technicality, just as some consider the body of research on climate history that was buried Mr. Mann's hockey-stick as just a technicality. Mr. Mann may find that he will face questions that are a bit more strident than asked by the Penn State officials who he claims exonerated his research. Please see links under Oh Mann!

Storm's A'coming: According to forecasts, the Mid-Atlantic States are about to be hit by a large storm with low category 1 hurricane winds. (Category 1 wind speed 75–95 mph (65–82 kts, 33–42 m/s), <u>http://en.wikipedia.org/wiki/Saffir%E2%80%93Simpson Hurricane Scale</u>). The moon is almost full, so tidal areas may experience a strong storm surge on top of spring (flood) tides which could result in significant coastal erosion and flooding. Already some alarmists are associating the storm with global warming / climate change. Please see links under Changing Weather and Below the Bottoms Line.

Amplifications and Corrections: Tom Sheahen correctly stated that the conversion for PgC/yr to **Billions** of tonnes of CO2 per year is by multiplying by 3.67. TWTW left out the Billions.

Clyde Spencer correctly suggested that TWTW should not use the term ocean acidity unless the pH is actually below 7. This will be followed to the extent possible.

Norman Kalmanovitch pointed out that the period of no warming in the HadCRU data, as stated in the article by David Rose, started in the year the Kyoto Protocol became effective, 1997. The goal of the Protocol was to stop global warming and it did! If one jumps to causal relationships, one could state the Kyoto Protocol was the most effective international agreement ever.

TWTW incorrectly quoted Angeline Purdy of the Department of Justice as stating: "The models have been validated." The quote came from imperfect personal notes. A subsequent check of the transcript (which is not available on the web) failed to reveal such a direct statement. Ms. Purdy argued that the models have been validated, at length, but did not make such as simple statement. TWTW will endeavor not to make such a mistake in the future.

Number of the Week: 70%. According to an article in the Wall Street Journal, in the US the cost of natural gas is about 70% of the cost of manufacturing nitrogen fertilizer. As the cost of this component comes down, its percentage share will come down as well.

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. Obama's EPA Plans for 2013

By S. Fred Singer, American Thinker, Oct 25, 2012 http://www.americanthinker.com/2012/10/obamas_epa_plans_for_2013.html

2. Cheap Natural Gas Gives New Hope to the Rust Belt

By Ben Casselman and Russell Gold, WSJ, Oct 24, 2012 http://online.wsj.com/article/SB10000872396390444549204578020602281237088.html?mod=IT P_pageone_0

3. The Real Stimulus: Low-Cost Natural Gas

The impact of the U.S. energy revolution is only beginning. It is already providing a foundation for a domestic renaissance in manufacturing. By Daniel Yergin, WSJ, Oct 22, 2012

http://online.wsj.com/article/SB10000872396390444734804578062331199029850.html?mod=W SJ Opinion LEFTTopOpinion

4. The Obama Storm Tax

The EPA turns its unsubtle charms on cities. Get ready to pay. Editorial, WSJ, Oct 22, 2012 <u>http://online.wsj.com/article/SB10000872396390444799904578052673425236066.html?mod=W</u> <u>SJ_Opinion_AboveLEFTTop</u>

5.EPA, Water and Value for Tax Money

By Grant Weaver, Letter, WSJ, Oct 24, 2012

NEWS YOU CAN USE:

Science: Is the Sun Rising?

NASA Study Using Cluster Reveals New Insights Into Solar Wind By Karen C. Fox for Goddard Space Flight Center, Greenbelt MD (SPX) Oct 25, 2012 http://www.spacedaily.com/reports/NASA Study Using Cluster Reveals New Insights Into S olar Wind 999.html

Climategate Continued

Hiding the Decline By Andrew Montford, Bishop Hill, Oct 26, 2012] <u>http://www.bishop-hill.net/hiding-the-decline/</u> [SEPP Comment: Announcing Montford's new book on the Climategate affair.]

Challenging the Orthodoxy

Review of Cato's ADDENDUM: Global Climate Change Impacts in the United States By Anthony Watts, WUWT, Oct 26, 2012 <u>http://wattsupwiththat.com/2012/10/26/review-of-catos-addendum-global-climate-change-impacts-in-the-united-states/</u>

No Underlying Global Warming in Recent Years

By David Whitehouse, GWPF, Oct 23, 2012 http://www.thegwpf.org/no-underlying-global-warming-in-recent-years/

Defending the Orthodoxy

EU on track for Kyoto and 2020 emissions targets By Staff Writers, Paris (AFP), Oct 24, 2012 <u>http://www.terradaily.com/reports/EU_on_track_for_Kyoto_and_2020_emissions_targets_999.ht</u> <u>ml</u>

[SEPP Comment: Longer recessions result in fewer emissions.]

From Discovery, To Solution, To Evolution: Observing Earth's Ozone Layer

By Laura Betz for Goddard Space Flight Center, Greenbelt MD (SPX), Oct 26, 2012 http://www.terradaily.com/reports/From Discovery To Solution To Evolution Observing Eart hs_Ozone_Layer_999.html

Questioning the Orthodoxy

Polar Bear Propaganda in Context: A Useful Tool for the Promotion of Environmental Hysteria and Politicized Science

By Tim Ball, A Different Perspective, Oct 26, 2012 <u>http://drtimball.com/2012/it-occurred-to-me-global-warming-is-another-undelivered-government-promise-polar-bear-propaganda-in-context-a-useful-tool-for-the-promotion-of-environmental-hysteria-and-politicized-science/</u> "It occurred to me" Global warming is another undelivered government promise. [SEPP Comment: Exposing some of the fears instilled by the global warming alarmists.]

A scientist's open mind snaps shut

By Tony Thomas, Quadrant, Oct 22, 2012 http://www.quadrant.org.au/blogs/doomed-planet/2012/10/a-scientist-s-open-mind-snaps-shut

Climate and State High Temperature Records—Where's the Beef?

By Steve Goreham, Weissman Report, Oct 24, 2012 http://weissmanreport.com/2011-08-04-18-06-26/item/2321-climate-and-state-high-temperaturerecords%E2%80%94where%E2%80%99s-the-beef?

IPCC Author Becomes Green Party Apparatchik

A lead author of the IPCC's 'hard science' section is a Green Party candidate and deputy leader. By Donna Laframboise, NFC, Oct 26, 2012 <u>http://nofrakkingconsensus.com/2012/10/26/ipcc-author-becomes-green-party-apparatchik/</u>

Overrated: Nicholas Stern

By Myron Ebell, Standpoint, Nov 2012 [H/t Cooler Heads] http://standpointmag.co.uk/overrated-november-12-nicholas-stern-myron-ebell-stern-reviewclimate-change

[SEPP Comment: A poor economic analysis continues to distort the current economic picture – a classic example of what is wrong with the logical fallacy of the appeal to authority.]

Questioning European Green

Lies, Damn Lies And Green Statistics

By Daniel Wetzel, Die Welt, Oct 25, 2012 [H/t GWPF]

http://www.thegwpf.org/lies-damn-lies-and-green-statistics/

Almost all predictions about the expansion and cost of German wind turbines and solar panels have turned out to be wrong – at least by a factor of two, sometimes by a factor of five.

What Germany can learn from the Nordic Energiewende

By Paul Hockenos, European Energy Review, Oct 23, 2012 <u>http://www.europeanenergyreview.eu/site/pagina.php?email=ken@haapala.com&id_mailing=320</u> &toegang=320722549d1751cf3f247855f937b982&id=3910

[SEPP Comment: The integration of the electricity production and transmission is not easy and requires flexibility.]

Another cost of shale gas denial

By Nick Grealy, No Hot Air, Oct 23, 2012 <u>http://www.nohotair.co.uk/index.php?option=com_content&view=article&id=2667:the-other-cost-of-shale-gas-denial&catid=172&Itemid=170</u>

Cost of CO2 rules risk more UK energy price hikes

UK carbon costs could top 2 bln pounds in 2013 * Environmental costs to make up bigger portion of bills By Susanna Twidale, Reuters, Oct 26, 2012 [H/t GWPF]

http://www.reuters.com/article/2012/10/26/britian-power-carbon-idUSL5E8LQANM20121026

Questioning Green Elsewhere

Time to embrace climate heresy? By Des Moore, Quadrant, Oct 24, 2012 http://www.quadrant.org.au/blogs/doomed-planet/2012/10/time-to-embrace-climate-heresy

"Sustainability": Politics Above Both Science and Economics

By Marita Noon, Energy Tribune, Oct 26, 2012 http://www.energytribune.com/64049/sustainability-politics-above-both-science-and-economics

Expanding the Orthodoxy

Climate change threatens marine environment in the Baltic Sea By Staff Writers, Gothenburg, Sweden (SPX), Oct 23, 2012 <u>http://www.terradaily.com/reports/Climate_change_threatens_marine_environment_in_the_Baltic_Sea_999.html</u> [SEPP Comment: More research needed.]

Helping North America's marine protected areas adapt to a changing climate

By Staff Writers, Tampa FL (SPX), Oct 26, 2012 <u>http://www.terradaily.com/reports/Helping_North_Americas_marine_protected_areas_adapt_to_a_changing_climate_999.html</u> [SEPP Comment: They have been adapting to changing climate for millions of years.]

Problems in the Orthodoxy

EU fails to agree Kyoto negotiating position By Dave Keating, European Voice, Oct 26, 2012 [H/t GWPF] http://www.europeanvoice.com/article/2012/october/eu-fails-to-agree-kyoto-negotiatingposition/75527.aspx

Seeking a Common Ground

What is Wrong with Embellishing Science? By Roger Pielke Jr, His Blog, Oct 26, 2012 <u>http://rogerpielkejr.blogspot.com/2012/10/what-is-wrong-with-embellishing-science.html</u> [SEPP Comment: It is becoming more obvious that constant exaggeration is not working.]

Italian seismologists: guilty(?)

By Judith Curry, Climate Etc, Oct 23, 2012 http://judithcurry.com/2012/10/23/italian-seismologists-guilty/#more-10268

Italian scientists sentenced to jail in quake trial

By Staff Writers, L'Aquila, Italy (AFP), Oct 22, 2012 http://www.terradaily.com/reports/Italy_scientists_sentenced_to_jail_in_quake_trial_999.html

APS Frontline

More turmoil at the American Physical Society over their statement on the global warming issues

By Roger Cohen, posted by Anthony Watts, Oct 22, 2012 <u>http://wattsupwiththat.com/2012/10/22/more-turmoil-at-the-american-physical-society-over-global-warming-issue/</u>

The APS Topical Group on the Physics of Climate: reply to Roger Cohen

By Warren S. Warren, WUWT, Oct 24, 2012 http://wattsupwiththat.com/2012/10/24/the-aps-topical-group-on-the-physics-of-climate-reply-toroger-cohen/

Reply to Warren Warren

By Roger Cohen, WUWT, Oct 25, 2012 http://wattsupwiththat.com/2012/10/25/reply-to-warren-warren/

PBS Frontline

Climate of Doubt about PBS's Objectivity By Roy Spencer, His Blog, Oct 24, 2012 http://www.drroyspencer.com/2012/10/climate-of-doubt-about-pbss-objectivity/

Heartland comments on FRONTLINE 'Climate of Doubt'

By Joe Bast, WUWT, Oct 24, 2012 http://wattsupwiththat.com/2012/10/24/heartland-comments-on-frontline-climate-of-doubt/

The 'Media Academic Complex' on display at PBS tonight

By Christopher Horner, WUWT, Oct 23, 2012 http://wattsupwiththat.com/2012/10/23/the-media-academic-complex-on-display-at-pbs-tonight/

PBS Frontline: Climate of Doubt

By Lubos Motl, Reference Frame, Oct 25, 2012 http://motls.blogspot.com/2012/10/pbs-frontline-climate-of-doubt.html#more

Climate of Doubt

Live Chat, Oct 25, 2012, <u>http://www.pbs.org/wgbh/pages/frontline/environment/climate-of-doubt/live-chat-2-p-m-et-thursday-inside-the-climate-wars/</u>

Why did PBS FRONTLINE electronically alter the signature of one of the world's most distinguished Physicists in their report "Climate of Doubt"?

By Anthony Watts, WUWT, Oct 25, 2012 http://wattsupwiththat.com/2012/10/25/why-did-pbs-frontline-electronically-alter-the-signatureof-one-of-the-worlds-most-distinguished-physicists-in-their-report-climate-of-doubt/

Communicating Better to the Public – Exaggerate, or be Vague? Scientists Denounce Dubious Climate Study by Insurer By Axel Bojanowski, Spiegel, Oct 23, 2012 [H/t ICECAP] http://www.spiegel.de/international/world/scientists-denounce-dubious-climate-study-by-insurermunich-re-a-862857.html

Americans use more efficient and renewable energy technologies

Anne M Stark for LLNL News, Livermore CA (SPX), Oct 26, 2012 <u>http://www.energy-</u>

<u>daily.com/reports/Americans_use_more_efficient_and_renewable_energy_technologies_999.html</u> [SEPP Comment: Higher gasoline prices and the prolonged recession also contribute to less energy use. Compared to that, the increase in renewable use is almost insignificant.]

Communicating Better to the Public – Make things up.

Oysters' future imperiled as oceans turn more acidic 'Going to be winners and losers ... We'll have to adapt what we're eating' By Katharine Gammon, MSNBC, Oct 11, 2012 [H/t Gordon Fulks] <u>http://www.msnbc.msn.com/id/49378149/ns/us_news-environment/t/oysters-future-imperiled-oceans-turn-more-acidic/#.UIm3YcU1_cg</u> [SEPP Comment: The upwelling mentioned in the article is a natural process. The oceans are not turning acidic.]

Climate linked to conflict in East Africa, study finds

By Jon Bardin, LA Times, Oct 22, 2012 http://www.latimes.com/news/science/sciencenow/la-sci-sn-climate-change-linked-to-conflict-ineast-africa-20121022,0,1078149.story?track=rss

Contrary To What You Hear, Global Warming Has Been Good To Africa

By James Taylor, Forbes, Oct 25, 2012 <u>http://www.forbes.com/sites/jamestaylor/2012/10/25/contrary-to-what-you-hear-global-warming-has-been-good-to-africa/</u>

[SEPP Comment: See link immediately above. It was during a period of cooling that the Sahara began expanding about 8000 to 5000 years ago.]

Changing Weather

Frankenstorm Sandy Approaches

By Roy Spencer, His Blog, Oct 26, 2012 http://www.drroyspencer.com/2012/10/frankenstorm-sandy-approaches/

Hurricane Sandy (Atlantic Ocean)

NASA Sees Hurricane Sandy as the "Bride of Frankenstorm" Approaching U.S. East Coast By Rob Gutro, Hal Pierce, & Marshall Shepherd, Press Release, NASA, Oct 26, 2012 [H/t WUWT]

http://www1.nasa.gov/mission_pages/hurricanes/archives/2012/h2012_Sandy.html

Monster Halloween Storm in the cards - second year in a row By Joseph D'Aleo, ICECAP, Oct 25, 2012 <u>http://icecap.us/index.php/go/joes-</u> <u>blog/monster_halloween_storm_in_the_cards_second_year_in_a_row1/</u>

Where did that El Nino go? Wiped out by unprecedented cool shift? By Jo Nova, Her Blog, Oct 25, 2012 http://joannenova.com.au/2012/10/where-did-that-el-nino-go-wiped-out-by-unprecedented-coolshift/#more-24435

UK experiences 'weirdest' weather

By Roger Harrabin, BBC, Oct 18, 2012 [H/t Rob Sheldon] http://www.bbc.co.uk/news/science-environment-19995084

[SEPP Comment: Could it be that new schemes for flood defenses generate more demands for these defenses?]

Heatwave kills thousands of birds — this was climate change in 1932

By Jo Nova, Her Blog, Oct 23, 2012

http://joannenova.com.au/2012/10/heatwave-kills-thousands-of-birds-this-was-climate-change-in-1932/#more-24413

Changing Sea Ice

Opposite Behaviors? Arctic Sea Ice Shrinks, Antarctic Grows

By Staff Writers, Science Daily, Oct 23, 2012 [H/t Anne Debeil]

http://www.sciencedaily.com/releases/2012/10/121023172212.htm?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+sciencedaily%2Ftop_news%2Ftop_environment+%28ScienceDaily%3A+Top+News+--+Top+Environment%29

[SEPP Comment: Lack of uniformity is not a sufficient reason to dismiss global warming. But the lack of uniformity was one reason the IPCC dismissed the Medieval Warm Period and Little Ice Age.]

Antarctic weight loss seems to be in the eye of the beholder

By Anthony Watts, WUWT, Oct 22, 2012 http://wattsupwiththat.com/2012/10/22/antarctica-weight-loss-program-seems-to-be-slowing/

New understanding of Antarctic's weight-loss

By Staff Writers, Newcastle UK (SPX), Oct 23, 2012 http://www.terradaily.com/reports/New_understanding_of_Antarctics_weight_loss_999.html

Changing Earth

2012 Antarctic Ozone Hole Second Smallest in 20 Years

By Staff Writers, Greenbelt MD (SPX) Oct 25, 2012 http://www.terradaily.com/reports/2012 Antarctic Ozone Hole Second Smallest in 20 Years

<u>999.html</u>

Agriculture Issues & Fear of Famine

Rice agriculture accelerates global warming

By Staff Writers, Davis CA (SPX), Oct 25, 2012

http://www.seeddaily.com/reports/Rice_agriculture_accelerates_global_warming_999.html

Overall, the rice paddy experiments revealed that increased carbon dioxide in the atmosphere boosted rice yields by 24.5 percent and methane emissions by 42.2 percent, increasing the amount of methane emitted per kilo of rice.

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

How Earth's Coral Reefs Respond to Atmospheric CO2 Enrichment

Reference: Hughes, T.P., Baird, A.H., Dinsdale, E.A., Moltschaniwskyj, N.A., Pratchett, M.S., Tanner, J.E. and Willis, B.L. 2012. Assembly rules of reef corals are flexible along a steep climatic gradient. *Current Biology* 22: 736-741. <u>http://www.nipccreport.org/articles/2012/oct/23oct2012a2.html</u> [SEPP Comment: Life is flexible, not fixed.]

2000 Years of Extra-Tropical Northern Hemispheric Temperatures

Reference: Christiansen, B. and Ljungqvist, F.C. 2012. The extra-tropical Northern Hemisphere temperature in the last two millennia: reconstructions of low-frequency variability. *Climate of the Past* 8: 765-786.

http://www.nipccreport.org/articles/2012/oct/23oct2012a3.html

Environmental Change and Potential Trophic Mismatches

Reference: Appelhans, Y.S., Thomsen, J., Pansch, C., Melzner, F. and Wahl, M. 2012. Sour times: seawater acidification effects on growth, feeding behavior and acid-base status of Asterias rubens and Carcinus maenas. *Marine Ecology Progress Series* 459: 85-97. http://www.nipccreport.org/articles/2012/oct/24oct2012a1.html

The Impact of Atmospheric Aerosols on North Atlantic Climate

Reference: Booth, B.B.B., Dunstone, N.J., Halloran, P.R., Andrews, T. and Bellouin, N. 2012. Aerosols implicated as a prime driver of twentieth-century North Atlantic climate variability. *Nature* 484: 228-232.

http://www.nipccreport.org/articles/2012/oct/24oct2012a2.html [SEPP Comment: Questioning the certainty of IPPC's 90 to 99 % certainty.]

The Political Games Continue

US presidential debates' great unmentionable: climate change

No mention of global warming for the first time since Congress was briefed on the threat in 1988 By Suzanne Goldenberg, Guardian, UK, Oct 23, 2012 [H/t GWPF] http://www.guardian.co.uk/environment/2012/oct/23/us-president-debates-climate-change

Presidential candidates right to ignore climate change

By Tom Harris, Canada Free Press, Oct 23, 2012 http://www.canadafreepress.com/index.php/article/50497

Obama energy team circulates memo to greens on climate

By Ben Geman, The Hill, Oct 23, 2012 http://thehill.com/blogs/e2-wire/263339-memo-to-activists-were-talking-about-climate-

Will The Election Continue To Give Our Fossil Energy Industries A Big Bird?

By Larry Bell, Forbes, Oct 23, 2012 http://www.forbes.com/sites/larrybell/2012/10/23/will-the-election-continue-to-give-our-fossilenergy-industries-a-big-bird/

Litigation Issues

Legal Liability for Bad Scientific Forecasts in the United States

By Roger Pielke Jr, His Blog, Oct 24, 2012 http://rogerpielkejr.blogspot.com/2012/10/legal-liability-for-bad-scientific.html

Mischaracterizations of the L'Aquila Lawsuit Verdict

By Roger Pielke Jr, His Blog, Oct 22, 2012 http://rogerpielkejr.blogspot.com/2012/10/mischaracterizations-of-laquila-lawsuit.html

Cap-and-Trade and Carbon Taxes

Pollution tax stokes Australian inflation By Staff Writers, Sydney (AFP), Oct 24, 2012 http://www.terradaily.com/reports/Pollution_tax_stokes_Australian_inflation_999.html

Carbon Tax: Will Tweedle Dum Snatch Defeat From the Jaws of Victory?

By Marlo Lewis, Forbes, Oct 25, 2012 <u>http://www.forbes.com/sites/realspin/2012/10/25/carbon-tax-will-tweedle-dum-snatch-defeat-from-the-jaws-of-victory/</u>

EPA and other Regulators on the March

The EPA Is Moving The Goalposts, Even After The Game Has Started By Merrill Matthews, Forbes, Oct 18, 2012 <u>http://www.forbes.com/sites/merrillmatthews/2012/10/18/the-epa-is-moving-the-goalposts-even-after-the-game-has-started/</u>

Political, legal problems for next president piling up at the EPA

By Mark Tapscott, Washington Examiner, Oct 25, 2012, [H/t Cooler Heads] <u>http://washingtonexaminer.com/political-legal-problems-for-next-president-piling-up-at-the-epa/article/2511714?utm_source=Washington%20Examiner:%20Opinion%20Digest%20-%2010/26/2012&utm_medium=email&utm_campaign=Washington%20Examiner:%20Opinion% 20Digest#.UI</u>

Levin Legal Group Sues EPA For Records Of Controversial Regs Delayed Until After Election

By David James, CNS News, Oct 23, 2012 [H/t Timothy Wise] <u>http://cnsnews.com/blog/david-james/levin-legal-group-sues-epa-records-controversial-regs-delayed-until-after-election</u>

The EPA's Planned Destruction of the U.S. Economy

By Alan Caruba, Warning Signs, Oct 23, 2012 http://factsnotfantasy.blogspot.com/2012/10/the-epas-planned-destruction-of-us.html

EPA grapples with climate effects of palm oil in fuel

By Ben Geman, The Hill, Oct 24, 2012 http://thehill.com/blogs/e2-wire/263867-epa-grapples-with-climate-effects-of-palm-oil [SEPP Comment: To meet US greenhouse standards, EPA will determine permitted palm oil standards!]

EPA anti-energy regulations killing jobs

Bogus green schemes harm Americans By Paul Driessen, Washington Times, Oct 23, 2012 http://www.washingtontimes.com/news/2012/oct/23/epa-anti-energy-regulations-killing-jobs/

Energy Issues – Non-US

Alberta to monitor oil sands By Staff Writers, Edmonton, Alberta, (UPI) Oct 19, 2012 http://www.energy-daily.com/reports/Alberta_to_monitor_oil_sands_999.html

The Green Pipeline: U.S. donors pump hundreds of millions into Canadian groups opposed to the Keystone XL pipeline

By Brian Seasholes, Capital Research, Oct, 2012 [H/t Cooler Heads] <u>http://www.capitalresearch.org/2012/09/the-green-pipeline-u-s-donors-pump-hundreds-of-millions-into-canadian-groups-opposed-to-the-keystone-xl-pipeline/</u>

Perverse environmentalist oil sands ethics

By Paul Driessen, Canada Free Press, Oct 24, 2012 http://www.canadafreepress.com/index.php/article/50548

China rare earths giant halts output for a month

By Staff Writers, Shanghai (AFP), Oct 24, 2012 http://www.spacemart.com/reports/China_rare_earths_giant_halts_output_for_a_month_999.html

Energy Is Everywhere

By Kenneth P. Green, The American, Oct 24, 2012 http://www.american.com/archive/2012/october/energy-is-everywhere

Energy Issues -- US

US may soon become world's top oil producer By Jonathan Fahey, AP, Oct 23, 2012 http://hosted2.ap.org/APDEFAULT/f70471f764144b2fab526d39972d37b3/Article_2012-10-23-US%20Oil%20Boom/id-15afe4569b714cb680b0f3fe2be4fbeb

US to Overtake Saudi Arabia? Skewing the Oil Stats

By Jen Alic, Oil Pirce, Oct 25, 2012 <u>http://oilprice.com/Energy/Crude-Oil/US-to-Overtake-Saudi-Arabia-Skewing-the-Oil-Stats.html</u> [SEPP Comment: See link immediately above.]

America at Energy Crossroads, Part 2

By Donn Dears, Power for USA, Oct 26, 2012 http://ddusmma.wordpress.com/2012/10/26/america-at-energy-crossroads-part-2/

IHS report: Unconventional oil & gas to be economic driver

By Jennifer A. Dlouhy, Fuel Fix, Oct 23, 2012 <u>http://fuelfix.com/blog/2012/10/23/ihs-report-unconventional-oil-gas-to-be-economic-driver/</u> [SEPP Comment: IHS is a global consulting firm.]

The Myth of Affordable Energy - Interview with Ed Dolan

By James Stafford, Oil Price, Oct 16, 2012 http://oilprice.com/Interviews/The-Myth-of-Affordable-Energy-Interview-with-Ed-Dolan.html

Return of King Coal?

Powering Buildings -- A Tale of Two Paradigms By Mark Mills, Energy Facts Weekly, Oct 22, 2012

http://us1.campaign-archive2.com/?u=29bc7d5d85828d574f86c157a&id=254db64c81&e= [SEPP Comment: Trying to save energy consumption in a data center is vastly different than trying to save energy in a commercial office building.]

Oil Spills, Gas Leaks & Consequences

Microbes and Nature American Academy of Microbiology, 2011 [H/t Dennis Ambler] <u>FAQ: Microbes and Oil Spills, 2011</u> [SEPP Comment: Is it not time to develop this natural resource to be available for any future oil spills?]

Nuclear Energy and Fears

Radiation and risk

By Martin Livermore, Scientific Alliance, Oct 26, 2012 <u>http://www.scientific-alliance.org/scientific-alliance-newsletter/radiation-and-risk</u> [SEPP Comment: To many, the actual deaths from the Tohoku earthquake and tsunami are insignificant compared with the suggested deaths from radiation from the nuclear power plants.]

China to resume nuclear power construction

By Staff Writers, Beijing (UPI), Oct 25, 2012 http://www.nuclearpowerdaily.com/reports/China_to_resume_nuclear_power_construction_999.h

<u>tml</u>

[SEPP Comment: Construction of plants, already started, never stopped. Now new construction will begin.]

Fuel loading at Ningde 1

The first core of nuclear fuel is being loaded at China's newest power reactor, Ningde 1 in Fujian province. Construction on the unit began less than four years ago. By Staff Writers, WNN, Oct 19, 2012

http://www.world-nuclear-news.org/NN_Fuel_loading_at_Ningde_1_1910121.html [SEPP Comment: From start of construction to operation in less that four years is quite an achievement.]

Queensland lifts uranium mining ban

Uranium mining will be allowed in the Australian state of Queensland after the state government overturned 23 years of prohibition. The state has not produced uranium since 1982. By Staff Writers, WNN, Oct 22, 2012

http://www.world-nuclear-news.org/NP-Queensland_lifts_uranium_mining_ban-2210127.html

Virginia can mine uranium safely, responsibly

By Jack Spencer and Katie Tubb, Richmond Times-Dispatch, Oct 15, 2012 [H/t Randy Randol] <u>http://www2.timesdispatch.com/news/oped/2012/oct/15/tdopin02-spencer-and-tubb-virginia-can-mine-uraniu-ar-2282660/</u>

Alternative, Green ("Clean") Solar and Wind

After Federal Jolt, Clean Energy Seeks New Spark By John Border, NYT, Oct 23, 2012 http://www.nytimes.com/2012/10/24/business/energy-environment/future-of-american-aid-toclean-energy.html?pagewanted=all&_r=0 [SEPP Comment: \$90 Billion over 3 years is not enough?]

U.S. Wind Industry Continues to Expand

By Staff, Department of Energy, Oct 23, 2012 <u>http://energy.gov/articles/us-wind-industry-continues-expand</u> [SEPP Comment: A government agency shamelessly promoting an industry using information from the industry's lobbying group.]

Study: Wind Generates Electricity When We Need It Least

By Jack Thorlin, Institute for Energy Research, Oct 24, 2012 [H/t Randy Randol] http://www.instituteforenergyresearch.org/2012/10/24/study-wind-subsidies-disproportionatelyproduce-electricity-when-we-need-it-least/ [SEPP Comment: The weaknesses of wind power uncovered in Europe and elsewhere applies to the Mid-Atlantic and Ohio Valley as well.]

NRG Gets DOI Lease for Wind Farm Offshore Delaware Coast

By Sonal Patel, Power News, Oct 24, 2012 <u>http://www.powermag.com/POWERnews/5080.html?hq_e=el&hq_m=2548950&hq_l=5&hq_v=</u> <u>5e660500d0</u> [SEPP Comment: Would they deliver the goods in the current forecast of a Frankenstorm?]

Layoffs, failures test Colorado's "new energy economy"

By Steve Raabe, Denver Post, Oct 22, 2012 [H/t Cooler Heads] http://www.denverpost.com/business/ci_21825181/layoffs-failures-test-colorados-new-energyeconomy

Twenty Bad Things About Wind Energy, and Three Reasons Why

By John Droz, Jr, Master Resource, Oct 24, 2012

http://www.masterresource.org/2012/10/20-bad-things-wind-3-reasons-why/

[SEPP Comment: An update on the slogans used to sell wind power. Some of the language is imaginative if not accurate, such as "component liberation" as a term for a blade flying off.]

Solar Industry Meltdown – Intersolar China 2012 Tradeshow CANCELLED Due To "Difficult Market Conditions"!

By P. Gosselin, No Tricks Zone, Oct 24, 2012 http://notrickszone.com/2012/10/24/solar-industry-meltdown-intersolar-china-2012-tradeshowcancelled-due-to-difficult-market-conditions/ [SEPP Comment: Oops!]

Solar power said viable in snowy regions

By Staff Writers, Houghton, Mich, (UPI) Oct 25, 2012 <u>http://www.solardaily.com/reports/Solar_power_said_viable_in_snowy_regions_999.html</u> [SEPP Comment: Technically viable is significantly different than economically viable.]

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

Biodiesel back from the dead as EU drops ILUC factors

By Sonja van Renssen, European Energy Review, Oct 18, 2012 [H/t Anne Debeil] <u>http://www.europeanenergyreview.eu/site/pagina.php?email=lars.myren@skynet.be&id_mailing=</u> <u>320&toegang=320722549d1751cf3f247855f937b982&id=3908</u>

Commissioners Hedegaard and Oettinger admitted the proposals were "not perfect" but emphasised the 5% cap on food-based biofuels that did make it into the final proposal. This is supposed to cap conventional biofuel production at current levels. The problem is that this cap is not really a cap, at least not on the production of these biofuels. It is a reporting cap under the EU's renewable energy directive: member states will only be able to use (and subsidise) foodbased biofuels to meet half of a 10% target for renewable energy in transport by 2020. [SEPP Comment: The clarity of bureaucracy.]

Large-scale production of biofuels made from algae poses sustainability concerns

By Staff Writers, Washington DC (SPX), Oct 25, 2012 http://www.biofueldaily.com/reports/Large scale production of biofuels made from algae pos es sustainability_concerns_999.html

Health and Science

Bad 'science' from Harvard By Staff Writer, ACSH, Oct 25, 2012 <u>http://www.acsh.org/bad-science-from-harvard/</u> [SEPP Comment: Admirable courage to pull back the study immediately before the press conference.]

Replication, Replication, Replication

By Staff Writers, ACSH, Oct 25, 2012 http://www.acsh.org/replication-replication/

Malaria study challenges warmer world predictions

By Shaoni Bhattacharya, New Scientist, Oct 24, 2012 [H/t Climate Change Weekly] <u>http://www.newscientist.com/article/dn22419-malaria-study-challenges-warmer-world-predictions.html</u>

Oh Mann!

Penn State climate professor sues think tank, National Review By Keith L. Alexander, Washington Post, Oct 23, 2012 <u>http://www.washingtonpost.com/local/crime/penn-state-climate-professor-sues-think-tank-national-review/2012/10/23/27b92a86-1d4f-11e2-9cd5-b55c38388962_story.html</u>

Professor Mann claims to win Nobel Prize; Nobel Committee says he has not

By Thomas Richard, Washington Examiner, Oct 26, 2012 [H/t Cooler Heads] <u>http://www.examiner.com/article/professor-mann-claims-to-win-nobel-prize-nobel-committee-says-he-has-not</u>

Breaking: Mann has filed suit against NRO (now the laughing begins)

By Anthony Watts, WUWT, Oct 23, 2012 http://wattsupwiththat.com/2012/10/23/breaking-mann-has-filed-suit-against-nro/

Michael Mann – never fully investigated, thus never exonerated

By Christopher Horner, WUWT, Oct 23, 2012 http://wattsupwiththat.com/2012/10/23/michael-mann-never-fully-investigated-thus-neverexonerated/

Environmental Industry

Ocean-fertilization project off Canada sparks furore

Bid to boost salmon stocks relied on hotly debated science and dubious carbon credits. By Jeff Tollefson, Nature, Oct 23, 2012 http://www.nature.com/news/ocean-fertilization-project-off-canada-sparks-furore-1.11631

A Rogue Climate Experiment Outrages Scientists

By Henry Fountain, NYT, Oct 18, 2012 [H/t Timothy Wise] http://www.nytimes.com/2012/10/19/science/earth/iron-dumping-experiment-in-pacific-alarmsmarine-experts.html?ref=science&_r=0

Other News that May Be of Interest

Water extraction helped trigger deadly quake in Spain: scientists By Staff Writers, Paris (AFP), Oct 21, 2012 http://www.terradaily.com/reports/Water_extraction_helped_trigger_deadly_quake_in_Spain_sci entists_999.html

BELOW THE BOTTOM LINE:

Media bozos buy 'cancer bra' hype By Staff Writers, ACSH, Oct 22, 2012 http://www.acsh.org/media-bozos-buy-cancer-bra-hype/

Speed limits on cargo ships could reduce their pollutants by more than half

By Staff Writers, Washington DC (SPX) Oct 26, 2012 <u>http://www.energy-</u> <u>daily.com/reports/Speed limits on cargo ships could reduce their pollutants by more than h</u> <u>alf_999.html</u> [SEPP Comment: Sailing ships could pollute less.]

Frankenstorm: God's Latest Warning?

ARTICLES:

1. Obama's EPA Plans for 2013

By S. Fred Singer, American Thinker, Oct 25, 2012 http://www.americanthinker.com/2012/10/obamas_epa_plans_for_2013.html

The November elections will determine the direction of US climate policy -- and therefore also energy policy and the pace of economic growth: jobs, standards of living, budget deficits and inflation. Obama has already promised to make climate change the centerpiece of his concern -- with all that implies: "Green" energy policy, linked to loss of jobs (Keystone pipeline disapproval), rising gas prices (ethanol mandates), and crony capitalism (Solyndra).

By contrast, Romney is a climate skeptic -- and Ryan has been quite outspoken: the perfect anti-Gore. The science supports Romney-Ryan -- notwithstanding the UN-IPCC, and the bulk of the climate scientists living high on the hog on government grants.

All of this emerged from campaign rhetoric -- but it needs to be spelled out more clearly. Note that Obama no longer promises to "heal the Earth and stop the rise of the oceans." He has also been uncharacteristically quiet about his efforts to "make electricity prices skyrocket." But there is more in store if he is re-elected and unleashes the full regulatory apparatus of the EPA.

Senate report

Earlier this month, Senator James Inhofe (R-Okla.), Ranking Member of the Senate Committee on Environment and Public Works, released a new EPW Minority Report entitled, "A Look Ahead to EPA Regulations for 2013: Numerous Obama EPA Rules Placed On Hold until after the Election Spell Doom for Jobs and Economic Growth."

This report enumerates the slew of environmental regulations that the Obama-Environmental Protection Agency (EPA) has delayed or punted on before the election while President Obama is trying to earn votes; but the Obama-EPA plans to move full speed ahead to implement this agenda if President Obama wins a second term. As this report reveals, these rules taken together will inevitably result in the elimination of millions of American jobs, drive up the price of gas at the pump even more, impose construction bans on local communities, and essentially shut down American oil, natural gas, and coal production.

"President Obama has spent the past year punting on a slew of job-killing EPA regulations that will destroy millions of American jobs and cause energy prices to skyrocket even more," Senator Inhofe said. "From greenhouse gas regulations to water guidance to the tightening of the ozone standard, the Obama-EPA has delayed the implementation of rule after rule because they don't want all those pink slips and price spikes to hit until *after* the election. But President Obama's former climate czar Carol Browner was very clear about what's in store for next year: she told several green groups not to worry because President Obama has a big green 'to-do' list for 2013 -- so they'll get what they want. As a result, hard working Americans will lose their jobs and be subjected to skyrocketing energy prices

"This report also importantly puts the spotlight back on an Obama-EPA that has, as the *Washington Post* said, earned a 'reputation for abuse.' It serves as a stark reminder that President Obama has presided over a green team administration that works every day to 'crucify' oil and gas companies and make sure that 'if you want to build a coal plant you got a big problem.'

Rules Delayed or "Punted" until 2013 by Obama-EPA

<u>Greenhouse Gas Regulations</u>: These regulations -- which President Obama himself warned would be worse than global warming cap-and-trade legislation -- will be an enormous burden on the American people. These rules will cost more than \$300 to \$400 billion a year, and significantly raise the price of gas at the pump and energy in the home. It's not just coal plants that will be affected: under the Clean Air Act (CAA), churches, schools, restaurants, hospitals and farms will eventually be regulated.

Thus far, EPA has issued regulations governing permit programs and monitoring requirements. Earlier this year, EPA proposed the first source-specific greenhouse gas regulations -- emissions standards for new power plants. The proposal paints an ominous picture for rate payers: the requirements are so strict, they virtually eliminate coal as a fuel option for future electric power generation. In a thinly veiled political move, the agency has put off finalizing the proposal until after the election. Similarly, EPA has punted on standards for existing power plants as well as refineries -- standards which will further drive up electricity and gasoline prices. Once these regulations are in place, EPA will proceed to issue regulations, industry by industry, until virtually every aspect of the American economy is constrained by strict regulatory requirements and high energy prices.

Take for example, farms: under federal permitting requirements, sources (i.e. a farm whose aggregate emissions exceed CAA permitting thresholds) would be required to comply with costly permitting mandates and pay an annual fee for each ton of greenhouse gas emitted on an annual basis. Known as the "cow tax", there would be a cost-per-animal outcome. EPA itself estimates that in its best case scenario, there will be over 37,000 farms and ranches subject to greenhouse gas permits at an average cost of \$23,000 per permit annually, affecting over 90% of the livestock production in the United States.

Ozone Rule: As the *New York Times* reported last year, President Obama punted on tightening the ozone standard until after the election, admitting that the "regulatory burdens and regulatory uncertainty" would harm jobs and the economy -- but he still pointed to the fact that it will be reconsidered in 2013. EPA itself estimated that its ozone standard would cost \$90 billion a year, while other studies have projected that the rule could cost upwards of a trillion dollars and destroy 7.4 million jobs. By EPA's own projections, it could put 650 additional counties into the category of "non-attainment," which is the equivalent of posting a "closed for business" sign on communities. Affected counties will suffer from severe EPA-imposed restrictions on job creation and business expansion, including large numbers of plant closures. The *Times* concluded: "The full retreat on the smog standard was the first and most important environmental decision of the presidential campaign season that is now fully underway. An examination of that decision, based on interviews with lobbyists on both sides, former officials and policy makers at the upper reaches of the White House and the E.P.A., illustrates the new calculus on political and policy shifts as the White House sharpens its focus on the president's re-election."

<u>Hydraulic Fracturing</u>: Today the Obama administration -- through no less than fourteen federal agencies, including the EPA, the Department of Energy (DOE), the Bureau of Land Management (BLM), the Center for Disease Control (CDC), the Department of Agriculture (USDA), and the

Securities and Exchange Commission (SEC) -- is currently working to find ways to regulate hydraulic fracturing at the federal level, so that they can limit and eventually stop the practice altogether. In order to curtail hydraulic fracturing on public lands, BLM, under Secretary Salazar's control, will be finalizing new regulations sometime after the election, which will have serious impacts on domestic energy production. According to one study, "The total aggregate cost for new permits and well workovers resulting from this rule would range from \$1.499 billion to \$1.615 billion annually. This is a conservative estimate of the delays and costs associated with the proposed rule which equates to about \$253,800 per well, and \$233,100 per re-fracture stimulation." The Obama Administration's anti-hydraulic fracturing agenda doesn't stop there. In the months following the election, we can expect the EPA alone to: issue guidance for the usage of diesel fuels during hydraulic fracturing, which will strip states of the primacy granted to them through the Safe Drinking Water Act; complete a study -- highly criticized and unsupported by multiple state and federal agencies -- desperately attempting to link hydraulic fracturing to water contamination in Pavillion, WY; answer countless petitions filed by radical environmental organizations potentially leading to the back-door regulation of hydraulic fracturing through the Toxic Substances Control Act, Resource Conservation and Recovery Act, and Clean Air Act; and potentially introduce Effluent Limitations Guidelines for both shale gas extraction and coal-bed methane.

Florida Numeric Nutrient Criteria: As the Associated Press reported, "When the Obama administration agreed to set the first-ever federal limits on runoff in Florida, environmental groups were pleased [...] Nearly three years later -- with a presidential election looming and Florida expected to play a critical role in the outcome -- those groups are still waiting." In 2009, EPA issued a Clean Water Act (CWA) determination that it would set federal numeric nutrient water quality standards for Florida. The proposed standards EPA unveiled in 2010 were criticized for being technologically and economically infeasible. Florida established its own nutrient criteria, and in 2011, petitioned EPA to withdraw the agency's January 2009 determination that numeric nutrient criteria are necessary in Florida, repeal federal rulemaking completed in 2010, and refrain from proposing or promulgating any further numeric standards. In June 2012 a Florida administrative law judge ruled that the state acted within its authority by establishing Florida-specific numeric nutrient standards for the state's inland waters. Florida certified its standards on June 13, 2012 and submitted it to EPA for approval. EPA had 60 days from this date to approve the rule or 90 days to disapprove it. EPA has only sent back an "initial response" that gives no indication whether or not EPA will approve the Florida rule. EPA has thus far punted both on enforcing their own standards and on responding to Florida's petition to establish their own standards.

<u>EPA's Water Guidance</u>: EPA's proposed new guidance document for waters covered by the CWA, proposed in April 2011, reinterprets recent Supreme Court decisions to allow EPA to expand federal control over virtually every body of water in the United States, no matter how small. EPA's own analysis of the document estimated that up to 17% of current non-jurisdictional determinations would be considered jurisdictional using the new guidance. Further, the guidance applies to the entire CWA, which will result in additional regulatory responsibilities for states. This dramatic expansion has received tremendous push-back from the regulated community, states, and municipalities who do not want to have extensive new federal authorities and the costs associated with additional CWA compliance pushed through in guidance. As Ins*ide EPA* reported in the spring of 2012, the guidance looks to be delayed until after the election. This

guidance, much like greenhouse gas regulations, failed to pass as legislation when Democrats enjoyed overwhelming majorities in the House and the Senate.

<u>Storm-water Regulation:</u> In 2009, EPA announced, as part of the Chesapeake Bay Settlement Agreement, that the agency would propose new nationwide storm-water rules by September 2010, with final action by November 2012. EPA's advanced notice of proposed rulemaking proposed to expand the universe of federally regulated storm-water; establish a first-time standard for postconstruction storm-water runoff; require first-time retrofit requirements on storm-water systems -which could include mandates on cities to change existing buildings, storm-water sewers, and streets; and mandate the use of "green infrastructure" techniques (like "green roofs," rain gardens, permeable pavement) to replace conventional stormwater management practices. All this will put enormous cost burdens on states and municipalities and on anyone who owns property or wants to develop property. If the final rule does everything EPA has proposed, it could be the most expensive rule in EPA history. According to EPA's website, the proposal has been punted until June 2013, and the final rule is due in December 2014.

<u>Tier III Gas Regulations</u>: EPA is preparing to propose a rulemaking called Tier III, which reduces the content of sulfur in gasoline from 30 ppm to 10 ppm. The cost of this rule could be up to \$10 billion initially and \$2.4 billion annually, and it could add up to 9 cents per gallon in manufacturing costs; these costs would inevitably be passed on to consumers at the pump. As a recent *Energywire* article explained, many on the far left believe that political motives caused President Obama to delay this rule until after the election.

<u>Boiler MACT Rule</u>: EPA's Boiler MACT (Maximum Achievable Control Technology) standards are so strict that not even the best-performing sources can meet them, so many companies will have no choice but to shut their doors and ship manufacturing jobs overseas. The rule has been projected to reduce US GDP by as much as 1.2 billion dollars and will destroy nearly 800,000 jobs. Because of bipartisan Congressional opposition to the standards, the agency is now reconsidering certain aspects of the rule. In what can only be seen as another politically calculated move, the new rule is now being held by the White House, presumably until after the election. Not only is this creating uncertainty among the regulated community, it is also fueling speculation that very few changes have been made to the rule and that the White House would prefer that it not be made public until after the election.

<u>Cement MACT Rule</u>: EPA's Cement MACT rule could cause 18 plants to shut down, throwing up to 80,000 people out of work. As more and more cement has to be imported from China, concrete costs for the construction of roads, bridges, and buildings that use cement could increase 22% to 36%. As with Boiler MACT, due to Congressional opposition, EPA is now reconsidering certain aspects of the rule, which will not be seen until after the election.

<u>316(b)</u> Cooling Towers Rule: EPA is planning to require the use of strict protections for fish in cooling reservoirs for power plants under the Clean Water Act. EPA's own estimates put the draft rule costs between \$384 million and \$460 million per year and have benefits of just \$17 million - a cost benefit gap of more than 22 to 1. As the *Washington Guardian* noted about the delay, "In its latest election-year delay of regulations, the Obama administration said Tuesday it will defer until next year acting on a Clean Water Act rule that could require expensive new construction at power plants to lower fish deaths. The postponement by the Environmental Protection Agency was not unexpected, with the agency having only recently completed a public comment period on

its latest data. Still, the move to add another 11 months to the rulemaking marks the latest step by the administration to delay potentially controversial environmental rules until after the November election."

<u>Coal Ash</u>: EPA's proposed coal ash rule could cost \$79 to \$110 billion over 20 years, destroying 183,900 to 316,000 jobs; this will have disastrous impacts in states like Pennsylvania, West Virginia, Ohio and Missouri. As the *Charleston Gazette* reported, "Despite initial tough talk on the issue, [EPA administrator Lisa] Jackson issued a regulatory proposal that did not settle on a particular strategy. "*Politico* also noted, EPA is sitting on proposed regulations to declare coal ash to be a hazardous substance...Administrator Lisa Jackson has said the agency will issue a final coal ash rule by the end of the year, but environmentalists and coal ash recyclers aren't convinced."

<u>Farm Dust Regulations</u>: EPA has been regulating farm dust for decades and may tighten the standards as part its review of the National Ambient Air Quality Standards (NAAQS) for coarse particulate matter (PM10). Tightening the PM10 NAAQS would have widespread implications for rural America, as it could be below the amount of dust created during normal farming operations, and therefore be impossible to meet. If the standard is tightened, the only option for farmers to comply will be to curb every-day farm activities, which could mean cutting down on numbers of livestock or the tilling of fields, or they may have to shrink or even end their businesses altogether.

<u>Spill Prevention Control and Countermeasure (SPCC) Rule</u>: EPA's Spill Prevention Control and Countermeasure (SPCC) Rule would require farmers and ranchers to develop and implement costly oil and gasoline spill prevention plans, placing a tremendous burden on the agricultural community. The original deadline was set for November 2011, but the rule was delayed due to pressure from Congress. EPA set a new SPCC deadline of May 10, 2013.

Summary

This lengthy catalog of EPA horrors does not include schemes being hatched but not yet disclosed. Nor does it include initiatives by "junior EPAs" -- such as the cap-and-trade plan by CARB (Calif Air Resources Board).

Clearly, if Romney-Ryan are elected, they will have their hands full just reining in the EPA - an essential step in restoring economic growth. They will need all the help they can get from the next Congress.

2. Cheap Natural Gas Gives New Hope to the Rust Belt

By Ben Casselman and Russell Gold, WSJ, Oct 24, 2012 http://online.wsj.com/article/SB10000872396390444549204578020602281237088.html?mod=IT P pageone 0

BEAVER COUNTY, Pa.—Three decades after being devastated by the closing of steel mills, this gritty river valley is hoping its revival will come from cheap natural gas.

The hope doesn't rest on drilling rigs, but on a multibillion-dollar chemical plant that Royal Dutch Shell is considering building here because of a flood of domestically produced natural gas.

Community leaders are touting the plant as the first step toward reviving a manufacturing industry many thought was gone for good.

"I never would have expected that as a region we'd have a second chance to be a real leader in American manufacturing," Bill Flanagan of the Allegheny Conference on Community Development, a regional business group, told a crowd of locals who came to hear about the chemical plant. "Suddenly we're back in the game."

It isn't just Beaver County reaping the benefits of cheap gas. Plunging prices have turned the U.S. into one of the most profitable places in the world to make chemicals and fertilizer, industries that use gas as both a feedstock and an energy source. And they have slashed costs for makers of energy-intensive products such as aluminum, steel and glass.

"The U.S. is now going to be the low-cost industrialized country for energy," the energy economist Philip Verleger says. "This creates a base for stronger economic growth in the United States than the rest of the industrialized world."

Natural gas is only part of the story. The same hydraulic-fracturing revolution that is freeing gas from shale formations is being used to extract oil. U.S. oil production is up 20% since 2008, and the U.S. government expects it to rise another 12.6% in the next five years.

Economists at Citigroup Inc. earlier this year estimated that increased domestic oil and gas production, and the activity that flows from it, would create up to 3.6 million new jobs by 2020 and boost annual economic output by between 2% and 3.3%.

Others, noting that energy is only a small cost for most industries, see a smaller impact. Economists at earlier this year estimated the gas boom will add about 1% to gross domestic product over 10 years, not enough to bring down unemployment.

The surge in natural-gas production has the biggest implications. Oil is a world market, so increased U.S. production won't give U.S. petroleum consumers a significant price advantage.

Natural gas, by contrast, is difficult to transport across oceans and is most efficiently consumed in the same continent where it is produced. That means the glut of gas hitting the market will result in the U.S. having lower prices than other major industrial economies for years to come.

In mid-2008, U.S. natural-gas prices topped \$12 per million BTUs. The current price is just \$3.54 per million BTUs. The U.S. government expects the average price to stay below \$5 for another decade, after adjusting for inflation. German and French companies now are paying nearly three times as much for gas as U.S. companies, and Japanese companies even more than that.

Low domestic gas prices have led some U.S. producers to look at shipping gas overseas, where prices are higher. But such projects will cost billions of dollars and take years to complete, and must overcome political opposition from gas consumers worried about higher prices.

A study from the Energy Information Administration earlier this year predicted industrial gas users could expect between a 7% and 19% increase in energy costs due to exports by 2025. Two separate studies see only a modest impact on prices.

In the rundown former steel towns along the Ohio River, natural gas is spurring hopes of an industrial renaissance. Steel mills once lined the Ohio River here, but little of the industry survives. The proposed site of the Shell facility holds one of the few big factories still operating, an 80-year-old zinc plant slated for closure next year.

Known as a "cracker," the Shell chemical plant would take ethane gas—a hydrocarbon found in natural-gas deposits—and turn it into ethylene, the first step in making many plastics.

The ethane would come from the Marcellus Shale, a massive formation of gas-bearing rock that underlies much of Pennsylvania and surrounding states. If the project goes forward, it would be the first such plant built in the U.S. in more than a decade.

Pennsylvania won the project after a three-state bidding war, and some government watchdog groups have criticized the state's package of tax breaks and other incentives as too generous.

But there were few critics among the locals who gathered recently to hear about the plant. Some asked about safety and environmental issues, but mostly the questions centered on one issue: jobs. How many would there be? And would Shell hire locals or import workers from outside? The answers: Shell expects about 400 permanent jobs, but many more than during construction; and it hopes to hire mostly locals.

"I'm four generations in this area. I want my children to stay here," says Sandie Egley after the meeting.

Throughout the 1990s and much of the 2000s, Beaver County's unemployment rate was higher than the U.S. average. That has reversed since the gas boom began to take hold in 2009, with the county's jobless rate consistently below the national mark.

Penna Flame Industries, in the nearby town of Zelienople, is benefiting from cheaper energy. Inside the company's roadside headquarters, propane-fired torches throw off bright orange flames as they heat metal parts like gears or wheels to more than 1,500 degrees Fahrenheit, to harden the surfaces. Truck-size ovens run 20 hours a day, burning as much as a million cubic feet of gas per month.

Falling prices have cut the family-owned company's monthly gas bill to between \$3,000 and \$4,000 per month from as much as \$10,000 in 2008. Profits are up. Fuel surcharges imposed on customers during the years of high prices are gone. And the company is making longer-term changes.

Gary Lopus, Penna Flame's general manager, says energy savings—along with low interest rates and other factors—have allowed the company to invest in its future. In a backroom, three yellow robotic arms direct tightly focused flame in preprogrammed patterns.

Pointing to a newly hired robotics technician, Mr. Lopus says: "That guy wouldn't have a job if it wasn't for the robots...When you're not spending as much in other areas, you can spend more on things like this."

Still, the greater Pittsburgh region has lost more than 30,000 manufacturing jobs in the past two decades, and natural gas alone is unlikely to bring them back. The Shell cracker won't employ as many workers as the zinc plant it aims to replace.

And any economic revival will have to contend with the demographic headwinds that are the legacy of a generation of decline: Beaver County lost more than 15,000 residents, 8% of its population, from 1990 to 2010. Those that remain are older, poorer and less likely to have a college degree than the nation as a whole.

Jack Manning, an official with the Beaver Chamber of Commerce, says locals are excited at the opportunities the Shell project could provide, but wary of getting their hopes up. Driving through Aliquippa, a former steel city just up the river from the high school, Mr. Manning gestures to the boarded-up storefronts and vacant lots that line the town's once-thriving main street.

"People get a bit skeptical when politicians come in here and say it'll be better, because they've been hearing it for years," Mr. Manning says.

Natural gas will help some industries immensely, but others less so. It accounts for about 70% of the cost of making fertilizer, and 25% of the cost of making many plastics.

Between 1998 and 2004, fertilizer producers—which use natural gas to make ammonia, the key component in nitrogen fertilizer—shut down more than two dozen U.S. plants, representing close to half of U.S. capacity. Some facilities were literally taken apart and shipped overseas, where gas was cheaper.

Now the trend is reversing. In September, Egyptian industrial giant Orascom Construction Industries announced plans for a \$1.4 billion fertilizer plant in Iowa, which the company says would be the first large-scale fertilizer facility built in the U.S. in more than 20 years.

Deerfield, Ill.-based fertilizer maker CF Industries Inc. is planning to spend up to \$2 billion boosting its U.S. production through 2016.

"It's been a complete 180-degree change in our thought process," says CF Industries CEO Steve Wilson.

Mr. Wilson and other industry leaders stress that they aren't expecting prices to stay this low forever, but say U.S. plants will be competitive even if prices rise somewhat.

Uncertainty about the long-term direction of natural-gas prices remains one of the biggest obstacles to a gas-driven industrial renaissance. "Look how much the price has changed in the last few years," says Mike Mullis, whose Memphis-based company, J.M. Mullis Inc., helps manufacturers choose sites for new factories. "It's just a wild card right now."

The chemical industry, which like the fertilizer industry saw production shift overseas in the 1990s and early 2000s, is now rushing back to the U.S. Companies such as Dow Chemical Co. and Chevron Phillips Chemical Company LLC have announced plans to build multibillion-dollar chemical plants in Texas, Louisiana and other states.

"We convinced ourselves that this is not a temporary thing," says Peter Cella, chief executive of Chevron Phillips. "This is a real, durable phenomenon, a potential competitive advantage for the United States."

Such projects could have a bigger long-term economic impact than the drilling boom itself. Drilling activity ebbs and flows with prices, and the rigs themselves rarely stay in one community for long. But chemical plants, oil refineries and the factories that use their products can last for decades.

Other winners will be energy-intensive industries like glass manufacturers—as well as companies that will benefit from increased demand for natural gas, such as the makers of turbines for gas-fired power plants.

Then there are industries that do both, such as metals manufacturing. Energy can account for anywhere from 10% to 20% of costs for the metals industry, enough that the decline in gas prices could save some marginal plants.

At the same time, the oil and gas boom has led to new demand for drilling pipe and other metal products, further boosting companies' prospects.

A few miles east of Beaver County, in Brackenridge, metals manufacturer Allegheny Technologies Inc. is building a new \$1.1 billion mill, which is set to open in 2014. The plant will produce metals for, among others, chemical plants and the oil and gas industry, which uses hightech alloys in its pipes and drilling equipment.

The new plant will burn a huge amount of gas, giving it a key advantage against competitors in Europe and Asia.

Allegheny Technologies, which also runs metals-finishing facilities in Beaver County and is headquartered in nearby Pittsburgh, spends \$200 million per year on energy. CEO Richard Harshman says U.S. manufacturers now enjoy the lowest natural-gas prices in the world, with the possible exception of Russia.

Sitting in his office overlooking downtown Pittsburgh, Mr. Harshman gestures to the rivers that lead north to Brackenridge and Beaver County. It was the region's rich coal seams and powerful rivers that helped it emerge as an industrial powerhouse in the 19th century, he says. Now the energy industry is again boosting the region's prospects.

"You have to go back 100 years for that to have been the case," Mr. Harshman says. "It's one of the reasons we became a manufacturing powerhouse in the first place."

3. The Real Stimulus: Low-Cost Natural Gas

The impact of the U.S. energy revolution is only beginning. It is already providing a foundation for a domestic renaissance in manufacturing.

By Daniel Yergin, WSJ, Oct 22, 2012

http://online.wsj.com/article/SB10000872396390444734804578062331199029850.html?mod=W SJ_Opinion_LEFTTopOpinion

An unconventional oil and gas revolution is under way in the United States, but its full ramifications are only beginning to be understood. The basic facts are clear enough. Half a decade ago, it was assumed that the U.S. would become a large importer of liquefied natural gas; now the domestic natural gas market is oversupplied, thanks to the ability to produce shale gas through hydraulic fracturing and horizontal drilling technologies.

Shale gas alone is now 10% of the overall U.S. energy supply. And similar technologies to recover so-called tight oil trapped in rock formations are largely responsible for boosting U.S. oil production by 25% since 2008—the highest growth in oil output of any country in the world over that time period.

So far more than 1.7 million jobs are the result, according to a report titled "America's New Energy Future," released Tuesday by my research firm, IHS. These jobs include people working on rigs in Pennsylvania or North Dakota, manufacturing equipment in Ohio or Illinois, and providing information-technology services in California or legal services to royalty owners nationwide. The number of jobs could rise to three million by 2020. The energy revolution will add an estimated \$62 billion to federal and state revenues this year.

But the energy revolution is having other effects that get less attention. The balance of payments is one. The increase in domestic oil production over the past five years will reduce our oil-import bill this year by about \$75 billion. The growth of shale gas will save the U.S. from spending \$100 billion a year on imported LNG, which was the likely prospect five years ago.

There is also a geopolitical dimension. The increase in U.S. oil production since 2008 is equivalent to almost 80% of what was Iran's export level before the imposition of sanctions on the Tehran regime. Without the additional oil coming from the surge in U.S. oil output, the Iranian oil sanctions could not have worked as well as they have.

Domestically, growing natural gas supplies provide a foundation for a manufacturing renaissance, at least for industries for which energy is an important feedstock or where energy costs are significant. Chemical companies have been leaving the U.S. for years in the search for lower-cost countries in which to operate. Now they are planning to invest billions of dollars in new factories in this country because of inexpensive and relatively stable natural gas prices. The price of natural gas, which averaged \$2.66 per thousand cubic feet in the first nine months of this year, is less than half of what it was five years ago.

This holds out a tantalizing prospect that the U.S. could regain market share among the world's manufacturing exporters. That prospect preoccupies companies around the world, from Europe to China. When I was in China recently I heard much talk about how China's historical advantage in cheap labor (which is becoming less cheap) could in the years ahead be offset by cheap energy in the U.S.

We're also beginning to hear a debate about the U.S. role as an exporter of liquefied natural gas. LNG exports to countries with which the U.S. has free-trade agreements require no government approval. Approvals are needed, however, for exports to a long list of countries with which we have no such agreements, including Japan, Britain, India and many others. But an investment in building export facilities for this trade won't make sense unless producers have the flexibility to ship to diverse destinations as markets change.

Opposition to LNG exports comes from a variety of sources, ranging from those concerned about the impact on domestic prices to those who simply do not like shale gas. In December, the Department of Energy is expected to issue its report on the possible effect of gas exports on the overall economy. The report will provide some guidance as to what to expect in terms of LNG exports.

Yet there are two points to be made now. First, the scale of American LNG exports would be naturally limited by the competition from other existing suppliers around the world, as well as by new supplies coming from recent large gas discoveries offshore of East Africa and Israel.

Second is a larger context. The U.S. is successfully pushing Japan to reduce its oil imports from Iran, one of its largest traditional suppliers. At the same time, Japan, still reeling from the Fukushima disaster, is buying expensive LNG from both spot markets and traditional suppliers in the Middle East and Asia to replace nuclear power for generating electricity. How can America, having asked Japan to reduce Iranian oil imports, turn around and prohibit the export of surplus natural gas to this key ally?

The economic, political and even geopolitical benefits of the energy revolution to the U.S. were not foreseen at the time of the 2008 presidential election—but they are now of clear importance. And the growing production of shale gas has led to environmental controversy.

Last year a committee was set up to report to the Secretary of Energy on environmental questions. (I was a member of that committee.) The committee identified three major environmental considerations—wastewater, local air pollution and community impacts—that need to be carefully managed with the rapid development of this activity. The committee recommended a series of pragmatic solutions, centered around "best practices" for both operations and regulation, innovation (e.g., reduced water use) and engagement with community stakeholders. These initiatives will help to provide a safe foundation for the further development of the industry.

The rapid growth of oil and natural gas production represents a major opportunity for the U.S. Without these energy resources, the disappointing economic picture would look worse, and so would the jobs numbers. Instead, the energy revolution is helping revitalize the economy and make the U.S. more competitive in the global marketplace.

Mr. Yergin, vice chairman of IHS, a global market information and analytics company, is author of "The Quest: Energy, Security and the Remaking of the Modern World" (Penguin, new edition, 2012).

4. The Obama Storm Tax

The EPA turns its unsubtle charms on cities. Get ready to pay. Editorial, WSJ, Oct 22, 2012 <u>http://online.wsj.com/article/SB10000872396390444799904578052673425236066.html?mod=W</u> <u>SJ_Opinion_AboveLEFTTop</u>

Behold the Obama Administration's new public works plan. Sue cities for polluting waterways and then as part of a settlement require them to spend, er, "invest" billions in extraneous sewer improvements. The White House doesn't even need legislation to pour this money down the drain.

The Justice Department and Environmental Protection Agency have taken enforcement actions against 25 cities over the last four years for allegedly violating the Clean Water Act, and there are another 772 on their list. In addition to imposing millions of dollars in penalties, the feds have forced these cities into consent decrees that will cost their local taxpayers \$21 billion. The decrees spell out in detail what capital upgrades they must undertake—everything down to the size of their pipes.

The EPA says this extraordinary intrusion on local sovereignty is justified because cities are discharging waste into waterways during heavy rains. Many older wastewater systems include a safety valve that releases untreated stormwater and sewage into lakes and rivers when underground tunnels are flooded. This is to prevent waste from backing up in basements. The EPA has ordered cities to limit such wet weather overflows to four per year, regardless of how much rain they receive or how little muck they discharge.

Many cities have already taken concrete steps to reduce such overflows by developing "green infrastructure" (i.e., permeable pavements, rain gardens, catch-basins) that soaks up and diverts stormwater. Such solutions are easier and less expensive to implement than reconstructing their underground systems as the EPA wants them to do.

The U.S. Conference of Mayors says the EPA's heavy-handed management can't be justified by the supposed environmental or economic benefits. George Hawkins, the general manager for Washington D.C.'s Water and Sewer Authority, told Congress in July about "the growing cost of additional regulatory requirements in order to achieve ever-decreasing water quality gains" and that "communities are being forced to invest more but are increasingly getting less return on these investments." Fossil fuel CEOs couldn't have said it better.

Cities are spending twice as much on water treatment as they did in 1995 and have reduced the contaminants they discharge into waterways during dry weather by 85%. Even so, the EPA says they need to spend at least \$300 billion more on maintenance and upgrades to meet the agency's ever-stricter standards.

Since cities don't have that much spare change, they've been making improvements incrementally. But the EPA is demanding that they accelerate their work, which means they'll have to issue bonds as well as raise residents' water and sewer rates. David Berger, the Democratic mayor of Lima, Ohio—which has a median household income of \$26,000—told Congress this summer that the EPA's consent decree could raise the average resident's \$333 annual sewer bill by \$539. Call the surcharge the Obama storm tax. By the way, that was a month after the EPA announced it would try to offer cities more flexibility. Mr. Berger noted in his testimony that the detente "remains, at this point, a promise, not a reality." He told us last week that cities continue to have difficulty dealing with the EPA's regional offices, which is putting it nicely.

New York City's deputy mayor for operations Cas Holloway is less charitable. The EPA, he wrote in "The Environmental Forum" journal this month, is "treating cities as it might have treated Standard Oil early last century." The agency is "imposing billions of dollars of unfunded mandates without a clear scientific and public health basis for doing so."

Perhaps by targeting cities the EPA is merely trying to show that it's an equal opportunity harassing regulator. To adapt one of the President's favorite phrases, everyone deserves a fair shakedown.

5. EPA, Water and Value for Tax Money

By Grant Weaver, Letter, WSJ, Oct 24, 2012 http://online.wsj.com/article/SB10001424052970204425904578074911131525782.html?mod=IT P_opinion_1 *[SEPP Comment: All too often, in its edicts, EPA has no concept of cost.]*

Regarding your editorial "The Obama Storm Tax" (Oct. 23): After the expenditure of \$85 billion of taxpayers' money to build 15,000 sewage treatment plants, the EPA has determined it is necessary to "invest" another \$300 billion to fix them. Nearly 40 years after the Clean Water Act became law, the Journal reveals how deep into the abyss another federal program has sunk.

Water-quality objectives can often be met at 1% of the cost of the facility upgrades mandated by the EPA. This is done by focusing first on optimizing the use of existing equipment, and second, by building new facilities. For 40 years the EPA's emphasis has been on new construction, not optimization. By changing equipment settings and investing an average of \$25,000, 10 Connecticut municipalities are providing the same nitrogen removal that 48 other communities spent an average of \$6.15 million to achieve. After a two-day training class sponsored by the state's clean water agency, three Montana municipalities cut their nutrient discharges by 50%. The creative use of plant equipment and a \$60,000 expenditure on new equipment is providing the residents of Montague, Mass., with better wastewater treatment than a proposed \$4.5 million equipment upgrade promised.

It is possible to make clean water so affordable that no community can afford polluting its waterways. I invite the EPA and other concerned parties to join me and other like-minded professionals in this endeavor.