

The Week That Was: 2013-07-06 (July 6, 2013)
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The Science and Environmental Policy Project

Quote of the Week: "Working for a World Free of Poverty" Motto of the World Bank

Number of the Week: 12th now, 9th in December?

THIS WEEK:

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

Ensemble of Models: The issue of the meaning of the mean of an ensemble of models continues after an assertion by Robert Brown of Duke University that mean derived from ensemble climate models has little or no scientific meaning. Over the past several weeks this issue has been discussed and linked to in TWTW. In general, climate models are significantly different than weather models. Climate models have never been tested for their predictive capability. Weather models are constantly tested. As a consequence, climate models do not have probability distributions associated with them. From constant testing of predictive capability, weather models have probability distributions associated with them.

On her blog, Judith Curry has a discussion on how to interpret the results of an ensemble climate models. The cited works vary in understanding of climate history, but provide a useful discussion. As demonstrated by the hockey-stick debacle, where the statistical techniques used created a hockey-stick from random noise, any discussion should involve mathematicians and statisticians familiar with techniques to establish probabilities from the results of models, which Curry encourages. The one common theme is that the climate models do not provide probability distributions, nor has one been rigorously presented and tested for predicative capability.

Thus, the assertions by the UN Intergovernmental Panel on Climate Change (IPCC), and its followers, including the EPA, that there is a 90 to 99% likelihood they are correct in asserting human CO2 emissions are causing unprecedented and dangerous global warming is an opinion, not scientifically derived. During the oral arguments, this likelihood was specifically discussed by the judges on the panel of the US Court of Appeals, hearing the challenge to the EPA endangerment finding. If the attorneys representing the EPA respected their integrity, they would file an amendment correcting this error.

Further, the government-funded climate scientists who did not come forward to challenge the claims of the IPCC and the EPA certainly ill served the government and the public. Those who claimed great certainty as if it was scientifically derived, which it was not, deceived the government and the public. For the technical discussion, please see link under Model Issues.

Fundamental Error: According to reports, in response to a request by the IPCC about the future of that organization, the government of the Netherlands stated it is undesirable for the IPCC to limit its scope to human induced climate change because natural climate change is critical to understanding the climate system. At least one government understands a fundamental error in the mission of the IPCC.

As discussed in previous TWTWs, the modeling techniques (methodology) encompass natural causes of climate change and incorrectly attribute some of these natural changes to human influence. This is one of the reasons the climate models are failing. As The Right Climate Stuff team pointed out, we cannot hope to successfully model the human influences on climate without first successfully modeling the natural influences on climate. Please see links under Problems in the Orthodoxy and Seeking a Common Ground.

Lowering Standards: As it is becoming increasingly clear that nature is falsifying the claims of the IPCC and its followers, it appears that once-venerable scientific institutions are racing each other on which institution can produce the most scientifically challenged work. This week, the latest entries from the American Geophysical Union (AGU), the World Bank and the World Meteorological Organization (WMO) and are presented. All this work demonstrates that these institutions have drastically lowered their standards of what constitutes acceptable scientific work.

Bjørn Lomborg points out that the latest product by the World Bank appears to directly conflict with the motto at the entrance to that institution: "Our dream is a world without poverty." This has been modified on its web site to "Working for a World Free of Poverty." As Lomborg states the alarmist World Bank report is scarily wrong.

"680m Chinese have been lifted out of poverty over the past 30 years, and they were lifted out by cheap coal power, not heavily subsidized, unreliable wind turbines. Billions around the world would love to get access to cheap power. This is likely to be their way out of poverty." Today, the World Bank appears to be oblivious to the needs of the poor.

David Whitehouse discusses the latest climate report by the WMO, a parent organization to the IPCC. Whitehouse graciously describes the report as muddled and inaccurate, thus it is fortunate that WMO report has not attracted significant publicity.

Norman Rogers reports on the latest shenanigans of the AGU, under its new leadership. Please see links under Lowering Standards.

Missing Heat: When asked to explain why there has been no significant warming of the Tropics and the Southern Hemisphere, some alarmists, such as James Hansen, state the missing heat is hiding in the deep oceans. *On Watts Up With That*, Bob Tisdale presents a somewhat technical and lengthy report describing that even though the amount of missing heat seems large, the actual rise in temperatures of the deep oceans it would cause is so small that the temperature cannot be measured with modern instruments. The deep oceans have a vast volume. Thus, the hypothesis is not readily testable, rendering it not scientifically meaningful.

However, we can establish an empirical test. If there is warming of the deep oceans, the heat must come from somewhere. Is it from the tropics and southern hemisphere? According to the IPCC and the models, increasing greenhouse gases are causing a warming of the atmosphere, especially over the tropics, which, in turn, causes warming of the earth's surface. According to Roy Spencer and John Christy, who developed temperature estimates from satellite data, confirmed by actual temperature measurements from weather balloons, in the 34 years of satellite data there is no statistical increase of temperatures over the Tropics. And there has been little warming of the atmosphere in the Southern Hemisphere. As Richard Feynman so clearly stated: if your

hypothesis is inconsistent with experiment, it is wrong. This is but one instance in which the hypothesis that global warming is hiding in the oceans is wrong when tested against experiment.

Please see link under Measurement Issues.

Carbon Tax: At the House of Lords in London, Ross McKittrick, who along with Steve McIntyre, was the first to expose the statistical failure of the notorious hockey-stick, proposed the adoption of a carbon tax with an unusual twist – that the tax start out low and be linked to changes in temperatures in the lower atmosphere (troposphere) over the Tropics (20 deg N latitude and 20 deg S). These measurements are publically published monthly.

The climate models show that this region should be most sensitive to warming from increased greenhouse gases, and McKittrick asserts that the region is not sensitive to other causes such as ozone depletion, solar variations and land use changes. He proposes that the tax be revenue neutral and that it replace the mishmash of administrative regulatory actions, such as the so called social cost of carbon.

Trading houses would be encouraged to buy future emissions certificates and create a futures market. Thus, they would make a serious effort accurately forecast temperatures, leading to better climate models. If their forecasts fail, they lose; if their forecasts succeed, they benefit.

Political issues aside, it is clear that McKittrick has carefully thought this out. There are some clear benefits, if adopted as proposed. Under ideal circumstances a carbon tax is more efficient in reducing carbon dioxide emissions than any other action. The public will clearly benefit from better climate models than the ones the IPCC uses. As shown by Roy Spencer and John Christy, of the 73 models in use, for the period from 1979 to 2012, about 70 forecasted a temperature rise in the Tropics more than twice that which was observed. Government entities have shown they are incapable of insisting on high quality climate forecasts. Based on this data, there appears to be no benefit for being right, and no penalty for being very wrong.

One must remember that Parliament has legislated that CO2 emissions must be reduced, so the proposed tax applies directly to Britain. Nations without mandatory restrictions on CO2 emissions may think otherwise. Of course, the proposed tax assumes that CO2 is the major cause of global warming, and McKittrick's defense of the tax if the cause is not CO2 is not convincing. Further, the tax does not take into account the enormous social benefits of CO2. However, it is very interesting proposal. Please see links Cap and Trade and Carbon Taxes.

A No Show: Based on reports, it appears that NOAA and the US National Park Service were preparing a great press party for the breaking of the world record for highest temperature, taken in Death Valley a century ago. Nature did not cooperate. The summer rainy season in the southwest has started, and the celebrants may have to wait another year, or more. Please see links under Measurement Issues and Changing Weather.

Wildfire Tragedy: On June 30, a wildfire in the Arizona Mountains northwest of Phoenix suddenly shifted about 180 degrees and killed 19 fire fighters. It is disturbing that some climate alarmists immediately, falsely claimed the tragedy is the result of global warming/climate change. Equally disturbing is that according to meteorologist Cliff Mass, hardly a global warming skeptic,

hours before the tragedy the meteorological evidence showed a real threat from such a shift. This is the summer rainy season, and rapid shifts are common. Apparently, under such conditions, no one is monitoring the weather. Please see links under Wildfires.

Amplifications and Corrections: Last week, TWTW stated that, in his climate speech, President Obama lumped carbon with the toxins mercury, sulfur, and arsenic. An alert reader pointed out that humans need some amounts of sulfur and arsenic for bodily health. It is the dose that makes the poison. Indeed, sulfur, along with carbon, is listed as one of the six elements essential for life – CHNOPS (read the symbols).

Number of the Week: 12th now, 9th in December? This is where Texas would rank in world daily oil production if it were an independent nation. It will soon to surpass Venezuela, Kuwait, Mexico and Iraq, with a production of 3 million barrels per day. Often overlooked by the remarkable percentage increase in North Dakota, Texas production has doubled in 2 ½ years. Thanks to smart drilling, production from the Permian Basin and shale formations such as Eagle Ford is burying the myth of peak oil, all happening on private or state-owned lands, not Federal lands.

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ARTICLES:

For the numbered articles below please see this week’s TWTW at: www.sepp.org. The articles are at the end of the pdf.

1. The Climate Speech Obama Didn't Give 'My environmentalist friends want a war on coal, which would make them feel good . . . but the effect would be nil.'

By Holman Jenkins, WSJ, Jun 28, 2013

http://online.wsj.com/article/SB10001424127887324328204578573212126963852.html?mod=djemEditorialPage_h

2. Obama's Anti-Energy Agenda

He threatens to cut off the fuel the economy needs

By Pete Du Pont, WSJ, Jun 26, 2013

http://online.wsj.com/article/SB10001424127887323419604578573531565348760.html?mod=WSJ_Opinion_MIDDLESecond

3. A Potential Copper Bonanza Runs Afoul of the EPA

The metal is essential for wind turbines, but a proposed mine in Alaska has set off Keystone-like alarms.

By Daniel McGroarty, WSJ, Jul 5, 2013

http://online.wsj.com/article/SB10001424127887324436104578580092566535574.html?mod=WSJ_Opinion_LEFTTopOpinion

4. U.S. Backing Unlikely to Tip Balance Toward 'Clean Coal'

Pollution-Cutting Technologies for the Fuel Remain Too Costly to Blunt Natural Gas's Edge

By Rebecca Smith and Cassandra Sweet, WSJ, Jul 2, 2013

http://online.wsj.com/article/SB10001424127887324251504578577503982794958.html?mod=WSJ_Energy

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NEWS YOU CAN USE:

Suppressing Scientific Inquiry

Bob Carter's academic job "not renewed"

By Luboš Motl, Reference Frame, Jun 29, 2013

<http://motls.blogspot.com/2013/06/bob-carters-academic-job-not-renewed.html>

Challenging the Orthodoxy

Lies, damn lies, statistics...and climate change

By Martin Livermore, Scientific Alliance, Jul 5, 2013

<http://scientific-alliance.org/scientific-alliance-newsletter/lies-damn-lies-statisticsand-climate-change>

The Retreat from Falsehood Begins

By Doug Hoffman, Resilient Earth, Jul 1, 2013 [H/t GWPF]

<http://theresilientearth.com/?q=content/retreat-falsehood-begins>

Defending the Orthodoxy

Economic stagnation should not be an excuse for climate inaction

By Mat Hope, Carbon Brief, Jul 1, 2013

<http://www.carbonbrief.org/blog/2013/07/economic-stagnation-should-not-be-an-excuse-for-climate-inaction>

[SEPP Comment: We will sacrifice what we must, as long as it is not us, to fight this imaginary enemy, global warming.]

Questioning the Orthodoxy

Even The New York Times Has Chilled On Global Warming. Someone Please Tell Obama By Larry Bell, Forbes, Jul 2, 2013

<http://www.forbes.com/sites/larrybell/2013/07/02/even-the-new-york-times-has-chilled-on-global-warming-someone-please-tell-obama/>

The Age of Global Warming is Over

By Paul Collits, Quadrant, July-Aug, 2013

<http://www.quadrant.org.au/magazine/issue/2013/7-8/the-age-of-global-warming-is-over>

Obama's global-warming folly

By Charles Krauthammer, Opinion, Washington Post, Jul 4, 2013 [H/t Timothy Wise]

http://www.washingtonpost.com/opinions/charles-krauthammer-obamas-global-warming-folly/2013/07/04/a51c4ed0-e3fc-11e2-a11e-c2ea876a8f30_story.html

UK Looks on Bright Side of Global Warming

By Fiona Keating, International Business Times, Jun 30, 2013 [H/t GWPF]

<http://www.ibtimes.co.uk/articles/484809/20130630/global-warming-greenhouse-gas-emissions-british-economy.htm>

[SEPP Comment: See link immediately below.]

How to Make Enviros Become Climate Skeptics

By Steven Hayward, Power Line, Jul 1, 2013

<http://www.powerlineblog.com/archives/2013/07/how-to-make-enviros-become-climate-skeptics.php>

[SEPP Comment: See link immediately above.]

Is it time to prosecute the IPCC for fraud?

By Christopher Monckton, WUWT, Jun 28, 2013

<http://wattsupwiththat.com/2013/06/28/is-it-time-to-prosecute-the-ipcc-for-fraud/>

'Carbon Pollution' and Wealth Redistribution

By Benjamin Zycher, The American, Jun 26, 2013 [H/t NCPA]

<http://www.american.com/archive/2013/june/carbon-pollution-and-wealth-redistribution>

Problems in the Orthodoxy

Dutch advise to IPCC: limiting the scope to human induced climate change is undesirable

By Marcel Crok, De staat van het klimaat, Jul 5, 2013 [H/t GWPF]

<http://www.staatvanhetklimaat.nl/2013/07/05/dutch-advise-to-ipcc-limiting-the-scope-to-human-induced-climate-change-is-undesirable/>

Car Clash: Germany Blocks CO2 Reduction Deal

By Staff Writer, Spiegel, DE, Jun 27, 2013 [H/t GWPF]

<http://www.spiegel.de/international/europe/germany-delays-eu-decision-on-lower-co2-emissions-for-cars-a-908176.html>

U.N. World Meteorological Organization report pans the idea that severe weather and severe weather deaths can be linked to climate change

By Anthony Watts, WUWT, Jul 3, 2013

<http://wattsupwiththat.com/2013/07/03/u-n-world-meteorological-organization-report-pans-the-idea-that-severe-weather-and-severe-weather-deaths-can-be-linked-to-climate-change/>

[SEPP Comment: A moment of lucidity after decades of IPCC lunacy?]

Seeking a Common Ground

Climate Risk,

By Judith Curry, Climate Etc, Jul 2, 2013

<http://judithcurry.com/2013/07/02/climate-risk/#more-12092>

[SEPP Comment: Interesting discussion on types of uncertainty in risk analysis. However, it is impossible to assess risk when the analysis is based on un-validated climate models. Recent climate history provides better estimate of the future.]

IPCC discussion thread

By Judith Curry, Climate Etc, Jul 5, 2013

<http://judithcurry.com/2013/07/05/ipcc-discussion-thread-3/#more-12114>

[SEPP Comment: Problems with the mission and organization of the IPCC.]

NIPCC in China

Chinese Translation of Climate Change Reconsidered Unveiled in China

By Staff Writers, NIPCC, No Date

<http://nipccreport.org/reports/chinese/chinesetranslation.html>

Link to the Translation: <http://nipccreport.org/reports/chinese/chinesetranslation.pdf>

NIPCC-China International Symposium, Beijing, China, June 17, 2013

By Staff Writers, NIPCC, No Date

<http://nipccreport.org/reports/chinese/chinasymposium.html>

Expanding the Orthodoxy

Intergovernmental Board on Climate Services

By Staff Writers, Global Framework for Climate Services, The Journal of the World Meteorological Organization, 2013 [H/t Climate Etc]

http://library.wmo.int/pmb_ged/2013_wmo-bull_special.pdf

A High Level Taskforce of eminent personalities from scientific and political spheres produced a blueprint to provide guidance on the focus of the Framework. [Global Framework for Climate Services]

From global to regional to national: building operational climate services

[SEPP Comment: The models used by the UN IPCC cannot explain current global climate change, yet the UN is proposing to go local and regional with this misleading information.]

Obama's Climate Five-Year Plan

By Staff Writers, NCPA, Jul 5, 2013

http://www.ncpa.org/sub/dpd/index.php?Article_ID=23348&utm_source=newsletter&utm_medium=email&utm_campaign=DPD

Link to paper: Obama's Climate Five-Year Plan

The president proposes ecological central planning to solve global warming

By Ronald Bailey, Reason, Jun 28, 2013

<http://reason.com/archives/2013/06/28/obamas-climate-five-year-plan>

Lowering Standards

American Geophysical Union Scraps Science, Now Faith Based

By Norman Rogers, American Thinker, Jun 29, 2013

http://www.americanthinker.com/2013/06/american_geophysical_union_scraps_science_now_faith_based.html

Alarmism At World Bank Endangers Poverty Reduction

By Bjørn Lomborg Huff Post, Jul 3, 2013 [H/t Dennis Ambler]

http://www.huffingtonpost.com/bjorn-lomborg/alarmism-at-world-bank-en_b_3528812.html

UN: 2000s brought climate 'extremes'

By Ben Geman, The Hill, Jul 3, 2013

<http://thehill.com/blogs/e2-wire/e2-wire/309123-un-report-2001-2010-hottest-on-record-dramatic-extremes>

Link to Report: The Global Climate 2001 – 2010, A Decade of Climate Extremes

By Staff, WMO, 2013

http://library.wmo.int/pmb_ged/wmo_1119_en.pdf

WHO's Extreme Report

By David Whitehouse, GWPF, Jul 5, 2013

<http://www.thegwpf.org/wmos-extreme-report/>

Questioning European Green

Can the British Decarbonize?

Targets Require Complete Coal-to-Gas Switch in a Decade

By Roger Pielke Jr, Breakthrough Institute, Jul 1, 2013

<http://thebreakthrough.org/index.php/voices/roger-pielke-jr/can-the-british-decarbonize/>

[SEPP Comment: How popular feel-good legislation can result in real economic harm.]

Major rethink needed if chemical industry is to meet greenhouse gas targets

By Staff Writers, Manchester UK (SPX), Jun 28, 2013

http://www.spacemart.com/reports/Major_rethink_needed_if_chemical_industry_is_to_meet_greenhouse_gas_targets_999.html

NHS hospitals asked to generate own power amid blackouts fears

Four hospitals already signed up to deal under which they reduce demand from National Grid by using diesel generators

By Terry Macalister, Guardian, UK, Jun 28, 2013 [H/t Bishop Hill]

<http://www.guardian.co.uk/society/2013/jun/28/nhs-hospitals-generate-power-blackout>

[SEPP Comment: To be part of the grid, these organizations must generate their own electricity when electricity is most needed! How do diesel generators enter into the carbon dioxide reduction schemes? Another example of burdens placed on others by wind and solar power.]

The message of shale gas is: scrap the Climate Act

The news that we have such rich shale-gas reserves makes a further mockery of our energy policy

By Christopher Booker, Telegraph, UK, Jun 29, 2013

<http://www.telegraph.co.uk/earth/energy/10149478/The-message-of-shale-gas-is-scrap-the-Climate-Act.html>

Green taxes 'to increase energy bills by a third by 2020'

Green taxes will push up the average family energy bill by almost a third to £1,900 by 2020, according to research.

By Andrew Trotman and Andrew Oxlade, Telegraph, UK, Jul 4, 2013 [H/t GWPF]

<http://www.telegraph.co.uk/finance/personalfinance/consumertips/household-bills/10158897/Green-taxes-to-increase-energy-bills-by-a-third-by-2020.html>

Green Vandalism: Historic City of York Threatened by a Circle of 40 Wind Farms

By Claire Duffin, Sunday Telegraph, via GWPF, Jun 30, 2013

<http://www.thegwpf.org/green-vandalism-historic-city-york-threatened-circle-40-wind-farms/>

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

Climate tug of war disrupting Australian atmospheric circulation patterns

By Staff Writers, Canberra, Australia (SPX), Jun 28, 2013

http://www.terradaily.com/reports/Climate_tug_of_war_disrupting_Australian_atmospheric_circulation_patterns_999.html

[SEPP Comment: For the past 34 years there has been no warming trend in the troposphere above the Tropics. Is lack of trend changing the westerly jets? How does carbon dioxide influence El Nino events?]

Clearing up confusion on future of Colorado River flows

By Hannah Hickey, Washington DC (SPX), Jun 28, 2013

http://www.terraily.com/reports/Clearing_up_confusion_on_future_of_Colorado_River_flows_999.html

[SEPP Comment: Contrary to assertions in the article, un-validated climate models cannot generate knowledge about the future, only speculation.]

Major changes needed for coral reef survival

By Staff Writers, Washington DC (SPX), Jul 02, 2013

http://www.terraily.com/reports/Major_changes_needed_for_coral_reef_survival_999.html

Communicating Better to the Public – Make things up.

Witchcraft on Catalyst — Scary weather is coming, it's all our fault, be afraid!

By Jo Nova, Her Blog,

<http://joannenova.com.au/2013/07/witchcraft-on-catalyst-scary-weather-is-coming-its-all-our-fault-be-afraid/>

[SEPP Comment: The ABC [Australian Broadcasting Company], a taxpayer supported company, is engaging in blatant propaganda.]

Model Issues

How should we interpret an ensemble of models? Part II: Climate models

By Judith Curry, Climate Etc, Jun 30, 2013

<http://judithcurry.com/2013/06/30/how-should-we-interpret-an-ensemble-of-models-part-ii-climate-models/#more-12037>

Measurement Issues

Rough Estimate of the Annual Changes in Ocean Temperatures from 700 to 2000 Meters Based on NODC Data

By Bob Tisdale, WUWT, Jul 4, 2013

<http://wattsupwiththat.com/2013/07/04/rough-estimate-of-the-annual-changes-in-ocean-temperatures-from-700-to-2000-meters-based-on-nodc-data/>

Questions for NOAA and NPS Death Valley that have gone unanswered related to the 100 year celebration of the 'hottest ever temperature'

By Anthony Watts. WUWT, Jul 5, 2013

<http://wattsupwiththat.com/2013/07/05/questions-for-noaa-and-nps-death-valley-that-have-gone-unanswered-related-to-the-100-year-celebration-of-the-hottest-ever-temperature/>

Australia and ACORN-SAT

By Willis Eschenbach, WUWT, Jun 28, 2013

<http://wattsupwiththat.com/2013/06/28/australia-and-acorn-sat/>

[SEPP Comment: A new record is reached! 69 of the 112 stations had at least one day when the minimum temperature exceeded the maximum temperature!]

Changing Weather

Death Valley: highest temperature on Earth will survive 100th anniversary

By Luboš Motl, Reference Frame, Jul 2, 2013

<http://motls.blogspot.com/2013/07/death-valley-highest-temperature-on.html>

Death Valley Follies

By Joseph D'Aleo, Weatherbell Analytics

http://icecap.us/index.php/go/joes-blog/death_valley_follies1/

Hot weather and climate change--a mountain from a molehill?

By Steve Goreham, Washington Times, Jul 3, 2013

<http://communities.washingtontimes.com/neighborhood/climatism-watching-climate-science/2013/jul/3/hot-weather-and-climate-change-mountain-molehill/>

Heat Wave: Death Valley hits 128 degrees -- or is it 129?

By Louis Sahagun, LA Times, Jun 30, 2013 [H/t WUWT]

<http://www.latimes.com/local/lanow/la-me-ln-heat-wave-death-valley-hits-128-degrees-or-is-it-129-20130630,0,6477803.story>

Wildfires

The Yarnell Hill Fire: The Meteorological Origins

By Cliff Mass, Weather Blog, Jul 2, 2013

<http://cliffmass.blogspot.com/2013/07/the-yarnell-hill-fire-meteorological.html>

Cold, hard facts about wildfires

By Joe Bastardi and Joe D'Aleo, Weathrbell.com, Jul 3, 2013

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

Changing Seas

New study using GRACE data shows global sea levels rising less than 7 inches per century

By Anthony Watts, WUWT, Jul 3, 2013

<http://wattsupwiththat.com/2013/07/03/new-study-using-grace-data-shows-global-sea-levels-rising-less-than-7-inches-per-century/>

Finds sea levels have risen over the past 9 years [2002-2011] at a rate of only 1.7 mm/yr, equivalent to 6.7 inches per century, matching tide gauge data rates.

El Nino unusually active in the late 20th century

By Staff Writers, Manoa HI (SPX), Jul 03, 2013

http://www.terraily.com/reports/El_Nino_unusually_active_in_the_late_20th_century_999.htm

Link to Paper: El Niño modulations over the past seven centuries

By Jinbao Li, et al., Nature Climate Change, Jul 2, 2013

<http://www.nature.com/nclimate/journal/vaop/ncurrent/full/nclimate1936.html>

[SEPP Comments: Speculates that warming causes more El Ninos, rather than more El Ninos cause warming. El Ninos were first recorded in the early 1500s off the coast of Peru – during the Little Ice Age.]

New forecast doubles lead time for El Nino: study

By Staff Writers, Washington (AFP), July 01, 2013

http://www.terraily.com/reports/New_forecast_doubles_lead_time_for_El_Nino_study_999.html

[SEPP Comment: One successful prediction.]

Schellnhuber thinks he can forecast El Niño a year in advance

By Anthony Watts, WUWT, Jul 2, 2013

<http://wattsupwiththat.com/2013/07/02/schellnhuber-thinks-he-can-forecast-el-nino-a-year-in-advance/>

[SEPP Comment: See link immediately above.]

Greenhouse gas likely altering ocean food chain

By Staff Writers, Los Angeles CA (SPX), Jul 03, 2013

http://www.terraily.com/reports/Greenhouse_gas_likely_altering_ocean_foodchain_999.html

Changing Cryosphere – Land / Sea Ice

CryoSat maps largest-ever flood beneath Antarctica

By Staff Writers, Paris (ESA), Jul 03, 2013

http://www.terraily.com/reports/CryoSat_maps_largest_ever_flood_beneath_Antarctica_999.html

[SEPP Comment: A large crater far below the ice indicates an early lake that drained.]

Review of Recent Scientific Articles by NIPCC

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

Cold Weather vs. Warm Weather: Which Kills More People?

Reference: Vasconcelos, J., Freire, E., Almendra, R., Silva, G.L. and Santana, P. 2013. The impact of winter cold weather on acute myocardial infarctions in Portugal. *Environmental Pollution*: 10.1016/j.envpol.2013.01.037.

<http://nipccreport.org/articles/2013/jul/2jul2013a1.html>

Hot-Water Climate-Change Refugia for Corals?

Reference: van Woesik, R., Houk, P., Isechal, A.L., Idechong, J.W., Victor, S. and Golbuu, Y. 2012. Climate-change refugia in the sheltered bays of Palau: analogs of future reefs. *Ecology and Evolution* 2: 2474-2484

<http://nipccreport.org/articles/2013/jul/2jul2013a2.html>

Climate Models: Still Struggling to "Get It Right"

Reference: Landrum, L., Otto-Bliesner, B.L., Wahl, E.R., Conley, A., Lawrence, P.J., Rosenbloom, N. and Teng, H. 2013. Last millennium climate and its variability in CCSM4. *Journal of Climate* 26: 1085-1111.

<http://nipccreport.org/articles/2013/jul/3jul2013a2.html>

Grassland Responses to Climate Change Induced Drought

Reference: Craine, J.M., Ocheltree, T.W., Nippert, J.B., Towne, E.G., Skibbe, A.M., Kembel, S.W. and Fargione, J.E. 2012. Global diversity of drought tolerance and grassland climate-change resilience. *Nature Climate Change* 3: 63-67.

<http://nipccreport.org/articles/2013/jul/3jul2013a3.html>

Cap-and-Trade and Carbon Taxes

An Evidence-Based Approach to Pricing CO2 Emissions

By Ross McKittrick, GWPF, 2013

<http://www.thegwpf.org/content/uploads/2013/07/McKittrick-Carbon-Tax-10.pdf>

Responses to Comments on “An Evidence-Based Approach to Pricing CO2 Emissions.

By Ross McKittrick, His Blog, July 4, 2013

<http://www.rossmckittrick.com/uploads/4/8/0/8/4808045/gwfp-paper-responses.pdf>

Hitch climate tax to the ACTUAL CLIMATE, says top economist

The warmer the planet, the higher the green taxes get

By Andrew Orlowski, The Register, Jul 4, 2013 [H/t GWPF]

http://www.theregister.co.uk/2013/07/04/mckittrick_climate_tax_hitch_actual_climate_genius/

Temperature-linked carbon tax could be effective – expert

By Erin Berger, Reuters, Jul 4, 2013 [H/t GWPF]

<http://www.trust.org/item/20130704154806-i2pwb/?source=dpagehead>

Australia’s Carbon Tax – One Year On

By Phil Hutchings, WUWT, Jul 2, 2013

<http://wattsupwiththat.com/2013/07/02/australias-carbon-tax-one-year-on/>

EPA and other Regulators on the March

EPA Growth Knows No Limits

By Todd Wynn & William Yeatman, American Spectator, Jul 5, 2013

<http://spectator.org/archives/2013/07/05/epa-growth-knows-no-limits>

EPA Wants Gov't To Control How Cold Your Beer Can Be

Editorial, IBD, Jul 5, 2013

<http://news.investors.com/ibd-editorials/070513-662691-epa-pushes-refrigerator-smart-grid-connections.htm>

[SEPP Comment: Making issues understandable to the common man.]

Pebble mine's Shively discusses future of project, EPA's watershed assessment

Transcript by Staff Writers, EETV, Jun 13, 2013

<http://www.eenews.net/tv/videos/1698/transcript>

See Article # 3 – go to www.sepp.org and click on The Week That Was and this weeks TWTW

EPA Strikes Out on Anti-Fracking Campaign

By Donn Dears, Power for USA, Jul 2, 2013

<http://dddusmma.wordpress.com/2013/07/02/epa-strikes-out-on-anti-fracking-campaign/>

Energy Issues – Non-US

FT Warning: Green Energy Mess Threatens UK Shale Bonanza

By Nick Butler, Financial Times, via GWPF, Jun 30, 2013

<http://www.thegwpf.org/ft-warning-green-energy-mess-threatens-uk-shale-bonanza/>

Shale we inherit the earth?

New report says fracking can solve UK energy problem

By Ben Jackson, The Sun, Jun 28, 2013

<http://www.thesun.co.uk/sol/homepage/news/4987760/UK-is-sitting-on-enough-gas-to-supply-whole-country-for-40yrs-double-previous-estimates.html>

Shale gas reserves offer hope of decrease in energy bills

MILLIONS of households could enjoy a “massive boom” in cheap energy by the end of the decade if Britain exploits its shale gas reserves, experts said last night.

By Nathan Rao, Express, Jul 2, 2013 [H/t GWPF]

<http://www.express.co.uk/news/uk/411711/Shale-gas-reserves-offer-hope-of-decrease-in-energy-bills>

Fossil Fuel Production Could Be Much Higher: The Example of Venezuela

By Philipp Mueller, GWPF, Jul 2, 2013

<http://www.thegwpf.org/fossil-fuel-production-higher-venezuela/>

[SEPP Comment: A long history of government mismanagement of resources.]

Energy Issues -- US

Methane In Drinking Water - What's The Rumpus?

By Hank Campbell, Science 2.0, Jun 29, 2013 [H/t GWPF]

http://www.science20.com/science_20/blog/methane_drinking_water_whats_rumpus-115728

Keystone XL Foes Turn Focus to Local Government

By Grant Schulte, AP, Jul 2, 2013

<http://abcnews.go.com/US/wireStory/keystone-xl-foes-turn-focus-local-government-19557005#.UdSH8Pm1Frt>

U.S. Tax Code Has Minimal Effect on Carbon Dioxide and Other Greenhouse Gas Emissions, Report Says

Press Release, National Academies, Jul 3, 2013 [H/t Timothy Wise]

http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=18299&utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%253A+nationalacademies%252Fna+%2528News+from+the+National+Academies%2529

Link to the report: Effects of U.S. Tax Policy on Greenhouse Gas Emissions

By William Nordhaus, et al., The National Academies, 2013

http://www.nap.edu/catalog.php?record_id=18299

Washington's Control of Energy

Is Climate Change Our No. 1 Crisis, Mr. President?

By Charles Krauthammer, IBD, Jul 5, 2013

<http://news.investors.com/ibd-editorials/070513-662629-president-obama-misplaced-focus-on-climate-change.htm?p=full>

Outside View: Obama's climate action plan masks hidden agenda

By Peter Morici, College Park, Md. (UPI) Jun 27, 2013

http://www.energy-daily.com/reports/Outside_View_Obamas_climate_action_plan_masks_hidden_agenda_999.html

Former EPA general counsel Martella discusses Obama climate announcement

Transcript by Staff Writers, EETV, Jun 27, 2013

<http://www.eenews.net/tv/videos/1706/transcript>

Here Are Three Problems With Obama's Climate Proposal

By Bernard Weinstein, IBD, Jul 1, 2013

<http://news.investors.com/ibd-editorials-perspective/070113-662052-obama-greenhouse-gas-emission-plan-has-problems.htm?p=full>

Climate activist Steyer discusses impact of pipeline decision on future of climate policy

By Staff Writer, EETV, Jun 20, 2013

<http://www.eenews.net/tv/videos/1702/transcript>

Oil and Natural Gas – the Future or the Past?

The Rise of Saudi Texas: Shale And Farewell To OPEC

Editorial, IBD, Jul 2, 2013

<http://news.investors.com/ibd-editorials/070213-662299-texas-eagle-ford-shale-sparks-boom.htm?p=full>

Shell says Gulf find may hold 100 million barrels

By Emily Pickrell, Fuel Fix, Jul 3, 2013

<http://fuelfix.com/blog/2013/07/03/shell-makes-100-million-barrel-discovery-in-the-gom/>

Crude Oil's Coming Clash With Obama's New Climate Policy

By Mark Mills, IBD, Jul 2, 2013 [H/t Timothy Wise]

<http://news.investors.com/ibd-editorials-viewpoint/070213-662237-obama-doubles-down-against-hydrocarbons.htm?p=full>

Mexico Gasses Up on US Shale

By Walter Russell Mead, Via Meadia, Jul 2, 2013

<http://blogs.the-american-interest.com/wrm/2013/07/02/mexico-gasses-up-on-us-shale/>

Nuclear Energy and Fears

Is Cheap Gas Killing Nuclear Power?

By Thomas Overton, Power News, Jul 2, 2013

http://www.powermag.com/gas/gas_power_direct/Is-Cheap-Gas-Killing-Nuclear-Power_5743.html

The industry needs to find a way to build simpler, far more standardized and less-expensive plants that can be completed on time and under budget, like Cape Canaveral. Among other challenges,

that may mean broaching the surely heretical idea of some form of deregulation that would hack through the current Gordian knot of red tape.

IAEA chief sounds warning on 'nuclear terrorism'

By Staff Writers, Vienna (AFP), July 01, 2013

http://www.spacewar.com/reports/IAEA_chief_sounds_warning_on_nuclear_terrorism_999.html

[SEPP Comment: It is important to carefully distinguish between a nuclear explosive and a dirty bomb that spreads radioactivity.]

Japan gets first MOX nuclear shipment since Fukushima

By Staff Writers, Takahama, Japan (AFP), June 27, 2013

http://www.nuclearpowerdaily.com/reports/Japan_gets_first_MOX_nuclear_shipment_since_Fukushima_999.html

Alternative, Green (“Clean”) Solar and Wind

An energy model for the future, from the 12th century

By Judith Curry, Climate Etc, Jun 29, 2013

<http://judithcurry.com/2013/06/29/an-energy-model-for-the-future-from-the-12th-century/#more-12065>

[SEPP Comment: An amusing story that highlights the major failing of wind and solar power: it must be dispatchable – available on demand.]

Policy issues plague hydropower as wind power backup

By Staff Writers, University Park PA (SPX), Jun 28, 2013

http://www.winddaily.com/reports/Policy_issues_plague_hydropower_as_wind_power_backup_99.html

[SEPP Comment: A number of physical issues exist as well, such as the strain put on hydro turbines when needed for fast backup.]

Desertec pulls out of consortium it founded

By Max Haal, PV Magazine, Jul 2, 2013 [H/t GWPF]

http://www.pv-magazine.com/news/details/beitrag/desertec-pulls-out-of-consortium-it-founded_100011883/#axzz2XsfQhpec

[SEPP Comment: The grand scheme is unraveling. The planned storage for the electric power generated in the Sahara is as far away as Iceland.]

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

The biomass industry is nervous

By Andrew Montford, Bishop Hill, Jul 5, 2013

<http://bishophill.squarespace.com/blog/2013/7/5/the-biomass-industry-is-nervous.html>

Alternative, Green (“Clean”) Vehicles

Electric Cars Aren't So Environmentally Friendly

Editorial, IBD, Jul 2, 2013

<http://news.investors.com/ibd-editorials/070213-662300-electric-cars-dont-cut-pollution-and-fossil-fuel-dependence.htm>

California Dreaming

Largest-in-the-Nation Feed-in Tariff Solar Program Kicks Off

By Staff Writers, Los Angeles CA (SPX), Jun 28, 2013

http://www.solardaily.com/reports/Largest_in_the_Nation_Feed_in_Tariff_Solar_Program_Kicks_Off_999.html

Environmental Industry

How “Science” Counts Bears

By Jim Steele, WUWT, Jul 3, 2013

<http://wattsupwiththat.com/2013/07/03/how-science-counts-bears/>

Dirty tricks of the fracking deniers: How Green zealots peddle cynical propaganda to stop Britain mining £3trillion of shale gas...enough to keep the lights on for 141 YEARS

Friends of the Earth said to be spreading misleading claims about dangers of shale gas

Campaigners aimed to stop fracking by manipulating the planning system

By David Rose, Mail Online, Jun 29, 2013 [H/t GWPF]

<http://www.dailymail.co.uk/news/article-2351759/Dirty-tricks-the-fracking-deniers-How-Green-zealots-peddle-cynical-propaganda-stop-Britain-mining-3trillion-shale-gas--lights-141-YEARS.html>

Other Scientific News

Earth's northern biomass mapped and measured

By Staff Writers, Paris (ESA), Jun 28, 2013

http://www.terradaily.com/reports/Earths_northern_biomass_mapped_and_measured_999.html

Other News that May Be of Interest

"Shields to Maximum, Mr. Scott"

By Aaron Dubrow for Texas Advanced Computing Center

Austin TX (SPX) Jul 01, 2013

http://www.spacemart.com/reports/Shields_to_Maximum_Mr_Scott_999.html

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BELOW THE BOTTOM LINE:

The Sixth - First Climate Refugees

By Willis Eschenbach, WUWT, Jul 2, 2013

<http://wattsupwiththat.com/2013/07/02/the-sixth-first-climate-refugees/>

[SEPP Comment: As the villages, one built on silt, on the eroding side of the river, and one built on a barrier island erode, fear not; the US Navy will save them by using biofuels.]

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ARTICLES:

1. The Climate Speech Obama Didn't Give 'My environmentalist friends want a war on coal, which would make them feel good . . . but the effect would be nil.'

By Holman Jenkins, WSJ, Jun 28, 2013

http://online.wsj.com/article/SB10001424127887324328204578573212126963852.html?mod=djemEditorialPage_h

NEWS ITEM, Aug. 4, 2033

Amid a raucous session, the Institute of Advanced Obamalogy voted to disband itself today. The latest techniques in textual analysis conclusively prove that Obama speeches were mostly empty bombast. The nation's 44th president wasn't the modern, transformative liberal he claimed (and institute members long had believed). In a simulation that brought down the house, Prof. Angelides of Cal Tech used artificial intelligence to inject actual intelligence into Obama's June 25, 2013, speech on climate change, dramatically revamping its tone and content. An excerpt:

Any Hoyas in the house? Yeah, I thought so.

Look, potentially no greater challenge faces us than mankind's role in altering the composition of the atmosphere.

Science, to be useful to policy makers, though, has to make valid predictions. Why, despite a nearly 10% rise in atmospheric carbon over the past 15 years, is global average temperature unchanged?

I believe the increase in carbon is worrisome and the net effect is warming, but that doesn't mean I subscribe to every unfounded, dire scenario.

"Do no harm" is a good prescription. So is "do some good."

My environmentalist friends want a war on coal, but U.S. coal accounts for just 6% of global emissions—less than China adds in three years.

The effect would be nil. Keystone? Canada would just export the oil to world markets and nothing would change.

Now, I understand. "Keystone" is a symbol to our environmentalist groups so they spin our wheels on Keystone. They spin our wheels demanding a higher "social cost of carbon" to justify regulating microwave ovens and ceiling fans. The effect on climate would be nil. We could cut our emissions in half overnight and the impact would be just three-tenths of a degree a century from now.

I won't kid you. These things appeal to some in my administration. They like the idea of an expanding bureaucracy (with its own giant carbon footprint) to regulate ceiling fans. But I said we could do some good.

When I call on congress today to implement a carbon tax and use the proceeds to cut payroll taxes and flatten the income tax, I know congress may not act right away. But tax reform is coming, and tax reform would be good—giving us faster growth.

Shifting some of the tax burden from work and capital to carbon would be good—aiding the emergence of non-carbon sources of energy that ultimately justify themselves because they are cheaper and more convenient, not just lower in carbon.

Let me take a little detour. There is no democratic appetite for giving up prosperity or our energy rich-lifestyles. Put that idea out of your heads.

Let us also appreciate how little we can know about how people will live a century from now, what energy sources they will use, and the strong likelihood that any sacrifices we make on their behalf today will be of zero value to them.

We're beyond the edge of forecastability and that's the point.

Fracking was well understood a decade ago and yet nobody foresaw that fracking would lead to a decade-long decline—yes, decline—in U.S. greenhouse emissions.

If we are serious about climate change, we must seriously factor in the accelerating rate of technological change already in our society. I'm personally impressed with what I read about the progress of nanobatteries, which may soon turn solar into a real contributor rather than a sinkhole for taxpayer charity. I'm impressed with the prospects for cheaper, inherently safe nuclear power, like in the new documentary, "Pandora's Promise" (go see it!).

So here's what we can really do to help future generations and ourselves. We can maintain the dynamism of our economy, from which new technology emerges. We can broadly favor low-carbon energy without prejudging (probably wrongly) which technologies will succeed. Carbon capture, for instance, may well be the sort of white elephant boondoggle we'll be glad we avoided.

Now I believe these new technologies will emerge or not emerge largely irrespective of what government does, though a little help can't hurt. I also believe, no matter what we do, the rest of the world will choose economic growth over reducing atmospheric carbon. So technology is our only hope.

The tax reform I envision other countries could adopt out of self-interest, not self-punishment. But it also doesn't matter what they do. If the technologies that emerge are truly superior and competitive, other countries will adopt them anyway.

Either way, we will not have impoverished ourselves with futile gestures. We will have done absolutely the best thing government can do to address the risk that human greenhouse emissions will lead to dangerous climate change. We will have resisted the temptation—all too typical of Washington—to do foolish or cynical things in the guise of acting against global warming.

2. Obama's Anti-Energy Agenda

He threatens to cut off the fuel the economy needs.

By Pete Du Pont, WSJ, Jun 26, 2013

http://online.wsj.com/article/SB10001424127887323419604578573531565348760.html?mod=W_SJ_Opinion_MIDDLESecond

Not surprisingly, President Obama and Speaker John Boehner have different views on energy policy, differences brought into stark contrast by their recent statements. The president sees our nation's energy policy primarily in terms of the environment, with the economy a secondary concern. His policy is grounded in a view that government regulation and subsidies can steer us to better and cleaner energy.

On Tuesday the president unveiled plans to increase regulation of coal-fired electricity plants, erect new hurdles to building the Keystone pipeline, and further the federal government's role in trying to pick winners and losers in energy sources.

Mr. Boehner calls energy "one of our best opportunities for robust and sustained growth . . . our new economic frontier, just as the Internet was in the 1990s." This debate's timing could not be more appropriate, because the right energy policy could be the catalyst needed to inject some growth into our weak economy and raise standards of living, not just in this country, but across the world.

We see significant progress across the energy spectrum. On the supply side, there are new approaches to developing and scaling up renewable energy, as well as safely and economically extracting energy from natural gas, oil and coal. This progress often happens in spite of government policy. The boom in natural gas production, stymied on federal lands, is happening on private property.

The demand side is equally encouraging. Overall world-wide demand continues to increase, but that's a sign of a successfully growing world, with more schools, hospitals and jobs, and less poverty, disease and premature death. New and more efficient technologies allow us to feed this beneficial growth more effectively. In the U.S., energy consumption per dollar of real gross domestic product has declined almost a third in the past two decades and is projected to decline another third over the next two decades.

The domestically sourced share of our energy consumption is rising, and this trend is expected to continue. Advances in extraction technologies such as hydraulic fracturing and horizontal drilling have yielded continued gains in production of oil and natural gas. We see continued efforts in cleaner coal, which is important since coal is currently used to generate around 40% of our electricity and we have enough to supply 200 years of demand.

While fossil fuels will be our primary energy sources for several decades, we need progress in renewables so they can eventually supplant today's fossil fuels. Again, we see good news. Look at just one recent issue of *Popular Science*, where we see more-efficient solar and wind technology and a possible nonbattery alternative for the energy storage critical for such renewables. Other promising technologies include energy from waste, fueling nuclear plants with spent nuclear fuel (instead of having to store such waste), using heat generated from industrial processes to create electricity, and drawing energy from waves and tidal movements.

All of which means the talk in recent decades about energy shortages will again be proved wrong, as all such Malthusian predictions have. Such defeatism misses the mark because it fails to account for the incredible impact of human ingenuity and man's unceasing search for something better. In short, we can see an incredibly bright energy future on the horizon.

Unless, that is, overbearing government bureaucrats and misguided environmental interest groups get in the way. Unfortunately, there is a real chance of that happening. Energy producers are faced with the delay and costs from government's slowness in granting permits and its proclivity for issuing new regulations, by environmental group court challenges, and by the left's almost surreal ability to reject any energy source that becomes viable—even windmills in their backyards. Well-

intentioned subsidies for renewables reduce the chance for success, since producers learn to live off the subsidies and have less incentive to produce feasible technology. Businesses and consumers feel the impact as energy costs increase.

The policies the president announced Tuesday are more of the same. Less government control and meddling would instead unleash the technologists and risk-takers to give us more energy, a stronger economy and a safer and healthier environment.

3. A Potential Copper Bonanza Runs Afoul of the EPA

The metal is essential for wind turbines, but a proposed mine in Alaska has set off Keystone-like alarms.

By Daniel McGroarty, WSJ, Jul 5, 2013

http://online.wsj.com/article/SB10001424127887324436104578580092566535574.html?mod=WJ_SJ_Opinion_LEFTTopOpinion

Activists are pushing the Environmental Protection Agency to take a drastic regulatory step that could have significant repercussions for the U.S. economy. I'm not referring to the Keystone XL pipeline or taxing carbon emissions. At issue is the Pebble Mine—a natural-resource project in Alaska that could yield more copper than has ever been found in one place anywhere in the world.

In addition to an estimated 80 billion pounds of copper, the Pebble Mine also holds strategic metals like molybdenum and rhenium, which are essential to countless American manufacturing, high-tech and national-security applications. Yet even before a plan to mine the deposit has been introduced by the Pebble Partnership, the group poised to bring the mine into production, the EPA appears all too willing to bend to the pressure of environmental activists. The EPA has conducted a hypothetical environmental assessment of the region that positions the agency to pre-emptively veto the Pebble project before the partnership even applies for a single permit.

Apparently some left-wing environmental groups, like the Natural Resources Defense Council, Earthworks and Trout Unlimited are so worried that the project might make it through the permitting process that they're trying to stop it before it starts. As the NRDC put it in August 2012: "EPA's study (and intervention) is critically important. If left to its own devices, the state of Alaska has never said no to a large mine."

Thankfully, some liberals are voicing their opposition to a new EPA pre-emptive veto power. The Center for American Progress, for example, has come out in favor of letting the permitting review take place, even though the group has criticized the Pebble Mine project.

This is the first instance of a fissure in the unofficial anti-mining alliance that wants to see the EPA acquire vast new powers. With luck, more groups will emulate the Center for American Progress's principled position.

The irony here is that renewable-energy industries that environmentalists champion, like solar and wind, rely heavily on copper. More than three tons of it are needed for a single industrial wind turbine. CIGS photovoltaic panels hold out the promise of efficiently capturing the sun's rays, with an energy conversion rate topping 20%. The "C" in CIGS stands for copper, and the "S" for selenium, 95% of which is derived as a copper byproduct.

Electric cables, of course, carry the energy generated by these renewable sources to the national grid. The cables are usually made of copper, using the metal's superior conductivity.

Yet to hear anti-mining activists tell it, the project at Pebble Mine offers none of these benefits. Just last week, when speaking to the trade publication *Energy & Environment News* on the subject, NRDC official Joel Reynolds said flatly: "We view this as one of the worst projects anywhere in the world today."

Let's take environmentalists' advice and "think global" for a moment about that statement. How would a mining project at Pebble stack up against some other places where global markets currently source copper?

Will Pebble employ child-slaves as young as 8 to do the mining? Copper mines in the Democratic Republic of Congo do—and that copper is sold into the global market.

Will Pebble send its miners to work without respiratory equipment, wearing boots with holes that let acid rot miners' feet? Chinese-run mines in Zambia do. Where are the environmentalist protests at the *Zambian* or *Chinese* embassies?

Will Pebble's leadership be able to order local officials jailed for opposing its project? That's what happened last month in Iran—a mining nation set on doubling its copper production by 2015—where an entire town council was jailed for opposing a marble and stone mine.

It's easy for someone like the NRDC's Mr. Reynolds to protest an American mine from the organization's \$5 million waterfront headquarters (the Robert Redford Building) in Santa Monica, Calif. In the U.S., protesting is a career choice, and movement leaders are feted with awards and grants. Opposing a project the size of Pebble makes a great fundraising tool. It's far more challenging to life and limb to take on African warlords, Chinese officials or Iranian mullahs.

Environmental activists often preach that the planet is interconnected. Well, that's certainly true of the global marketplace: Every pound of copper left in the ground in Alaska or the Lower 48 is effectively a price support for producers in the places like *Zambia* and *Angola*.

If the EPA reinterprets existing law—Section 404 of the Clean Water Act—and grants itself unilateral authority to stop the permitting process before it begins, Pebble Mine won't be the only project in its cross hairs, and copper won't be the only metal. A 2011 study by the Brattle Group, an economic consulting firm, shows that U.S. economic development projects worth more than \$200 billion would be exposed if the EPA asserts this new power.

President Obama recently said that we must weigh the opportunity cost of not building the Keystone XL pipeline. The same logic applies to the project at Pebble Mine—and the federal permitting process is the only place to do that.

Mr. McGroarty is president of American Resources Policy Network, a public policy research group in Washington, D.C., that is supported by organizations and companies in mining and related industries.

4. U.S. Backing Unlikely to Tip Balance Toward 'Clean Coal'

Pollution-Cutting Technologies for the Fuel Remain Too Costly to Blunt Natural Gas's Edge

By Rebecca Smith and Cassandra Sweet, WSJ, Jul 2, 2013

http://online.wsj.com/article/SB10001424127887324251504578577503982794958.html?mod=W_SJ_Energy

Some clean-energy technologies are expected to get a shot in the arm from President Barack Obama's plan to fight climate change, but so-called clean coal probably isn't one of them. The reason: economics.

As part of the plan he unveiled last week, Mr. Obama directed the Environmental Protection Agency to set the nation's first limits on greenhouse-gas emissions from U.S. power plants, boosting the prospects for natural gas and renewable energy. He also called for \$8 billion in federal loan guarantees to support "advanced fossil energy" projects, including clean-coal power plants and energy-efficiency efforts.

But experts say clean coal—a mix of technologies championed by lawmakers, unions and others seeking to preserve jobs in the nation's coal belt—remains far too costly to make new coal plants competitive with natural gas, which is both cheaper and cleaner.

"We're quite challenged—I don't know how else to put it," says Thomas Alley, vice president of generation for the Electric Power Research Institute in Palo Alto, Calif., an industry-funded research group. Clean coal is "just not an economical option for folks, at this point in time," he says.

Two big new power plants meant to showcase new technology are each a billion dollars over budget, and neither is fully operational. That's partly because no one has developed an inexpensive way to get carbon dioxide, the most common greenhouse gas, out of the waste stream produced by burning coal. Some of the most promising ways to clean up the fuel remain far from commercialization, researchers and others say.

The stakes are high for the coal industry. Electrical power plants produced about a third of U.S. greenhouse-gas emissions in 2011, the EPA says, and 80% of those emissions came from burning coal. Partly as a result, power producers have embraced alternatives, principally natural gas, which produces about half as much carbon dioxide.

Clean-coal developers have attacked the problem from two directions: by gasifying coal, which removes pollutants before they are burned, and by trying to tease pollutants out of the waste stream after combustion. They are testing many materials for their ability to attract and bind carbon dioxide, including chilled ammonia, solvents and enzymes.

Duke Energy Corp.'s Edwardsport power plant in Indiana, which started commercial operation this month, turns coal into a cleaner-burning gas but doesn't filter out the carbon dioxide produced through gasification. Equipment to capture the carbon would have added hundreds of millions of dollars to the cost of the plant, which is already \$3.5 billion.

The company may decide to add the carbon-capture equipment later, says Doug Esamann, president of Duke Energy Indiana. "We left space for it."

The plant is shut down right now, he adds, while engineers work out some unexpected bugs; output isn't expected to reach full capacity for at least a year.

Southern Co.'s Kemper project in Mississippi, which is under construction, also is designed to gasify coal. Southern intends to capture 65% of the carbon dioxide for use in oil fields near the Gulf of Mexico. Buyers of the gas plan to inject it into wells to force up more oil.

But the project is way over budget, at \$4.3 billion and counting. A Southern spokeswoman says that while the Kemper plant will be costly to build, it should produce low-cost electricity.

Other utilities are unlikely to follow suit, however, even if the U.S. does curb carbon-dioxide emissions, "given the enormous cost overruns both companies have incurred on their already very costly projects," says Hugh Wynne, utilities analyst for Sanford C. Bernstein. He says that power plants fired by natural gas, which isn't only cheap but far cleaner to burn than coal, "are the obvious way to go to reduce CO2 emissions."

Some utilities have toyed with carbon capture and storage and given up. American Electric Power Co. experimented with a technique to extract a small amount of carbon dioxide from emissions at its giant coal-fired Mountaineer plant in West Virginia. But the company abandoned the effort in 2010 after state regulators rejected its request to charge customers for the additional cost.

For clean coal to make headway, the power industry needs "a clear indication from someone that we have to build this stuff, and the technology needs to be there," says AEP Chief Executive Nick Akins.

AEP intends to shut down about a quarter of its coal plants in the next few years, and is relying instead on cleaner-burning natural gas, renewable resources and energy-efficiency measures. Already, it is lowering emissions, the company says.

Despite the many challenges, researchers are working on processes they hope will revolutionize the power sector one day. "It's a \$10 billion opportunity," says Barry Blackwell, chief executive of Akermin, a scientific-development company in St. Louis. Akermin is working on carbon-capture technology that has been tested at the National Carbon Capture Center in Wilsonville, Ala., a test center supported by the Department of Energy.

So far results have been good, Mr. Blackwell says. Closely held Akermin hopes to have a product available for the power-generation industry in four or five years, he says, adding: "We're focused on reducing the cost."

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