

In our SciEd #13-2009, we pointed to IPCC's omission of significant forcings when trying to compare model simulation with real atmospheric temperature data. Here from www.scientific-alliance.org:

Apart from the direct localised pollution caused by smoky fires, black carbon has a direct warming effect on the air when suspended in the atmosphere, and also contributes to melting of glaciers and polar ice by settling on the surface and changing its albedo. According to the article, recent research suggests that soot may be responsible for 18% of global warming, compared to 40% for carbon dioxide. And the effect on Arctic ice may be even more marked: black carbon could account for 40% of the loss.

*Given the certainty of so many scientists that they understand the drivers of climate change, and that carbon dioxide dominates, it is sobering to note that the **last IPCC Assessment Report, published just two years ago, makes no mention of the significant effect of soot.** Moving from certainty that all drivers were accounted for to suddenly finding a basic 18% error is not calculated to build confidence in the state of knowledge. But the effect of black carbon now seems to be generally acknowledged, as witnessed by the recent unprecedented agreement of both climate activists and sceptics in the US Senate to instruct the Environmental Protection Agency to make a study of options to reduce levels of soot entering the atmosphere.*

*The problem is that, if climate modellers have completely left out a factor which appears to account for nearly one fifth of climate change, what else might they have overlooked or underestimated? **The obvious answer is the role of the Sun, where most mainstream scientists dismiss the changes in total radiance as trivial in climate terms, while many sceptics insist that its effect is far more complex and significant than that.** They also point to the well-established historical correlation between sunspot numbers and weather patterns. Periods of low activity correlate with poor harvests and high food prices due to cooler weather in mid-latitudes. Since the Sun is now entering a period of extremely low activity, we can expect to see its influence on the weather over the next decade or so if a causative correlation is valid.*

- 1. OMB memo throws doubt on EPA initiative**
- 2. EPA's Greenhouse Gas proposal critiqued**
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NEWS YOU CAN USE

<http://online.wsj.com/article/SB124234844782222081.html#articleTabs=article#articleTabs=article>
Governor Daniels of Indiana Says 'No Thanks' to Cap and Trade: No honest person thinks this will make a dent in climate change.

Why Cap&Trade taxes will savage living standards: A realistic appraisal of 'renewable energy' wind and solar -- and of journalist Gelbspan <http://brookesnews.com/091105obamaenergy.html>

For a good take on 'sustainability,' see www.scientific-alliance.org of May 1

Another heavily criticized Bush policy adopted by Obama [H/t WSJ-Best of the Web Today - May 13]

"In its closing months, the Bush administration is pulling out all the stops in its eight-year effort to undermine the Endangered Species Act. In mid-August, the administration proposed two dangerous regulatory changes. One would free the government from considering the effects of greenhouse gas emissions on polar bears and other imperiled wildlife."--editorial, *New York Times*, [Oct. 25, 2008](http://www.nytimes.com/2008/10/25/opinion/25iht-ed081025.html)
"Interior Secretary Ken Salazar has upheld a Bush administration finding that the Endangered Species Act is not a suitable tool for restricting carbon dioxide and other greenhouse gases threatening the polar bear and its habitat. We agree, with this codicil: . . ."--editorial, *New York Times*, [May 13, 2009](http://www.nytimes.com/2009/05/13/opinion/13iht-ed090513.html)

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Environmentalists who had been pressing the White House to drop the Bush-era rule criticized the decision, predicting that the rule would ultimately be deemed illegal in the courts.

"The action taken by Salazar today, and the spin on that action, is every bit as cynical, abusive and antiscientific as the Bush administration," said Kierán Suckling, executive director of the Center for Biological Diversity, one of several environmental groups that have sued to challenge the rule.

Well worth reading: http://www.americanthinker.com/2009/05/the_coming_ice_age.html

"By reducing our production of carbon dioxide, we risk hastening the advent of the next ice age."

Also: <http://lewrockwell.com/orig9/deming2.html> "Without the inexpensive and reliable energy provided by coal, oil, and gas, our civilization would quickly collapse."

UNDER THE BOTTOM LINE

Study seeks to link HIV to global warming [H/t to ClimateDepot.com May 14, 2009]

Ongoing research at the Kenya Meteorological Department seeks to correlate climate change and HIV. According to Africa Science News Service, while it is still coincidental that highest temperatures in 1998 also marked the peak of HIV prevalence, there was need for science to bring out the correlation.

http://africasciencenews.org/asns/index.php?option=com_content&task=view&id=1250&Itemid=1

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1. OMB MEMO THROWS DOUBT ON EPA INITIATIVE

By Tom LoBianco, *WashTimes*, May 13, 2009

<http://www.washingtontimes.com/news/2009/may/13/memo-exposes-warming-dispute/print/>

A memo released Tuesday shows an agency within the Obama administration objected to a landmark Environmental Protection Agency ruling on global warming, arguing that it was not based on sound science and could prove costly to businesses.

The dispute concerns the EPA's so-called "endangerment finding," in which the agency has tentatively found carbon dioxide is dangerous enough as a greenhouse gas to warrant regulation under the Clean Air Act - a ruling that could force federal action to address climate change even if Congress fails to act.

Critics, including some within the administration, argue that the Clean Air Act is not an appropriate vehicle to deal with climate change and say the finding sets the stage for harmful regulations on businesses and industry. Republicans seized upon the memo as evidence that President Obama has broken his pledge to follow science rather than politics in making policy. But an administration official said the objection came from a single office that is headed by a Bush administration holdover.

Sen. John Barrasso, Wyoming Republican, revealed the memo at a Senate hearing where he waving a copy at EPA Administrator Lisa P. Jackson. "It's here, nine pages. This is a smoking gun," he said.

The memo has comments from several federal agencies that reviewed the EPA's decision. It includes a complaint that the EPA's finding "rests heavily on the precautionary principle, but the amount of acknowledged lack of understanding about basic facts surrounding [greenhouse gases] seem to stretch the precautionary principle to providing for regulation in the face of unprecedented uncertainty."

The White House defended the science EPA used and denied there was a policy split within the administration. The comments were compiled by the White House Office of Management and Budget as part of a standard interagency review process, and OMB Director Peter R. Orszag said that OMB agreed with EPA's initial finding. "The bottom line is that OMB would have not concluded [the] review, which allows the finding to move forward, if we had concerns about whether EPA's finding was consistent with either the law or the underlying science," he wrote.

An administration official, speaking on the condition of anonymity to discuss the internal review process, said the comments challenging the science came from a single office, the Small Business Administration's Office of Advocacy. The office, an independent arm of the administration whose current chief was named by President George W. Bush, is charged with looking out for small-business interests as the federal government writes rules and regulations.

Still, Republicans said the memo exposed a rift inside the administration. "The disclosure of this OMB memo suggests that a political decision was made to put special interests ahead of middle-class families and small businesses struggling in this recession," said House Minority Leader John A. Boehner, Ohio Republican. "It is unacceptable that this critical information was withheld and the regulatory process was abused in this fashion."

At the hearing, before the Senate Environment and Public Works Committee, Mrs. Jackson disputed Mr. Barrasso's characterizations, saying the EPA finding had been drafted under the Bush administration but held under lock and key until Mr. Obama took the White House. She said she reviewed and approved the finding. She also said the finding doesn't guarantee carbon dioxide would be capped under the Clean Air Act.

"It does not mean regulation," Mrs. Jackson said. "I have said over and over, as has the president, that we do understand that there are costs to the economy of addressing global warming emissions and the best way to address them is through a gradual move to a market-based program like cap-and-trade."

The cap-and-trade proposal would set an overall ceiling for greenhouse-gas emissions and allow businesses and other polluters to trade emission permits under the cap.

An EPA spokeswoman said Mrs. Jackson would consider the dissenting views from within the administration when drafting a final "endangerment finding." "As we do with any proposed rule, EPA takes these interagency comments under advisement," said EPA spokeswoman Adora Andy.

In making the initial finding, EPA acted in accordance with a court order, which said the agency must determine whether carbon dioxide was dangerous enough to deserve regulation under the Clean Air Act.

The Obama administration has walked a fine line with the finding - playing down its potential for regulating carbon dioxide while supporters have heralded it as a backup plan should climate legislation fail. Mr. Obama's team has consistently said EPA regulations would be a dull tool and prefers that Congress come up with a solution. House lawmakers are weighing a plan to address climate change through the "cap-and-trade" system, but the proposal is facing early opposition in a House committee.

The memo was first reported by Dow Jones Newswire, and the intra-administration dispute could give opponents ammunition for a legal challenge to EPA's finding.

2. E.P.A.'s GREENHOUSE GAS PROPOSAL CRITIQUED

By JOHN M. BRODER, NYT, May 12, 2009

<http://greeninc.blogs.nytimes.com/2009/05/12/epas-greenhouse-gas-proposal-critiqued/>

The [Environmental Protection Agency](#) ignored major economic and scientific questions in its April [proposal to regulate carbon dioxide and other climate-altering gases](#), according to an internal government critique.

The undated and unsigned government memo, prepared by the [White House Office of Management and Budget](#), said that the proposed finding that greenhouse gases endanger public health and welfare was not based on a systematic analysis of costs and benefits and fell short of scientific rigor on a number of issues.

It also said that the E.P.A.s proposal to regulate carbon dioxide under the [Clean Air Act](#) would have serious economic consequences for regulated entities throughout the U.S. economy, including small businesses and small communities.

The document also raised questions about the E.P.A.s inclusion of gases that are believed to contribute to global warming without proving that they have direct health effects.

[**UPDATE** -- However, in a message [posted on the Web this afternoon](#), O.M.B.'s director, Peter R. Orszag, emphasized that the views expressed in the memo were "disparate comments from various agencies during the inter-agency review process of the proposed finding," and that they "do not necessarily represent the views of either O.M.B. or the Administration." Mr. Orszag also noted, as he had on April 17th, that he considered the E.P.A. proposal to be "carefully rooted in both law and science."]

The memo reflects views from unnamed officials within the government as part of an inter-agency review of the proposed regulation. Some of the objections mirror criticism of the proposed E.P.A. action from Republicans and business lobbies who say that the Clean Air Act is the wrong instrument to attack global warming and such regulation will have devastating effects on the economy.

Senator [John Barrasso](#), Republican of Wyoming, waved the nine-page document at Lisa P. Jackson at a hearing of the Environment and Public Works committee this morning. He called it a smoking gun that proved the proposed finding was based on politics, not science. This misuse of the Clean Air Act will be a trigger for overwhelming regulation and lawsuits based on gases emitted from cars, schools, hospitals and small business, Mr. Barrasso said. This will affect any number of other sources, including lawn mowers, snowmobiles and farms. This will be a disaster for the small businesses that drive America.

Ms. Jackson replied that she did not have the document in front of her but said the E.P.A. was obligated by the Supreme Court to decide whether greenhouse gases posed a danger to human health and the environment. She said much of the analysis behind the proposed finding had been done before she assumed office in January. She added that the comments reflect people's opinions and were not binding on the agency. She also repeated the Obama administrations preference for a legislative solution based on a cap-and-trade program for heat-trapping gases to a regulatory scheme dictated by the E.P.A.

We do understand there are costs to the economy of regulating greenhouse emissions, she said.

Some environmentalists said the memo was an effort by anonymous bureaucrats to derail the proposed finding. Frank O'Donnell of [Clean Air Watch](#) said, It is very clear from this that the Obama administration contains people who are trying to sabotage the administrations climate strategy. It shows there are a lot of knives within the bowels of the bureaucracy.

Scott Segal, a lobbyist for utilities, one of the industries that would be most heavily affected by the proposed rule, said that the comments prepared by the White House budget office confirmed many of the industry's objections to the E.P.A. process. In clear and concise analysis, the O.M.B. demonstrates that the agency may have cherry-picked public health literature and did no original research on the topic, Mr. Segal said in a statement. Further, the O.M.B. notes that the type of indirect health impact methodology used by E.P.A. could substantially expand E.P.A. regulatory authority in ways that may not have been contemplated when Congress wrote the applicable environmental statutes.

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WASHINGTON, D.C. U.S. Senator James **Inhofe** (R-Okla.), Ranking Member of the Senate Environment and Public Works Committee, today delivered a floor speech on the Obama Administrations recent proposed endangerment finding for greenhouse gases and the revelation of a White House OMB memo warning of the dire economic consequences of regulating CO2 under the Clean Air Act. On May 12, the Republicans on the Senate Environment and Public Works Committee [learned of a White House document](#) marked privileged and confidential buried deep within the docket of the proposed rule. At an EPW hearing on Tuesday, [Senator John Barrasso \(R-Wyo.\) exposed the "smoking gun" White House memo](#) to Lisa Jackson, administrator of the Environmental Protection Agency (EPA). The memo warns that Clean Air Act regulation will have "serious economic consequences" for small businesses and the overall economy. [Link to Memo](#). The author, labeled a 'Bush holdover' by the White House turns out to be a career civil servant hired during Clinton/Gore.

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SEPP Comment: Ah, the troublesome 'bureaucracy' again. But the real puzzle here is: did the Obama administration leak the memo itself in order to get off the hook? Or was it leaked by lower-level opponents that are just trying to torpedo the program.

3. CAP-AND-TRADE JUST SHORTHAND FOR TAX HIKES

By *PHYLLIS SCHLAFLY*, May 12, 2009

<http://www.ibdeditorials.com/IBDArticles.aspx?id=327018975122180>

Barack Obama promised that he wouldn't raise taxes on anyone making less than \$250,000 a year. He neglected to mention that this tax exemption would go only to those who don't use electricity, gasoline, heating oil or natural gas. The truth of the matter is that Obama will raise taxes on practically all middle-class Americans. But that's not all. In addition to new taxes on all those necessities (just think of all the appliances in your home that use electricity), he will drastically reduce our standard of living.

Obama warned during his campaign in Oregon that we can no longer keep our homes set at 72 degrees (warmed in the winter and cooled in the summer), eat whatever foods we want (if meat and milk products come from cows that have to be fed) and drive SUVs (to accommodate our family and friends).

He said we shouldn't continue to consume 25% of the world's resources when we have only 4% of the world's population.

Why not? Americans have built a free enterprise, private-property, rule-of-law, respect-for-contracts, innovation-receptive society that has enabled us to enjoy the highest standard of living in the world. We designed it by adoption of our unique and long-lasting U.S. Constitution, we worked for it and we paid for it. So, why can't we enjoy the fruits of our labor?

This increase in our taxes, and decrease in our standard of living, is being sold under the slogan "cap and trade," which means giving the government the power to put a cap on the amount of carbon dioxide emissions created by the production of electricity, gasoline and heating oil.

This forces businesses to buy permits for the emissions they are allowed. The process should be called "cap and tax": a cap in our standard of living and a tax (an increase in cost) on our use of products whose manufacturer emits CO₂.

The Obama administration hopes that increased energy costs will force us to shift away from the use of fossil fuels to various alternatives.

To nuclear plants? The Left won't tolerate that. To windmills and solar panels to capture wind and sun? They now provide less than 1% of our energy, so the gain won't be much even if we double or triple the output. To "clean coal technology"? More likely that cap-and-trade would just kill the coal industry.

So, what's behind these anti-middle-class plans? The announced purpose is that the use of carbon-based fuels (oil, gas and coal) is increasing CO₂, which is trapping heat in the atmosphere and causing the Earth's temperature to rise to catastrophic levels. A cap-and-trade system to curb CO₂ emissions is supposed to be more politically attractive than a direct carbon tax. But it's not any cheaper. It's just a different way of levying the tax.

A new report by the respected Tax Foundation found that cap-and-trade would impose an annual burden of \$144.8 billion per year on U.S. households. Depending on how the process is structured, cap-and-trade could reduce household earnings by \$37.8 billion, decrease U.S. employment by 965,000 jobs and reduce economic output by \$136 billion per year or roughly \$1,145 per household.

Furthermore, cap-and-trade would be a regressive tax: The burden would be disproportionately borne by low-income households. The Tax Foundation estimates that the bottom 20% of income earners would have an annual cap-and-trade burden equal to 6.2% of their household cash income, and the second quintile 3.2%.

Fortunately, the American people are waking up to the high cost of cap-and-trade. For the first time in Gallup's 25-year history of asking about the trade-off between environmental protection and economic growth, a majority of Americans say the priority should be economic growth, "even if the environment suffers."

The Copenhagen Climate Conference, which is scheduled to convene in December, is supposed to produce a replacement for the Kyoto agreement that the U.S. Senate rejected. The globalists are already planning how to lock in the United States.

The Brookings Institution published a paper in January calling on Obama to negotiate a "cap and trade" agreement with other countries and bypass the U.S. Constitution's requirement that treaties need a two-thirds vote in our Senate to be ratified.

This was corroborated by a Council on Foreign Relations report that complained: "The separation of powers enshrined in the U.S. Constitution, which gives Congress a critical voice in the ratification of

treaties and endorsement of global institutions, complicates U.S. assumptions of new international obligations."

Cap-and-tax would be a betrayal of Obama's no-new-taxes promise, plus a blatant attempt by the globalists to override our Constitution by treaty. Americans must be on guard; our freedom depends on it.

4. TAX INCREASES COULD KILL THE RECOVERY

The barrage of tax increases proposed in President Barack Obama's budget could, if enacted by Congress, kill any chance of an early and sustained recovery, says Martin Feldstein, chairman of the Council of Economic Advisers under President Reagan, and a professor at Harvard University.

Obama's biggest proposed tax increase is the cap-and-trade system of requiring businesses to buy carbon dioxide emission permits. The nonpartisan Congressional Budget Office (CBO) estimates that the proposed permit auctions would raise about \$80 billion a year and that these extra taxes would be passed along in higher prices to consumers. Anyone who drives a car, uses public transportation, consumes electricity or buys any product that involves creating CO₂ in its production would face higher prices, says Feldstein:

- o CBO Director Douglas Elmendorf testified before the Senate Finance Committee on May 7 that the cap-and-trade price increases resulting from a 15 percent cut in CO₂ emissions would cost the average household roughly \$1,600 a year, ranging from \$700 in the lowest-income quintile to \$2,200 in the highest-income quintile.
- o Since the amount of cap-and-trade tax rises with income, it has the same kind of adverse work incentives as the income tax.
- o And since the purpose of the cap-and-trade plan is to discourage the consumption of CO₂-intensive products, energy or means of transportation by raising their cost to consumers, the consumer-price increases would be the same for a 15 percent reduction in CO₂ even if the government decides to give away some of the CO₂ emissions permits.

But while the cap-and-trade tax rises with income, the relative burden is greatest for low-income households, says Feldstein:

- o According to the CBO, households in the lowest-income quintile spend more than 20 percent of their income on energy intensive items (primarily fuels and electricity), while those in the highest-income quintile spend less than 5 percent on those products.
- o Also, CBO warns that the estimate of an \$80 billion-a-year tax increase could be significantly higher or lower, depending on how the program is designed.
- o The Waxman-Markey bill currently before Congress calls for reducing greenhouse gases 20 percent by 2020 and by an incredible 83 percent by 2050.
- o As the government reduces the amount of CO₂ that is allowed, the price of the CO₂ permits would rise and the pass-through to consumer prices would also increase.

Source: Martin Feldstein, "Tax Increases Could Kill the Recovery; The cap-and trade levy would hit low-income earners especially hard," Wall Street Journal, May 13, 2009. [H/t NCPA]

<http://online.wsj.com/article/SB124217336075913063.html>

5. JOINT STATEMENT FROM GREENPEACE, FOE, AND PUBLIC CITIZEN ON THE HOUSE ENERGY AND COMMERCE COMMITTEE CLIMATE AND ENERGY BILL

WASHINGTON - May 13 - "We are extremely troubled by the reports coming out of the Energy and Commerce Committee last night on additional compromises to the already flawed American Clean Energy & Security Act. The world needs real leadership from Congress and the Administration to address global warming - action that will enable us to transform our economy with clean, renewable energy technology, new green jobs and show leadership internationally. If reports are true, the compromises being struck on the bill undermine these goals."

Greenpeace original release on Waxman-Markey discussion draft:

<http://www.greenpeace.org/usa/press-center/releases2/waxman-markey-bill-a-good-firs>

Key shortcomings that must be addressed include:

* Two billion tons of pollution offsets, a virtually unlimited amount equal to a quarter of all U.S. emissions. If all the offsets in the bill were used, the bill's emissions reductions could be met without any reduction in fossil fuel emissions for more than 20 years. We cannot solve global warming by simply planting trees and continuing to pollute forever.

* The coal industry receives untold billions of dollars in handouts for the false promise of carbon capture and sequestration, with American ratepayers and taxpayers footing the bill.

* Finally, the discussion draft is largely silent on how auction revenue from the cap will be used. We urge the committee to dedicate this revenue to the short-term up-front investments needed to transition to a clean energy economy, including investments in clean energy development domestically and in the developing world as well as adaptation efforts for countries and communities most directly affected by climate change.

6. CANADA WARNS U.S. OVER CARBON-FEE DRAFT LAW AND TRADE PROTECTIONISM

Calgary Herald, 14 May 2009

Environment Minister Jim Prentice on Wednesday warned U.S. lawmakers to drop proposed trade sanctions on imports from countries with higher levels of greenhouse gas emissions, saying the measure would be a prescription for disaster for the global economy.

In the Harper government's toughest critique yet of draft US climate legislation, Prentice told a Washington audience a proposal to slap a carbon border adjustment fee on foreign manufacturers violates the core principles of international trade.

In addition, any U.S. decision to impose such a trade tariff threatens the chances of reaching an international climate change deal later this year in Copenhagen, Prentice said.

Trade protectionism in the name of environmental protection would be a prescription for disaster for both the global economy and the global environment, the minister said in remarks at the State Department to the Conference of the Americas.

Border carbon adjustments would be a thinly disguised restriction on trade and an impediment both to wealth creation and to the attainment of our collective objective, which is to address greenhouse gas emissions and to reduce them. They would constitute arbitrary discrimination. They won't work and they threaten constructive negotiations.

Prentice was referring to sweeping climate legislation proposed by Democratic lawmakers Henry Waxman and Edward Markey, which is being debated by the House energy and commerce committee. It aims to slash America's greenhouse gas emissions by 20 per cent by 2020 through the implementation of a mandatory cap and trade system on U.S. emitters.

But the bill has triggered alarm among U.S. trade partners because it seeks to protect American companies put at a competitive disadvantage with foreign competitors by the strict emissions rule.

The border adjustment program would allow the U.S. to demand foreign manufacturers pay for and hold special allowance to account for carbon included in products imported to the United States.

The plan would apply to manufacturers of goods from countries without a commensurate greenhouse gas regulation who would pay a new charge at the border, Prentice said.

Prentice said Canadian companies are unlikely to be affected by the measure because the Harper government will ensure that our greenhouse gas regulations will constitute a comparable effort.

Canada's oil industry fears the measure would make it increasingly difficult for U.S. refineries to sell fuel from Alberta's oil sands.

7. PENNY-WISE AND MEGAWATT FOOLISH

By *INVESTOR'S BUSINESS DAILY*, May 12, 2009

<http://www.ibdeditorials.com/IBDArticles.aspx?id=327020613893439>

Among the Lilliputian cuts in the budget is the termination of the nuclear waste repository at Yucca Mountain, Nev. Thus, a "shovel ready" renewable resource that emits no greenhouse gases is shoved aside.

As with missile defense, which also took a hit in the \$17 billion worth of budget cuts that were like trimming the nose hair on a woolly mammoth, the future of nuclear power seems to be one of researching forever but building never.

The future of nuclear power is dependent on the safe storage of the spent nuclear fuel now used to generate nearly 20% of the nation's electricity. Yet the budget cuts recently announced cut off almost all funding for creating a permanent storage site for a large portion of the spent fuel in the Nevada desert.

The administration plans to cut some \$90 million from the 2010 budget for Yucca Mountain, reducing funding only to the level needed to field questions from the Nuclear Regulatory Commission, which is still considering an application for the project submitted by the Bush administration.

Not that the application will be approved. Energy Secretary Steven Chu thinks the application process will yield valuable data on how to find another site. Secretary Chu has been tasked to head a blue-ribbon commission to find another site.

Congress selected the location in 1987 and reaffirmed the choice in 2002. About \$9 billion has been sunk into the project since its inception. Aside from the dark side of the moon, we haven't a clue where he might look. And considering the tortuous history of the Yucca site, that process might take another couple of decades, right around the time we run out of switch grass to power our clown cars.

The DOE Web site says that after two decades "of carefully planned and reviewed scientific field work, the Department of Energy has found that a repository at Yucca Mountain brings together the location, natural barriers, and design elements most likely to protect the health and safety of the public, including those Americans living in the immediate vicinity, now and long into the future."

Contained in a document entitled "Terminations, Reductions and Savings," the budget claims "nuclear power is — and likely will remain — an important source of electricity for many years to come" but that "the dangerous byproduct of nuclear reactors is a critical question that has yet to be resolved." Didn't the DOE say it had been?

This "dangerous byproduct" is in fact our country's best renewable resource. Used nuclear fuel retains upwards of 90% of its original energy. Since beginning operations, France's La Hague facility has safely reprocessed more than 23,000 tons of used fuel — enough to power France for 14 years.

Author William Tucker notes that the French, who get some 80% of their electricity from nuclear power, even import bomb-grade uranium from old Soviet nuclear weapons. They mix it with tailings from uranium mines and export the material to the United States. Tucker reports that one of every 10 light bulbs in America is now being lit by a reprocessed former Soviet weapon.

We wonder why environmentalists are not up in arms over the decision to derail storage of spent nuclear fuel at a single isolated and geological stable site, well-protected from accidents and terrorists, rather than the current system to store it at sites around the country near major cities and population centers.

The Energy Information Agency projects that by 2030 U.S. electricity demand will increase by roughly 45%. Since nuclear power currently supplies 20%, the U.S. will need to have 35 additional nuclear power plants just to meet future demand. This is guaranteed carbon-neutral energy that works when the sun don't shine and the wind don't blow. Think of all the greenhouse gases that wouldn't be emitted.

The defunding of Yucca puts those hopes on hold. It seems that catastrophic climate change and energy independence are not as urgent as we thought.

8. THE THAMES WIND-FARM ARRAY

Scientific Alliance newsletter May 15, 2009

At a time when many mainstream energy companies are back-peddalling on their plans for renewables, it must come as a considerable relief to the UK government that the London Array - at 1 GW capacity, planned to be the world's largest offshore wind farm - now appears to be going ahead. A consortium of three companies (the Danish government-owned DONG Energy, E.ON and Abu Dhabi's Masdar) is satisfied that the project is financially viable, given increased government support for wind power. In other words, an inherently uncompetitive source of power, which is unlikely to achieve any real reduction in carbon dioxide emissions, will receive additional subsidies financed by taxpayers.

The first phase - 175 wind turbines with a capacity of 630 MW - is due to be completed and supplying wind power in 2012, at a cost of 2.2 billion. Of course, the average output, even in the Thames estuary, is likely to be no more than 30% of that quoted, so a fairer assessment of the real installed capacity would be about 200 MW. This is a fraction of the size of most conventional land-based generating stations. Capacity is also likely to decrease with time as gearboxes fail. It is uncommon to see all the turbines in motion even in land-based arrays, and the logistics of repair are much more challenging offshore. The decision to go ahead may help the government by showing some progress towards meeting its climate policy commitments, but it will do nothing to increase energy security or reduce carbon dioxide emissions.

9. THE FOLLY OF CARBON CAPTURE AND BURIAL

In testimony this week to the New Zealand Parliamentary Enquiry into the Emission Trading Scheme (ETS), the Chairman of *Carbon Sense*, Mr Viv Forbes, said that it was impossible to achieve the gigantic

cuts in carbon dioxide emissions suggested by various western governments without a crash program of Carbon Capture and Burial (CCB). He expanded on those comments today (quote):

“There is no evidence that CCB would provide any climate or environmental benefits whatsoever - just a huge misuse of investment capital and a massive increase in the cost of living for any society silly enough to tread this path.

Most coal and power companies are behaving irresponsibly by not warning the public clearly of the likely consequences of Cap-N-Tax and Carbon Capture and Burial. They have failed their shareholders, their customers and the Australian public by their inaction. Their ignoble attempts to now seek special exemptions from the monster they have allowed to grow will disgust most Australians.

It does not take much engineering, financial or biological knowledge to uncover the logistic, economic and environmental stupidities of CCB.

Australia currently relies on carbon fuels for 90% of its electricity needs and coal for over 70%. Every tonne of coal burnt in an existing power station needs about 2 tonnes of oxygen. But to get 2 tonnes of oxygen from the air requires 8 tonnes of air - the other 6 tonnes are nitrogen which comprises 75% of the atmosphere. Therefore the power station is currently taking in about 8 tonnes of gases for every tonne of coal burnt.

Therefore 9 tonnes of material must come out. After removing the minor quantities of ash and real pollutants such as NOX and SOX, there is still about 9 tonnes of three harmless gases going up the stack - the unchanged 6 tonnes of nitrogen, 2.6 tonnes of carbon dioxide, and the rest is mainly water vapour.

These three harmless gases are the natural gases of life in the atmosphere, necessary and beneficial for all life. Any nurseryman could tell Canberra that all vegetation around the power station will show enhanced growth in the lush atmosphere now enriched with the extra carbon dioxide and water vapour.

To extract the 2.6 tonnes of CO₂ from every 9 tonnes of exhaust gases, compress it, pump it hundreds of kilometres in specially constructed pipelines and then bury it in carbon cemeteries is environmental and economic lunacy.

All of this can undoubtedly be done - the real question is should it be done?

These are the likely effects:

- About 30% of the power station electricity will be wasted in separating, compressing and pumping of CO₂. Thus a power station now using 1 million tonnes of coal per annum will need 1.5 Mt of coal to produce the same output of usable power for electricity consumers or other industries.
- A 50% increase in coal used will require a similar increase in coal mine capacity and transport and handling facilities - a huge waste of community land, resources and capital.
- The resource life of every thermal coal mine will be reduced by 30%.
- Capital costs for every power station forced to wear this ball-and-chain will rise 30-100%, and electricity charges must rise by a similar amount to cover the parasitic power losses and the increased capital and operating costs.
- No wonder some greens support CCB - it will make coal fired electricity so expensive that even piddle power from windmills will look attractive.
- The same dismal story will emerge at every cement plant and steel works that is forced to install CCB.

- The figures for gas powered facilities are similar in principle, and only slightly better.
- The use of oxygen instead of air in the boilers merely shifts the nitrogen separation costs from the end of the process to the beginning.
- And after all that trouble and expense, the effect on climate is probably undetectable. There is no proof or evidence that man's production of CO2 controls the climate.

A typical 1,000 MW power station could burn about 3 million tonnes of coal per year, requiring 300 trains per year to supply the coal. If CCB is installed, the extra power needed will call for another 150 trains of coal. And if trains were used to haul away the captured CO2, the mass of material moved would require another 1,150 trains per year, each train carrying 10,000 tonnes.

Australia currently uses 128 million tonnes of coal per year to generate electricity. The CO2 produced by all of these stations could total over 300 million tonnes py. If triple header trains were used to transport this as liquefied CO2 it would require 30,000 trains per year or 600 trains per week. No matter what method of transport is used, the tonnage realities are still there and it will require immense energy to capture, compress, transport and bury the CO2 anywhere.

The easiest place to capture large quantities of CO2 is at a large coal-fired power station, not at a million backyard barbeques. This is why some governments are already mandating the installation of CCB equipment at new power stations.

The Cap-N-Tax proposals from [Australia's] Prime Minister Rudd now promise to cut 25% off Australia's 2000 levels of production of CO2. A 25% cut is roughly equivalent to asking us to capture and bury almost 50% of the exhaust CO2 from every coal fired power station in the land. This is fairyland stuff and it is time our political and corporate leaders came down to earth.

Any combustion engineer can confirm the basic figures here. There is no need to waste \$1.5 billion extracted from taxpayers, shareholders and electricity consumers on CCB research. It is physically possible to do it, but it can never be economic, because it will clearly have huge costs and no one can quantify any measurable climate or environmental benefits.

Burying carbon also has hidden long-term costs. The oceans of Earth are naturally removing carbon from the biosphere and burying it in vast deposits of limestone, dolomite and buried coral reefs and plant material.

By this and other natural processes, Earth will eventually lose its vital atmosphere and become a dead planet like the dusty Moon and red Mars. To deliberately assist this process is anti-life and anti-green. Recycling to the biosphere some carbon that has been buried for millennia in coal deposits will prolong the era of luxuriant life on our green planet.

Leaving the carbon dioxide in the biosphere will allow plants to use it. The green world will flourish, extract the valuable carbon and return the oxygen to the atmosphere for survival of the animal world. Therefore it should be of great concern that the process of Carbon Capture and Burial will steal from the biosphere 2.7 tonnes of oxygen for every tonne of carbon buried. This morbid process would better be called Oxygen Capture and Burial.

If we are ever silly enough to build the CCB White Elephants, they will be as useful to us as the pyramids were to the Pharaohs - we will be creating our own burial tombs.

If Carbon Capture and Burial is the answer, it must have been a very silly question.

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To see the written submission from the Carbon Sense Coalition to the New Zealand Parliamentary Enquiry into the ETS see: <http://carbon-sense.com/2009/05/04/ets-nz/>