Brought to You by SEPP (www.SEPP.org)
The Science and Environmental Policy Project

Quote of the Week: • “...we can expect to see [extreme cold] with increasing frequency as global warming continues.” Presidential Science Advisor John Holdren [H/t Howard Hayden]

Number of the Week: $199,100

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

Proposed Talking Points and Generic Letter
By S. Fred Singer, Chairman, Science & Environmental Policy Project (SEPP)

TWTW readers have asked SEPP to provide major talking points to counter the false claim that human emissions of carbon dioxide are causing dangerous global warming (now often referred to as ‘climate change’). Government entities are imposing regulations that may create a real disaster that raises energy costs, kills jobs, and destroys the middle class. Rich people can easily survive even a large rise in energy prices; and the poor will simply look to more government handouts, always paid by ever-increasing taxes on the middle class.

This is a recipe for social disaster, brought about by misplaced concerns about Dangerous Anthropogenic [human caused] Global Warming (DAGW). Our purpose is to counteract this illusion that’s being fed by current White House policies based on the faulty science of the UN-IPCC (Intergovernmental Panel on Climate Change).

NIPCC presents Climate Facts, not Hype

Our approach is to present the facts—as assembled in massive reviews of more than 5000 scientific papers by 50+ non-government scientists, many retired, living on pensions, and not beholden to any special interests. We are known as the NIPCC (Non-governmental International Panel on Climate Change). Our reports are available—free of charge—at www.NIPCCreport.org.

Readers may wish to use whatever means available to bring this message to the wider public. In some cases they will be limited on the number of words; many newspapers have strict limits for Letters the Editor, something like 150-250 words. For these, I will simply list five facts as shown below in a draft Letter to Editor. Customize it as you see fit – and encourage others to participate.

But for other occasions, more words are permitted and more detailed explanations are in order. I am referring here to presentations to civic organizations, clubs, church groups, etc. Here I recommend using the five points below as a skeleton and filling in the details as you see fit. I list here several previous publications in American Thinker that you may find useful.

These two are fairly general:
http://www.americanthinker.com/2012/09/climate_realism.html
http://www.americanthinker.com/2013/07/china_questions_climate_consensus.html
These two are more technical:
http://www.americanthinker.com/2013/11/nongovernmental_climate_scientists_slam_the_uns_ipcc.html

**Draft Letter to Editor**

"Dear Editor

My purpose is to bring some commonsense to the ongoing debate on "Dangerous" Anthropogenic [human caused] Global Warming (DAGW) before ill-advised government regulations produce a real disaster that raises energy costs and kills jobs -- and the middle class. Rich people will easily survive; and the poor will look to more government handouts, always paid for by ever-increasing taxes.

Here are five facts -- as assembled in massive reviews of more than 5000 scientific papers by 50+ non-government scientists, all of them volunteers, most living on pensions, not beholden to any special interests -- and known as the NIPCC (Nongovernmental International Panel on Climate Change). Their Reports and Summaries are available -- free of charge -- at www.NIPCCreport.org

1. There has been no observed global warming for at least 15 years -- in spite of rising levels of Carbon Dioxide (CO2)
2. The computer models used by the UN-Intergovernmental Panel on Climate Change (IPCC), which all predicted a strong warming, evidently don't work and should not form the basis of energy policy
3. There has been no observed increase in heat waves, severe weather, hurricanes, droughts, etc. -- as admitted by UN-IPCC
4. A moderate climate warming benefits humans and saves energy. The increase in CO2, a natural plant fertilizer, benefits agriculture and lowers food prices
5. Therefore let’s stop misguided government efforts to lower CO2 emissions; let’s cancel all subsidies for wind and solar energy -- and for heaven's sake, let’s stop scaring the public!

**************

**The Trap:** On her web site Judith Curry has a re-posting of an essay by Garth Paltridge that originally appeared in *The Quadrant* on the Fundamental Uncertainties of Climate Change. Paltridge discusses the major forecasting uncertainties of clouds and oceans, which have been known since the 1970s and have not been much improved upon. Herein lies the trap that the climate alarmists and science bureaucrats of the UN-IPCC has set for themselves. With each new Assessment Report (every six years or so) the Summary for Policymakers is asserting greater certainty in the work, even though the greater certainty is not appearing in the actual science. Many once distinguished national academies of science dutifully followed along. Now, there is no way these bureaucratic scientists can conveniently extract themselves from the trap and discuss the great uncertainty in climate science.

In a different post, Curry points out that in the scientific report (WG1) the scientific support for human emissions of CO2 dominating global warming/climate change has weakened from the Fourth Assessment Report (AR4-2007) to the Fifth Assessment Report (AR5-2013). Curry states that the major issues are: 1) lack of warming since 1998 and growing discrepancy with climate model projections [as compared with observations]; 2) evidence of a decreased climate sensitivity
to increases in CO2; 3) evidence that sea level rise in 1920-1950 is of the same magnitude as in 1993-2012; 4) increasing Antarctic sea ice extent; and 5) low confidence in attributing extreme weather events to anthropogenic global warming.

Now doubt the climate establishment will ignore the uncertainties and continue to publicly attack those who assert the significant shortcomings. But, the real issue is how much longer will taxpayers tolerate politicians funding this scientific charade? See links under Problems in the Orthodoxy and Seeking a Common Ground.

***************

**Climate Vortex:** Dictionary examples of a vortex include a whirlpool, a cyclone, and a quagmire. In a slick promotional video, the President’s Chief Science Advisor, John Holdren, jumps into a quagmire. As illustrated in the Quote of the Week, Holdren blames the severe recent cold weather in the US on global warming. The claim is counterintuitive. One would think that in making such a video for the public, a presidential Science Advisor would carefully lay out the scientific arguments for making such an assertion. Holdren does not even try.

The scientific argument is very weak. A lessening of the temperature differences between the Arctic and the Mid-latitudes of the Northern Hemisphere results in a weakening of the circumpolar vortex. As explained by Tim Ball, and others, linked in prior TWTWs, the circumpolar vortex is generally east to west, but may meander to a more north south pattern. These are called Rossby Waves, with the former called Zonal Waves and the latter called Meridional Waves (more closely following meridional lines of longitude). In his blog Resilient Earth, Doug Hoffman demolishes Holdren’s argument and appropriately suggests that the entire effort is similar to a beer commercial.

The credibility of science is at issue. Statements such as Holdren’s highlights reasons for public skepticism, and why government agencies and others promoting global warming find it necessary to hire communications experts and psychological experts to come up with explanations (excuses), why the public is becoming increasingly skeptical about their pronouncements. Do these people believe the public is endlessly gullible, or do they believe their own propaganda?

January 1977 was so cold in Washington that the Potomac River froze at the city. Some who attended the inauguration of President Carter walked across the Potomac to and from the ceremonies. What political speculation can be made from that event?


***************

**Send Money!** British Prime Minister David Cameron claimed that the mild wet winter in England was being caused by global warming changing the circumpolar vortex. Initially, the Met Office, which failed to predict the wet weather, disavowed the assertion. Then some officials in the Met and other climate alarmist supported the claim. Myles Allen, head of the climate dynamics group at Oxford University, supported the claim and asserted that providing the Met Office or European Centre for Medium Range Forecasts with around £10 million a year would allow experts to model the weather against conditions that would have occurred if humans had not interfered with the climate.
According to a letter from the US House Committee on Energy and Commerce, 40 federal agencies or sub-agencies participating in climate change activities spent over $22 billion in 2013. SEPP does not know the extent of British expenditures, but has calculated that the US effort has cost over $185 Billion since 1993.

Now some recipients of lavish government spending are admitting that their models cannot separate the natural influences on climate from the human influences on climate – something that skeptics have been pointing out for years. See links under Changing Weather and Funding Issues.

**************

**Turbine Life:** As TWTW readers realize, SEPP does not think highly of wind power being an alternative to reliable fossil fuels for the generation of electricity. Among other issues, wind power is unreliable and needs expensive back-up, the costs of which usually falls on others. Turbine life, specifically gearbox life, remains an issue which is not publically addressed. Estimates are as low as 5 to 8 years. In 2007, the National Renewable Energy Laboratory (NREL), under the Department of Energy, formed the Gearbox Reliability Collaborative.

A review of the documents online found discussion of engineering issues that influence gearbox life, but little on the expected life of the turbines. For some years, the Federal government has been paying wind farm developers cash money on the expected production of wind farms in lieu of the production tax credit that expired at the end of December. If the turbine life is shorter than the expected 20 years, then government has been overpaying wind farm developers. See links under Alternative, Green (“Clean”) Solar and Wind.

**************

**Department of Energy:** The US Department of Energy (DOE) has produced a publication entitled “The Clean Energy Economy in Three Charts.” This is no more than a pure marketing piece for wind and solar power. Amid flashy graphs that show booming increases in installation of wind and solar capacity, the report states: “And according to the American Wind Energy Association, by 2012 there were well over 80,000 workers employed in wind-related jobs in the U.S.” This employment is insignificant when compared with the estimated employment increase of 2 million from increases in oil and gas production from smart drilling – which is not supported by taxpayers or Washington. The DOE report does not give the massive government expenditures – but mentions government “investments.” What is the rate of return on these “investment?”

Interestingly, the link to the DOE report did not work on Sunday, when this was being written. See links under Energy Issues – US.

**************

**Additions and Corrections:** Reader Clyde Spencer corrected a sentence in TWTW on oil from the Bakken formation. The oil contains such a high proportion of the more volatile components, which ignite at temperatures lower than regular crude.

**************

**Number of the Week:** $199,100. Last week the American Petroleum Institute (API) gave a briefing on the oil and gas industries emphasizing oil and gas shale revolution in the US. The API failed to mention that the revolution was brought about by independent producers, not the major integrated companies.

API President Jack Gerard emphasized that API will support those political candidates that support oil and natural gas. The politically influential newspaper, *The Hill*, made much of this and calculated that over 75% of the political action committee contributions to national candidates in
2012 went to Republicans. According to the article, 2012 political contributions totaled to $199,100 – an amount that is not enough to pay the salary of a senior executive in many green organizations. See link under Washington’s Control of Energy.

### 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. **How the Great Rare-Earth Metals Crisis Vanished**
   China's attempt to control the market for materials essential to the tech industry is turning to dust.
   By Joseph Sternberg, WSJ, Jan 8, 2014

2. **How the EPA Sticks Miners With a Motherlode of Regulation**
   The years-long wait for mining permits in the U.S. is the worst in the world.
   By Daniel McGorarty, WSJ, Jan 3, 2014

3. **The Future of Coal: New Pollution Rules Choke Old Power Plants**
   Southern Co. Builds New Plant That Captures CO2. The Price: $5.24 Billion
   By Rebecca Smith and John Miller, WSJ, Jan 7, 2014
   [SEPP Comment: The articles fails to distinguish between traditional pollutants and life giving CO2.]

4. **The Future of Coal: Gulf Coast Hums as Exports Rise**
   Louisiana Terminals Expand to Move Mississippi River Cargo to Overseas Power Plants
   By Alison Sider, WSJ, Jan 8, 2014

### NEWS YOU CAN USE:

**Suppressing Scientific Inquiry**
Should Australian newspapers publish climate change denialist opinion pieces?
Should Australian newspapers, like Fairfax, publish opinion pieces that deny or seek to cast doubt on man-made global warming?
By Alex White, Guardian, UK, Jan 3, 2014 [H/t Bishop Hill]

**Challenging the Orthodoxy**

**10 Facts and 10 Myths about Climate Change: Prof Bob Carter**
By Bob Carter, NCTCSP, Jan 1, 2014
Al Gore’s 10-year warning – only 2 years left, still no warming
By Roy Spencer, Global Warming, Jan 10, 2014
http://www.drroyspencer.com/2014/01/al-gores-10-year-warning-only-2-years-left-still-no-warming/

Comments on the recent “warming is worse than we thought” Nature paper
This is the first paper in a long time that made my brain hurt to read.
By Roy Spencer, Global Warming, Jan 6, 2014
http://www.drroyspencer.com/2014/01/comments-on-the-recent-warming-is-worse-than-we-thought-nature-paper/

Scientists Predict Colder Winters
By Larry Bell, New Max, Dec 30, 2013
http://www.newsmax.com/LarryBell/scientists-global-warming/2013/12/30/id/544314

Overpopulation: The Fallacy Behind The Fallacy Of Global Warming
By Tim Ball, WUWT, Jan 5, 2014
http://wattsupwiththat.com/2014/01/05/overpopulation-the-fallacy-behind-the-fallacy-of-global-warming/

Defending the Orthodoxy
Can global warming be real if it’s cold in the U.S.? Um… yes!
By Brad Plumer, Washington Post, Jan 6, 2014
[SEPP Comment: Contrary to the assertion, the planet is no longer warming.]

Questioning the Orthodoxy
The Scientist As Rebel: A Tribute To Freeman Dyson On His 90th Birthday
Interview by Penny Peiser, Mar 2007, GWPF, Jan 4, 2014
http://www.thegwpf.org/scientist-rebel-freeman-dysons-90th-birthday/

The Corruption of 'Climate Literacy'
By Peter Wilson, American Thinker, Jan 6, 2014 [H/t Tomas Hayward]

2013 Was Not A Good Year For Catastrophic Anthropogenic Global Climate Warming Change Disruption Weirding, Ocean Acidification, Extreme Weather, etc.
By Just the Facts, WUWT, Jan 4, 2014
http://wattsupwiththat.com/2014/01/04/2013-was-not-a-good-year-for-catastrophic-anthropogenic-global-climate-warming-change-disruption-wierding-ocean-acidification-extreme-weather/etc/

German Global Analysis: 2013 Was A Debacle For The Promoters Of Anthropogenic Global Warming
By P. Gosselin, No Tricks Zone, Jan 9, 2014
Michael Asten’s novel idea – think first, spend later?
By Jo Nova, Her Blog, Jan 5, 2014

Climate Alarmists Trash IPCC Cold Spell Predictions
By James Taylor, Heartland, Jan 7, 2014
http://news.heartland.org/newspaper-article/2014/01/07/climate-alarmists-trash-ipcc-cold-spell-predictions

Global Cooling: Is an Ice Age Coming?
By Dale Hurd, CBN News, Jan 8, 2014 [H/t GWPF]

How Leftists (Badly) Explain Climate Stability
By Chet Richards, American Thinker, Jan 7, 2014
http://www.americanthinker.com/2014/01/how_leftists_account_for_climate_stability.html

It's Colder? Hotter? Blame Climate Change
By Robert Babcock, American Thinker, Jan 9, 2014
http://www.americanthinker.com/2014/01/its_colder_hotter_blame_climate_change.html

Obama's "Climate Change" Lies
By Alan Caruba, Warning Signs, Jan 6, 2014

Problems in the Orthodoxy
IPCC AR5 weakens the case for AGW
By Judith Curry, Climate Etc, Jan 6, 2014
http://judithcurry.com/2014/01/06/ipcc-ar5-weakens-the-case-for-agw/

The IPCC discards its models
By Barry Brill, WUWT, Jan 9, 2014
http://wattsupwiththat.com/2014/01/09/the-ipcc-discards-its-models/
[SEPP Comment: Similar to link immediately above.]

Oops…Trenberth Concedes Natural Ocean Cycles Contributed To 1976 – 1998 Warming … CO2 Diminishes As A Factor
Former IPCC Author Kevin Trenberth admits in a new paper: PDO ocean oscillation contributed to the 1976-1998 warming phase
By Sebastian Lüning and Fritz Vahrenholt, Translation by P. Gosselin, No Tricks Zone, Jan 10, 2014
Seeking a Common Ground
The Fundamental Uncertainties of Climate Change
By Garth Paltridge, Climate Etc. Jan 8, 2014
http://judithcurry.com/2014/01/08/the-fundamental-uncertainties-of-climate-change/

Science and religion: Do your own damn Google search
By Roy Spencer, Global Warming, Jan 7, 2014

The real risks of cherry picking scientific data
The sin of omission of inconvenient results
By Matt Ridley, Rational Optimist, Jan 7, 2014
[SEPP Comment: In its reports, is the climate establishment to be more trusted than the pharmaceutical industry?]

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

Predicting Precipitation Extremes via CMIP5 Climate Models
http://nipccreport.org/articles/2014/jan/7jan2014a1.html

Corals Forced to Live in a CO2-Enriched and Warmer Environment
http://nipccreport.org/articles/2014/jan/7jan2014a2.html

Near-Death Experiences of Brazilian Corals
http://nipccreport.org/articles/2014/jan/8jan2014a1.html

The Flip Side of Coral Bleaching
http://nipccreport.org/articles/2014/jan/8jan2014a2.html

Models v. Observations
Antarctic Sea Ice Trends: Modelled vs. Measured
http://www.co2science.org/articles/V17/N2/C1.php
It is difficult for a climate model to be more wrong than when it hind-casts just the opposite of what has been observed to be happening over the past three and a half decades in the real world, which is what most of the CMIP5 models apparently do.

**Measurement Issues**

**RSS AMSU 2013: 10th warmest year on record**
By Luboš Motl, The Reference Frame, Jan 5, 2014
http://motls.blogspot.com/2014/01/rss-amsu-2013-10th-warmest-year-on.html#more
[SEPP Comment: The UAH analysis puts 2013 as the fourth warmest.]

**UAH v5.6 Global Temperature Update for Dec. 2013: +0.27 Deg. C**
By Roy Spencer, Global Warming, Jan 3, 2014
[SEPP Comment: The anomaly map for 2013 shows no pronounced warming over the Arctic, which is unlike the 30 plus year trend. The trend map for the entire satellite record is not yet available.]

**The Original Temperatures Project**
By Frank Lansner, WUWT, Jan 6, 2014
http://wattsupwiththat.com/2014/01/06/the-original-temperatures-project/
[SEPP Comment: A long post on the effort to obtain original temperature data and compare it with adjusted data. The ocean-air shelter regions may explain why certain areas are warmer today than in the 1930s.]

**Australia endures hottest year on record**
By Staff Writers, Sydney (AFP), Jan 03, 2014
http://www.terradaily.com/reports/Australia_endures_hottest_year_on_record_999.html

**Global warming update: hot with a lot of ice**
By Anthony Cox, No Carbon Tax Climate Sceptics, Jan 10, 2014
[SEPP Comment: See link immediately above.]

**Changing Weather**

**Does the Cold Wave Imply Anything About Global Warming? The Answer is Clearly No.**
By Cliff Mass, Weather Blog, Jan 6, 2014
http://cliffmass.blogspot.co.uk/2014/01/does-cold-wave-imply-anything-about.html

**Meteorologist Tells Hannity Global Warmists 'Are Meteorological Know-Nothings'**
By James Beattie, CNS News, Jan 8, 2014 [H/t Timothy Wise]
http://www.cnsnews.com/mrctv-blog/james-beattie/meteorologist-tells-hannity-global-warmists-are-meteorological-know

**Bitter cold blasts Chicago, a city fighting climate change**
By Steve Goreham, Washington Times, Jan 7, 2014
Met Office Did Not See Floods Coming
By Paul Homewood, No a Lot of People Know That, Jan 7, 2014 [H/t GWPF]
http://notalotofpeopleknowthat.wordpress.com/2014/01/07/met-office-did-not-see-floods-coming/

The storms are no different – but we are
It’s not the weather that has got worse, it’s our ability to cope without the creature comforts
By Christopher Howse, Telegraph, UK, Jan 6, 2014 [H/t GWPF]
http://www.telegraph.co.uk/topics/weather/10553640/The-storms-are-no-different-but-we-are.html

Is England’s Bad Weather A Sign Of Climate Change?
By Paul Homewood, WUWT, Jan 7, 2014
http://wattsupwiththat.com/2014/01/07/is-englands-bad-weather-a-sign-of-climate-change/

Weather Is Not Climate
Antarctic ice doesn’t discredit the warmists, but they should dial down the death-cult drama.
By Charles C. W. Cooke, National Review Online, Jan 6, 2014

UK weather: it's just a storm, not global warming
By Tom Chivers, The Telegraph, UK, Jan 6, 2014 [H/t GWPF]

UK Weather: How stormy has it been and why?
By Staff Writers, Press Release, Met Office, Jan 3, 2014 [H/t GWPF]
http://metofficenews.wordpress.com/2014/01/03/uk-weather-how-stormy-has-it-been-and-why/

‘Hot air’ over climate change
By Bill Carmichael, Yorkshire Post, Jan 10, 2014 [H/t GWPF]
http://www.yorkshirepost.co.uk/news/debate/columnists/bill-carmichael-hot-air-over-climate-change-1-6364480

Has the media stopped linking floods to climate change?
By Leo Barasi, Noise of the Crowd, Jan 5, 2014 [H/t GWPF]
http://www.noiseofthecrowd.com/has-the-media-stopped-linking-floods-to-climate-change/

Veteran German Meteorologist Affirms Winter Cold And Mild Extremes Are Natural. And: Winter Returning To Europe
By P. Gosselin, No Tricks Zone, Jan 8, 2014

Study: What is driving the rising cost of natural disasters?
By Anthony Watts, WUWT, Jan 5, 2014
http://wattsupwiththat.com/2014/01/05/study-what-is-driving-the-rising-cost-of-natural-disasters/
Link to paper: What is driving the rising cost of natural disasters?
By John McAneny and Ryan Crompton, Macquarie University, 2013
[SEPP Comment: Applies to Australia – building in high risk areas.]

The Great Storm
By Richard Cavendish, History Today, Nov, 2003 [H/t Bishop Hill]
http://www.historytoday.com/richard-cavendish/great-storm
[SEPP Comment: Even before there was global warming!]

Changing Climate
Recent testimony a reminder that climate change skepticism is healthy
Editorial, Oklahoman, Jan 3, 2014
http://newsok.com/recent-testimony-a-reminder-that-climate-change-skepticism-is-healthy/article/3919957

Changing Seas
Alarmists Feverish Over Sea Levels
By Larry Bell, News Max, Dec 23, 2013

Changing Cryosphere – Land / Sea Ice
Review Of 2013 – Global Sea Ice Area
By Paul Homewood, Not a Lot of People Know That, Jan 3, 2014 [H/t GWPF]
http://notalotofpeopleknowthat.wordpress.com/2014/01/03/review-of-2013-global-sea-ice-area/
[SEPP Comment: Greatest extend since the satellite measurements began in 1979.]

Antarctic ice shelf melt 'lowest EVER recorded, global warming is NOT eroding it'
Human CO2 just not a big deal at Pine Island Glacier
By Lewis Page, The Register, Jan 3, 2014 [H/t Reed Gibby]
http://www.theregister.co.uk/2014/01/03/antarctic_ice_shelf_melt_lowest_ever_recorded_just_not_much_affected_by_global_warming/
Link to paper: Strong Sensitivity of Pine Island Ice-Shelf Melting to Climatic Variability
http://www.sciencemag.org/content/early/2014/01/02/science.1244341.abstract?sid=b38e30ea-23a1-49f1-92fa-a807b49036a1

Domino effect of chain reaction drainage of surface lakes led to the breakup of Larsen B Ice Shelf in 2002
By Anthony Watts, WUWT, Jan 8, 2014

Polar Ice Is Growing Again, Upsetting Climatologists: But Others Are Happy
By Eugen Sorg, Basler Zeitung, Translation by Philipp Mueller, GWPF
http://www.thegwpf.org/polar-ice-growing-upsetting-climatologists-happy/
[SEPP Comment: Antarctic sea ice again interfering with the plans of deluded eco-warriors.]

Acidic Waters
Can Squid Abide Ocean's Lower pH?
Experiments hint at harm to critical balance organs
By Kate Madin, Oceanus, Jan 29, 2014
http://www.whoi.edu/oce
anus/feature/can-squid-abide-oceans-lower-ph

[SEPP Comment: Two problems with this research: 1) petition principii, assuming that increased atmospheric CO2 will decrease the alkalinity of the ocean and 2) transferring egg masses from one environment to one with a lower pH.]

Claim: Local factors cause dramatic spikes in coastal ocean acidity
By Anthon Watts, WUWT, Jan 3, 2014
http://wattsupwiththat.com/2014/01/03/claim-local-factors-cause-dramatic-spikes-in-coastal-ocean-acidity/

Link to paper: Dramatic variability of the carbonate system at a temperate coastal ocean site (beaufort, north Carolina, USA) is regulated by physical and biogeochemical processes on multiple timescales.
By Johnson, et al, Plos One Dec 17, 2013

[SEPP Comment: Species that adapt to rapid local changes in pH would likely adapt to slow changes that in increase in atmospheric CO2 may bring about.]

Agriculture Issues & Fear of Famine
Chinese scientists create high-yield, salt-resistant rice variety
By Staff Writers, Yangcheng, China (UPI), Jan 2, 2013
http://www.seeddaily.com/reports/Chinese_scientists_create_high-yield_salt-resistant_rice_variety_999.html

Lowering Standards
John Holdren, Pseudoscience Czar, predicted waste heat would doom humanity
By Roy Spencer, Global Warming, Jan 10, 2014

Climate Comedy?
Global warming's glorious ship of fools
Has there ever been a better story? It's like a version of Titanic where first class cheers for the iceberg
By Mark Steyn, Spectator, Jan 11, 2014
http://www.spectator.co.uk/features/9112201/ship-of-fools-2/

Who is behind the ship of fools?
By Ross Clark, Spectator, Jan 4, 2014
http://blogs.spectator.co.uk/ross-clark/2014/01/who-is-behind-the-ship-of-fools/

Akademik Shokalskiy and the Xue Long have broken free from the ice in Antarctica and are no longer in need of assistance
By Anthony Watts, WUWT, Jan 7, 2014
Polar Chief Slams Antarctic ‘Pseudo-Scientific Expedition’
By Staff Writers, Sky News, AU, Jan 4, 2014 [H/t GWPF]

2014: Let's Change the Climate
By Clarice Feldman, American Thinker, Jan 5, 2014
http://www.americanthinker.com/2014/01/2014_lets_change_the_climate.html

Climate Vortex – Whirlpool, Cyclone, or Quagmire?
The White House gets into the ‘polar vortex’ climate change blame business
John Holdren, Video, WUWT, Jan 8, 2014

Climate Change Might Just Be Driving the Historic Cold Snap
Climate change skeptics are pointing to the record cold weather as evidence that the globe isn't warming. But it could be that melting Arctic ice is making sudden cold snaps more likely—not less
By Bryan Walsh, Time, Jan 6, 2014 [H/t Climate Depot]
http://science.time.com/2014/01/06/climate-change-driving-cold-weather/

Arctic Vortex Vexation
By Doug Hoffman, Resilient Earth, Jan 10, 2014 [H/t GWPF]
http://theresilientearth.com/?q=content/arctic-vortex-vexation

Princeton Physicist Dr. Will Happer refutes claims that global warming is causing record cold: ‘Polar vortices have been around forever. They have almost nothing to do with more CO2 in the atmosphere’
By Marc Morano, Climate Depot, Jan 7, 2014

What is a ‘polar vortex’ and why is it so dangerous?
By Matt Pearce, Time Magazine, Via ICECAP, Jan 7, 2014
http://icecap.us/index.php/go/political-climate/what_is_a_polar_vortex_and_why_is_it_so_dangerous2/

Climateers Caught in the Vortex
By Steven Hayward, Power Line, Jan 8, 2014

Time Magazine Goes Both Ways On The Polar Vortex
By Steven Goddard, Real Science, Jan 7, 2014
http://stevengoddard.wordpress.com/2014/01/07/time-magazine-goes-both-ways-on-the-polar-vortex/

Communicating Better to the Public – Exaggerate, or be Vague?
‘Worse Than We Thought’ Rears Ugly Head Again
By Patrick J. Michaels and Paul C. "Chip" Knappenberger, CATO, Jan 6, 2014
http://www.cato.org/blog/worse-we-thought-rears-ugly-head-again
[SEPP Comment: Explaining why the term “worse than we thought” may be a dead giveaway for a propaganda piece.]

Communicating Better to the Public – Make things up.
Are we weather wimps?
By Staff Writers, ICECAP, Jan 9, 2014
http://icecap.us/index.php/go/new-and-cool/are_we_weather_wimps1/
[SEPP Comment: Response from ICECAP to an article by Seth Borenstein of AP.]
Link to article: Scientists: Americans Are becoming Weather Wimps
By Seth Borenstein, AP, Jan 9, 2014
http://bigstory.ap.org/article/scientists-americans-are-becoming-weather-wimps

Insurance Companies Cash In On Fear – But Spanish Flood Data Over Last 40 Years Show No Increased Risk
Flood Analysis in Spain Shows No Trend In 40 Years
By Sebastian Lüning and Fritz Vahrenholt, Translated by P Gosselin, No Tricks Zone, Jan 7, 2014

Quote of the week – climate induced ‘extreme weather’ has long been a concern of climate scientists
By Anthony Watts, WUWT, Jan 9, 2014
http://wattsupwiththat.com/2014/01/09/quote-of-the-week-climate-induced-extreme-weather-has-long-been-a-concern-of-climate-scientists/

Communicating Better to the Public – Go Personal.
Being bullish on Robert Brulle’s “Dark Money” Smear of Skeptics
By Brandon Schollenberger, WUWT, Jan 6, 2014
http://wattsupwiththat.com/2014/01/06/being-bullish-on-robert-brulles-dark-money-smear-of-skeptics/

Readfearn and The Guardian: Science is one big long ad-hom
By Jo Nova, Her Blog, Jan 10, 2014

Questioning European Green
Big industry will quit Germany if green energy costs rise –minister
By Tom Körkemeier, Reuters, Jan 7, 2014 [H/t GWPF]
http://www.reuters.com/article/2014/01/07/eu-germany-idUSL6N0KH2WF20140107

Pros and cons of fracking
By Martin Livermore, Scientific Alliance, Jan 10, 2014
http://scientific-alliance.org/scientific-alliance-newsletter/pros-and-cons-fracking

Questioning Green Elsewhere
The Clean Tech Crash
Despite billions invested by the U.S. government in so-called “Cleantech” energy, Washington and Silicon Valley have little to show for it
By Lesley Stahl, Transcript and Video, Jan 5, 2014 [H/t GWPF]

Testimony Against Industrial Wind Power (Kevon Martis before the Ohio Senate and House Public Utilities Committees)
By Kevon Martis, Master Resource, Jan 8, 2014
http://www.masterresource.org/2014/01/ohio-2013-testimony-wind-martis/#more-29116
[SEPP Comment: Powerful testimony on the manipulation of the public by the wind industry and its political supporters.]

Green Jobs
60 Minutes: ‘The Cleantech Crash’ ($150 billion boondoggle exposed)
By Robert Bradley, Jr. Master Resource, Jan 6, 2014
http://www.masterresource.org/2014/01/60-minutes-cleantech-crash/

Funding Issues
House Committee on Energy and Commerce
By Members of Congress to OMB, Oct 24, 2013

Americans Spent $7.45B in 3 Years Helping Other Countries Deal With ‘Climate Change’
By Patrick Goodenough, CNS News, Jan 3, 2014 [H/t Timothy Wise]
Link to the report: 2014 U.S. Climate Action Report
By Staff Writers, Department of State, Jan 1, 2014
http://www.state.gov/e/oes/rls/rpts/car6/219259.htm

Climate experts back PM's comments
By Staff Writers, Belfast Telegraph, Jan 10, 2014 [H/t GWPF]

David Cameron was right to link storms to climate change, say weather experts
David Cameron was recently criticised for linking the increase in storms to climate change, but today weather experts say the prime minister was right.
By Sarah Knapton, Telegraph, UK, Jan 10, 2014 [H/t Bishop Hill]
http://www.telegraph.co.uk/topics/weather/10564153/David-Cameron-was-right-to-link-storms-to-climate-change-say-weather-experts.html

Subsidies and Mandates Forever
Spain makes abrupt U-turn on solar payments; Retreat on rates leaves thousands of investors fearing they'll go broke
By Suzanne Daley, Power Engineering, Jan 6, 2014 [H/t Anne Debeil]
**EPA and other Regulators on the March**

EPA's formal release of emissions rules for new power plants draws immediate criticism

By Zack Colman, Washington Examiner, Jan 8, 2014


**Energy Issues – Non-US**

Germany: The Canary for Renewables

By Donn Dears, Power for USA, Jan 7, 2014

http://dddusmma.wordpress.com/2014/01/07/germany-the-canary-for-renewables/

The Return of Centralized Energy Planning in Britain

By Staff Writers, NCPA, Dec 30, 2013


Link to paper: "From Nationalisation to State Control: The Return of Centralised Energy Planning."

By Colin Robinson, Institute of Economic Affairs, UK, Dec 2013


[SEPP Comment: The evils committed in the name of energy security.]

The Global Impact of US Shale

By Daniel Yergin, Project Syndicate, Jan 8, 2014


Lavish energy lifestyles,

By Lawrence Solomon, Financial Post, Jan 9, 2014 [H/t GWPF]

http://opinion.financialpost.com/2014/01/09/lawrence-solomon-lavish-energy-lifestyles/

[SEPP Comment: Will northern cities have heated sidewalks?]

**Energy Issues -- US**

Government Acting As a Shill

By Donn Dears, Power for USA, Jan 10, 2014

http://dddusmma.wordpress.com/2014/01/10/government-acting-as-a-shill/

[SEPP Comment: See link immediately below.]

“Clean Energy Economy in Three Charts” U.S. DOE Misleads Again

By Glenn Schleede, Master Resource, Jan 9, 2014


Link to report: The Clean Energy Economy in Three Charts

By Dan Utech, DOE, Jan 6, 2014

http://www.doe.gov/articles/clean-energy-economy-three-charts
Washington's Control of Energy

Obama's ‘Quadrennial Energy Review’: Old Vinegar in New Bottles (remember Jimmy Carter and FDR)
By Robert Bradley, Jr, Master Resource, Jan 10, 2014
http://www.masterresource.org/2014/01/obamas-quadrennial-energy-review-old/#more-29298
Link to press release: New Steps to Strengthen the Nation’s Energy Infrastructure
Signed by John P. Holdren, Cecilia Muñoz, and Ernest Moniz, White House Press Release, Jan 9, 2014
http://www.whitehouse.gov/blog/2014/01/09/new-steps-strengthen-nation-s-energy-infrastructure

Podesta's Climate And Environmental Agendas Will Add To Obama's Executive Disorders
By Larry Bell, Forbes, Jan 5, 2014

American Petroleum Institute to push hard for 'pro-growth energy policies' in 2014 elections
By Zack Colman, Washington Examiner, Jan 7, 2014

[SEPP Comment: The claimed $4 billion in tax incentives is contrived.]

Oil and Natural Gas – the Future or the Past?
Vaclav Smil’s graph of the year: The natural-gas boom
By Wonkblog, Washington Post, Dec 29, 2013

[SEPP Comment: The divergence between the price of natural gas in the US since 2009 and the price of oil is quite stunning.]

Some States Confirm Water Pollution from Drilling
By Kevin Begos, AP, Jan 5, 2014

[SEPP Comment: The article lacks specifics, particularly when dealing with contamination from the surface.]

Return of King Coal?
China approves massive new coal capacity despite pollution fears
* Beijing approves 15 new large coal mining projects over year
* Total new capacity, including small mines, likely to be higher
* Capacity to increase by 860 mln T over 2011-2015 period
By David Stanway, Reuters, Jan 7, 2014 [H/t GWPF]
http://www.reuters.com/article/2014/01/07/china-coal-idUSL3N0K90H720140107
Dirtiest Coal’s Rebirth in Europe Flattens Medieval Towns
By Stefan Nicola and Ladka Bauerova, Bloomberg, Jan 6, 2014 [H/t GWPF]

Germany out in the coal
By Ezra Levant, Toronto Sun, Jan 6, 2014 [H/t GWPF]
http://www.torontosun.com/2014/01/06/germany-out-in-the-coal

Green Revolution? Germany’s New Coal Boom Reaches Record Level
Editorial, Frankfurter Allgemeine Zeitung, Via GWPF, Translation Philipp Mueller, Jan 7, 2014
http://www.thegwpf.org/germanys-coal-boom/

Alternative, Green (“Clean”) Solar and Wind
How to make money doing nothing
By Andrew Montford, Bishop Hill, Jan 8, 2014
[SEPP Comment: Big wind makes big money by not generating electricity.]

Wind Farms ‘Will Be Paid Billions To Switch Off’
By Mike Wade, The Times, Via GWPF, Jan 8, 2014

Wind Turbines: The Ghost in the Gearbox
By Billo the Wisp, His Blog, Dec 1, 2013 [H/t Bishop Hill]
http://billothewisp.blogspot.co.uk/2013/12/wind-turbines-ghost-in-gearbox.html
Link to the Gearbox Reliability Collaborative, NREL.
http://www.nrel.gov/wind/grc/

Researchers Find Ways To Minimize Power Grid Disruptions From Wind Power
By Staff Writers, Raleigh NC (SPX), Jan 03, 2014
Link to paper: Coordinating Wind Farms and Battery Management Systems for Inter-Area Oscillation Damping: A Frequency-Domain Approach
[SEPP Comment: A long way to go.]

California Dreaming
350.org wants AGW health warning on gas pumps
By Luboš Motl, Reference Frame, Jan 10, 2014
http://motls.blogspot.com/2014/01/350org-wants-agw-health-warning-on-gas.html#more

California Coastal Commission to solicit input on Global Warming driven sea level policy document
From the “we’ve already made up our minds, these hearings are simply for show” department.
Posted by Anthony Watts, WUWT, Jan 8, 2014

**Health, Energy, and Climate**
**New compounds discovered that are hundreds of times more mutagenic**
By Staff Writers, Corvallis OR (SPX), Jan 07, 2014
http://www.spacemart.com/reports/New_compounds_discovered_that_are_hundreds_of_times_more_mutagenic_999.html

**Environmental Industry**
**A Killing Frost for Green Bosses**
By Matthew Vadum, Front Page, Jan 8, 2014
http://www.frontpagemag.com/2014/matthew-vadum/a-killing-frost-for-green-bosses/?utm_source=FrontPage+Magazine&utm_medium=email&utm_campaign=9d93fa6ec8-Mailchimp_FrontPageMag&utm_term=0_57e32c1dad-9d93fa6ec8-156404385

**Other Scientific News**
**Top 10 Retractions of 2013**
A look at this year’s most memorable retractions
By Adam Marcus and Ivan Oransky, The Scientist, Dec 30, 2013 [H/t Catherine French]

**BELOW THE BOTTOM LINE:**
Now it’s the fungi carbon footprint that isn’t in climate models
Symbiotic fungi inhabiting plant roots have major impact on atmospheric carbon, scientists say
Posted by Anthony Watts, WUWT, Jan 9, 2014

**ARTICLES:**
1. **How the Great Rare-Earth Metals Crisis Vanished**
China's attempt to control the market for materials essential to the tech industry is turning to dust.
By Joseph Sternberg, WSJ, Jan 8, 2014
http://online.wsj.com/news/articles/SB10001424052702303848104579308252845415022?mod=ITP_opinion_0

There was a time, not so long ago, when the world feared China was going to use its dominance of the global rare-earth-element industry to crush Western economies and militaries in a strategic vise. Those were the days. Recent developments highlight how wrong those alarmist predictions were.

Rare earths are the metals at the bottom of the periodic table that are exceptionally useful in many high-tech applications, from lasers to solar panels to electric car batteries to smartphones. China is the world's major extractor and only processor of rare-earth ores.
Beijing aroused worries in late 2010 when it apparently limited exports of the minerals to Japan amid a territorial dispute. The episode stoked fears that China would use its sole-supplier status for nefarious ends.

Except that it turns out Beijing doesn't have the wherewithal to execute such a dastardly plan. Consider the new plan Beijing unveiled last week to consolidate its rare-earth industry into six large extraction and processing companies. As a start, Inner Mongolia Baotou Steel Rare-Earth Hi-Tech Company (yes, that's its name) is buying nine of its smaller competitors in the north, with more mergers and acquisitions to come.

This is at least the second time in roughly a decade that Beijing has attempted rare-earth rationalization. The first foundered when faced by opposition that included the local officials who so often sponsor projects away from Beijing's watchful gaze.

The consolidation drive is a sign of weakness, not strength. The impetus is Beijing's need to resolve the problems its past interventions in the market have created.

Export restrictions kicked in three years ago, officially justified by the need to reduce the pollution caused by mining and processing. Global prices rose dramatically, creating an incentive for new miners to start production, and an opportunity for them to profit from circumventing export blocks via endemic smuggling.

Meanwhile, Beijing's economic stimulus policies lowered the cost of credit, making it easier to fund this investment. But once the global panic subsided and demand slackened, rare-earth prices fell by as much as 60% from their 2011 peaks. Oversupply is the new worry.

On a related note, the export restrictions also have not helped Beijing mitigate the environmental damage caused by the rare-earth industry. Processing the ores is messy work, and Beijing seems to have hoped that whatever other mercantilist objective it might achieve, limiting export quantities would also lead to a cleanup of the industry at home.

Not so, because the restrictions stimulated new mining by small, illegal operators with even worse environmental practices than the big companies. Now lower global prices and the resulting thinner profit margins make costly environmental compliance that much harder.

Don't suppose for a minute that centrally arranged consolidation will solve any of this, since consolidation doesn't fix the underlying problem with China's approach to rare earths: Beijing still steadfastly refuses to allow the market to operate. Just ask yourself, when is the last time that politically allocated capital; administrative controls on price, production, export or other disposition of an output; and centrally determined corporate structures resulted in a rational industry, in China or anywhere else?

For guidance on better options, Beijing could look abroad. The other big rare earths story of the moment highlights the extent to which Beijing's non-market machinations have triggered helpful market responses elsewhere.

A Pentagon report leaked last month noted that reliance on Chinese rare-earth metals, while still high, is declining. New supplies for most rare-earths are coming online, as uncertainty over China's reliability and a period of higher prices stimulated investment in new mining projects
elsewhere. Greenland and Russia both have opened new tracts to rare-earths exploration in the past year. China's share of global production now is down to as low as 80% from 95% in 2010.

This overseas rare-earth industry is not so different from the Chinese version, insofar as it's sustained, for now at least, by readily available capital thanks to the post-2010 surge in investor interest. But what the foreigners do have is a market mechanism for industry rationalization over time, as more profitable miners prosper and others go bankrupt or merge into their healthier peers via an organic process of consolidation.

Meanwhile, note an especially piquant detail: Manufacturers are rethinking their dependence on the metals as an input. One suspected goal of China's export restrictions was to force foreign manufacturers to shift more of their high-value-added, high-tech production into China in pursuit of more readily available domestic supplies.

Instead, foreign high-tech companies increasingly invest in new recycling methods, or products that rely less on rare earths. They have not weaned themselves off the metals by a long shot. But the technology frontier is shifting ever so gradually away from rare earths, and from China.

2. How the EPA Sticks Miners With a Motherlode of Regulation

The years-long wait for mining permits in the U.S. is the worst in the world. By Daniel McGorarty, WSJ, Jan 3, 2014

On Dec. 13, the proposed Rosemont Copper project in southwestern Arizona—which would produce about one-tenth of all the copper in the U.S. every year—got the green light from the U.S. Forest Service to begin operations.

It was a long time coming—more than seven years after the company presented its mine plan and began the National Environmental Policy Act review process. Then again, since the average time to get a mine permitted in the U.S. is a worst-in-the-world seven-to-10 years, Rosemont's long wait isn't the exception. It's the rule.

The Forest Service's approval should be great news for our high-tech economy, powered by copper in, for instance, electric vehicles, smart homes and smartphones (about 10% of an average phone's weight is copper). But that decision is overshadowed by the last remaining—and most formidable—governmental hurdle, the Environmental Protection Agency, the guardian of Section 404 of the Clean Water Act. Having run the gauntlet of state and local permitting requirements, Rosemont now faces two potentially fatal challenges from the EPA in the final stages of review: either death by a thousand pesky comments or an outright veto.

In the bureaucratic equivalent of sticky riot foam—a substance meant to slow and stop people on the street—every few months, a couple of dozen pages furl out from the EPA to Rosemont's managers. Past communications have included the suggestion that the project might jeopardize the leopard frog, or the Gila topminnow, or the water umbrel. One official worry was that the project might impede the opportunity for people to canoe in a desert region where summer temperatures reach 118 degrees.
The EPA churns out concerns about potential impacts on 18 miles of streams and threats to the "water quality" of the Davidson Canyon Wash, a single gulch—filled intermittently by rain—in a state with 39,039 rivers and streams. The agency also lets Rosemont know it will be looking at the impacts of mining on air quality—but only after a preliminary process to determine which air-quality standard should apply. Each governmental query receives a Rosemont reply in the never-ending race toward a moving finish line.

Even this snail's pace doesn't satisfy anti-mining advocates. Many environmentalists and anti-capitalists (and many critics are both) would like to see the EPA simply short-circuit the review process and veto the mine proposal. After all, the agency has used Section 404(c) of the Clean Water Act to shut down a mine—famously, the Spruce Mine in West Virginia—even after it had received its operating permit.

For the most vocal environmental groups, the EPA is perfectly suited as judge and jury. Jennifer Krill, the director of Earthworks, confirmed in congressional testimony earlier this year that her group has never supported or endorsed a single U.S. mine. The threat of an EPA Clean Water Act veto of various projects hangs over more than $220 billion in economic development, ranging from mines to agriculture and infrastructure projects.

Sadly for communities around the proposed mine—about 30 miles southwest of Tucson in an area where unemployment is still stubbornly close to 10%—every day of delay means a longer wait for much-needed jobs, which would funnel much-needed revenue into local tax coffers. Mothers and fathers struggling to support their families may feel endangered, but unlike the leopard frog, they're not on a government list.

The nation, meanwhile, is losing the output of a mine with a projected yearly output of more than 100,000 metric tons. That's Arizona copper the U.S. wouldn't need to import from abroad, feeding a negative balance of trade, and providing political and economic leverage to nations that supply the metal we fail to mine ourselves.

If we mine fewer metals, won't manufacturing jobs leave the U.S. and go where the metals are? If we don't mine in the U.S.—with arguably the world's most stringent oversight, environmental and safety standards—won't Americans end up importing products made with metals mined in other places under less-stringent standards (if any), leading to far more damage to the environment and the health of the miners? All of these questions are critical to determining whether a mine serves the public good. Surely they must matter to the nation as much as a top-minnow does to the EPA.

Finally, did Congress pass the National Environmental Policy Act to put in place a means of balancing the benefits of resource extraction with competing public goods? Or did it set up an endless bureaucratic gauntlet designed to delay, derail or economically exhaust mine developers?

Seven and a half years on, Rosemont Copper is still waiting for an answer.

Mr. McGroarty is president of American Resources Policy Network, a nonprofit, nonpartisan education and public policy research organization in Washington, D.C.

********************

3. The Future of Coal: New Pollution Rules Choke Old Power Plants
Southern Co. Builds New Plant That Captures CO2. The Price: $5.24 Billion
By Rebecca Smith and John Miller, WSJ, Jan 7, 2014
The world was riveted in October by eerie photos of Harbin, an industrial city in northeastern China that was smothered by thick smog from burning coal.

The U.S. had its own encounters with choking pollution several decades ago. Though nearly forgotten today, the incidents sparked the creation of the Environmental Protection Agency and federal regulations that have reshaped the electricity industry—then and now the country's largest industrial source of air pollution.

The agency's early efforts have resulted in important gains. Since reaching a peak in the late 1970s, U.S. utilities have slashed their release of their two biggest air pollutants, cutting sulfur dioxide, which causes acid rain, by more than 80% and reducing smog-forming nitrogen oxides by more than 75%, according to federal statistics. Utilities did it—and slashed soot emissions as well—while continuing to burn enormous amounts of coal.

Now the government and utilities are taking on what may be a stiffer challenge: reducing pollutants whose effects are harder to see, like mercury and greenhouse gases.

As a result, dozens of coal-fired plants are likely to close over the next decade as utilities conclude it isn't cost-effective to bring old coal generators into compliance with environmental rules.

It is a sort of "do not resuscitate list" for power plants, says David Hawkins, director of climate programs for the Natural Resources Defense Council, an environmental-advocacy group.

To be sure, regulation isn't the only reason that coal-burning electricity plants are shutting down. Natural gas produces about half as much carbon dioxide as coal and the cost has dropped dramatically since 2009.

U.S. air-pollution regulation can be traced back to October 1948, when a cloud of pollution settled over the industrial town of Donora, Pa., leaving 20 people dead. Thousands of people were sickened by the smog, which was later linked to industrial sources, including a zinc plant. Smog that gripped New York City during Thanksgiving week in 1966 also was blamed for deaths.

In 1970 Congress passed the Clean Air Act. In the four decades since, the electricity industry has slashed pollution from coal-fired plants through tens of billions of dollars in upgrades and a shift to lower-sulfur coal extracted from Wyoming's Powder River Basin.

Early on, the EPA focused its efforts on cutting air pollution from factories and power plants near big cities, reflecting a common view that pollution was an urban problem.

"Prior to the 1970 Clean Air Act, pollution-control equipment didn't really exist," says John Coequyt, the Sierra Club's director of climate policy. "The utility industry said it couldn't do what the law required, or that it would cost a fortune." But electric companies have found ways to get the job done, he says. "We've come a huge distance."
More recently, enforcement has shifted to pollution that blows across state boundaries and toxins such as mercury and arsenic. A new rule on mercury, set to take effect next year, could cut emissions by about 90% in coming years, experts say, and prompt coal-plant closures.

American Electric Power Co to spend $3.5 billion to $4 billion to satisfy the mercury rule, says Nick Akins, chief executive of the 11-state utility. But, he says, "We've gotten past a large amount of the environmental spend."

U.S. air-pollution regulation can be traced back to October 1948, when a cloud of pollution settled over the industrial town of Donora, Pa. Associated Press

The EPA also is turning its attention to greenhouse gases like carbon dioxide. Last year, the agency proposed a standard that would make it impossible to build conventional coal-burning power plants. The agency is expected to propose a rule covering existing plants next year and put a final greenhouse-gas rule in place after 2020.

Efforts to stop CO2 emissions after coal has been burned have been stymied by the difficulty of running complicated gas-separation equipment. In tests, such equipment used up significant amounts of power, cutting electricity output. Scientists are trying to cut the amount of energy required for this process by half.

Another focus has been to try to clean coal before combustion by turning it into a flammable gas and stripping out pollutants. Atlanta-based utility Southern Co. SO +0.89% has nearly completed construction of a power plant that converts coal to gas and that will capture 65% of the CO2 produced.

But Southern expects the plant, in Kemper County, Miss., to cost $5.24 billion, making it among the costliest fossil-fuel projects ever built in the U.S. That price tag is discouraging other U.S. utilities from building clean coal plants.

Even so, countries such as China, Pakistan, Indonesia and Australia—which have lots of coal but not lots of natural gas—are interested in Southern's technology, says Chief Executive Tom Fanning. He says he remains optimistic that technology will ultimately do good things for coal.
4. The Future of Coal: Gulf Coast Hums as Exports Rise
Louisiana Terminals Expand to Move Mississippi River Cargo to Overseas Power Plants
By Alison Sider, WSJ, Jan 8, 2014

It's a journey that is becoming more common.

The U.S. typically has been one of the top exporters of metallurgical coal, which is used to make steel, most of it mined in Appalachia and shipped from the East Coast.

Now some people in the industry anticipate that the U.S. will become an increasingly significant global supplier of steam coal, which is used to generate electricity. With the domestic market for U.S. steam coal crimped by new environmental rules and competition from natural gas, producers are finding new markets abroad.

Much U.S. steam coal is mined in the Midwest, driving investment in coal-export facilities at Gulf of Mexico ports to meet overseas demand.

United Bulk Terminals bought its Davant, La., terminal in 2011 and is investing about $80 million to upgrade it. The company, a division of Germany’s Oiltanking Group, says the work will nearly double the terminal’s export capacity to 22 million tons a year.

The Port of New Orleans exported 17.6 million metric tons of steam coal in 2012, a sixfold increase over the low point in 2009, according to the U.S. Commerce Department. The
commodity, also known as thermal coal, mostly was shipped to Europe, but also sailed to South America and even as far as Asia.

Analysts predict coal exports will show a drop for last year as lower prices globally made it harder for U.S. coal to compete overseas.

And some companies are having second thoughts about expanding in the Gulf Coast. Ambre Energy Ltd. pulled out of a lease at the port of Corpus Christi, Texas, where the Australian company had planned to develop a coal-export terminal. The company plans to look instead at the Pacific Northwest, from which Wyoming coal could be shipped.

But analysts say the Gulf still is poised to be an outlet for a likely increase in production and exports of Midwestern coal, especially once vessels can reach Asia more quickly through an expanded Panama Canal, due for next year.

Unlike the Pacific Northwest, where proposed coal terminals have encountered stiff opposition and difficulty getting permits, ports such as New Orleans offer relatively unconstrained growth potential, says Stifel analyst Paul Forward. "I think that's what we can probably count on going forward—a gradual increased role for the U.S. as an exporter," he says.

A subsidiary of Dutch commodities trader Trafigura Beheer BV says about 7.5 million metric tons of coal will be able to pass through its Burnside, La., terminal when it completes the first phase of an expansion this year.

And Houston-based Kinder Morgan Energy Partners which has shipping agreements with coal producers Arch Coal Inc. and Peabody Energy Corp. soon will have the capacity to ship about 25 million metric tons of coal from terminals in Texas and Louisiana.

#