Some Stories About Energy, Kyoto, Climate, Politics, July 2003

In 1997, the US Senate voted 97 – 0 against any Kyoto plan that would hurt the US economy.

There is now plenty of energy in the world.
- In 30 to 50 years, it will be harder to deliver adequate energy.
- A workable strategy for energy supply is needed.

There are lots of politics around energy and environment
- This makes it harder to settle on workable strategies.

The Bush Administration has released a few energy plans
- And there are always lots of critics.
- The public is not yet aware that energy supply could become a bigger issue.

If US policy does not delivery adequate energy at a reasonable cost, then people will get very angry.

Ready to scan July 9, 2003, 22 pages, RJ0290

Roy Jenne
July 9, 2003
What debates should we see about Kyoto?

We would expect the many players to understand that Kyoto could be very costly and have a negative impact (this often gets lost). We might expect a focus on what is good and practical to do now to assure energy supplies and achieve more efficiency. There should be a debate about whether a country could live up to the Kyoto agreements even if they wanted to. People who advocate certain energy strategies such as getting rid of coal and nuclear, and putting the whole energy burden onto solar and wind need to really check all of the numbers. The issues are far too political now, and a useful strategy is to do what is practical before following the political wind of the moment. Energy supply is not an obvious problem now. But if national actions do not continue to deliver adequate energy at a reasonable cost, then the people will get very angry.

I think that it is not a helpful strategy to sign on to the Kyoto treaty. It is most likely to limit some of the good energy options, force unnecessarily high costs onto nations and cause a further politicization of the issues so that it is harder to achieve good, workable energy strategies.

1. A back door to Kyoto? (Feb 13, 2003)
   - This talks about the 2003 politics and gives some costs.
   - The Senate acted in 1997 (unanimous vote)
     - The US should not participate in any global warming agreement that would either (1) harm the US economy, or (2) fail to include meaningful participation by developing countries.
     - Kyoto failed to meet either of these conditions.
     - Clinton never sent a Kyoto proposal to Congress.

2. Bush emissions plan under fire (Feb 13, 2003)

   Clinton promises tighter efficiency standards. And he will plant trees, etc. Many environmentalists expressed disappointment. They want more action that is mandatory.
   - This was in 1993, 10 years ago.

4. Japan presses to win Russian Pipeline (June 30, 2003)
   Both China and Japan are hoping to have access to some of the Russian oil.
   - The world will need more oil, not less. Countries are trying to ensure a future supply of oil.

   A bunch of western researchers were thinking of boycotting a science meeting in Russia in Fall 2003. Yuri Izrael of Russia is a vice-chairman of IPCC and he has reservations about Kyoto. This scares a bunch of the western scientists. I met Yuri Izrael in May 1996, and he seemed to me to be bright, practical, and on target with most of his ideas.
6. Britain to cut CO\textsubscript{2} without relying on nuclear power (\textit{Science}, 28 Feb 2003)
   - Their white papers promises to cut CO\textsubscript{2} emissions by 60\% by 2050.
   - They plan to reduce nuclear power (against the advice of several science bodies and key government scientists).
   - I do not think that this plan is well posed and based on hard realities.

The plan is about developing a hydrogen economy (but we need to remember that hydrogen can be an energy carrier, but not an energy source). The plan includes money to build a nuclear reactor to produce the hydrogen. But some people hate any mention of nuclear power. However, I have noted that this plan has not been attacked as hard as some ideas.

McCain and Lieberman introduced a Kyoto type of bill in the US Senate. It won’t pass but it will have a political effect.

The present Kyoto agreements call for some reductions in carbon emissions by 2012. There will be a meeting to talk about bigger carbon reductions for 2013 and later. The present Kyoto would cost a lot of money, but it would only make a 5\% difference in year 2100.


If Kyoto is carried out by 2012 (which it won’t be), then the effect would be to reduce the expected greenhouse warming in 2100 by only about 5\%. Is this worth the big costs?

13. Why Alberta opposes the Kyoto Protocol (Fall 2002)
But the central government in Canada did ratify the Kyoto Protocol.

Europe said they would have 8\% less carbon emissions in 2012, compared with 1990. They probably will fall short of that goal.


16. Rebutted on global warming (Mar 1, 2003)
This is a \textit{New York Times} editorial that hits at the US administration for not wanting to ratify Kyoto. The \textit{NY Times} is a big advocate of the Kyoto treaty. The \textit{Wall Street Journal} is against the treaty.

This shows some of the politics within the US Senate. And some in the House. A Kyoto bill will not pass, at least not now.
GLOBAL WARMING RIGHT NOW

ACCORDING TO NEW RESEARCH, CLIMATE CHANGE COULD GO TWO WAYS: BAD, OR REALLY BAD. A SOBERING LOOK AT THE FACTS — DON'T SAY YOU WEREN'T WARNED

BY KATHRYN SCHULZ

With the likely exception of some classified contraptions belonging to the Department of Defense, the IBM SP at the National Center for Atmospheric Research in Boulder, Colorado, is arguably one of the largest, fastest supercomputers in the world. Likewise, the program it is running is among the most sophisticated software ever designed. Together, the hardware and the software do just one thing: twenty-four hours a day, seven days a week, evaluate the probable impact of global climate change on planet Earth.

Some 1,700 miles from Boulder, the White House maintains that humans still know far too little about the causes and implications of climate change. In December, President George W. Bush announced plans to study the issue for five more years before taking significant action to regulate the emissions that fuel global warming. This announcement was met with dismay among climate scientists — precisely the people you would expect to be pleased, given that the news guaranteed them a few more years of job security. But those scientists have reason to be more concerned about global warming than the rest of us: They know more than we do. One thing they know is
A back door to Kyoto?

By H. Sterling Burnett, SPECIAL TO THE WASHINGTON TIMES

Why do bad ideas linger with such persistence in the halls of Congress? This question came to mind when Sens. John McCain, Arizona Republican, and Joseph Lieberman, Connecticut Democrat, recently introduced legislation to reduce U.S. greenhouse gas emissions to prevent global warming.

President George W. Bush rejected the Kyoto Protocol for the control of greenhouse gas emissions arguing that the treaty was "fundamentally flawed," and not in the United States' interests.

It appeared the Senate agreed with him, since in 1997 it had unanimously passed a resolution requiring the Clinton administration to not participate in any global warming agreement that would either [1] harm the U.S. economy or [2] fail to require meaningful participation by developing countries. Kyoto met neither of these conditions.

Perhaps in an effort to solidify the votes of the environmental community and kick-start their campaigns for the presidency in 2004, Messrs. Lieberman and McCain have co-sponsored an anti-air pollution bill that is, in effect, an attempt to implement a modestly less onerous version of Kyoto - let's call it "Kyoto lite" - without Senate ratification.

Kyoto lite is similar to a bill Mr. Lieberman introduced in 2002 that would have lumped carbon dioxide in with mercury, nitrogen oxide and sulfur dioxide - air pollutants regulated by the Environmental Protection Agency - and demand that power plants reduce the emissions of these gases via a "cap-and-trade" mechanism.

However, McCain/Lieberman would go further than the earlier bill by establishing greenhouse gas reduction targets for every major sector of the economy - energy, manufacturing, transportation, etc. - not just power plants. Cap-and-trade would work by setting a cap on total emissions, auction allowances to emit carbon dioxide to energy producers, and then permit them to trade these allowances between themselves.

Supporters of cap-and-trade approaches to reducing air pollution argue that emissions trading is a more cost-effective way of reducing total emissions than either specifying a particular technological fix or taxing fuels based upon their relative emissions. They may be right. But there is no good reason for implementing a bad public policy, even if it is done in the least costly way.

Whatever the merits of using a cap-and-trade approach for reducing the emissions of mercury and sulfur dioxide, their argument is flawed when applied to CO2. Unlike the others, CO2 is neither a pollutant nor is toxic at any foreseeable atmospheric levels. Indeed, CO2 is critical for plant life and thus necessary for life on Earth.

Since CO2 is not a pollutant, the only justification for forcing radical emission reductions on the economy is to slow or prevent global warming. But neither unilateral U.S. emissions reductions, as the McCain/Lieberman bill would demand, nor the international emissions reductions required by the Kyoto Protocol, would have any effect on future global warming.

According to the National Center for Atmospheric Research, if all of the signatories meet their greenhouse gas reduction targets, the temperature difference would be so small it couldn't be measured by ground-based temperature gauges.

Indeed, since as much as 85 percent of the projected increase in CO2 emissions will come from developing countries exempted from the Protocol, including China, India, South Korea and Brazil, even if developed countries unilaterally stopped all their greenhouse gas emissions [something no one seriously proposes], total greenhouse gas concentrations would continue to rise.

In addition, America is in the midst of a serious economic slowdown. By forcing industry to cut CO2 emissions - which means reducing energy use - the McCain/Lieberman bill will only exacerbate our country's economic woes. In June 2002, the nonpartisan Congressional Budget Office (CBO) published a study analyzing various cap-and-trade proposals. The CBO's conclusion was clear. "[T]he economic impacts of cap-and-trade programs would be similar to those of a carbon tax. Both would raise the cost of using carbon-based fossil fuels, lead to higher energy prices, and impose costs on users and some suppliers of energy." Raising energy taxes may never be a good idea, but during a recession it's just plain dumb.

How bad would it be? The numbers aren't in yet on Kyoto lite, but when examining the less comprehensive bill offered by Mr. Lieberman in 2002, the Environmental Protection Agency forecast that the bill would raise electricity prices in 2015 by between 32 percent and 50 percent, while the Energy Information Administration concluded it would reduce GDP by eight-tenths of 1 percent in 2007, or about $100 billion with a loss of about 1 million jobs.

Whatever the cause of the Earth's current warming trend, the McCain/Lieberman bill will not reduce the threat of global warming. It will, however, make a bad economic situation worse.

H. Sterling Burnett is senior fellow at National Center for Policy Analysis.
Bush emissions plan under fire

Plan to voluntarily reduce greenhouse gasses criticized

By Joan Lowy
Scripps Howard News Service

WASHINGTON — The Bush administration on Wednesday kicked off its program to tackle global warming by unveiling pledges from a broad cross-section of industry to voluntarily reduce greenhouse gas emissions relative to economic output over the next decade.

But critics called the program a sham, noting that it would allow the actual tons of greenhouse gas emissions to increase by about 14 percent over the next 10 years — roughly the same rate of increase as the last 10 years.

Energy Secretary Spencer Abraham presented the pledges at a press conference with other Cabinet secretaries, agency heads and leaders from the electric power, automotive, coal, oil, steel, manufacturing and other industries.

The pledges differ from industry to industry and company by company, but the goal is to reduce greenhouse gas “emissions intensity” by 18 percent by 2012 — a target announced by President Bush a year ago.

“Emissions intensity” is the amount of man-made greenhouse gases produced per unit of economic output. Even before the Bush plan, the amount of greenhouse gas emissions relative to economic output was declining, but the overall amount of emissions was increasing as economic growth outpaced the adoption of emissions-reduction measures.

Other industrialized nations, with the exception of Australia and Russia, have ratified the Kyoto Protocol, a treaty pledging to reduce actual greenhouse gas emissions below 1990 levels. Russian President Vladimir Putin has said he expects the treaty to be ratified this spring.

Shortly after taking office, Bush withdrew the United States from the Kyoto Protocol, saying that complying with it would be too costly for the U.S. economy.

“What we’re announcing here today is a program that allows for both an improvement in (greenhouse gas) intensity without undermining the economy,” Abraham said. “Yes, you can reduce greenhouse gas emissions (now) by destroying the economy — some people may favor that approach, but we don’t.”

However, environmentalists and some members of Congress said the administration is using the voluntary program to give the appearance of concrete action in order to head off congressional legislation to impose requirements on industry to cut emissions.

“The administration is trying to take credit for that business-as-usual, minor improvement (in emissions intensity) that takes place every year and call it a plan,” said David Doniger of the Natural Resources Defense Council. “What matters is what goes up into the atmosphere every year.”

Dan Riedinger, a spokesman for the Edison Electric Institute, a trade association for the utility industry, said the voluntary reduction plan would achieve greater reductions than proposals to impose reductions on industry.

“We believe our 3 to 5 percent reduction in carbon intensity will go considerably beyond what our sector would otherwise achieve in this decade,” Riedinger said.

Meetings of government and industry leaders
- Autos, coal, oil, steel, manufacturing, electric power, etc.
- Each industry made pledges to reduce greenhouse emissions.
- This direct involvement of industry is a good idea.
Global warming problems 'enormous,' scientists warn

Bruce Lieberman
STAFF WRITER

DENVER — Powerful computer models show an alarming picture of a warming global climate into the next century, one of the nation's senior atmospheric scientists said yesterday.

During the next 100 years, average world temperatures will increase 4 to 8 degrees Fahrenheit, bringing profound changes to weather patterns and the global environment, said Warren M. Washington, a senior scientist at the National Center for Atmospheric Research in Boulder, Colo.

More extreme warming in areas near the poles is expected during the winter months — an increase of 16 to 20 degrees Fahrenheit on average, Washington said.

Melting sea ice, more intense rainfall in some regions of the globe, a worldwide rise in infectious diseases and persistent drought in other areas — including the American Southwest — could be defining features of the 21st century, scientists here for the annual meeting of the American Association for the Advancement of Science.

Many of the changes are being driven at least in part by a relentless increase in the concentration of carbon dioxide, soot, sulfates and other pollution that humans pump into the atmosphere, scientists say.

"If we don't deal with it, this problem is going to be enormous," Washington said. "I don't think we can ignore it."

A Bush administration initiative is studying how to eliminate uncertainties in climate models and to better define what is happening to the Earth's climate. The administration says this information is necessary before any push for large-scale cuts in the amount of greenhouse gases pumped into the atmosphere by heavy industry, energy plants and automobiles.

But Washington said scientists are continually refining their understanding of the globe's climate, and their computer models are constantly evolving.

"We ought to be taking some steps, even if we don't have all the answers, and that means cutting back on carbon emissions," Washington said. "Every time you put a carbon molecule into the atmosphere, it stays there for 90 to 100 years."

Scientists believe an increase in carbon dioxide and other greenhouse gases created by human activity is contributing to a warming climate. Natural variations in temperature, chronicled in records dating back 150 years and inferred from tree rings and ocean coral records going back 1,000 years, cannot explain the spike in global temperatures over the past half-century, scientists say.

Average surface temperatures around the globe during 2001 were unusually high, and set a record in the first three months of 2002, Washington said.

The United Nation's Intergovernmental Panel on Climate Change has estimated that worldwide carbon dioxide emissions could nearly triple over the next 100 years, from 7.4 billion tons of carbon per year in 1997 to about 20 billion tons per year by 2100.

Even if carbon dioxide emissions are stabilized in coming decades, the rate at which global temperatures are rising would not begin to flatten until about 2060, and would take an additional 80 years or so to level off, according to climate models Washington discussed yesterday.

A warming world could mean a rise in the number of flies, ticks and other carriers of disease and could trigger increased flooding and cholera outbreaks, scientists said in separate meetings here on Thursday. Malaria continues to kill humans and wildlife, and promises to become worse, they said.

"I think there's a huge amount of evidence that there will be a rise of infectious diseases in a warmer world," said Andrew P. Dobson, an epidemiologist and professor of ecology and evolutionary biology at Princeton University.

As atmospheric scientists refine computer models to predict climate, they are studying the influence of aerosol pollution in many undeveloped parts of the world. Smoke from agricultural burning, black carbon exhaust from diesel engines and other pollutants choking Southeast Asia are changing the dynamics of the Earth's atmosphere in ways scientists do not fully understand. The so-called Asian Brown Cloud that cascades over the Indian Ocean and migrates throughout the world is the subject of intense study at the Scripps Institution of Oceanography in La Jolla.

Other Scripps scientists have studied how warming in the Pacific, the Caribbean and elsewhere has led to massive die-offs of coral reefs — a major focal point of biodiversity that Scripps researcher Nancy Knowlton has called "the rain forests of the sea."

How a warming climate will change life in California in particular is the subject of a new statewide project involving Scripps. Scientists there will be studying how rising air and sea temperatures could change life along the California coast, affect the Sierra snowpack and -- by extension -- water supplies for tens of millions of Californians.

Bruce Lieberman: (619)293-2836; bruce.lieberman@uniontrib.com
Clinton unveils new 'greenhouse' policy

President Clinton this week released his long-awaited Climate Change Action Plan. The package of mostly voluntary initiatives aims to avert the threat of global warming through "American ingenuity," Clinton said, "not more bureaucracy or regulation." The plan involves roughly 50 measures for reducing an atmospheric buildup of "greenhouse" gases, principally carbon dioxide.

By the year 2000, the plan envisions reducing annual U.S. emissions of greenhouse gases by an amount equivalent to 109 million metric tons of carbon dioxide (CO₂). The key words here are equivalent to since not all the measures would reduce CO₂ emissions. Fast-growing trees planted as part of new reforestation programs, for example, are slated to sop up 10 million tons of CO₂ annually. Other programs would cut releases of different greenhouse gases.

If the plan achieves its objective, it will return net U.S. emissions of greenhouse gases to 1990 levels, thereby satisfying a key near-term objective of the Convention on Climate Change. This proposed treaty, endorsed by the United States during last year's Earth Summit in Brazil (SN: 6/20/92, p.407), will go into effect once 50 nations endorse it — probably by the end of this year.

At a press briefing, Energy Secretary Hazel R. O'Leary unveiled two major new government-industry partnerships that will contribute to the projected greenhouse-gas savings. As part of a voluntary "Motor Challenge," 27 companies, eight industrial associations, and seven organizations have pledged to collaborate in developing new ways to reduce the energy consumed by electric motors and the products they drive. These efforts are expected to account for 8 percent of the greenhouse-gas reductions anticipated under the new plan, O'Leary said.

Under "Climate Challenge," corporate members — electric-power companies responsible for 60 percent of the CO₂ emitted by U.S. utilities — have agreed to initiate new, customized CO₂-reduction programs. For joining the partnership, O'Leary said, "we will give these companies the flexibility to adopt the most cost-effective reductions available to them."

Clinton's new plan also calls for:
• new energy-efficiency standards for 11 household appliances, including televisions and air conditioners;
• a new labeling program to inform buyers about the rolling resistance — or energy performance — associated with different vehicle tires;
• expansion of the EPA's small but successful Green Lights program, which assists U.S. firms in switching to more energy-efficient lighting systems;
• tighter regulatory controls on the release of methane — a potent greenhouse gas — from landfills; and
• new provisions that encourage financing of energy conservation measures through home mortgages.

Environmental groups generally have supported the thrust of the Clinton plan. Many expressed disappointment, however, that the administration hadn't given the plan more teeth by making most of its programs mandatory. Moreover, notes Alden Meyer with the Union of Concerned Scientists in Washington, D.C., the plan does not commit the United States "to maintaining 1990 emission levels beyond 2000." As such, he worries, "It could be a one-shot return and then business as usual."

Industry groups, however, have applauded the administration's confidence that they will carry out the plan's mostly voluntary measures. Indeed, "business-government partnerships and initiatives, we think, are the right approach to the climate issue," maintains John Shlaes, executive director of the Washington, D.C.-based Global Climate Coalition, a mix of trade associations and private companies. — J. Raloff

OCTOBER 23, 1993
Japan Presses to Win Russian Pipeline

Last-Minute Enticement, Reflecting Thirst for Oil, Could Derail Chinese Deal

By Martin Fackler

TOKYO—Competition between Japan and China to tap eastern Siberia's potentially massive oil reserves sharpened when Tokyo's foreign minister made an additional offer of financial aid to Russia to persuade it to build first a Japanese-backed pipeline.

In an 11-hour diplomatic push during a weekend visit to Vladivostok, Foreign Minister Yoriko Kawaguchi told Russian Deputy Prime Minister Viktor Khristenko that Japan would be willing to cover the costs of finding and extracting enough oil to fill the pipeline—which would carry about one million barrels a day—if Moscow agreed to build it before a Russian-backed project is constructed, said a Foreign Ministry official present at the meeting. Russia has been leaning toward first building the shorter, cheaper pipeline to China.

Experts have said developing oil reserves trapped beneath the frozen Siberian tundra would cost billions of dollars. Japan has said it will fund as much as the entire $5 billion cost of a 2,400-mile pipeline it wants Russia to build to the northeastern Chinese city of Dqing, appeared to have the deal sewn up last month during a visit to Moscow by President Hu Jintao, when China National Petroleum Corp. and Russia's Yukos signed a preliminary agreement to ship Siberian oil through the Dqing pipeline. Russia and China have been discussing a shared pipeline since 1994; the project offers the value of showing warming ties between the two. But momentum has stalled frequently because of technical and economic challenges.

CNPC and its listed unit, PetroChina Co., say they expect to push ahead with pipeline plans in spite of Japan's bid. “We've never heard that [the Russians] aren't going to build a pipeline with China,” said a senior PetroChina executive.

Japan launched its last-minute counteroffensive late last month, when Prime Minister Junichiro Koizumi brought up the pipelines in a meeting in St. Petersburg with Russian President Vladimir Putin. In lobbying for the oil, Tokyo has had to overcome deep reluctance to deal with its northern neighbor. There is still resentment in Japan over a territorial dispute involving islands seized by the Soviet Union in the waning days of World War II.

Peter Wonacott in Beijing contributed to this article.

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Brazil Struggles To Attract Money For the Long Haul

Foreign Direct Investment Dives as New Government Grapples With Its Priorities

By Jonathan Karp

SÃO PAULO, Brazil—The flood of short-term investment that has buoyed Brazil's bonds and currency this year suggests that President Luiz Inácio Lula da Silva is winning over international money managers with his tight budget and anti-inflation policies.

But he has yet to woo back capital for factories, power plants and other physical assets that create jobs and underpin long-term growth.

Foreign direct investment through May declined 59%, to $3.3 billion, from the first five months of 2002. Clashes between Brazil's governing Workers Party and independent industry regulators are among other factors in the outlook for fresh funds, sharpening discord within the government over policies to stimulate the economy and fueling a debate over whether to renew an International Monetary Fund accord.

Finance Minister Antônio Palocci, riding high on investor confidence in his management of public finances, now must reverse a contracting economy, a task complicated by Brazil's Achilles' heel: dependence on foreign capital. “We're in the first half of a soccer match, and Palocci is winning the game. But the second half is about economic growth,” says Paulo Leme, manager director of emerging markets at CitiBank.

Cold Feets?

Foreign direct investment in Brazil in billions

1998 00 '01 '02 '03

*Projected

Source: Central Bank of Brazil
Researchers rattled as Kyoto Protocol hangs in the balance

Quirin Schiermeier, Munich

European climate researchers are expressing unease about the objectives of a conference to be held in Moscow this autumn. They fear that sceptics in Russia want to use the meeting to block ratification of the Kyoto Protocol on Climate Change.

Several scientists, who didn't want to be identified, told *Nature* that they had considered boycotting the forthcoming World Climate Change Conference (WCCC), after attending a programme committee meeting in Moscow last month.

But the researchers said that they had decided to press on with the conference, in the belief that a boycott would offend the Russians and jeopardize climate negotiations inside and outside Russia.

Ratification of the Kyoto Protocol is currently being debated by the Russian administration and, if it happens, would mean that the international treaty would finally come into force. But the debate is very finely balanced, and some researchers fear that climate-change sceptics in Russia want to use the WCCC meeting to block ratification.

Western researchers privately complain about what they regard as the autocratic behaviour of Yuri Izrael, the Russian chairman of the programme committee, at last month's preparatory meeting. It was a "pseudo-democratic exercise, everything was stage-managed," says one German participant.

Izrael is a vice-chairman of the Intergovernmental Panel on Climate Change (IPCC), and a science adviser to the Russian president, Vladimir Putin, who will open the meeting on 29 September. The 73-year-old former director of the Russian weather service, Izrael is described by his critics as firmly rooted in Soviet scientific traditions. He is also well-known for his reservations about the Kyoto Protocol.

At least one participant has decided not to attend the WCCC. "The objectives of the meeting have not become clear to me at all," says Ulrich Cubasch, a meteorologist at the Free University in Berlin. "I don't want to let myself be used for purposes which I may not want to support."

"The WCCC would be an occasion to raise important issues," says Hervé Le Treut, director of the Laboratory of Dynamical Meteorology in Paris. "But after all the difficulties in discussing things freely at the preparatory meeting, I have very mixed feelings about this conference." He adds that he has not yet decided whether he will accept an invitation to give a talk at the conference.

But Izrael dismisses the criticism. "It will be a purely scientific meeting," he says. "There will be no political decisions or recommendations."

The first scientific speaker on the programme, former IPCC chairman Bert Bolin, has said that he will attend the conference, and most of the 37 invited Western keynote speakers are following suit.

"A boycott of Western scientists would only help those who might be interested in steering the climate debate in Russia in a direction that they see fit," says Hartmut Grassl, an atmosphere researcher at the Max Planck Institute for Meteorology in Hamburg.

Budyko and Izrael had once written a book together. Yuri Izrael was one of 6 or 8 key Russian people at the meeting in Moscow. He was very active in a good way. I thought of him as having very good analytical capabilities, and his thinking seemed very clear. We talked about many issues including climate, forests, energy, Arctic research, etc.
Britain to Cut CO₂ Without Relying on Nuclear Power

CAMBRIDGE, U.K.—Britain and the United States may be marching side by side to war in Iraq, but their energy policies could not be more different. Prime Minister Tony Blair’s government announced this week that it wants to up the ante on reducing carbon emissions over the next half-century, without building any new nuclear power stations. Lauded by environmentalists as “a crucial landmark,” the Energy White Paper is nonetheless taking heavy flak from energy experts.

In what seems the death blow to nuclear energy in this country, the white paper outlines a plan to reduce levels of carbon dioxide in the atmosphere by increasing funding and incentives for companies to invest in renewable energy sources, such as wind, wave, and tidal power. “Climate change is a clear and present danger,” says Trade and Industry Secretary Patricia Hewitt. “The government is serious about cutting carbon emissions, but we know this cannot be achieved without a fundamental review of the way we produce and consume energy.”

Over the next 50 years, the U.K. aims to cut its carbon dioxide output by 60% from today’s level, substantially more than is required by the Kyoto Protocol. It intends to do so by setting tougher standards for energy efficiency and by boosting renewable energy from its current 3% of total energy capacity to 10% by 2010 and 20% by 2020. If achieved, this ramping up of renewables will offset the decline of nuclear power as the country’s 33 nuclear reactors—which now produce 26% of Britain’s energy—reach the end of their working lives over the next 30 years.

Prior to publication of the white paper, several scientific bodies, including the Royal Society and the Institute of Physics, as well as the government’s own chief scientific adviser, David King, all warned the government against abandoning nuclear power entirely. And the government has not shut the door: If renewables do not fill the gap, new nuclear stations could be built.

Energy experts consulted by Science were generally skeptical of the government’s plans. “To try to reduce carbon dioxide by 60% is a fantastic thing to do. But I don’t think it is remotely achievable,” says Ian Fells, an energy consultant and professor of energy conversion at the University of Newcastle upon Tyne. And electrical engineer Mike Laughton of London’s Queen Mary College believes that a 20% share of renewable energy is wishful thinking: “It is totally aspirational and not realistic at all.”

The government has put several measures in place to achieve its 20% ambition. There is $95 million in new money for renewable projects, raising spending on renewable energy to $550 million over 4 years. Further tax breaks will endow the renewables industry with an estimated $1.6 billion a year by 2010. In addition, planning regulations will be loosened to speed approval of onshore and offshore wind farms.

Although critics of the white paper concede that renewable energy needs to be pushed, they argue that a mix of nuclear and renewables is more realistic.

Wind is a notoriously unreliable power supply, they say, so nuclear energy or conventional gas-fired power stations are still needed as a backup. “A wind policy is not an emission-free policy in total,” says Laughton. “[The white paper] will be taken to pieces gradually and sorted out.”

—DANIEL BACHTOLD

• Britain aims to reduce carbon dioxide emissions by 60% by 2050 from today’s levels.
• They plan for a decline in nuclear energy (now 26%) as the 33 nuclear plans are retired over the next 30 years.
• Several science bodies and key government scientists advised against abandoning nuclear power. This was before the plan was printed.
• The Energy White Paper is taking heavy flak from energy experts.
• One engineer believes that a 20% share of renewable energy is wishful thinking.

MY COMMENTS: Credible energy plans must be based on real numbers, and a good analysis of energy possibilities, costs, and tradeoffs. Present day planning often does not do a good job of this. Why is this?

28 Feb 2003 P 1291

- Roy Jansen
NCAR
U.S. takes energy plan to Europe

By H. Josef Hobert
Associated Press

WASHINGTON — The Bush administration wants to enlist European support for an international partnership to develop hydrogen energy, but differences over fossil fuels and nuclear power are complicating the talks.

Energy Secretary Spencer Abraham, who was to outline the administration's hydrogen policy at a conference in Belgium today, planned to emphasize that the United States is committed to developing renewable energy sources such as wind and solar power. But the United States also is determined to find ways to build pollution-free coal-burning plants and use nuclear reactors to produce hydrogen.

The Europeans will hear that the United States is looking at all these options and that half the research money into hydrogen sources, part of a $1.7 billion program proposed by President Bush, involves renewables.

But some European leaders say the administration is far less committed than Europe to research into renewable energy, which they want to make the cornerstone of a hydrogen energy economy.

The vision held by both the Europeans and Americans is for hydrogen fuel cells to replace polluting coal-burning power plants and to end the need for gasoline and pollution-spewing automobiles. Fuel cells use hydrogen and oxygen to produce power, with only water as a byproduct.

For a truly pollution-free system, environmentalists argue, the hydrogen must come from a source that does not pollute. They contend that a push for renewable energy technology, such as wind and solar power — and not fossil fuels — is the answer.

Many Europeans have embraced the argument.

The European Union, for example, has committed to a benchmark of having 22 percent of its electricity, and 12 percent of its energy, come from renewables by 2010. The Bush administration has resisted such commitments for domestic utilities.

Some of the Europeans fear that an international research effort, following the U.S. lead, might give short shrift to research into renewable energy sources, says Jeremy Rifkin, an adviser to EU leaders on the hydrogen issues.

He has characterized the administration's hydrogen initiative as “a Trojan horse” for the nuclear and fossil fuel industries.

"While the European Union understands that much of the hydrogen will have to be extracted from fossil fuels in the immediate future, its long-term game plan is to rely increasingly on renewable sources of energy to extract hydrogen," Rifkin says.

"In a report to be presented at a conference in Brussels, a high-level EU advisory group on hydrogen development acknowledges that during the transition period, coal, natural gas and other fossil fuels will be needed to make hydrogen. The report does not reject a role for nuclear power."

"But the report, viewed as a likely European road map to a hydrogen economy, urges a framework of research that would "intensify the use of renewable energy."

"In the longer term, renewable energy sources will become the most important source for the production of hydrogen," the panel says.

U.S. officials sought to play down any differences. They noted that hydrogen production is just one element of the necessary research should hydrogen fuel cells replace the internal combustion engine and fossil-based power plants.

"There are far more things that we are in agreement on that we intend to pursue together than things we might disagree on," Abraham said in an interview. "We all agree we want to move toward a hydrogen economy. How we produce hydrogen is just one part of the puzzle."

Abraham said he envisions an international effort in which countries "will develop programs that fit their own priorities. How to produce hydrogen more cost effectively is just a single part of a much broader undertaking."

Hydrogen, one of the most common elements on earth, can be derived from many sources. Today, it is commonly extracted from natural gas, or methane.

"It also can be made from electricity generated by a coal-burning power plant or a nuclear reactor. The electricity, in a process known as electrolysis, splits water into hydrogen and oxygen. The hydrogen can then be stored and later used in a fuel cell where it reacts with oxygen to produce energy."

Since Bush in February drew attention to hydrogen development, the issue has attracted intense interest in Congress and elsewhere. Lawmakers are considering a $3 billion research effort to push hydrogen fuel-cell development and creation of a hydrogen fuel infrastructure.

The Energy Department has begun a $1 billion program to develop a new generation coal-burning power plant that would make electricity and hydrogen while capturing carbon dioxide and other pollutants.

The administration also supports a Senate proposal that calls for building a $1.1 billion nuclear reactor that would produce hydrogen.

Rifkin and other critics of the Bush agenda say those projects alone dwarf administration efforts to develop renewable energy systems that also could produce hydrogen.

June 16, 2003
Daily Camera
Boulder, Colo.
Climate come-upance delayed

A modest target for the stabilization and subsequent reduction of greenhouse-gas emissions. Legal authority for the Environmental Protection Agency to regulate such emissions. Establishment of some of the rules needed to foster a free and open market for emissions trading. Some fine-tuning of the federal government’s climate-change research programme.

The central parts of the American Investments for Reduction of Emissions Act of 2003, which was introduced last week by senators John McCain (Republican, Arizona) and Joe Lieberman (Democrat, Connecticut), would be regarded by many as a perfectly reasonable set of precautions against the likely dangers of global climate change.

Will the US Senate enact the measure! Not a chance. After due consideration at a hearing of the commerce committee on 8 January, the measure is going nowhere fast in the Senate. The Bush administration is dismissive of it, and the House of Representatives is uninterested.

Two of Bush’s most formidable opponents — McCain inside the Republican party, Lieberman outside it — know this well enough. Their real intention is not to pass a bill. It is to send a signal that the president’s nonchalant disregard of this issue will one day come back to haunt him (see page 202).

McCain picked up his own interest in the issue on the campaign trail for the last presidential election. In the cold school halls of Iowa and New Hampshire, the environmentally hawkish senator gained the impression that young people in America feel betrayed by Washington’s failure to engage with the problem of global warming. He changed tack on the issue, and now joins long-time environmentalist Lieberman in addressing it.

But the two men are also sending out a message to the world at large: that Bush doesn’t speak for America on climate change. Their concerns are quietly shared by many Americans — in fact by most, according to polls. And around America, two-thirds of states are taking measures that will encourage a reduction in greenhouse-gas emissions.

Meanwhile, elsewhere in the world, ratification of the Kyoto Protocol is proceeding far more vigorously than its supporters anticipated, partly on account of the characteristic petulance with which Bush saw fit to withdraw from it. Instead of using his exit as an excuse to renge on the agreement, as they might well have done, close allies with conservative governments have confirmed their plans to ratify. Last month, indeed, Canada became the hundredth nation to do so. Russia is likely to come on board too, ensuring that participation reaches the threshold to bring the treaty into force without US participation.

In the long run, people who have a sense of the appropriate role of the United States in the world — people such as McCain and Lieberman — will regain influence. Something akin to the bill that the dynamic duo introduced last week will one day pass into law. While waiting for that day, the rest of the world must confront the challenge of global warming on its own.

More heat, less light on Lomberg

A Danish committee has picked an appropriate target and misfired.

Not surprisingly, last week’s ruling by the Danish Committees on Scientific Dishonesty (DCSD) that Bjørn Lomborg, in his controversial book The Skeptical Environmentalist, selected data in a “severely biased” manner and exhibited poor scientific practice (see page 201) received widespread international media coverage. But whether the DCSD emerged with credit also deserves reflection.

Lomborg’s hypothesis that warnings issued by environmentalists and scientists are unwarranted, presented in the book rather than in the peer-reviewed literature, has been widely criticized by researchers. But what is the DCSD’s authority to tackle what many consider a polemical rather than scientific book?

The DCSD was the first European body to be set up — by the Danish Research Agency — to examine issues of scientific misconduct, and it is still unusual in being mandated to consider any complaint about any scientist, or any scientific work, emerging from both the private and public sectors. A look at its guiding principles (see http://www.forsk.dk/eng/index.htm) and its judgement (see www.forsk.dk/uvvu/nty/udvaldebat/bi_decision.htm) confirms that the DCSD has the freedom to assess the case because, arguably, Lomborg presented himself as an academic and his book as a scientific argument. Appropriately enough, the DCSD emphasizes that it is assessing Lomborg’s scientific standards, not his conclusions.

The national context of this independent assessment is relevant here. Lomborg was made director of the politically influential Danish Environmental Assessment Institute, founded by the new right-wing government after the 2001 elections, solely on the strength of it. According to its own statutes, the institute must be headed by a scientist of appropriate research experience, whereas Lomborg has little additional experience.

Lomborg’s claims in his book are certainly significant and potentially influential. The Danish public, at least, has the right to know whether he is arguing on scientifically rigorous grounds, not least given the influence of his position.

Unfortunately, the DCSD has left itself in a weak position. It did not conduct an independent analysis of the book but relied on published criticisms, especially a controversial selection published by Scientific American. Even to call this judgement’s basis a ‘meta-analysis’ would be too generous: there is, for example, no justification given for the particular selection of published critiques. Furthermore, through a tangled combination of translation and legalise, the committee’s judgement characterizes Lomborg as “objectively dishonest” while at the same time stating that they have no evidence for what most people would call dishonesty: deliberate misrepresentation. That subtle, not to say tortuous, distinction has been lost in the media coverage.

There remains a need for rigorous scrutiny of Lomborg’s methods, given his prominence, his claims to serious analysis, and the polarized debate surrounding his book. But this episode leaves everyone little wiser, and the waters surrounding Lomborg even muddier.
Climate panel to seize political hot potatoes

Quirin Schiermeier, Munich

The politically sensitive issues of carbon sequestration and regional climate forecasts are to form part of the fourth assessment report by the Intergovernmental Panel on Climate Change (IPCC).

The assessment, due in 2007, was discussed by some 300 IPCC members in Paris on 19-21 February. Sequestration was chosen as the subject for a special report, separate from the main assessment. After the meeting, Rajendra Pachauri, director of the Tata Energy Research Institute in New Delhi and chair of the IPCC, confirmed that more detailed regional models of the impact of climate change would be considered by the assessment’s authors.

Previous regional projections have generated controversy. A 2000 report from the US Global Change Research Program described the possible regional effects of climate change in the United States, but the results of this and other similar studies were deemed too unreliable by the Bush administration to be included in its strategy for climate-change research, released last November (see Nature 420, 110; 2002).

"I am aware that there is an opportunity for much political debate when you start to predict the impact of climate change on specific regions," said Pachauri. "But if you want action you must provide this information."

Carbon-sequestration schemes, such as using empty oilfields to store the carbon dioxide from power plants, also provoke strong reactions. Environmental groups accuse advocates of the idea of damaging attempts to reduce emissions of greenhouse gases.

But the panel’s fourth assessment will come too late to provide scientific input into negotiations on greenhouse-gas emission targets for 2013 onwards, the second phase of the Kyoto Protocol. Talks on these targets begin in 2005. "We will have to come up with some means to update negotiators with the latest scientific information," said Pachauri. One possibility, he said, would be for some panel members to hold workshops to provide tentative directions for the negotiating parties.

The run-up to the Paris meeting was overshadowed by criticism of a previous IPCC special report on emission scenarios, which explored how changes in global economic and social conditions could affect emissions. In several papers over the past year, economists Ian Castles of the Australian National University in Canberra and David Henderson of Western Business School in London argued that the scenarios were "technically unsound" because of false assumptions on likely economic growth in developing countries.

Pachauri and others at the meeting agreed that the projections may need minor changes, but denied that they are flawed. "The emissions scenarios covered a very broad range," said Thomas Stocker, a climate modeller at the University of Bern in Switzerland, and a lead author on the third assessment report. "It is extremely unlikely that they do not include the actual development of emissions."

Details of the next assessment will be approved at an IPCC meeting in October. The IPCC will then appoint about 2,000 authors and reviewers from around the world, who could then begin work next year. Pachauri says he is keen to involve more young authors.

Experts cast doubt on Britain’s green energy ambitions

Natasha McDowell, London

Plans for a new UK Energy Research Centre and a dedicated facility to test ocean-wave energy are the highlights of the research component of Britain’s energy strategy, published on 24 February. But experts have questioned whether these and other proposals have the political and financial backing to meet the government’s goal, announced in the strategy, of cutting carbon dioxide emissions by 60% by 2050.

The plans, unveiled in a government white paper on Britain’s energy needs, recognize energy-efficiency measures and renewable energy sources as the principal means of cutting emissions. The paper sets a goal of having 20% of Britain’s energy derived from renewable sources by 2020 and includes no plans for new nuclear power stations.

"It made a lot of the right noises, but did not identify any new policies committing the government to these goals," says Paul Ekins, a professor of sustainable development at the University of Westminster, London.

Such scepticism is derived in part from a lack of concrete measures to help promote renewable sources. One exception is the publicly funded wave-energy test centre — the first in Europe — that will open this year off the coast of the Orkney Islands, Scotland. Costing around £5.5 million (US$8.7 million), it will assess full-scale wave-energy machines. "The site is vital for the commercial development of wave energy," says Max Carcas of Ocean Power Delivery, an Edinburgh-based company that is developing a commercial offshore wave-power device.

Also highlighted in the white paper is a new UK Energy Research Centre, which will be established in the coming year. Details are still being finalized, but the facility is intended to act as the hub of a new National Energy Research Network, bringing together the strands of energy research funded by the government. The funding for the centre is expected to be £8–12 million over five years.

These projects will be complemented by an extra £60 million in grants to expand the use of existing renewable technologies, such as wind power. But this will take government spending on such technologies to only £348 million over the next four years — a figure that some feel is too small to meet the new emissions goals. Jeremy Leggett, chief executive of Solar Century, a London-based company that sells solar panels, says that the funding is an order of magnitude less than in other European nations such as Germany.

Others say that by rejecting nuclear power and not investing enough in renewable sources, the government has dodged the question of how to move away from using oil and gas. "The white paper shows a lack of courage to make the hard decisions necessary to move this country away from dependence on fossil fuels," argues David Wallace, vice-chancellor of Loughborough University and vice-president of the Royal Society.
Making Deforestation Pay Under the Kyoto Protocol?

Ernst-Detlef Schulze,1 Danilo Mollicone,2 Frédéric Achard,2,* Giorgio Matteucci,2
Sandro Federici,1 Hugh D. Eva,1 Riccardo Valentini3

The Kyoto Protocol of the Framework Convention on Climate Change (UNFCCC) (1) has laudable goals for greenhouse gas reductions. However, from the beginning of the negotiations, there were concerns (2) that the protocol might lead to a perverse incentive to increase the logging of pristine forests, which are large carbon pools and reported to be carbon sinks (3). The industrialized countries that signed the Kyoto Protocol may reach their greenhouse gas reduction commitments either by decreasing emissions or by promoting sinks of carbon. Land use, land use change, and forestry (LULUCF) activities such as afforestation (4), reforestation, and land management are agreed ways to create such sinks.

In 2001 (5, 6), it was agreed that reforestation activities eligible for carbon credits would be limited to activity occurring on lands that did not contain forest on 31 December 1989. As the agreements leave room for renegotiation of this time limit, some countries are already requesting its modification under the Clean Development Mechanism (CDM) (7).

In particular, Canada and Indonesia requested a 10-year extension of the reforestation time limit from 31 December 1989 to 31 December 1999, and Colombia and Japan asked for even more flexible reforestation definitions (8). To look at the practical implications of such changes for pristine forests, we will use two well-documented and publicized examples of ongoing projects related to CDM: the Green Marathon project in Brazil (9) and the Noel Kempff Mercado Climate Action project in Bolivia (10).

Since 1999, the Carbon Sink project, based at the São Nicolau fazenda in Mato Grosso, has aimed to reforest 2200 ha of pastureland to make “a positive contribution to the process launched by the Kyoto protocol” (9). The analysis of Landsat satellite images (acquired in 1992 and 1999) of the São Nicolau fazenda provides a basis for the estimation of land cover changes occurring over this period. Although in 1992 only 1200 ha of the fazenda’s 10,000 ha were cleared, 7 years later an additional 1300 ha had been deforested (fig. S1). If the reforestation time limit were to be extended by 10 years, then the project would become eligible for carbon credits without accounting for the deforestation that had taken place in a region where annual deforestation rates can reach 2.7% (11).

The Noel Kempff Mercado Climate Action project, said to be “the largest forest based carbon project in the world” (approximately 634,000 ha area) (10), is located in the state of Santa Cruz. The project’s beneficial carbon offsets would be obtained from the prevention of logging or the conversion of forested lands to agriculture (12). This project has been submitted to the UNFCCC (13) and, in the Intergovernmental Panel on Climate Change Special Report on LULUCF, it has been presented as an example “to help policymakers develop internationally agreed rules” (14). As reported by the project, until 1997 “prior to the initiation of the project, much of the forest expansion area had been high-graded over a period of about 15 years for several commercial tree species” (12). High-grading is a harvesting technique that removes only the biggest and most valuable trees from a stand. In this case, analysis of Landsat satellite images confirms that high-grading was in progress in the project area in 1994 (fig. S2).

These two projects were carried out in areas where deforestation or forest degradation occurred after 31 December 1989. At present, even if the deforestation and degradation were not carried out under their guidance, these projects would not be eligible for carbon sink credits because they do not meet the provisions of the Kyoto Protocol. However, a shift of the reforestation time limit might bring them into line for carbon credits. Although one must recognize the efforts of the reported projects in setting up activities aimed at absorbing carbon, a change in the reforestation time limit would set two dangerous precedents. First, all pristine forest sites, ranging from boreal to tropical regions, that were deforested or degraded later than 1989 up to a new reforestation time limit would become eligible to receive carbon credits without accounting for the relevant carbon losses due to biomass harvest and the subsequent decomposition of soil organic matter (15). Second, and more important, a shift in the reforestation time limit may lead to expectations that it may change again. This could stimulate a speculative round of deforestation or degradation in pristine forests in the hope of obtaining carbon credits from reforestation carried out later on.

In a climate of changing rules, particularly relating to the reforestation time limit, one of the underlying principles of the Kyoto Protocol—that of preserving pristine forests—would be severely compromised. Prevention of deforestation should be clearly established within the context of the Kyoto Protocol implementation. It would be paradoxical for climate change mitigation if the Kyoto Protocol mechanisms had the effect of paying for the destruction of pristine forests, which are one of the few genuine actors in climate change mitigation (16).

References and Notes

1. The Kyoto Protocol (UNFCCC, Bonn, Germany, 1997); available at unfps.int/resource/docs/convkp/kpam10.pdf.
4. Afforestation is the conversion of land that has not been forested for a period of at least 50 years.
5. The Bonn Agreements on the implementation of the Buenos Aires Plan of Action (UNFCCC, Bonn, Germany, 2001); available at unfps.int/resource/docs/cop6/qcc6sprt05.pdf.
6. The Marcelacci Accords (UNFCCC, Bonn, Germany, 2002); available at unfps.int/resource/docs/cop7/ 13001.pdf.
7. The CDM is one of the Kyoto Protocol flexible mechanisms. For the Kyoto Protocol first commitment period (2008–2012), the LULUCF activities that can be carried out as CDM will be limited to afforestation and reforestation.
13. Activities Implemented Jointly: List of Projects (UNFCCC, Bonn, Germany, 2002); available at unfps.int/program/co2/aijgrio.html.

We thank A. Belward from the Joint Research Centre; M.-J. Sanz from Centro de Estudios Ambientales del Mediterráneo; and P. Stefanelli, E. von Zitzewitz, and H. Soly for contributions and comments.

Supporting Online Material

www.sciencemag.org/cgi/content/full/299/5613/1669/ DC1

Figs S1 and S2

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www.sciencemag.org  SCIENCE  VOL 299  14 MARCH 2003  1669
New EPA report puts Bush in quandary

BY BRAD KNICKERBOCKER
Staff Writer of The Christian Science Monitor

Rocky Mountain meadows and barrier islands disappearing. Coral reefs damaged. Droughts, floods, rising sea levels.

This disturbing vision of climate change—or at least its potential—would not be a surprise coming from global-warming activists. But as a warning from the Bush administration, it clearly is.

In a report to the United Nations, the Environmental Protection Agency says that man-made greenhouse gases in the US will increase 43 percent between 2000 and 2020. And while acknowledging some scientific uncertainties, the EPA says that the recent warming trend “is real and has been particularly strong within the past 20 years...due mostly to human activities.”

This report from government agencies (the White House Council on Environmental Quality, the State Department, and others were involved as well) puts President Bush in something of a double bind.

From the start, and in line with energy and oil interests that are among his biggest supporters, the president has expressed skepticism about the scientific basis for reported climate change. He has resisted mandated cuts in carbon dioxide emissions (the main greenhouse gas). And he has refused to sign on to the Kyoto Protocol, the 1997 international agreement setting goals and deadlines for industrial nations to reduce their impact on climate.

For now, he dismisses the 268-page EPA document as a “report put out by the bureaucracy,” even though it comes nearly a year and a half into his own administration. This may serve to mollify some on the political right who are upset at the Bush administration’s EPA report on global warming. But it’s also given his environmental critics added political ammunition.

“Having admitted the extent of the problem and identified the cause, a policy of inaction becomes impossible to defend,” says David Hawkins, director of the Natural Resources Defense Council’s climate program.

The president and administration insist that Bush’s proposals indicate plenty of action on climate change, and will meet whatever global-warming challenges exist.

This includes the recently announced “Clear Skies” initiative, which reduces sulfur dioxide, nitrogen oxides, and mercury emitted by power plants (although less than existing laws would require). As for carbon dioxide, the president’s plan calls for voluntary steps leading to less “carbon intensity” (the amount of CO2 per unit of economic output), although the amount of CO2 released into the atmosphere would continue to grow, assuming continued economic growth.

Meanwhile, the number of countries agreeing to the Kyoto greenhouse gas reductions continues to grow, giving much of the world the impression that the United States is going it alone on global warming—and in the wrong direction.

Writing in the Guardian—newspaper of London recently,

UK environment minister Michael Meacher said, “The US has to rejoin the [Kyoto] climate talks if disaster is to be averted.”

For the Kyoto Protocol to take force, at least 55 countries responsible for at least 55 percent of global emissions of climate-changing gases must ratify the agreement. The aim is to require cuts in global CO2 emissions by an average of 5.2 percent below 1990 levels between 2008 and 2012. (The figure for the US would be about 7 percent.)

To date, 73 countries have signed on, including Japan this week and the 15-nation European Union last Friday. At an EU-Russia summit last week, Russian officials said their country is committed to ratification “as soon as possible.” Once Russia joins in, the 55 percent mark on global emissions will have been passed.

In this country, there is a parallel trend of states and cities declaring their intent to reduce greenhouse gas emissions in line with the Kyoto goals and deadlines—despite Bush’s warning this week that “the Kyoto treaty would severely damage the United States economy.”

Massachusetts and New Hampshire have passed legislation to cut carbon emissions from power plants, and California is considering a measure limiting such emissions from cars and light trucks. More than 100 US cities have vowed to cut CO2 emissions, some of them more than would be required under Kyoto.

Many US companies that do business abroad also see the handwriting on the wall and are cutting their greenhouse gases. “The treaty is now very likely to come into force this year, and American businesses will have to comply with it in their worldwide operations,” says Philip Clapp, president of the National Environmental Trust in Washington.

June 7, 2002

Colorado Daily - Student paper
Builds - Colo
Why Alberta opposes the Kyoto Protocol

450,000 Jobs Lost in Canada
Income Taxes Increase
Gasoline Prices Increase
Investment Flees Province

Dated Fall 2002

We could see these headlines if the Kyoto Protocol is approved!

If approved, the Kyoto Protocol will affect the Canadian economy more than that of any other country and Alberta will suffer the most. It could cost Alberta over $8 billion and thousands of jobs per year. Every business and every individual in Canada would be negatively affected by higher prices, higher taxes and a devastated economy.

Although experts have conducted many studies, the potential impact of implementing the Kyoto Protocol is still uncertain. Some reports suggest that 450,000 jobs would be lost, income taxes would increase substantially, electricity costs could increase by 100%, natural gas prices could increase by 60%, and gasoline could reach $1.10 per litre.

You will likely pay more income taxes; worry about job security; pay more to drive your car, heat your home, and keep your appliances running - all without making an actual or significant reduction in global gas emissions.

What is the Kyoto Protocol?

In 1997, an international agreement under the United Nations was created to reduce greenhouse gases in the developed countries of the world. Its goal is to reduce greenhouse gas emissions an average of 5.2% below 1990 levels by 2012.

There is general agreement among all countries, and in Canada by all provinces, that the goal of reducing greenhouse gas emissions is desirable. Disputes have largely arisen over details of the Protocol such as implementation time frames and the relatively small number of countries that actually have to make emission reductions.

2. Canada Climate Change Secretariat, quoted in "Life Without Oil: Canada and the Kyoto Protocol", Canadian Manufacturers and Exporters, p.11, Feb. 2002
More Hot Air on Kyoto

I read the report put out by the bureaucracy," said a dismissive President Bush yesterday, taking the opportunity to reiterate his opposition to the Kyoto treaty on global warming. Too bad the bureaucracy didn't show its report to Mr. Bush before it released it to everyone else.

The President was doing damage control on a report on climate change that his Environmental Protection Agency sent to the United Nations Friday. In what was widely hyped as a reversal of the Administration's policy, the report warned that global warming was in fact occurring and admitted that recent temperature changes were "likely due mostly to human activities." Aha, said the greens, "Gotcha."

Having plowed our way through some of the 268 pages, we can see how, without too much squinting, the report might be interpreted as a greater acceptance of the whole global warming doctrine, even if the White House now says it hasn't changed its position. EPA boss Christie Whitman sure has a knack for blind-siding her boss; someone should inform her that Al Gore lost the election.

Whether it was sloppy language, a runaway EPA, or truly a change in position, you'd think the Administration would know better than to hand the green lobby such an easy target. In February, when Mr. Bush laid out a voluntary plan for reducing greenhouse emissions, environmentalists wrote it off as "window dressing." They have now seized on the EPA report as an "admission" and are renewing calls for Kyoto.

The good news in all this is that the Administration truly appears determined to stay out of Kyoto. "The Kyoto treaty would severely damage the United States economy, and I don't accept that," Mr. Bush said yesterday. Though you'd never know it from the media reports, the most important part of the EPA tome was that it dared to say the great unsaid: Even if you do believe in global warming, there's only so much that can be done. In other words, Kyoto won't help.

Kyoto's ineffectiveness remains the great dirty secret of the treaty, one its creators have been eager to hide under piles of statistics.

By Michael A. Ledeen

Ayatollah Ruhollah Khomeini, the Iranian Islamic Republic in the creation of modern Iran, died in 1989 on the 15th day of the Iranian calendar, the 30th day of the Islamic calendar. The mullahs were in a good mood; they had just won a major victory in the Iran-Iraq War. The Islamic Republic was on the rise, while the Western powers were on the decline. The mullahs were confident that they could now impose their will on the West.

The terror spectrum comes into focus with the 1989 terrorist attacks on the French aircraft carrier "Chamou" and the Israeli embassy in Rome. The attacks were carried out by Hamas, a terrorist organization that was founded in 1987 by Yasser Arafat and other Palestinian radicals. The attacks were a clear message to the West that the mullahs were willing to use violence to achieve their goals.

The world is a better place when the mullahs are not in power. The Iranian people have a right to live in peace and prosperity. The West must not let the mullahs dictate the future of the region.
Europe to Create a Big Emissions-Trading Market

By John J. Fialka and Paul Hofheinz

The European Union is moving to set up what is likely to become the world’s largest emissions trading market, giving member nations a means to raise capital while finding cost-effective ways to reduce the output of carbon dioxide and other gases thought to be warming the earth’s atmosphere.

Meanwhile, parliaments in Canada and New Zealand voted approval for their governments to ratify the Kyoto Protocol on climate change, overcoming strong opposition by business groups in each country. The treaty, however, remains pending until sometime next spring when Russia’s expected approval will give it enough support to come into legal force.

Approval by environment ministers from the EU capped a five-year effort to develop the emissions trading program, based on a U.S. model for reducing sulfur dioxide emissions. The final version was a compromise plan proposed by Denmark that would allow trading among members to begin by 2005, with stiffer penalties for evading national quotas on CO₂ emissions phasing in by 2008.

Margot Wallstroem, the EU’s environment commissioner, said the compromise kept the “architecture and the main design” of the European Commission’s plan, which gives states a three-year period to learn how to stay under emissions restrictions by trading. Under the trading regime, a European company can earn credits by reducing its emissions below a level set by government quota. The credits can then be sold for cash to companies that need credits to reach quota limits.

An emissions trading credit amounts to a license to emit a metric ton of CO₂. Nations will determine a given company’s quota, but the commission, the EU’s executive arm, retains the right to veto a given nation’s allocation plans. It remains unclear how U.S. companies might use the system. Under the Kyoto Protocol nonmembers can buy credits but can’t sell them. The Bush administration has rejected the treaty.

Steve Drummond, managing director for CO2e.com, a London-based emissions trading affiliate of Cantor Fitzgerald LLP in New York, estimated that the EU emissions trading market could have trading volumes of as much as $7 billion a year when the market fully matures in 2012.

“There is a strong expectation here that this means the political deal has been done and everyone is happy with it,” said Mr. Drummond, who noted that Europe’s parliament could still change it. He estimated that the eventual price of an emissions credit would be around $7 a ton by 2010. Because European companies will find their emissions reduced under the so-called cap and trade system, they have to resort to either energy efficiency increases or trading to reduce their emissions by some 400 million to 500 million tons a year to comply with the regulation, he said.

Under the treaty, European nations agreed to cut emissions by 8%, based on 1990 levels. But Ms. Wallstroem warned that the EU as a group may only reach a 4.7% reduction by 2010 because some member nations’ reduction efforts are falling short, particularly Luxembourg, Finland, Sweden, France, Spain and Portugal.

They estimate a cost of $7 per ton of traded carbon by 2010.

• This is a very low cost estimate.

Under the Kyoto protocol, Europe agreed to reduce its carbon emissions in 2012 by 8% compared with 1990.

• She says EU may only reach a 4.7% reduction by 2010.

• Some nation’s efforts are falling short, especially France, Spain, Portugal, Sweden, Finland and Luxembourg.
News: Analysis & Commentary

up public pressures risk being counterproductive. Although Occidental Petroleum Corp. Communications Vice-President Lawrence P. Meriah says the company talks regularly with groups such as Human Rights Watch and the World Wildlife Fund, "you can't have serious discussion with people taking to the streets."

Nonetheless, critics have new attacks in the works against corporations, including some linked to the larger anti-globalization efforts. Oxfam UK, a British group, plans to step up its battle to get Pfizer and other drug manufacturers to provide free or low-cost drugs to poor countries, says spokesman Arup Biswas. It's also pressuring companies to oppose WTO rules on drug patents that keep prices high in developing countries. UNITE, the U.S. garment workers union, soon will launch a campaign, tied to the September IMF/World Bank meetings, against large retailers that buy goods made in sweatshops. And on July 24, a few dozen people picketed Exxon Mobil Corp.'s London offices to protest the "watered down" Kyoto pact.

Yet violent images from Genoa aside, mainstream protesters and business and political leaders remain hopeful they'll work out their differences, at least someday. But until marchers are convinced that the issues they feel so passionate about get a fair hearing, they'll go right on making life difficult for governments and companies alike.

By Aaron Bernstein with Lorraine Woellert and Paul Magnusson in Washington, David Fairlamb in Genoa, Christina White in Paris, and Michael Arndt in Chicago, and bureau reports

COMMENTARY
By Paul Raeburn

THE CLIMATE PACT: IS THE FORECAST BRIGHT?

While anti-globalization protesters in Genoa commandeered the world's TV coverage, environment ministers meeting in Bonn, Germany, took a step toward a post-petroleum world. The world's biggest energy users—with the notable exception of the U.S.—agreed to set limits on emissions of the greenhouse gases that can lead to global warming. They established penalties if the limits weren't met. And they created programs to trade emissions credits and encourage emissions reductions in developing countries.

The agreement left the U.S. isolated on the issue of climate change. That leaves a big hole in the treaty. The U.S. is responsible for 25% of global greenhouse gas emissions. President Bush, who withdrew from the Kyoto Protocol earlier this year, has yet to offer an alternative.

Does that mean, as critics and the Administration contend, that without the U.S., progress will be impossible? Not at all. The accord represents an important step. It extends the 1997 Kyoto Protocol, which called upon industrialized countries to cut emissions to at least 5% below 1990 levels by 2012—or some 20% below likely emissions levels without a cap.

"This is no more smoke-and-mirrors," says Connie Holines, a vice-president at the National Mining Assn., "but a prudential step to help mitigate the dangers of climate change."

But the Kyoto Protocol has already been weakened. Some companies in the U.S. have already embraced the goals of Kyoto. DuPont has pledged by 2010 to reduce its greenhouse emissions to 65% below 1990 levels. The company has shown it can live up to its promises. It was once the world's largest maker of CFCs, but now has ceased production.

Environmental activists

The Bonn agreement puts to rest the notion that the rest of the world would wait for U.S. input before setting greenhouse-gas limits.

Economic analysis

Yet environmentalists still face a long road ahead. The Kyoto Protocol and Bonn accord will cause economic disruption, especially in fossil-fuel industries. But the scientific consensus is that failure to take action could lead to widespread droughts, disruption of agriculture, and flooding of coastal cities. That would create far more economic devastation than Kyoto.

Senior writer Raeburn covers the environment from New York.
Rebuked on Global Warming

Nothing so far has shamed President Bush into adopting a more aggressive policy toward the threat of global warming. He has been denounced by mainstream scientists, deserted by his progressive friends in industry and sued by seven states. Still he clings stubbornly to a voluntary policy aimed at merely slowing the growth of greenhouse gas emissions, despite an overwhelming body of evidence that only binding targets and a firm timetable will do the job.

Now there is fresh criticism from sources Mr. Bush may find harder to ignore. Last week Prime Minister Tony Blair of Britain, Mr. Bush’s most loyal ally in the debate over Iraq, gently but firmly rebuked the president for abandoning the 1997 Kyoto Protocol on global climate change and for succumbing to the insupportable notion that fighting global warming will impede economic growth.

That was followed by another salvo, from an expert panel assembled by the National Academy of Sciences to assess Mr. Bush’s proposals for further research into climate change. Though polite, the panel could hardly have been more contemptuous. It described Mr. Bush’s plan as a redundant examination of issues that had largely been settled, bereft of vision, executable goals and timetables — in short, little more than a cover-up for inaction.

Of the two rebukes, Mr. Blair’s may have been the more painful. The prime minister said he regarded environmental degradation in general and climate change in particular as “just as devastating in their potential impact” as weapons of mass destruction and terrorism. “There will be no genuine security,” he said, “if the planet is ravaged.” He also pledged to cut Britain’s greenhouse gas emissions by 60 percent by midcentury, a longer-range but still a far more ambitious timetable than Kyoto’s target of an average 5 percent reduction by industrialized nations by 2012.

Mr. Blair’s speech obviously served the political purpose of distancing himself from the White House, at least on this issue, at a time when many of his countrymen have criticized him for his support of Mr. Bush on Iraq. It should also be noted that, in strictly economic terms, it is easier for Mr. Blair to hold the high ground on this issue than it is for Mr. Bush. Prime Minister Margaret Thatcher’s wrenching decision some years ago to convert Britain’s energy base from coal to natural gas, a much cleaner fuel, has already moved Britain closer to Mr. Blair’s lofty targets than it otherwise would have been.

Nevertheless, the prime minister’s approach is everything Mr. Bush’s is not. It conveys a sense of urgency, calls for common sacrifice and offers a coherent vision of how to get from here to there. It is, in short, a recipe for the leadership that until not too long ago the world had been looking to America to provide.
Global Warming Bills Could Sneak Through Congress

BY MYRON EBBE!

The scientific case for global warming alarmism grows ever weaker, and President Bush has long since announced he will not submit the Kyoto global-warming treaty to the Senate for ratification, but congressional liberals are still making mighty efforts to revive this dead horse.

In the next few weeks they will try to saddle several pieces of legislation with global-warming amendments. Four of the Senate's leading global-warming grandstanders, John McCain (R.-Ariz.), Joseph Lieberman (D.-Conn.), John Kerry (D.-Mass.), and James Jeffords (I-Vt.) are likely to play prominent roles in the follies on the Senate floor. But so far the real action has been in two committees.

In March, Senate Energy Committee Chairman Pete Domenici (R.-N.M.) released a draft of comprehensive energy legislation for comment. The draft included a climate title that would create a White House climate czar, require the administration to produce a strategy to "stabilize and over time reduce net U.S. emissions of greenhouse gases," and give companies incentives for producing less energy.

Limiting greenhouse gas emissions, which is also the goal of the Kyoto treaty, would require Americans using much less coal, oil, and natural gas, since these three fuels now provide most of America's energy. Switching to alternatives would raise prices dramatically for American consumers, in the process weakening the U.S. economy.

Domenici's plan was to give the global warming alarmists half a loaf and hope that they would be satisfied. Alas, appeasement doesn't work when dealing with environmental pressure groups. Good conservatives on the committee asked that the climate title be removed. A coalition of conservative and free-market groups (led by my own Competitive Enterprise Institute) kicked up a ruckus in public. Domenici listened and proceeded to pass his energy bill out of committee on April 30 without any climate provisions.

Let it Die

But that is not the end of the story. When the energy bill comes to the Senate floor, probably in the next week or two, global warming amendments will be offered by the usual grandstanders and may pass. The energy bill passed by the House on April 11 contains nothing on global warming. So it will be up to a House-Senate conference committee to work out the differences if the Senate puts something in.

Turning to the Foreign Relations Committee, on April 9 Chairman Richard Lugar (R-Ind.) accepted Ranking Member Joe Biden's (D-Del.) "sense of Congress on climate change" amendment without a vote. Biden's amendment proclaims global warming alarmism as established scientific fact and then calls for Kyoto-style rationing policies to cut greenhouse gas emissions. To top everything, it then calls on the administration to negotiate a new climate change treaty with binding commitments to cut emissions. This is so goofy it's hard to believe. The answer to a disastrous treaty is to let it die, not clone it.

The House International Relations Committee is expected to take up the issue May 7. Last year, Rep. Robert Menendez (D.-N.J.) attached an amendment similar to Biden's on a 23-to-20 vote. Four Republicans missed the vote, and moderate Republican Chris Smith (R.-N.J.) voted with the Democrats.

Menendez is expected to offer his amendment again, but the result could be different because this time the Republicans are prepared. Chairman Henry Hyde (R.-Ill.) is assembling the votes to defeat it. The House Republican leadership is adamantly opposed. And a coalition of conservative and free-market groups has formed to apply public pressure. So it's the same old story: conservatives must count on House Republicans to save the day.

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