The Week That Was: 2011-10-01 (October 1, 2011) Brought to You by SEPP (<u>www.SEPP.org</u>) The Science and Environmental Policy Project

Climate Change Reconsidered: 2011 Interim Report

Quote of the Week:

"We concluded that the technical support document that accompanied EPA's endangerment finding is a highly influential scientific assessment and thus required a more rigorous EPA peer review than occurred. EPA did not certify whether it complied with OMB's or its own peer review policies in either the proposed or final endangerment findings as required." EPA Inspector General Arthur Elkins, Jr.

Number of the Week: \$0.25, 0.44 ... \$23.37, 24.34

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

Save the Date: October 22 from 11 am to 1 pm. SEPP and VA-SEEE will be hosting a forum in Richmond at Virginia Commonwealth University. Details to follow.

EPA Endangerment Finding: On September 28, the Office of Inspector General (OIG) of the Environmental Protection Agency (EPA) reported on a study it did at the behest of Senator Inhofe, the ranking member of the Senate Committee on Environment and Public Works. Senator Inhofe asked: Did the EPA perform the procedures required under the Data Quality Act when issuing its finding that greenhouse gases (GHG), including carbon dioxide (CO2), endanger human health and welfare? As illustrated by the quote above, the OIG found the EPA did not meet these standards of scientific rigor. The OIG report addressed only the procedures involved and not the science itself. Thus the report does not validate or invalidate the science supporting or not supporting the EPA's Endangerment Finding (EF).

Some articles in the news fail to comprehend the background and the significance of the OIG report. In the 1990s, the EPA, under Carol Browner, produced a number of studies that significantly lowered the level of scientific rigor acceptable to the EPA. For example, the infamous second-hand smoke study doubled the acceptable statistical standard confidence limits from 5% to 10%. Otherwise, the study would have been rejected. Indeed, similar studies that maintained scientific rigor were statistically rejected. Such activities prompted Congress to pass the Data Quality Act (DQA), which was buried in a larger bill that outgoing President Clinton signed in December, 2000.

The Act requires certain agencies set procedures of peer review that meet standards set by the Office of Management and Budget (OMB). Studies that failed to meet these standards would be so noted and future funding highly questionable. One of the first studies to fail the DQA was the U.S. National Assessment of Climate Change, which was led by then Vice President Al Gore. Of course, the alarmists were outraged and have little positive to say about the Act. [See NIPCC 2008, p 15.]

At issue now is the Technical Support Document (TSD) that accompanied EPA's Endangerment Finding, which provides the scientific justification for the EF. One cannot be certain, but apparently EPA played a clever game in avoiding DQA's peer review requirement. The TSD relies on the Fourth Assessment Report (AR4) of the UN Intergovernmental Panel on Climate Change as its scientific foundation. As

noted by Alan Carlin, then a long standing (35 years) EPA scientist, the EPA should have provided an independent analysis of the science. EPA argues that the IPCC peer review is sufficient, but did not establish that to the satisfaction of the OIG. [The two other US funded reports cited by the EPA, one by the National Research Council and the other by the U.S. Global Change Research Program, follow a similar pattern of accepting the IPCC AR4 as indisputable and fail to provide independent review.]

As Climategate and other reports revealed, the peer review process of the IPCC has major deficiencies. The Summary for Policymakers was not supported by the larger scientific section and was published before that section. Largely, only studies agreeing with IPCC conclusions are included. Numerous attribution claims came from advocacy magazines, not peer reviewed journals. Phil Jones, the head of the Climatic Research Unit (CRU) was the lead author of the chapter that reviewed the product of the CRU, etc.

As IPCC AR4 expert reviewer Ross McKitrick points out, peer-reviewed studies contradicting IPCC findings were dismissed without evidence – even after the final peer review of AR4. The IPCC dismissal of these studies was cited in the EPA TSD. Another questionable citation in TSD is the 2008 work of Santer and 16 others. They attempt to address the 2007 work of Douglass, et al, which shows that the atmospheric temperature trends as determined by observations depart significantly from those calculated by the models. [NIPCC 2008, p. 8] The trick used by Santer, et al. is now a familiar one – expand the error ranges so that the results of the models are not statistically different from the observations. It was such tricks that brought on the DQA. [Please see both Singer 2011 and McKitrick]

The EPA has 90 days to respond to the OIG report. It did not accept the report's conclusions and recommendations. One can only guess if the report will change the current litigation against the EPA EF. However, the litigation and the NIPCC reports, particularly the 2008 report that was submitted early enough to be considered in the EF, have become more significant.

According to the Government Accountability Office (GAO), between 1993 and 2010, the Federal Government spent \$107 Billion on climate change programs, not including tax subsidies, tax credits, etc. Further, the Federal government has spent over \$31 Billion on what the GAO classifies as climate science. For that amount of money Federal agencies should be able to produce a study that meets the requirements of the Data Quality Act.

Next week TWTW will discuss some of the dubious science EPA has submitted to the courts to justify its endangerment finding. Please see links under "Climategate Continued," McKitrick under "Suppressing Scientific Inquiry," "EPA and other Regulators on the March" and SEPP links: Singer 2011 http://www.sepp.org/science_papers/ICCC_Booklet_2011_FINAL.pdf, NIPCC 2008 http://www.sepp.org/science_papers/ICCC_Booklet_2011_FINAL.pdf, NIPCC 2008 http://www.sepp.org/science_papers/ICCC_Booklet_2011_FINAL.pdf, NIPCC 2008 http://www.sepp.org/science_papers/ICCC_Booklet_2011_FINAL.pdf, NIPCC 2008 http://www.sepp.org/science_papers/ICC5_final.pdf, and Douglas, et al. 2007, http://www.sepp.org/science_papers/ICC5_final.pdf, and Douglas, et al. 2007, http://www.sepp.org/science_papers/ICC5_final.pdf, and Douglas, et al. 2007, http://www.sepp.org/science_papers/ICC5_final.pdf

Validation of Climate Models: Roger Pielke, Sr, brings up the interesting issue of validation of climate models. Can they be tested and rejected based on providing skillful predictions? EPA claims that the models have been validated. Others may disagree. Please see link under "Models v. Observations" and next week's TWTW.

Faster than the Speed of Light? Last week CERN, the European Organization for Nuclear Research, announced that repeated experiments indicated that neutrinos travel faster than the speed of light – an absolute according to Einstein's relativity theory. String theory physicist Michio Kaku discusses this finding in the *Wall Street Journal*. If correct, the finding will require significant revisions to modern physics. As an aside, many modern conveniences, such as global positioning satellites, depend on Einstein being correct.

The subtitle of the article expresses this dilemma well: "Unlike religion or politics, science will mercilessly pursue the evidence with repeated experiments."

In a letter, Walker White points out the differences in response to disturbing news between physicists and (some) climate scientists. Please see Articles # 1, and #2.

Personality Types: Donald Rapp, the author of *Assessing Climate Change*, provides amusing commentary on an article exploring the personality type differences between climate researchers and the general public. No doubt the researchers covered in the study do not include those labeled climate change deniers. Please see Article # 3.

The New Technology: European politicians promoting severe cutbacks in electricity generation from traditional sources and expanding solar and wind are facing an increasingly hostile public and contradicting energy facts. The great alternative energy plan of the government of Scotland is being challenged as ruinous by Scotland's business, the government of the UK has no idea what to do about the major find of shale gas in northwest England, and the government of Poland has declared it will veto any attempt by the European Union to control its development of shale gas.

Too many people recognize the success in the US of the development of oil and gas from shale, and recognize that it can provide affordable, reliable energy far into the future. Electricity from wind and solar is not affordable or reliable.

The technology revolution is sinking in. The Federal and state governments in the US face a similar dilemma. Even an article by the National Public Radio, which is not a supporter of oil and gas, included the following succinct comment: "The point is you can't force a technology that's not commercial. Rather than subsidize things that are not going to be competitive, we need to actually use that money to do R&D to create technologies — the same way that the industries created these technologies to produce natural gas and it turned out so commercially successful." Please see Article # 4 and links under "Questioning European Green" and "Oil and Natural Gas – the Future or the Past."

Malaria and Tropical Diseases: The review of "The History of Malaria in Finland" by NIPCC prompted further investigation. Except for an archipelago in the south west, Finland lies above 60 degrees North Latitude as does much of Russia, most of Alaska, the Yukon and Northwest Territories in Canada, and Greenland. After the Reformation, the Lutheran Church was very important in Finland and required, at least, rudimentary reading and writing by all its members. After 1749, the church demanded all ministers keep vital statistics on all within their parish, including causes of death. This is one of the finest such records in all of Northern Europe.

During the 1700s and 1800s, malaria was endemic in Finland and the church records show that epidemics were frequent – including at least one north of the Arctic Circle. Yet in the late 1800s and early 1900s malaria began to disappear in Finland and the last recorded epidemics were in the 1930s – well before the use of DDT to kill mosquitoes (the vector that spreads malaria). The authors of the referenced study suggest that the decline of the disease was due to changes in living conditions. In the 1890s it became known that the vector spreading malaria was mosquitoes; thus, one can speculate that the church, which greatly influenced the rural areas, also insisted on measures controlling mosquitoes.

Similar control of malaria occurred in much of Northern Europe and North America prior to the use of DDT as an insecticide. Yet many supposed experts claim that global warming threatens human health because it will result in the spread of malaria and other tropical diseases beyond the range they now exist.

Obviously, these experts never bothered to learn history. Please see link under "Review of Recent Scientific Articles by NIPCC."

Department of Energy: This week provided an excellent example of government financial irresponsibility. On September 30, the program, under the Stimulus Bill, of loan guarantees for alternative energy ended. The Department of Energy had \$6.3 Billion to pass out. If it failed, it was not for the lack of trying. Supporters claimed these loan guarantees are different than grants. So they are, but they are obligations of the government (taxpayers). The bankruptcy of the prized solar company Solyndra shows that the taxpayers are on the hook for the guarantees and likely to receive nothing from the bankruptcy. Please see links under "Alternative, Clean ('Green') Energy."

Number of the Week:\$0.25, 0.44 ... \$23.37, 24.34 These are the dollar amounts of subsidies for various energy producing industries as calculated in 2007 by the Energy Information Administration and repeated in a study "Empty Promises for Green Jobs" for the Congressional Budget Committee. The full list is: \$0.25 for Natural Gas and Petroleum, \$0.44 for Coal, \$0.67 for Hydroelectric, \$0.89 for Biomass, \$0.92 for Geothermal, \$1.59 for Nuclear, \$23.37 for Wind, and \$24.34 for Solar. These subsidies do not include the large amounts of money spent under the Stimulus Bill that went largely to Solar and Wind.

The report also brings up a dreaded concept: return on investment. The wind industry claims it needs subsidies to catch up with gas, oil, and coal. It has been receiving subsidies for over 30 years. It has not stated when subsidies will be sufficient. Please see link under "The Political Games Continue."

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. Has a Speeding Neutrino Really Overturned Einstein?

Unlike religion or politics, science will mercilessly pursue the evidence with repeated experiments. By Michio Kaku, WSJ, Sep 26, 2011 <u>http://online.wsj.com/article/SB10001424053111903703604576588662498620624.html?mod=ITP_opini</u> on 0

2. 'Faster than light' vs. climate change

Letter by Walker White, Washington Post, Sep 27, 2011 [H/t Conrad Potemra] <u>http://www.washingtonpost.com/opinions/faster-than-light-vs-climate-</u>change/2011/09/24/gIQAzIAk2K_story.html

3. Personality type differences between Ph.D. climate researchers and the general public: implications for effective communication

By Weiler, et al, Climate Change, July 28, 2011 http://disccrs.org/files/WeilerEtAl_2011_ClimaticChange_MBTI.pdf Comments by Donald Rapp

4. The Lessons of the Shale Gas Revolution

North American oil production can double by 2035. By Lucian Pugliaresi, WSJ, Sep 29, 2011 <u>http://online.wsj.com/article/SB10001424052970204831304576596770729824868.html?mod=WSJ_Opin</u> ion_LEFTTopOpinion

5. Inside the EPA

Memos show that even other regulators worry about its rule-making. Editorial, WSJ, Sep 26, 2011 <u>http://online.wsj.com/article/SB10001424053111904194604576582814196136594.html#mod=djemEdito</u> <u>rialPage_t</u>

6. Cosmic Rays and Climate Changes

NEWS YOU CAN USE:

Science: Is the Sun Rising?

Evidence that the sun drives the oceans which control our weather and climate By Joe D'Aleo, ICECAP, Sep 29, 2011 <u>http://icecap.us/index.php/go/new-and-</u> <u>cool/evidence that the sun drives the oceans which control our weather and clima/</u> *[SEPP Comment: Relationships that warrant further investigation.]*

Climategate Continued

Climate Audit Submission to EPA

By Steve McIntyre, Climate Audit, Jun 23, 2009 [H/t Russell Cook] <u>http://climateaudit.org/2009/06/23/climate-audit-submission-to-epa/</u> "Evasion of transparency" to avoid Freedom of Information requests.

How the WWF Infiltrated the IPCC – Part 1

By Donna Laframboise, No Frakking Consensus, Sep 23, 2011 http://nofrakkingconsensus.com/2011/09/23/how-the-wwf-infiltrated-the-ipcc-%E2%80%93-part-1/ [SEPP Comment: The first of a series on how the special interest group, World Wildlife Fund (or World Wide Fund for Nature), influenced the supposedly scientifically objective IPCC reports.]

Suppressing Scientific Inquiry

Global Warming: Who's Disagreeing with What? By Ross McKitrick, presentation, Sep 28, 2011 <u>http://rossmckitrick.weebly.com/uploads/4/8/0/8/4808045/mckitrick-3al.pdf</u> [SEPP Comment: A summary of some of the major defects in the IPCC science.]

Challenging the Orthodoxy

War of words over global warming as Nobel laureate resigns in protest

A Nobel laureate has quit one of the world's leading organisations for scientists in protest at its assertion that the evidence of damaging global warming is "incontrovertible". By Philip Sherwell, Telegraph, UK, Sep 25, 2011 http://www.telegraph.co.uk/earth/environment/climatechange/8786565/War-of-words-over-globalwarming-as-Nobel-laureate-resigns-in-protest.html

EPA Inspector General Finds Procedures Used in Preparing GHG Endangerment Finding Did Not Follow OMB Requirements

By Alan Carlin, Carlin Economics and Science, Sep 28, 2011 http://www.carlineconomics.com/archives/1363 [SEPP Comment: An independent review of the science is desperately needed.]

The Vindication of Alan Carlin

By Steven Hayward, Power Line, Sep 30, 2011 [H/t Marc Morano, Climate Depot] http://www.powerlineblog.com/archives/2011/09/the-vindication-of-alan-carlin.php

Defending the Orthodoxy

Climate commissioner admonishes US for climate change denial

Connie Hedegaard says America's "anti-science" political opposition is delaying effective climate solution By Jennifer Buley, Copenhagen Post, Sep 26, 2011 <u>http://www.cphpost.dk/component/content/52211.html?task=view</u> [SEPP Comment: Anyone who dares to question the IPCC is anti-science!]

IMF, World Bank eye carbon tax on airline, ship fuels

By Staff Writers, AFP, Sept 23, 2011 http://www.energydaily.com/reports/IMF_World_Bank_eye_carbon_tax_on_airline_ship_fuels_999.html [SEPP Comment: \$250 Billion in taxes by 2020 – the goal of the UN, IMF, and World Bank in promoting global warming.]

Questioning the Orthodoxy

How the US's Climate of Opinion Changed By Myron Ebell, Standpoint, Oct, 2011 <u>http://www.standpointmag.co.uk/node/4107/full</u> *"The global warming fad is waning."*

Climate skeptics don't 'deny science'

By Jeff Jacoby, Boston Globe, Sep 24, 2011 [H/t James Seyster] http://www.jeffjacoby.com/10407/climate-skeptics-dont-deny-science

Global Warming: New study challenges carbon benchmark

By Staff Writers, AFP, Sep 28, 2011 [H/t ICECAP] http://icecap.us/index.php/go/new-and-cool/global_warming_new_study_challenges_carbon_benchmark/ [SEPP Comment: Is nature absorbing, through photosynthesis, more carbon dioxide than previous studies suggest?]

Major UN Climate Program "Basically A Farce"

By Steven Hayward, Power Line, Sep 29, 2011 [H/t GWPF] http://www.powerlineblog.com/archives/2011/09/major-un-climate-program-%E2%80%9Cbasically-afarce%E2%80%9D.php

Questioning European Green

Alex Salmond's green energy revolution 'threatens firms with bankruptcy'

The costs of Alex Salmond's green energy revolution are "going through the roof" and threaten to bankrupt companies by doubling energy bills, business leaders have warned the First Minister. By Simon Johnson, Telegraph, UK, Sep 29, 2011 [H/t GWPF] http://www.telegraph.co.uk/news/uknews/scotland/8794860/Alex-Salmonds-green-energy-revolution-

http://www.telegraph.co.uk/news/uknews/scotland/8794860/Alex-Salmonds-green-energy-revolutionthreatens-firms-with-bankruptcy.html

[SEPP Comment: Scotland's energy plan is being questioned.]

Poland vows to veto any EU law on shale gas fracking

By Marek Strzelecki and Ben Farey Warsaw, Bloomberg, Sep 29, 2011 [H/t GWPF] http://www.iol.co.za/business/business-news/poland-vows-to-veto-any-eu-law-on-shale-gas-fracking-1.1146773

Economy of Thought

Ah, so that's it. 'Shale gas will not solve Britain's energy problems', because the likes of The Economist, and the Secretary of State for Energy and Climate Change simply don't want it to. By Ben Pile, Climate Resistance, Sep 30, 2011 http://www.thegwpf.org/best-of-blogs/3992-ben-pile-economy-of-thought.html

Airlines decry EU carbon emissions scheme

By Staff Writers, AFP, Sept 27, 2011 http://www.spacemart.com/reports/Airlines_decry_EU_carbon_emissions_scheme_999.html

European refineries face 'dramatic' future

By Sonja van Renssen, European Energy Review, Sep 22, 2011 http://www.europeanenergyreview.eu/site/pagina.php?id=3232

Communicating Better to the Public – Exaggerate?

World Without Ice

56 million years ago a mysterious surge of carbon into the atmosphere sent global temperatures soaring. In a geologic eyeblink life was forever changed. By Robert Kunzig, National Geographic, Oct, 2011 [H/t Debbie Wetlaufer] http://ngm.nationalgeographic.com/2011/10/hothouse-earth/kunzig-text

Models v. Observations

Can Climate Model Predictions Be Tested And Rejected As Providing Skillful Predictions? Of Course!

By Roger Pielke, Sr, Pielke Climate Science, Sep 29, 2011

http://pielkeclimatesci.wordpress.com/2011/09/29/can-climate-model-predictions-be-tested-and-rejectedas-providing-skillful-predictions-of-course/

[SEPP Comment: Since models are chaotic, validation fails unless a sufficient number of model runs are averaged.]

Changing Weather

D'Aleo- How A Warm Polar High Atmosphere Can Mean A Cold Winter In Mid-Latitudes By Joe D'Aleo, WeatherBELL Analytics, Sep 26, 2011 http://www.weatherbell.com/newsletter-9-27-2011-d

Changing Climate

El Nino and the Tropical Eastern Pacific Annual Cycle Run to the Same Beat By Staff Writers, SPX, Sep 23, 2011 http://www.terradaily.com/reports/El_Nino_and_the_Tropical_Eastern_Pacific_Annual_Cycle_Run_to_t he_Same_Beat_999.html [SEPP Comment: But the IPCC does not recognize such things.]

Changing Sea Ice

Model provides successful seasonal forecast for the fate of Arctic sea ice By Staff Writers, SPX, Sep 23, 2011 http://www.terradaily.com/reports/Model_provides_successful_seasonal_forecast_for_the_fate_of_Arctic_sea_ice_999.html

[SEPP Comment: Using measurements made in the fall to predict the summer melt. Based on ten years of measurements, it will be interesting to see if the relationship holds.]

Acidic Waters

Ocean Acidification — a little bit less alkalinity could be a good thing

By Jo Nova, Her Blog, Sep 30, 2011 http://joannenova.com.au/2011/09/ocean-acidification-a-little-bit-less-alkalinity-could-be-a-good-thing/#more-17080

The Political Games Continue

The Empty Promise of Green Jobs *The Costly Consequences of Crony Capitalism* By Republican Staff, Committee on the Budget, Sep 22, 2011 [H/t Timothy Wise] http://budget.house.gov/News/DocumentSingle.aspx?DocumentID=261226

Litigation Issues

Angry federal judge rips 'false testimony' of federal scientists By Ron Arnold, Washington Examiner, Sep 22, 2011 [H/t Tom Burch] <u>http://washingtonexaminer.com/opinion/columnists/2011/09/angry-federal-judge-rips-false-testimony-federal-scientists</u>

EPA's Absurd Defense of Its Greenhouse Gas Regulations

By Daniel Simmons, Institute for Energy Research, Sep 23, 2011 [H/t Bud Bromley] http://www.instituteforenergyresearch.org/2011/09/23/epas-absurd-defense-of-its-greenhouse-gasregulations/

Subsidies and Mandates Forever

Merger pressures Massachusetts utility on wind power By Jay Lindsay, AP, Sep 25, 2011 http://www.washingtontimes.com/news/2011/sep/25/merger-pressures-massachusetts-utility-on-windpow/ [SEPP Comment: Using a proposed business merger to bail out a politically favored wind farm. The consumers don't count.]

EPA and other Regulators on the March

PRESS STATEMENT Office of Inspector General, EPA, Sep 28, 2011 http://epa.gov/oig/reports/2011/IG_Statement_Greenhouse_Gases_Endangerment_Report.pdf

Procedural Review of EPA's Greenhouse Gases Endangerment Finding Data Quality Processes

Office of Inspector General, EPA, Sep 26, 2011 http://epa.gov/oig/reports/2011/20110926-11-P-0702.pdf [SEPP Comment: The full report.]

Report calls the scientific integrity of EPA's decision-making process into question and undermines the credibility of the endangerment finding

By Matt Dempsey and Katie Brown, Press Release, Sep 28, 2011

http://epw.senate.gov/public/index.cfm?FuseAction=Minority.PressReleases&ContentRecord_id=aff94d6 b-802a-23ad-4e31-7cfec2ba368f

Watchdog: EPA cut corners on global-warming decision

Report supports lawsuits seeking to block Obama global-warming rules By Stephen Dinan, Washington Times, Sep 28, 2011 [H/t Malcolm Field] http://www.washingtontimes.com/news/2011/sep/28/watchdog-epa-cut-corners-global-warming-decision/

EPA inspector general faults climate document peer review

By Ben Geman, The Hill, Sep 28, 2011 http://thehill.com/blogs/e2-wire/677-e2-wire/184373-epa-inspector-general-faults-climate-documentpeer-review

Economic Euthanasia: More Poison Pills From The EPA

By Larry Bell, Forbes, Sep 27, 2011 http://www.forbes.com/sites/larrybell/2011/09/27/economic-euthanasia-more-poison-pills-from-the-epa/

How Absurd Is Regulating Greenhouse Gases through the Clean Air Act?

By Marlo Lewis, Global Warming.org, Sep 27, 2011 http://www.globalwarming.org/2011/09/27/how-absurd-is-regulating-greenhouse-gases-through-theclean-air-act/

EPA delays auto emissions, mileage rule rollout

By Ben Geman, The Hill, Sep 27, 2011 http://thehill.com/blogs/e2-wire/677-e2-wire/184295-epa-delays-auto-emissions-mileage-rule-rollout

Energy Issues

Nord Stream: Neue Sorgen for Europe

By Matthew Hulbert, European Energy Review, Sep 26, 2011

<u>http://www.europeanenergyreview.eu/site/pagina.php?id=3237</u> [SEPP Comment: Political implications of the gas pipeline directly from Russia to Germany, which passes under the Baltic Sea.]

Refining Pinched On East Coast

By Daniel Gilbert, WSJ, Sep 28, 2011 http://online.wsj.com/article/SB10001424052970204831304576596751698503510.html?mod=WSJ_Ener gy_leftHeadlines [SEPP Comment: Three east coast refineries with a total capacity of 700,000 barrels per day are being taken off line because they are no longer profitable. May be behind a pay wall.]

Oil and Natural Gas – the Future or the Past?

Shale Gas Is Britain's Golden Opportunity The discovery of 200 trillion cubic feet of shale gas in north-west England could revolutionise Britain's energy market By Benny Peiser, GWPF, Sep 27, 2011

http://www.thegwpf.org/opinion-pros-a-cons/3973-benny-peiser-shale-gas-is-britains-golden-opportunity.html

UK Shale Gas: Larger Than the Marcellus Shale

By Tim Worstall, Forbes, Sep 22, 2011 [H/t Warren Wetmore]

http://www.forbes.com/sites/timworstall/2011/09/22/uk-shale-gas-larger-than-the-marcellus-shale/

Shale Oil Boom Comes to More US Plains States

By Al Fin, Al Fin Energy, Sep 29, 2011 [H/t GWPF] http://alfin2300.blogspot.com/2011/09/shale-oil-boom-comes-to-more-us-plains.html

New Boom Reshapes Oil World, Rocks North Dakota

By NPR Staff, National Public Radio, Sep 25, 2011 [H/t Warren Wetmore] http://www.npr.org/2011/09/25/140784004/new-boom-reshapes-oil-world-rocks-northdakota?ft=1&f=1025 [SEPP Comment: Even a NPR article gets it.]

Over to you, Andrew Editorial, New York Post, Sep 28, 2011 [H/t Warren Wetmore] <u>http://www.nypost.com/p/news/opinion/editorials/over_to_you_andrew_QmPQ4ImEyg0XIe94K</u> <u>ilwnJ</u>

In North Dakota, Flames of Wasted Natural Gas Light the Prairie

By Clifford Krauss, NYT, Sep 26, 2011 http://www.nytimes.com/2011/09/27/business/energy-environment/in-north-dakota-wasted-natural-gasflickers-against-the-sky.html? r=1&nl=todaysheadlines&emc=tha25 [SEPP Comment: Pipelines are needed to capture this gas – environmentalists and the government regulations have made building pipelines very difficult.]

Administration's Control of Oil and Gas

War on energy at home creates disasters abroad By Sol Sanders, Washington Times, Sep 25, 2011 <u>http://www.washingtontimes.com/news/2011/sep/25/sanders-war-on-energy-at-home-creates-disasters-ab/</u>

Oil Spills & Consequences

LSU researchers find impact of oil spill in marsh fish species By Staff Writers, SPX, Sep 27, 2011 <u>http://www.energy-</u> daily.com/reports/LSU researchers find impact of oil spill in marsh fish species 999.html

Nuclear Energy and Fears

Big money needed for German energy transition By Staff Writers, World Nuclear News, Sep 22 2011 http://www.world-nuclear-news.org/newsarticle.aspx?id=30818

Feds: Virginia nuclear plant will remain closed until operator proves it's safe

By Andrew Restuccia, The Hill, Sep 30, 2011 http://thehill.com/blogs/e2-wire/677-e2-wire/184809-federal-regulators-virginia-nuclear-plant-willremain-closed [SEPP Comment: Exactly, what would be the standards of proof?]

USA and Russia commit to expand nuclear power

By Staff Writers, World Nuclear News, Sep 21 2011

http://www.world-nuclearnews.org/NP_USA_and_Russia_commit_to_expand_nuclear_power_2109111.html

New IAEA system to streamline communications

By Staff Writers, World Nuclear News, Sep 22, 2011 <u>http://www.world-nuclear-news.org/RS-New_IAEA_system_to_streamline_communications-</u> <u>2109117.html</u> [SEPP Comment: A lesson from Japan is the need for effective communication when power and telephone systems (including cell) are down.]

Alternative, Green ("Clean") Energy

DOE Mulls Green Energy Loans At \$23 Million Per Job By Sean Higgins, IBD, Sep 27, 2011 http://www.investors.com/NewsAndAnalysis/Article/586155/201109271759/DOE-Mulls-Loans-For-Green-Projects-At-23-Mil-Per-Job.htm

DOE Trying to Use \$6.5 Billion in Loans to Create 283 Jobs

By Bob Beauprez, Townhall, Sep 29, 2011 http://finance.townhall.com/columnists/bobbeauprez/2011/09/29/doe_trying_to_use_\$65_billion_in_loan s_to_create_283_jobs

Energy Department invests \$156 million in 'game-changing' research

By Andrew Restuccia, The Hill, Sep 29, 2011 http://thehill.com/blogs/e2-wire/677-e2-wire/184621-energy-department-invests-156-million-in-gamechanging-research

More 'Green' For Donor Energy

Editorial, IBD, Sep 29, 2011 http://www.investors.com/NewsAndAnalysis/Article.aspx?id=586465&p=1

U.S. Defense aims for clean energy

By Staff Writers, UPI, Sep 23, 2011 http://www.energy-daily.com/reports/US_Defense_aims_for_clean_energy_999.html [SEPP Comment: The Pentagon has been captured by the environmental industry.]

Delaware's very own Solyndra

By Paul Driessen, Townhall, Sep 26, 2011 http://townhall.com/columnists/pauldriessen/2011/09/26/delawares_very_own_solyndra

O'Malley's wind energy plan worse than hot air

Editorial, Washington Examiner, Sep 26, 2011 http://washingtonexaminer.com/opinion/editorials/local/2011/09/examiner-local-editorial-omalleys-windenergy-plan-worse-hot-air?utm_source=TEMPLATE:%20Washington%20Examiner%20Opinion%20-%2009/27/2011&utm_medium=email&utm_campaign=Washington%20Examiner:%20Opinion%20Dige st

The Not-So-Green Mountains

By Steve Wright, NYT, Sep 28, 2011 http://www.nytimes.com/2011/09/29/opinion/the-not-so-greenmountains.html?_r=1&nl=todaysheadlines&emc=tha212 [SEPP Comment: Environmentalism is great until it affects me.]

Carbon Schemes

Texas IGCC Project with Carbon Capture to Get Federal Cost-Shared Funding By Staff Writers, POWERnews, Sep 28, 2011 <u>http://www.powermag.com/POWERnews/4068.html?hq_e=el&hq_m=2292875&hq_l=8&hq_v=5e66050</u> 0d0

CO2 storage law falls through in Germany

By Staff Writers, AFP, Sept 23, 2011 http://www.energy-daily.com/reports/CO2_storage_law_falls_through_in_Germany_999.html

Review of Recent Scientific Articles by NIPCC

For a full list of articles see <u>www.NIPCCreport.org</u>

The History of Malaria in Finland

Reference: Hulden, L. and Hulden, L. 2009. The decline of malaria in Finland -- the impact of the vector and social variables. *Malaria Journal* 8: 10.1186/1475-2875-8-94. http://www.nipccreport.org/articles/2011/sep/28sep2011a5.html

New Streamflow Records of Upper Colorado River Tributaries

Reference: Gray, S.T., Lukas, J.J. and Woodhouse, C.A. 2011. Millennial-length records of streamflow from three major Upper Colorado River tributaries. *Journal of the American Water Resources Association* 47: 702-712.

http://www.nipccreport.org/articles/2011/sep/28sep2011a3.html

Urban Warming vs. Global Warming in East China

Reference: Yang, X., Hou, Y. and Chen, B. 2011. Observed surface warming induced by urbanization in east China. *Journal of Geophysical Research* 116: 10.1029/2010JD015452. http://www.nipccreport.org/articles/2011/sep/27sep2011a1.html

[SEPP Comment: Reinforcing Ross McKitrick's findings that the land temperature data used by the IPCC has a strong socio-economic component that, contrary to IPCC claims, has a significant influence on global warming trends.]

Amazon Forest Dynamics

Reference: Laurance, S.G.W., Laurance, W.F., Nascimento, H.E.M., Andrade, A., Fearnside, P.M., Rebello, E.R.G. and Condit, R. 2009. Long-term variation in Amazon forest dynamics. *Journal of Vegetation Science* 20: 323-333.

http://www.nipccreport.org/articles/2011/sep/27sep2011a5.html

Health, Energy, and Climate

The Amazing Decline in Deaths from Extreme Weather in an Era of Global Warming, 1900–2010

By Indur Goklany, WUWT, Sep 25, 2011

http://wattsupwiththat.com/2011/09/25/the-amazing-decline-in-deaths-from-extreme-weather-in-an-era-of-global-warming-19002010/

Environmental Industry

Nobels savage Keystone XL

How do the Holy Men travel the world? Sailing ship? Magic carpet? By Peter Foster, Financial Post, Sep 27, 2011

http://opinion.financialpost.com/2011/09/27/peter-foster-nobels-savage-keystone-xl/

Greens want terror oil in your gas tank

Using Canada's ethical oil makes economic, national security sense By Bernard Weinstein, Washington Times, Sep 28, 2011 http://www.washingtontimes.com/news/2011/sep/28/greens-want-terror-oil-in-your-gas-tank/

Brazil court orders halt to work on \$11 bn mega-dam

By Staff Writers, AFP, Sept 29, 2011 http://www.terradaily.com/reports/Brazil_court_orders_halt_to_work_on_11_bn_mega-dam_999.html

Do we need the RSPO?

By P. Gunasegaran, The Star (Malaya), Aug 6, 2011 http://biz.thestar.com.my/news/story.asp?file=/2011/8/6/business/9248945&sec=business [SEPP Comment: What constitutes "sustainable" palm oil?]

Green groups sue Interior to thwart Shell's Arctic drilling

By Ben Geman, The Hill, Sep 29, 2011 http://thehill.com/blogs/e2-wire/677-e2-wire/184655-green-groups-sue-interior-to-thwart-shells-arcticdrilling

Other Scientific News

How global warming could cause animals to shrink By Staff Writers, SPX, Sep 29, 2011 http://www.terradaily.com/reports/How_global_warming_could_cause_animals_to_shrink_999.html

'World-first discovery 'can help save coral reefs'

By Staff Writers, SPX, Sep 30, 2011 http://www.terradaily.com/reports/World_first_discovery_can_help_save_coral_reefs_999.html

Venus Weather Not Boring After All

By Bill Steigerwald, SPX, Sep 28, 2011 http://www.spacedaily.com/reports/Venus_Weather_Not_Boring_After_All_999.html

Aboriginals get new history

By Staff Writers, SPX, Sep 23, 2011 http://www.terradaily.com/reports/Aboriginals_get_new_history_999.html

Other News that May Be of Interest

The era of big American physics about to end By Staff Writers, AFP, Sept 26, 2011 http://www.spacedaily.com/reports/The era of big American physics about to end 999.html

New packaging for old US rocket

By Oleg Nekhai for Voice of Russia Moscow (RIA Novosti) Sep 26, 2011 <u>http://www.space-travel.com/reports/New_packaging_for_old_US_rocket_999.html</u> [SEPP Comment: The proposed new NASA launch system does not impress the Russians.]

US, Indonesia sign \$30m debt-for-nature swap

By Staff Writers, AFP, Sept 29, 2011

BELOW THE BOTTOM LINE:

World's First DNA Astronauts to Launch Into Space

By Staff Writers, SPX, Sep 28, 2011 http://www.space-travel.com/reports/World_First_DNA_Astronauts_to_Launch_Into_Space_999.html

New energy in search for future wind

By Staff Writers, SPX, Sep 28, 2011 <u>http://www.winddaily.com/reports/New_energy_in_search_for_future_wind_999.html</u> [SEPP Comment: Wind speeds cannot be estimated in the present much less than the long term.]

Dust makes light work of vehicle emissions

ARTICLES:

1. Has a Speeding Neutrino Really Overturned Einstein?

Unlike religion or politics, science will mercilessly pursue the evidence with repeated experiments. By Michio Kaku, WSJ, Sep 26, 2011 http://online.wsj.com/article/SB10001424053111903703604576588662498620624.html?mod=ITP_opini on 0

Einstein wrong? Impossible!

That was the reaction of physicists around the world last week when they heard that experiments in Switzerland indicate that Einstein's theory of relativity might be wrong. Since 1905, when Einstein declared that nothing in the universe could travel faster than light, the theory has been the bedrock of modern physics. Indeed, most of our high-tech wizardry depends on it.

Of course, crackpots have been denouncing Einstein's theory of relativity for years. Like many physicists, I have boxes full of self-published monographs that were mailed to me from people who claim that Einstein was wrong. In the 1930s the Nazi Party criticized Einstein's theory, publishing a book called "100 Authorities Denounce Relativity." Einstein later quipped that you don't need 100 famous intellectuals to disprove his theory. All you need is one simple fact.

Well, that simple fact may be in the form of the latest experiments at the largest particle accelerators in the world, based at CERN, outside Geneva. Physicists fired a beam of neutrinos (exotic, ghost-like particles that can penetrate even the densest of materials) from Switzerland to Italy, over a distance of 454 miles. Much to their amazement, after analyzing 15,000 neutrinos, they found that they traveled faster than the speed of light—one 60-billionth of a second faster, to be precise. In a billionth of a second, a beam of light travels about one foot. So a difference of 60 feet was quite astonishing.

Cracking the light barrier violated the core of Einstein's theory. According to relativity, as you approach the speed of light, time slows down, you get heavier, and you also get flatter (all of which have been measured in the lab). But if you go faster than light, then the impossible happens. Time goes backward. You are lighter than nothing, and you have negative width. Since this is ridiculous, you cannot go faster than light, said Einstein.

The CERN announcement was electrifying. Some physicists burst out with glee, because it meant that the door was opening to new physics (and more Nobel Prizes). New, daring theories would need to be proposed to explain this result. Others broke out in a cold sweat, realizing that the entire foundation of modern physics might have to be revised. Every textbook would have to be rewritten, every experiment recalibrated.

Cosmology, the very way we think of space, would be forever altered. The distance to the stars and galaxies and the age of the universe (13.7 billion years) would be thrown in doubt. Even the expanding universe theory, the Big Bang theory, and black holes would have to be re-examined.

Moreover, everything we think we understand about nuclear physics would need to be reassessed. Every school kid knows Einstein's famous equation E=MC2, where a small amount of mass M can create a vast amount of energy E, because the speed of light C squared is such a huge number. But if C is off, it means that all nuclear physics has to be recalibrated. Nuclear weapons, nuclear medicine and radioactive dating would be affected because all nuclear reactions are based on Einstein's relation between matter and energy.

If all this wasn't bad enough, it would also mean that the fundamental principles of physics are incorrect. Modern physics is based on two theories, relativity and the quantum theory, so half of modern physics would have to be replaced by a new theory. My own field, string theory, is no exception. Personally, I would have to revise all my theories because relativity is built into string theory from the very beginning.

How will this astonishing result play out? As Carl Sagan once said, remarkable claims require remarkable proof. Laboratories around the world, like Fermilab outside Chicago, will redo the CERN experiments and try to falsify or verify their results.

My gut reaction, however, is that this is a false alarm. Over the decades, there have been numerous challenges to relativity, all of them proven wrong. In the 1960s, for example, physicists were measuring the tiny effect of gravity upon a light beam. In one study, physicists found that the speed of light seemed to oscillate with the time of day. Amazingly, the speed of light rose during the day, and fell at night. Later, it was found that, since the apparatus was outdoors, the sensors were affected by the temperature of daylight.

Reputations may rise and fall. But in the end, this is a victory for science. No theory is carved in stone. Science is merciless when it comes to testing all theories over and over, at any time, in any place. Unlike religion or politics, science is ultimately decided by experiments, done repeatedly in every form. There are no sacred cows. In science, 100 authorities count for nothing. Experiment counts for everything.

Mr. Kaku, a professor of theoretical physics at City College of New York, is the author of "Physics of the Future: How Science Will Shape Human Destiny and Our Daily Lives by the Year 2100" (Doubleday, 2011).

2. 'Faster than light' vs. climate change

Letter by Walker White, Washington Post, Sep 27, 2011 [H/t Conrad Potemra] <u>http://www.washingtonpost.com/opinions/faster-than-light-vs-climate-change/2011/09/24/gIQAzIAk2K_story.html</u>

The Sept. 24 front-page article "Faster than light: Revolution or error?" was remarkable. After more than 100 years, a potential flaw in Albert Einstein's unifying theory has emerged through experimentation. However, it is what did not happen that is more important. No "relativity deniers" were castigated by the

press or political groups. No financial regulations were created to prevent people from traveling to the future to reap profits on events they knew would happen. No one resigned in protest.

People on both sides of the climate-change argument should take note. This is what science looks like: a skeptical, methodical, precise and open process. All science is "settled," until it is not. Everything else is politics.

3. Personality type differences between Ph.D. climate researchers and the general public: implications for effective communication

By Weiler, et al, Climate Change, July 28, 2011 <u>http://disccrs.org/files/WeilerEtAl_2011_ClimaticChange_MBTI.pdf</u> Comments by Donald Rapp

Weiler *et al.* (2011) provide a very interesting insight into the personalities of climate scientists. Personality types of interdisciplinary, Ph.D. climate change researchers were collected based on a Jungian type personality assessment (described below). Each person is characterized by four personality traits as shown in Table 7.1b. Climate researchers were compared with the general public as shown in Table 7.1c.

Extraversion	Intraversion
Think out loud in discussions, talk more	Process information internally, listen
than listen	more than talk
Share ideas immediately	Share ideas after careful reflection
Sensing	Intuition
Focus on experience	Focus on theories
Build carefully and logically towards conclusions	Follow hunches to reach conclusions
Want details	Want big picture, become bored or impatient with details
Anchored in the present, relate to the past	Oriented towards the future
Prefer step-by-step information or instructions	Talk in general terms
Ask "what" and "how" questions	Ask "why" questions
Look for facts	Look for patterns and possibilities
Prefer practical, plain language to symbols, metaphors, theories or abstractions	Use metaphors, analogies and other symbolic language
Thinking	Feeling
Present information using cause-and- effect reasoning	Use personal situations, stories and examples to communicate
Analytical	Empathetic
Need to know "why"	Connect with people
Judging	Perceiving
Prefer to make decisions quickly, come	Prefer to stay open to new information
to closure and move on	and last-minute options
Uncomfortable with free-flowing	Feel confined by detailed plans and final

 Table 7.1b.
 Personality Traits (Weiler et al., 2011).

discussions	decisions
Prefer focused discussion and options	Prefer open discussion to explore linkages between topics

Table 7.1c. Comparison of Personality Traits of Climate Scientists with those of the general public (Weiler *et al.*, 2011).

Personality Trait	Climate Scientists vs. Public
Extraversion/Intraversion	Climate scientists similar to general public (roughly
	50% extravert and 50% intravert)
Sensing/Intuition	Climate scientists were far more likely to use intuition
	(82%) over sensing (18%) than the general public that
	preferred sensing (73%) vs. intuition (27%)
Thinking/Feeling	Climate scientists were somewhat more likely to use
	thinking (49%) over feeling (51%) than the general
	public that preferred feeling (60%) vs. thinking (40%)
Judging/Perceiving	Climate scientists were far more likely to use judging
	(73%) over perceiving (27%) than the general public
	that was more even with judging (54%) vs. intuition
	(46%)

One thing stands out. There is a huge statistical inversion between climate scientists vs. the public in that climate scientists greatly lean toward intuition whereas the public heavily leans toward sensing. This implies the climate scientists "focus on theories" and "follow hunches to reach conclusions" whereas the public tends to "focus on experience" and "build carefully and logically towards conclusions". The strange thing is that one would expect that the very nature of the scientific method requires that scientists should focus on sensing, rather than intuition. In addition, there is also a much stronger tendency of climate scientists to prefer judging to perceiving, and there is a somewhat greater tendency of climate scientists to prefer thinking to feeling. Thus climate scientists tend to "prefer to make decisions quickly, come to closure and move on". This is clearly evident in the many papers in climatology that utilize a penny's worth of data to draw a dollar's worth of conclusions. [Boldface added.]

4. The Lessons of the Shale Gas Revolution

North American oil production can double by 2035. By Lucian Pugliaresi, WSJ, Sep 29, 2011 <u>http://online.wsj.com/article/SB10001424052970204831304576596770729824868.html?mod=WSJ_Opin</u> <u>ion_LEFTTopOpinion</u>

In response to a 2009 request from Secretary of Energy Steven Chu, the National Petroleum Council (NPC) reported earlier this month that oil production in North America could double by 2035—to 20 million barrels per day.

Where can all this oil come from? For one, the hydraulic fracturing (fracking) technique used in shale gas production is now being applied to extract oil. The vast oil reserves in Canada's Alberta Province are increasingly being tapped. There is more oil to be had with greater access to federal lands in Alaska and the western U.S., and accelerated drilling in the deep waters in the Gulf of Mexico.

But to realize the enormous potential outlined in the NPC report, we need to understand how the policies of the federal government act as a serious brake on access to the reserves and the exploitation of new technologies to tap them.

The shale gas revolution started in Texas, migrated quickly to Arkansas, Oklahoma, Virginia, West Virginia and Pennsylvania and then leaped to North Dakota—where the technology for producing shale gas was applied to oil development. Even New York Gov. Andrew Cuomo, no longer wishing to miss out on the economic opportunity for his state, has pulled back from his state's comprehensive ban on hydraulic fracturing and horizontal drilling for shale gas.

What do these states all have in common besides interesting geology? Their federal land holdings are extremely small and mineral rights are in private hands.

Thus landowners were not prohibited from coming to terms with oil and gas companies, providing immediate opportunities to test new drilling technologies. Knowledge gained in one region could move quickly to another. Regulatory and environmental reviews were largely the responsibilities of state and local governments, and disagreements could often be resolved at the local level.

Contrast the shale gas revolution to oil and gas development on the vast lands owned by the federal government. There access to reserves is burdened by endless federal environmental reviews, congressional oversight, permitting delays and bureaucrats who insist that oil and gas resources do not exist in areas of interest to oil and gas companies.

Shell Oil, the winning bidder on a federal lease sale in Alaska, has spent over four years and billions of dollars and is only now getting the final permits to proceed with exploratory drilling in the Arctic Ocean's Beaufort Sea. Further court challenges remain likely.

Shell USA President Marvin Odum has stated that his board members in The Hague (Shell USA is a subsidiary of Royal Dutch Shell) are now raising serious concerns over political and regulatory risk attached to investment in the United States. Court challenges over the adequacy of environmental reviews, as well as other interventions not permitted on private lands, make the process of bringing new oil and gas production from federal lands to market both slow and costly.

President Obama's criticism of the federal oil and gas leasing program, and his call for "use it or lose it" when referring to undeveloped leases on federal lands, are the exact opposite of what is needed. We need to open more lands and minimize the regulatory burden to ensure that the oil and gas potential outlined by the NPC can be realized.

Those proponents of "peak oil" who claim the NPC report is unrealistic need only revisit our recent history with shale gas. Natural gas production has surged by more than 25% in the last four years. Yet just a few years ago, government reports and long hours of expert testimony on Capitol Hill outlined the need for the U.S. to take action to address a growing shortage of natural gas.

A crash program was called for to build receiving facilities to import foreign supplies of liquefied natural gas (LNG). Many receiving facilities were built at a cost of billions of dollars as investors bought into the government assessments. Today these facilities are operating at less than 10% capacity.

Ample supplies of oil and gas, combined with taxpayer fatigue over green subsidies, means that a range of costly and uncompetitive technologies such as biofuels and electric cars now face the prospect of financial failure. To be sure, investments in the oil and gas industry are not immune from surprises and technology advances. LNG receiving facilities in the U.S. are suffering large financial losses. The good news is that unlike the bankrupt Solyndra solar plant that received over \$500 million in federal loans, losses at the LNG receiving facilities will not be picked up by the taxpayers.

5. Inside the EPA

Memos show that even other regulators worry about its rule-making. Editorial, WSJ, Sep 26, 2011 <u>http://online.wsj.com/article/SB10001424053111904194604576582814196136594.html#mod=djemEdito</u> rialPage t

The Environmental Protection Agency claims that the critics of its campaign to remake U.S. electricity are partisans, but it turns out that they include other regulators and even some in the Obama Administration. In particular, a trove of documents uncovered by Congressional investigators reveals that these internal critics think the EPA is undermining the security and reliability of the U.S. electric power supply.

With its unprecedented wave of rules, the EPA is abusing traditional air-quality laws to force a large share of the coal-fired fleet to shut down. Amid these sacrifices on the anticarbon altar, Alaska Republican Lisa Murkowski and several House committees have been asking, well, what happens after as much as 8% of U.S. generating capacity is taken off the grid?

A special focus of their inquiry has been the Federal Energy Regulatory Commission, or FERC, which since 2005 has been charged with ensuring that the (compact florescent) lights stay on. That 8% figure comes from FERC itself in a confidential 2010 assessment of the EPA's regulatory bender—or about 81 gigawatts that FERC's Office of Electric Reliability estimated is "very likely" or "likely" to enter involuntary retirement over the next several years. FERC disclosed the estimate in August in response to Senator Murkowski's questions, along with a slew of memos and emails.

FERC Chairman Jon Wellinghoff, a Democrat, has since disavowed the study as nothing more than backof-the-envelope scribblings that are now "irrelevant," as he told a recent House hearing. OK, but then could FERC come up with a relevant number? Since he made the study public, Mr. Wellinghoff has disowned responsibility for scrutinizing the EPA rules and now says that FERC will only protect electric reliability ex post facto once the rules are permanent, somehow.

This abdication is all the more striking because the documents show that EPA's blandishments about reliability can't be trusted. In its initial 2010 analysis—a rigorous document—FERC notes in a "next steps" section that the reliability office and industry must "assess the reliability and adequacy impacts of retirement of at risk units." In part, this was because the office believed the EPA analyses to be deficient. One undated memo specifies multiple weaknesses in EPA reliability modelling.

However much power is lost, whether 81 gigawatts or something else, the electric grid is highly local. Even subtracting a small plant could have much larger effects for regions, such as blackouts. The older and less efficient coal plants that are slated for closure are often the crucial nodes that connect the hubs and spokes of the grid. If these "sensitive" interconnections are taken out, as the memo puts it, the power system becomes less stable, harder to manage and may not be able to meet peak-load demand or withstand unexpected disturbances.

When large swaths of Arizona, New Mexico and parts of southern California including San Diego went dark this month, preliminary reports blamed it on a Homer Simpson who flipped the wrong switch. But the incident shows that even minor mistakes or degraded systems can ramify throughout the grid. The EPA scanted these technical, regional issues when writing the rules, even though another "summary of

interagency working comments" within the Administration explicitly told the EPA that reliability needed "more discussion."

And according to the FERC minutes of a 2010 meeting between its reliability office and the EPA, EPA staffers waved off those concerns. "The EPA concluded the discussion by stating that it felt the Clean Air Transport Rule and Mercury MACT rule"—two of the most destructive new regulations—"were the highest priority given that these regulations were more finalized." In other words, the agency's green political goals are more important than the real-world outcomes, never mind the danger.

For our part, we've opposed this "highest priority" because the rules are written in a way that maximizes the economic costs, with terrible effects on growth, hiring, investment and consumer prices. And well, well: More than a few people in the Administration seem to agree.

The interagency memo explains that the EPA used its "discretion" to structure one rule so that it is more "stringent" than it needs to be. The agency could achieve the same environmental benefits with "substantial" cost-savings, which "would be far more preferable to the proposed approach," says the memo. It sensibly adds that, "The current economic climate dictates a balancing of economic and environmental interests."

Under pressure from Democrats and the EPA to disavow his own agency's analysis, Mr. Wellinghoff now says that FERC favors only a "safety valve" that would give it the authority to overrule the EPA on a case-by-case basis if its regulations might lead to blackouts. But even this is a tacit admission of EPA's overkill. You don't need a safety valve if there isn't a threat to safety.

The best option would be for the EPA to write less destructive rules that don't jeopardize reliability in the first place. Failing that, we should at least know the risks before it is too late. In a letter to Mr. Wellingoff [sic] last week, Mrs. Murkowski simply asks that FERC undertake some kind of study of the EPA's agenda in line with its statutory obligations and the warnings of its own experts. If FERC won't do it, someone else should.

6. Cosmic Rays and Climate Changes

Letter, Deke Forbes, VA-SEEE, Sep 27, 2011 http://online.wsj.com/article_email/SB10001424053111903791504576585171594601938lMyQjAxMTAxMDIwNzEyNDcyWj.html?mod=wsj_share_email

Raymond L. Orbach contends that "global atmospheric temperatures have been increasing since 1980 and continue to increase to this day" (Letters, Sept. 14). The sources for global atmospheric temperature readings are radiometers flying on NASA and Remote Sensing System satellites since 1979. The recorded histories of lower atmosphere global temperatures do not support Mr. Orbach's contention. That history for the period 1981-2010, as measured by NASA satellites, shows average global temperature departures varying from a low of minus 0.2 degress Celsius in 1985 to a high of plus 0.2 degrees Celsius in 2005, with temperature departures plateaued to slightly cooling since 2005. Moreover, that history is significantly influenced by warming and cooling spikes from natural phenomena, such as volcanic eruptions (cooling), short-term warming and cooling from ocean oscillations El Niño and La Niña. Additionally, long-term ocean oscillations with warming and cooling periods are evident.

It would appear that the short period of time, 1980 to 2011, is insufficient for anyone, including Mr. Orbach, to dismiss the potential of variation in cosmic ray intensity to influence clouds, and thus global atmospheric temperature. The Svensmark hypothesis on the relationship of solar activity, cosmic rays and clouds is predicated on a charted relationship between solar variations and earth's temperature since 1860.

The changes in solar activity that alter cosmic ray intensity significantly may not have occurred within the period of Mr. Orbach's conclusion.

Donald K. Forbes

Virginia Scientists & Engineers for Energy & Environment Dumfries, Va.