

The Politics of Energy

by Sylvia Pilz and Himangi Zanpure-Sattler

Undeniably, energy is fundamental for economic performance. At the same time, most experts agree that greenhouse gas and carbon emissions are related to all facets of energy use in the economy. Global climate change is one of the key concerns of the 21st century, with serious implications for economies, societies and the environment. A central challenge is the integration of climate and environment policy objectives into other sectoral policy areas.

The present article is an attempt to outline the characteristic problems faced by the United States as a function of high energy consumption, growing energy needs and a lack of agreement on how to reconcile the environmental concerns. We will also take a look at the National Energy Plan of the Bush Administration and the on-going debate around the Energy Bill, currently a hot issue in Congress.

Consider These Figures.....

In 2001, 3 countries – the United States, Russia and China, with a combined population of 1.71 billion out of a global 6.30 billion - were the leading producers and consumers of world energy. They together produced 38% and consumed 41% of the world's total energy. The United States is the global leader in energy consumption. In the year 2001, it made up almost a quarter of the world's primary energy consumption. Primary Energy includes coal, natural gas, petroleum, and electric power (nuclear, hydro, alcohol fuels, geothermal, solar, wind, and wood and waste). Out of the world consumption total of 403.92 quadrillion Btu (British thermal unit), the United States alone consumed 97.05 qBtu. To compare, Canada spent 12.51 qBtu of energy and Austria contented herself with 1.42 qBtu, France consumed 10.52 qBtu, Germany used up 14.35 qBtu and Angola and Bangladesh claimed their share of 0.09 and 0.51 qBtu respectively.

Now translate this into per capita figures and it becomes obvious that the U.S. has one of the highest per capita energy needs in the world - 341.8 million Btu. (incidentally, the per capita energy consumption in Canada is even higher - 402.6 million Btu). The average per capita in western Europe ran to about 150 million Btu. In France the per capita consumption was 177.8 million Btu, in Austria it was 175 and in Spain 141.5 million Btu. To continue with our example of Angola and Bangladesh, the per capita figures were really modest: 6.9 and 3.7 mbtu respectively. In the U.S. the transportation sector alone gobbled up over 27% of total energy, being only surpassed by the industry with a narrow margin. World-wide, the United States remains the single largest consumer of energy, matching its share of energy consumption with its share of GDP (Gross Domestic Product) in the world total.

- *Useful energy statistics from the Energy Information Administration of the U.S. Department of Energy (<http://eia.doe.gov/emeu/iea/>)*
- *Energy Statistics from the International Energy Agency (<http://www.iea.org/statist>)*

In the United States coal, oil and natural gas and nuclear energy represent the chief sources of energy production.

Black-Out

Traditionally, the US has depended on coal as a major source of primary energy and in particular, for electricity generation. In the U.S. in 2001 more than half of total domestic electricity generation was from coal, whereas only 20% came from oil and gas together, the same as from nuclear energy.

Worldwide, according to the Energy Information Agency (EIA, <http://www.eia.doe.gov/>) of the U.S. Department of Energy, coal use is expected to decline in Western Europe, Eastern Europe, and the former Soviet Union. Increases are expected in the United States, Japan, Australia, New Zealand, and developing Asia, in particular, China and India. In Western Europe, coal consumption declined by 30% between 1990 and 2001 displaced in large part by the growing use of natural gas and, in France, nuclear power, where it constitutes 77% in electricity generation. A similar decline occurred in the countries of Eastern Europe and the former Soviet Union where coal use fell by 40 percent between 1990 and 2001 as a result of the economic collapse that followed the breakup of the Soviet Union, as well as some fuel switching. In 2001, coal provided 24 percent of world primary energy consumption, down from 26 percent in 1990 and is projected to fall to 22 percent by 2025.

The Oil Factor

The U.S. meets just under one third of its demand for oil domestically, and imports about 9,651 thousand Barrels per day. The top exporters to the U.S. of oil in recent years have been Saudi Arabia, Mexico, Canada, Venezuela and Nigeria. The relative importance of each supplier has varied periodically, shaped to a certain extent by the reigning political circumstances. The NAFTA partners Mexico and Canada have become major suppliers to the U.S. market in the past decade. Since 1991 (first Gulf War) Canada has been the second largest exporter to the US, Saudi Arabia being the number one with more than 1,600 thousand barrels per day. Mexico as a major exporter entered the fray in 1993 and has held top ranks ever since. Venezuela, an OPEC member, supplied 1,538 thousand barrels a day in 2001. The share of OPEC in total oil supplies to the U.S. has fallen from around 53% in the early 90s to about 45% since 1995. Iraq's oil has been reaching the world market through the "Oil for Food" program of the United Nations, but in modest measures.

Renewables: Can They Ever Catch Up?

The share of renewables in the total U.S. energy consumption constitutes a meagre 5.7 qbtu, or about 6%. Hydropower has the lion's share (which, incidentally, has been steadily decreasing over the decades) and the rest is contributed by geothermal, wind, solar and wood and waste energy combined.

The current debate around energy from hydrogen is not about the "if", but about the "how". There is disagreement between the Americans and the Europeans about the "how". The Europeans are convinced that renewables have to form the cornerstone of a future hydrogen energy economy. The Americans are determined to find ways to produce hydrogen from nuclear energy and by using cleaner coal-burning technology. In his State of the Union address of January 2003 President Bush declared: "In this century, the greatest environmental progress will come about.....through technology and innovation. Tonight I'm proposing \$1.2 billion in research funding so that America can lead the world in developing clean, hydrogen-powered automobiles."

In order to get a complete picture, the energy consumption figures have to be seen in the context of their effect on the environment and public health.

- *For more on hydrogen, see the article in this issue by Stephan Neuhäuser 'Hydrogen – the Ultimate Freedom Fuel?'*
- *Text of President Bush's State of the Union address (<http://www.whitehouse.gov/news/releases/2003/01/20030128-19.html>)*

Greenhouse Gases: A heavy burden to carry

Threats posed by climate change, air pollution and endangered ecosystems remain global in nature. The problem becomes particularly acute in a country that has only 4% of the world's population, but emits nearly 25% of the total global greenhouse gases. The chief culprits here are the fossil fuels: petroleum, natural gas and coal. The United States continues to be the largest single national source of fossil fuel-related CO2 emissions, with 1.5 billion metric tons

carbon equivalent in 2001, - although its share of global emissions did decline from 44% to 24% in the period 1950-1990s because of higher growth rates in other countries.

The U.S. Energy Information Administration projects that carbon dioxide emissions will continue to increase by an average rate of 1.5% per year. If current trends continue, CO₂ concentrations would increase by 30 - 150% by the year 2100. 39% of U.S. fossil-fuel emissions stem from the consumption of petroleum products and 38% from coal usage. In 1999, the U.S. consumption of coal was 20,498.0 Trillion Btu, that of natural gas and petroleum 22,294.9 Trillion Btu and U.S. 37,960.01 Trillion Btu respectively.

- *The International Energy Annual 2001 of the Energy Information Administration* (<http://www.eia.doe.gov/emeu/iea/overview.html>)
- *A Compendium of Data on Global Change 2002 by the Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, U.S. Department of Energy* (http://cdiac.esd.ornl.gov/trends/emis/tre_usa.htm)

Regional Impacts Of Growth And Climate Change In The U.S.

Due to great geo-physical and demographic differences in the country, the nature of environmental problems varies regionally. The Southeast has faced frequent natural weather disasters in the past 20 years, costing the region over \$85 billion in damages, mostly associated with floods and hurricanes. At the same time, the heat wave and drought of 1998 resulted in damages in excess of \$6 billion and 200 deaths.

In the West, population figures have quadrupled since 1950, with major concentrations in urban areas accompanied by problems of water shortages, high levels of air pollution and urban sprawl. California, the most populous state with 35 million inhabitants (about 8% of total U.S.) alone accounted for almost 11 percent of all freshwater used in the United States in 2002. Most of the water used in California was for crop irrigation; in fact, 22 percent of all the Nation's irrigation water used was in California.

What scientists agree on is that climate change has become a global phenomena; disagreement remains about the extent of influence of human activity on these changes. Policy-makers today face the challenge of visualizing alternative futures in concrete and human terms for a regional mosaic of consequences that are possible due to climate change and variability.

- *The U.S. Census Bureau of the Department of Commerce* (<http://www.census.gov/>)
- *Findings of the U.S. Global Change Research Program (an interagency research program,* <http://www.usgcrp.gov/usgcrp/Library/nationalassessment/overviewregions.htm>)

Though the effects of most environmental problems can be measured in monetary terms, their impact on human health is harder to quantify.

Worldwide, low lying ozone and air pollution have led to elevated rates of cardiac and respiratory illnesses and deaths in recent years. The Environmental and Energy Study Institute (EESI, <http://www.eesi.org/>) in its report "Public Health Impacts of Climate Change" of July 2002 cites a study conducted in 1997 by the Working Group on Public Health and Fossil-Fuel Combustion, comprised of the World Health Organisation (WHO, <http://www.who.org>), World Resources Institute (WRI) and others. The study estimated that world-wide up to 700,000 deaths annually were related to air pollution and roughly 8 million excess deaths could occur by 2020.

Some Like It Hot?

Heat waves are not just continually claiming lives around the globe; fainting, heat exhaustion and heat stroke pose constant risks to human health as the frequency and intensity of heat waves increases. The IPCC report mentioned previously predicts that by the second part of

this century roughly half of the world's population may live in areas where malaria is prevalent as a result of climate change. It looks like the only ones who won't be complaining about the rise in temperatures will be the mosquitoes and other blood feeding insects who will enjoy longer breeding and virus transmission seasons.

- ❑ *Study EESI: Public health impacts of climate Change*
(<http://216.239.37.100/search?q=cache:kj9xHziMPyJ:www.eesi.org/publications/>)
- ❑ *Physicians of Social Responsibility* (<http://www.psr.org>)
- ❑ *see this issue's guest article "Preventing or Curing Climate Change?" by Dr. Thomas Lörting, an award-winning Austrian scientist in the Group of Professor Mario Molina at the Department of Earth, Atmospheric and Planetary Sciences, MIT Boston.*

The above paragraphs contain but a few challenges that the world is facing today on energy and environment issues. There are no tailor-made solutions to the problems; at best there are initiatives and resolutions which depend on national and individual commitment for their successful implementation.

Global Initiatives On Environment and Energy

The 2nd Earth Summit of 1992 in Rio de Janeiro, Brazil turned out to be the largest gathering of world leaders ever. The Earth Summit created the United Nations Framework Convention on Climate Change, also known as the Rio Convention. This convention, perhaps too ambitiously, called upon the world to stabilize 1990 greenhouse gas emissions by 2000. Both Canada and the United States signed and ratified this convention. Importantly, former U.S. President George Bush negotiated an agreement to allow developing nations to increase emissions, the reason they are not included in the Kyoto Protocol.

At the third Conference of Parties (COP) to the Rio Convention in 1997 in Kyoto, Japan, new targets for controlling greenhouse gas emissions were set. The regulation of CO₂ emissions was the main item on the agenda, with varying targets set for varying countries. The onus of reducing most of the emissions lies on the so-called Annex B countries (United States, Canada, Australia, New Zealand, Japan, European Union, Russia, Ukraine and Eastern European countries). The European Union operates under a "bubble", a system whereby quantitative emission divergence among the operating countries is allowed as long as the aggregate quantified emission stays within the set target. (to illuminate: EU target is 92%, Austria has committed itself to a reduction to 87% of 1990 levels, Greece may reach 125% of the same within the set time-frame).

Under Kyoto, the Clinton Administration committed itself to reducing greenhouse gas emissions to 93% of 1990 levels by the year 2012. But even before President Bush made it clear that he did not support the provisions of the Kyoto Protocol, the Senate, in 1997 had delivered its verdict. The Byrd-Hagel Resolution (Senator Byrd, http://byrd.senate.gov/byrd_bio/byrd_bio.html, a West Virginian Democrat, is serving the eighth consecutive six-year term in the U.S. Senate; Senator Chuck Hagel, <http://hagel.senate.gov/>, is a Republican from Nebraska) passed in July of that year by a margin of 95-0, thus transcending all partisan lines, stated that the U.S. Senate will not ratify any international agreement on greenhouse gases emissions under the United Nations Framework Convention on Climate Change that "would impose binding limits on the industrialized nations but not on developing nations within the same compliance period and would result in serious economic harm to the economy of the United States."

On March 13, 2001 President Bush wrote to four conservative Senators – Hagel, Helms, Craig and Roberts - outlining his opposition to the agreement, referring in it to the Senate's vote in 1997 against the Protocol. In that letter, the President repeated the economic reasoning used by the Senate in it's time. The President reiterated his commitment to address global climate change issues in the context of a national energy policy. "Any such strategy [multi-pollutant strategy to require power plants to reduce emissions of sulfur dioxide, nitrogen oxides, and mercury] would include phasing in reductions over a reasonable period of time, providing regulatory certainty, and offering market-based incentives to help industry meet the targets. I do not believe, however, that the government should impose on power plants man-

datory emissions reductions for carbon dioxide, which is not a 'pollutant' under the Clean Air Act."

Until the official announcement by Environmental Protection Agency Administrator Christine Todd Whitman on March 27 2001 that the Administration had "no interest in implementing that treaty", meaning the Kyoto Protocol, there had still been some hope in the European Union and Japan that the Bush Administration would resort to further negotiations to change some of the rules to better suit it's agenda. Greenpeace said that Bush's decision was driven "by oil, coal and gas interests" and expressed it's outrage at the decision in the following words: "Greenpeace is disgusted and appalled at the United States".

The Administration's stand found support and applause among U.S. industry groups like the Global Climate Coalition.

- *Letter from the President to the Senators*
(<http://www.whitehouse.gov/news/releases/2001/03/20010314.html>)
- *National and international reactions to the U.S. withdrawal from Kyoto*
(<http://www.climnet.org/news/march2001.html#bushkp>)
- *Byrd-Hagel Resolution of 1997 on rejection of Kyoto Protocol*
(<http://thomas.loc.gov/cgi-bin/bdquery/D?d105:1:./temp/~bdeddZ:@@@L&summ2=m&/bss/d105query.html>)

Putting The Nation On A New Path: The National Energy Plan

After just two weeks in office, in January 2001 President Bush set up a National Energy Policy Development Group, headed by Vice-President Cheney directing it to "develop a national energy policy designed to help the private sector, and, as necessary and appropriate, State and local governments, promote dependable, affordable, and environmentally sound production and distribution of energy for the future."

The task force was directed to develop a long-term comprehensive national energy policy. The basic premise was that the prosperity of the country and the American Way of Life require a steady and reliable supply of large amounts of energy. In it's report the Group made the case that a fundamental imbalance between supply and demand defines the nation's current energy crisis and that if energy production will increase at the same rate as during the last decade the projected energy needs will far outstrip expected levels of production. To correct the imbalance between supply and demand a 3-pronged approach was recommended: achieve greater energy efficiency, modernize energy infrastructure, and increase energy supplies. The fact that "America leads the world in scientific achievement, technical skill, and entrepreneurial drive" and possesses "abundant natural resources, unrivaled technology, and unlimited human creativity", the report surmised, should come in good stead to meet the goals.

Very few of the recommendations in the report concerned demand side corrections. Federal agencies were encouraged to take actions to conserve energy use in their facilities and increase funding for renewable energy and energy efficiency research and development programs.

The recommendations to increase supply and reduce dependency on foreign energy were manifold. The existing energy infrastructure, warned the report, was in dire need of modernization and repair. In addition, in order to avoid supply bottle-necks 38,000 miles of new natural gas pipelines and about a quarter million miles of distribution lines would be required.

The Plan made a strong case for increasing energy production capacity. To strengthen it's case, the Plan presented the following estimates: over the next 20 years, U.S. oil consumption would increase by 33%, natural gas consumption by over 50% (one of the reasons for this high demand is that about 90% of all new electricity plants under construction would be fueled by natural gas) and demand for electricity would rise by 45%.

The fact that in recent years natural gas has increasingly substituted coal in energy generation is a result of the recognition world-wide that natural gas, though not the cleanest technology, does produce lower levels of harmful emissions than coal.

One specific recommendation of the Plan was to open the Arctic National Wildlife Refuge (ANWR) to oil and gas exploration. The recommendations with regards to coal went towards maintaining the status quo. The way President Bush and his team saw it, time was not yet ripe for decreasing the dependence on coal, since, as they put it “the U.S. has enough coal to last for another 250 years”. Perhaps to take away some of the force of the criticism that might possibly ensue, the Plan made a recommendation in the same breath to provide \$2 billion over 10 years to fund clean coal technology research. Discernible readers might remember from a previous article in *Voices on U.S. R&D budget* that the R&D budget for the FY 2004 alone is \$122 billion!

Increased use of nuclear energy for power generation was also advocated in the report, citing the examples of countries like France and Japan that rely heavily on nuclear energy. The legislators were called upon to enact “multi-pollutant” legislation with an aim to cap emissions of sulphur dioxide, nitrogen oxide and mercury from electric power generators. The recommendation omitted any mention of carbon dioxide as a pollutant, which is, in fact one of the main sources of greenhouse gases. We will consider the implications of and political reasons behind this omission in our article on Clean Air and the legislation around this issue.

- *Report of the National Energy Policy Development Group*
(<http://www.whitehouse.gov/energy/>)

The Congress, Environment And Energy

The 107th Congress (2001-2002) that convened after the Presidential elections of 2000 was faced with a tough challenge – how to reconcile the Congress’s commitment of the past decade to enact legislation to protect the environment with the new agenda of the Bush Administration on environmental and energy matters, specifically the National Energy Plan. The Bush agenda on energy, environment, and the handling of corporate interests differed in many regards from that of the previous administration’s. The Congress Senators and Representatives very soon found themselves confronted with the task of transforming that agenda into legislation or rather, from preventing that agenda being transformed wholesale into legislation.

In June 2001, the House blocked the Interior Department from issuing permits for coal mining and oil and gas drilling in national monuments, in 2002 it passed the Bipartisan Campaign Reform Act (BCRA) which aimed to reduce the disproportionate influence of special interests through donations to election campaigns. One of the notable achievements in favour of protecting the environment was the passing of the brownfield legislation that would help revitalize abandoned industrial sites around the country.

Post September 11, “homeland security” took on a new meaning. For the energy policy of the country it meant a dramatic shift of emphasis on the need to take urgent steps to reduce U.S. dependence on oil from volatile and “hostile” regions of the world. The Administration started pushing for swift legislation to allow drilling for oil in America’s pristine wilderness.

Sweeping exemptions from environmental laws such as the Clean Air Act and the Endangered Species Act were sought for the Department of Defense and as part of the Homeland Security Bill corporations were granted broad exemptions from public disclosure about spills, leaks and pollution releases.

The movement and discussion around the comprehensive Energy Policy Act of 2002 (H. R. 4) in the 107th Congress and the inability of that Congress to find common acceptable grounds on energy legislation are a clear reflection of the tug-of-war that took place in the Congress.

Senator Tom Daschle (<http://daschle.senate.gov/>), a Democrat from South Dakota, the then Senate majority leader stood strong on environmental issues, and in particular on the issue of oil drilling in the Arctic National Wildlife Refuge (ANWR) with solid backing from Senator Jim Jeffords (Independent from Vermont, <http://jeffords.senate.gov/>) as Chairman of the Environment and Public Works Committee and Senator Jeff Bingaman (Democrat from New Mexico, <http://bingaman.senate.gov/>) of the Energy and Natural Resources Committee.

A renewal of the debate over key energy issues including the newly proposed Energy Bill in the current 108th Congress will very likely reflect a shift in priorities as a result of the new Senate leadership which went to the Republicans in the wake of the mid-term elections of October 2002 and the ensuing changes in committee chairmanships in both Chambers of the Congress. The turbulent events of the past year, viz. the war in Iraq and the crisis in Venezuela, a major oil supplier to the US will undoubtedly contribute to the changed climate.

The Energy Bill: Solution In sight?

Introduced by Congressman Bill Tauzin (R-Louisiana, <http://www.house.gov/tauzin/welcome-english.htm>), who is the Chairman of the House Committee on Energy and Commerce (<http://energycommerce.house.gov/>) and a senior member of the House Resources Committee (<http://www.house.gov/resources/>), a comprehensive energy bill H.R. 6 was passed by the House on April 11, 2003.

The bill is a composite of separate measures approved by four House committees. H.R. 6 includes several provisions that were part of comprehensive energy legislation (H.R. 4) debated during the 107th Congress like energy efficiency and conservation, clean coal technology, and reauthorization of the Price-Anderson Act nuclear liability system. It would also establish a Renewable Fuels Standard for gasoline of 2.7 billion gallons by 2005 and 5 billion gallons by 2015, chiefly intended to increase the use of ethanol. The bill passed by the House would also eliminate the current 2% oxygenate mandate for reformulated gasoline (RFG), but would not ban MTBE (methyl tertiary butyl ether) outright. It is an additive used to improve combustion in RFG and an octane enhancer in non-reformulated gasoline. MTBE is notorious as a ground water contaminant and has been banned in 17 States including New York and California.

The bill also approves exploration, development, and production of oil in the Arctic National Wildlife Refuge (ANWR), it would seem, almost in defiance of the Senate. On March 19, 2003, almost a month before the House passed H.R.6, the Senate voted 52 to 48 in favour of an amendment introduced by Senator Barbara Boxer (D-CA, <http://boxer.senate.gov/>) to prevent consideration of drilling in ANWR in a fast-track budget reconciliation bill. (A "reconciliation" bill precludes Senate filibusters, which are procrastinating and obstructionist tactics in legislative assemblies. It has particular reference to the U.S. Senate, where the tradition of unlimited debate is very strong).

This was an astonishing development given the fact that the Senate is under Republican majority rule (Bill Frist, R-TN is the majority leader) and there had been hopes among Republican leaders that the takeover of the Senate would change the upper chamber's longstanding opposition to oil production in the Arctic Refuge. The hopes were shattered by 8 Republicans who sided with the Democrats against the drilling, including Senator John McCain (<http://mccain.senate.gov/>) of Arizona and Senator Lincoln Chafee (<http://chafee.senate.gov/>) of Rhode Island. The crucial votes came from Senators Norm Coleman of Minnesota and Gordon Smith of Oregon, whose position was not final until the floor vote. Senators from Alaska expressed their fury by saying that apparently caribou was more important than jobs for the people.

Alaska supposedly holds 30 trillion cubic feet of undeveloped natural gas reserves, about 18% of total U.S. reserves; these estimates have been disputed by many. The House bill limits the surface of "production and support facilities" to 2,000 acres, but leaves open the question of the distribution of these 2000 acres. The House bill also authorizes construction of a natural gas pipeline from the Alaskan North Slope to the lower 48 states, but allows the Federal Energy Regulatory Commission (FERC) – which must issue a certificate of convenience

and necessity for construction of the pipeline – to do so only for a southern route through Alaska, a route to which conferees on H.R. 4 had informally agreed.

ANWR: The Last Refuge?

The Alaska National Interest Lands Conservation Act (1980) established the Arctic National Wildlife Refuge (ANWR). In section 1002 of that act, Congress deferred a decision regarding future management of the 1.5 million acre coastal plain ("1002 area") in recognition of the area's potentially enormous oil and gas resources and its importance as a wildlife habitat. Drilling in this area began only after a report on resources of the 1002 area was submitted in 1987 to Congress by the Interior Department. The ANWR comprises 19 million acres out of which drilling is permitted in 1.5 million acres.

The proponents of drilling stress the need for increased self-sufficiency in natural gas production, so that a move away from coal can be speedened. The exploration would cover about 8% of the total area on the northern shore, leaving the other 92% untouched. If oil is discovered, less than 2000 acres would be affected. Additional employment of anything between 25,000 and 735000 would be created.

The main opposition stems from environmental considerations. Toxic and methane emissions, gas spills that contaminate the environment, encroachment upon the habitat of some of the most endangered species of wild and marine life like the bowhead whale are some of the issues that are obvious at first scrutiny. What the opponents fear most is the irreplaceable damage that will be done to one of the worlds last wildlife refuges. The laying of natural gas pipelines spanning the length of the State will inevitably lead to opening up of areas not within the drilling area. Drilling in remote corners of the Refuge will necessitate transportation infrastructure from areas of production to area of refining/consumption. And the main argument of self-sufficiency stands on wobbly legs: there is disagreement even among experts about the estimated oil reserves.

- *arguments for the drilling (<http://www.anwr.org/topten.htm>)*
- *U.S. Geological Survey assessment of oil reserves in ANWR (<http://pubs.usgs.gov/fs/fs-0028-01/fs-0028-01.htm>)*

The Last Word Has Not Been Said Yet

In the Senate, action on comprehensive energy legislation is in progress. On April 3, 2003 the Energy Tax Incentives Act of 2003 was referred to the Senate Committee on Finance. The bill foresees incentives in the form of tax credits for energy produced from alternative sources, for measures undertaken to increase energy efficiency and for investments in clean technologies. Out of the roughly \$18 billion in incentives over a 10 year period, \$5 billion is targeted to the oil and gas industry, \$2.6 billion to producers of renewable energy sources, \$2.4 billion for alternative fuels and fuel cell vehicles, and \$4 billion for utilities to implement electricity restructuring.

Most recently the Senate approved a plan to double the use of ethanol in gasoline to at least 5 billion gallons a year by 2012 and ban the use of MTBE. The measure introduced by Senator Bill Frist (R-Ten), the Senate Republican leader and by Senator Tom Daschle, his counterpart for the Democrats was approved 67 to 29. Supporters of the bill said that the measure would help energy independence by displacing up to 250,000 barrels of oil a day by 2012.

In a very surprising development on June 10th of this year Mr. Alan Greenspan, the Federal Reserve Chairman, expressed his worry before the Congress that short supplies and sharply rising natural gas prices could eventually contribute to 'erosion' in economy. The current price of natural gas at \$6.4 per million Btu is 74% above last year's level. At the same time, Mr. Greenspan said lawmakers should give new consideration to expanding the nation's capacity for nuclear power, a position that was narrowly embraced the next day by the Senate, which

voted 50 to 48 to keep new federal loan guarantees for the construction of nuclear plants in the emerging energy bill.

Close on the heels of Mr. Greenspan's testimony before the Congress, the Senate voted 54 to 44 to let the Interior Department measure the amount of gas and oil beneath the outer continental shelf. This is a victory for Messrs. Domenici and Tauzin, strong proponents of more offshore drilling. Legislators from Florida, California and other coastal states had successfully blocked new exploration along the coastline since the 80's. Democratic Senator Bob Graham of Florida called the provision a "prelude to a direct attack".

The Senate stood united on one front: more innovation from the country's leader. It adopted by a vote of 99 to 1 the proposal by Senator Mary Landrieu, Democrat of Louisiana, to require the President to develop a plan to decrease oil consumption by 1 million barrels of oil per day within a decade.

- *The Congressional research service reports are an excellent source of information on issues before the Congress (<http://www.ncseonline.org/NLE/CRS/>)*
- *For information on current and past legislation (<http://thomas.loc.gov/>)*

Only The Beginning, Not The End....

As great as the needs of this country for energy are, so are the issues surrounding it complex. The need for an environmentally sound sustainable energy policy is widely recognised among lawmakers in the country. Many initiatives are under way, also in a global context. One such initiative is the recent U.S.- EU summit to create an international partnership to develop hydrogen energy.

In the coming issues of the Voices Newsletter we will present to our readers an overview of and latest developments on the many facets that make up the environment and energy policy of the United States, beginning with Clean Air and Clean Water.

Further Links:

- *Pew Center on Global Climate Change (<http://www.pewclimate.org/>)*
- *U.S. Department of Energy (<http://www.energy.gov/>)*
- *Energy Information Administration (www.eia.doe.gov)*
- *Intergovernmental Panel on Climate Change (<http://www.ipcc.ch/%20>)*
- *Physicians of Social Responsibility (<http://www.psr.org>)*

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