

Political Climates and the Global Climate: The First Six Months of the Obama Administration and the Congress

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In December of 2009, the nations of the world who contribute much of the greenhouse gas (GHG) that is emitted into the atmosphere will gather in Copenhagen to work collectively on a treaty to succeed the Kyoto pact. The last time they gathered was in Amsterdam in December of 2000 to put the final touches on what became the Kyoto Treaty. The United States (US) was something of an outlier in the drawn-out discussion that had preceded the meeting in Amsterdam. But the differences between the US and the vast majority of other nations were being worked out. At the end of the conference, the US delegation returned to Washington, DC, with a sprinkling of optimism. It reported to the president that a couple of more months of negotiations in the new year could lead to a document that the US could sign.

But the new year brought in a new president; indeed, one might say a new regime. It had little concern with global climate warming. It cut off all further negotiations on the Kyoto accord. The world went ahead with an international plan to reduce GHG emissions without the participation of the world's greatest producer of GHG.

The world in 2009 is very different than it was in 2000. The industrial nations of the world, with the exception of the US, have been laboring for almost a decade to meet the emission targets set in the Kyoto Treaty. The next treaty must include the US and the big, rapidly developing, new industrial countries. Without them, no treaty can be a success, and to bring China, India, and

Brazil into a treaty will require the strong leadership of the US. There is a new president in the US who has declared that he takes global climate warming seriously. But President Barack Obama cannot assume leadership on the basis of rhetoric; he must arrive in Copenhagen with a coherent, intelligent, realistic long-range plan that makes sense not only from the perspective of the US but also from a global perspective. The president must also have effective legislation from Congress or be actively engaged in a fight to obtain it. Let us take a look at how they have been doing in the first six months.

Congress Begins to Act

At the time of this writing, the American Clean Energy and Security Act of 2009 (aka Clean Energy Act), a bill "to create clean energy jobs, achieve energy independence, reduce global climate pollution and transition [sic] to a clean energy economy" has been passed by the House of Representatives by a vote of 219 to 212. President Obama has praised its passage. As of July 1st, no bill has been introduced in the Senate. In the 1,300 pages produced by the House, one gets an idea of the strategy that likely will be employed to address reductions in GHG emissions in the US and of the important specific actions that will be used to implement this strategy. For pragmatic rather than predictive reasons, we are proceeding under the assumption that its major thrust will not be greatly modified in the Senate and that a final bill may or may not have been enacted by the time of the Copenhagen meetings. However, the case that Obama will bring to the nations collected in Copenhagen will reflect these major provisions of this bill. This Clean Energy Act is the environmental centerpiece of the first six months of the Obama administration and of the Democratic Congress dealing with global warming.

At the heart of the 1,300-page edifice are a set of targets expressed as percentages of

2005 emission levels of GHG up to 2050. The targets are 83% of 2005 emission levels by 2020, 58% by 2030 and 17% by 2050. A cap-and-trade mechanism has been designed to reach these goals. Normally, in a cap-and-trade system, allowances are auctioned by the government and then can be bought and sold by their owners. But, in the plan designed by the House, 85% of the allowances are to be given away until the 2020s. A system of offsets has also been created that may be used to substitute for meeting emissions requirements. For example, a coal-burning plant might have a need to emit 100 megatons of GHG for which it has no allowances. It could plant trees (or hire somebody to plant trees) someplace in the world to "offset" these emissions. This offset system is regulated by the Environmental Protection Agency (EPA), except for agriculture, which is regulated by the Department of Agriculture (DOA). (To the ancient warning of putting the fox in charge of the chicken coop, we must add a new one: putting the chicken in charge of the fox den.)

This cap-and-trade system apparently deals only with carbon dioxide (CO₂) emissions, which constitute about 85% of the GHG emissions in the US. The EPA is authorized to regulate non-CO₂ GHG emissions with the exception of those in agriculture, which fall under the DOA.

There was much concern in the House about how the cap-and-trade provision would affect prices, and care was taken to make that minimal. A two-page statement entitled "Proposed Allowance Allocation" accompanied the bill as it was reported out of the committee to the House. In the bill, Chairman Henry A. Waxman and Chairman Edward J. Markey from the Energy and Commerce Committee specifically called attention to the fact that the Clean Energy Act provides that allowances will be used to protect consumers of electricity, natural gas, propane, and heating oil from increases in costs, and that energy-

intensive, trade-exposed industries will receive allowances to cover their increased costs from the global warming protection program. In addition subsidies both in the form of tax credits and monthly cash payment are available to lower-income people to cope with any increased costs because of cap and trade. Very generous provisions are made for workers who might lose their jobs because of cap and trade.

There are also provisions to give rebates to owners and operators of companies in certain industrial sectors for GHG emission costs incurred under the cap-and-trade system. These rebates will be designed to prevent carbon leakage while rewarding innovation. Carbon leakage is explicitly defined. It refers to any substantial increase in GHG emissions by industrial entities located in other countries if such increase is caused by an incremental cost-of-production increase in the US caused by the cap-and-trade system. In 2020, if these types of costs are still being incurred, tariffs automatically go into effect.

One would think that a good cap-and-trade regime should be sufficient to reduce emissions. Just issue allowances that would cover only the total amount of GHG you want to be emitted in any given year. But the Clean Energy Act has hundreds of pages devoted to other remedies, mostly involving subsidies and directives. Most utilities producing electricity from fossil fuels are directed to produce 20% of their electricity from renewable sources by 2020. Up to 20% of the requirement may be met by demonstrated electricity savings. A dozen renewable sources are identified, but wind and solar are the primary ones that have the capability to provide a significant contribution by 2020. But since the sun shines only during the day and wind is unpredictably variable, little of the electricity generated from these sources can replace the coal-generated base load. They will largely replace natural gas, which is the most benign of the fossil fuels.

These requirements in the Clean Energy Act dovetail with some of the provisions of the American Recovery and Reinvestment Act of 2009 (ARRA, Public Law 111–115), the so-called stimulus package. This act extends the production tax credit for wind

facilities through 2012 and for other resources (biofuels, geothermal, incremental water power, municipal waste, etc.) through 2013.

The ARRA also contains an advanced energy-manufacturing investment tax credit of 30% that can be used to reequip, expand, or establish a facility designed to manufacture equipment that can be used to produce renewable energy (solar, wind, geothermal), fuel cells, microturbines, energy storage systems, and a host of similar products.

Because the market conditions in the spring of 2009 created such uncertainty about the future tax position of potential investors, the ARRA provides that projects that were eligible for investment tax credit or production tax credit could receive a grant for 30% of a project cost in 2009 and 2010 in lieu of the tax write-off. This program is administered by the Treasury Department.

The Clean Energy Act addresses the crucial problem of carbon capture and sequestration (CCS). It requires the administrator of the EPA to consult with other relevant agency heads and submit to Congress a comprehensive strategy to deal with the legal and regulatory barriers to the commercial-scale utilization of CCS. It also authorizes fossil fuel-based electric utilities to hold a referendum on the establishment of a Carbon Storage Research Corporation. If approved by two-thirds of the utilities, the corporation would be authorized to collect fees totaling about \$1 billion annually to finance large-scale CCS demonstration projects to facilitate the commercial application of CCS technologies. Again it supplements the stimulus package, which appropriates \$3.4 billion to the Office of Fossil Fuel Energy Research and Development for large-scale demonstration projects for CCS and energy efficiency.

The EPA is authorized by the Clean Energy Act to set new standards for coal-fired power plants in 2020 and after, and requires that plants built between 2009 and 2020 to meet these new standards by 2025. Aggressive action under this title will almost certainly be required to meet the goals

of a 42% reduction from 2007 levels by 2030 and 83% by 2050.

Another section, which addresses transportation, concentrates on electric and plug-in electric vehicles and flex-fuel (read ethanol) cars and trucks. Electric utilities are required to develop facilities to accommodate plug-in hybrid and all electric vehicles. The Secretary of Energy is required to establish a program to deploy and integrate plug-in vehicles across the country. State and local governments may apply for financial assistance to facilitate the use and deployment of plug-ins. The secretary must also establish a program to provide financial aid for automobile companies to facilitate the manufacture of plug-ins and for batteries. The stimulus package earlier appropriated billions of dollars to push the development and deployment of plug-ins and electric vehicles. A total of \$2 billion was specifically authorized to build a new factory to make batteries for cars. Another section provides authorization and directives to the EPA and the Department of Transportation to harmonize emission standards throughout the country, and to establish standards for heavy-duty trucks, off-road vehicles, marine engines, locomotives, and airplanes. Increasing industrial energy efficiency and the thermal efficacy in electricity generation are also addressed, and financial support for increasing efficiency in public institutions is authorized.

Higher standards for energy efficiency in buildings, lighting and appliances, transportation, and industry are also mandated by the Clean Energy Act. Technical standards are outlined that will increase energy efficiency in cooperation with state and several private organizations. Changes in the building code for new buildings are quite dramatic—the target for energy savings will rise by 30% as soon as the bill is enacted into law and rises to 50% commencing in 2016. There are also higher standards for the retrofitting of older buildings, both residential and commercial.

These provisions interface very neatly with portions of the stimulus package, and we will review some of them that are an important part of the total effort to reduce GHG emissions. About \$20 billion is focused on improving the energy efficiency

of buildings. Perhaps believing that it is wise to lead by example, the bill sends \$4.5 billion to the General Services Administration to create “high performance” federal facilities. A total of \$3.7 billion is directed to the Defense Department to improve the energy efficiency of its buildings. The Department of Veterans Affairs and the Department of Interior each receive \$1 billion that may be applied to “energy efficiency” or “energy projects.”

State and local governments will benefit from three programs directed by the Department of Energy. States received \$8.2 billion to subsidize energy-efficiency projects such as insulation, energy-efficient heating equipment, windows, water heaters, and air conditioners. Income eligibility has been raised from 150% to 200% of the poverty level. Additional funds are given to energy offices in all states and territories to design their own renewable-energy and energy-efficiency programs. Grants are conditioned on states adopting new energy-efficient building codes and “decoupling” utility rates from the total amount of energy utility companies provide.

The higher standards of efficiency in lighting and in appliances in the Clean Energy Act are very specific. The lighting provisions set standards in terms of the lumens per watt. A major effort is made to increase the efficiencies of consumer electronic and household appliances by creating incentives for both manufacturers and consumers. The objective of the program is to reduce costs to consumers over the life cycle of appliances, encourage innovations, and maximize energy savings.

The final parts of the Clean Energy Act deal more generally with adapting to climate change. One part deals with preparing the health system, another with the impact on natural resources, and a third proposes an international climate-change adaptation program dealing largely with developing countries.

What Have They Done?

The basic purpose of a cap-and-trade program is well known. It is to limit polluting substances efficiently and effectively. By lim-

iting the production of things that have a polluting by-product, it does two things. First, it raises the price and therefore reduces the demand. Second, it stimulates inventive and entrepreneurial activity to produce products that will reduce the price and make them more affordable. Increasing the price is the key. But the cap-and-trade plan put into effect by the Clean Energy Act does everything possible to prevent any price increase and consequently adds billions of dollars of subsidies to the federal deficit. It is based on a flawed assumption; namely, that the amount of money that people spend on a product depends only on the unit price. In fact, it is based on the unit price times the number of units bought. If the price of gasoline per gallon doubles and the number of miles a car gets also doubles, a person could continue to drive the same number of miles without any increase in cost. We can see the full implications of this if we look at the cost per ton of abatement of carbon dioxide equivalent (CO₂e).

The Cost of Greenhouse Gas Abatement

In all the discussion of GHG-abating technologies, wind energy, fuel from biomass, electric cars, etc., one almost never hears estimates of the cost per ton of CO₂ abatement if these technologies were adopted. Should that not be one of the central considerations in any GHG emissions-reduction policy? Data on the cost of abatement are notoriously scarce. Fortunately, a study published recently provides a mass of impressive figures on the cost per ton of abatement of a large number of technologies (US Greenhouse Gas Abatement Mapping Initiative, 2007). The research team conducting this study examined over 240 options for reducing net CO₂e emissions by 2030. The report concludes, “The US could reduce GHG emissions in 2030 by 3.0 to 4.5 gigatons of CO₂e using tested approaches and high potential emerging technologies. These reductions would involve pursuing a wide range of abatement options available at marginal costs of less than \$50 per ton” (p. ix).

Furthermore, it also shows that

almost 40 percent of abatement could be achieved at “negative” marginal costs

meaning that investing in these options would generate positive economic returns over their life cycle. The cumulative savings created by these negative cost options could substantially offset (on a societal basis) the additional spending required for the options with positive marginal costs. (p. xii)

The full significance of these potential reductions are apparent if we point out that a 4.5-gigaton reduction would put our emissions at 27% below 1990 levels.

The low cost per ton of abatement is a surprising outcome. But even more surprising is how far removed from popular conceptions are the most effective and inexpensive technologies. Some examples will illustrate. In the transportation sector, the study finds that upgrades in fuel efficiency in gasoline engines and increased use of diesel in cars would lead to annual reductions of CO₂e emissions of 95,000,000 tons at a negative cost of \$81 a ton. Similar improvements in engines for light trucks (including SUVs) would result in annual reductions of 70,000,000 tons at a negative cost of \$69 a ton. Virtually all the technology required for these proposed modifications is not only known, but is in wide spread use in other parts of the world. The study estimates that this technology would add \$700–\$1,400 to the cost of a new vehicle and provide an average of 38 miles per gallon for a gasoline-powered car and an average of 48 miles per gallon for a diesel. In contrast, it sees only a 20,000,000-ton abatement of CO₂e from plug-in hybrids at a positive cost of \$20 a ton. Ethanol from corn (or other starch) has no role to play at all. Its cost per ton of abatement is outlandish. Commercialization of cellulosic biofuels could provide abatement of 100 megatons of CO₂ at a negative cost of \$18 a ton, but the desirable product of this commercialization should probably be biodiesel or gasoline rather than ethanol because diesel and gasoline can be transported in pipelines and diesel can power an engine that is 20%–30% more efficient than an engine that would run on ethanol or an ethanol blend.

Data from the Energy Information Administration show that gasoline and diesel fuel

Table 1. Carbon dioxide emissions in million metric tons by fossil fuel type and economic sector

	Residential	Commercial	Industrial	Transportation	Power
Petroleum					
Gasoline	0	3.1	24.7	1,180.5	0
Liquid petroleum gas	32.8	5.8	52.8	1.7	7.4
Distillate fuel	52.6	29.6	90.6	472.5	0
Kerosene	2.9	0.07	1.3	0	0
Residual fuel	0	6.2	17.8	73.5	37.1
Jet	0	0	0	238.0	0
Other petroleum					21.2
<i>Total petroleum</i>	88.3	44.77	187.2	1966.2	65.7
Coal	0	6.8	172.2	0	1979.4
Natural gas	256	163.4	404.9	35.4	376.4
Total	344.3	214.57	764.3	2001.6	2412.5
Electricity end use	903.7	871.7	653.0	5.0	

Data for this table are taken from Energy Information Administration (2008, pp. 10–25).

use in transportation produced 1.653 gigatons annually of CO₂ emissions (see Table 1). The McKinsey study (US Greenhouse Gas Abatement Mapping Initiative, 2007) shows the possibility of 340 megatons of abatement. That is a 20% reduction and comes at billions of dollars of negative costs. That is money in the pockets of consumers that could be spent on other things—maybe some of it could even be invested in government bonds so that we would not have to borrow so much from foreign governments.

In the building and appliance cluster, very large abatements can be produced in changing lighting from incandescent to compact florescent bulbs and, after about 2015, to light-emitting diodes, better insulation, and more efficient heating and cooling equipment. Increased efficiency in electronic equipment, including reduced standby losses, would make a significant contribution to CO₂ abatement. The total abatements in this cluster range from 710 to 870 megatons at negative costs of \$60–\$70 a ton. It is incredibly cost effective, producing about \$65 billion a year that could be spent on something else. About 460 megatons of abatement come from less use of electricity. The data in Table 1 are instructive. They show that, in the residential and commercial sectors (about equivalent to the building and appliance sector in the McKinsey report), about 1,780 megatons of CO₂ from electricity is produced; 460 megatons is about 25% of the

figure and about 16% of the total CO₂ emissions produced from generating electricity. The annual savings would be about \$27.6 billion a year.

The power cluster in the report is the most problematic, yielding 800–900 megatons of abatement a year, but at a higher cost per ton than in any other sector. It includes 290 megatons of abatement from CCS at a positive cost of \$44 a ton and 70 megatons from nuclear power at \$9 a ton. Wind turbines on class 5–7 on shore wind zones would yield 120 megatons of abatement at a cost of \$20 a ton. And distributed residential and commercial photovoltaics would abate 50 megatons at \$29 a ton. The abatement from wind turbines would cost about \$2.4 billion annually and from photovoltaics about \$1.45. The abatement from these two technologies that command such attention in the US is small and the costs high compared to the other technologies analyzed in the study. These costs would either be reflected in higher electricity charges or come from the public purse. Congress has decided on the public purse.

The McKinsey report contains a number of crucial assumptions, one of which should be highlighted: levels of consumer utility are assumed to be maintained at preabatement levels. In other words, none of the savings result from people shifting to smaller cars, or deciding to commute

by public transport rather than driving, or by turning down their thermostats in the winter and up in the summer. Hopefully some of these changes will be made, resulting in the very cost-effective abatement of CO₂ emissions, but none of the reductions from such changes are built into the study.

Furthermore, all of the technologies required for the changes considered in this report are presently in use with two notable exceptions. First, the report assumes that technologies will be commercialized to convert cellulose into liquid fuels. Second, it assumes that by 2030 there will be technology in place for capture and sequestration of CO₂ from coal-burning plants. Although these are not unreasonable assumptions, it is unlikely that the technologies required will have much impact before 2020.

This study is not a pocket full of silver bullets that could be used to shoot down the threat of global climate warming. It is not even the blueprint for a policy to reduce GHG emission significantly by 2030. It is a rather more like a road map on which you can locate where you are now and where your destination is, and shows a number of alternatives paths on how to get from here to there. It also indicates that there are some paths you want to avoid.

The First Six Months in Perspective

President Obama has faced major problems in the economy and in foreign policy, aspects of which demand immediate and continuing action on both his and Congress's part. And the president has responded. He selected a brilliant economic team (or teams) with wide experience. In foreign policy, he has his people in the Defense Department, the State Department, and the United Nations, and has sent two of the most successful negotiators and peacemakers of the 20th century—George Mitchell and Richard Holbrook—into the most challenging trouble spots in the world.

Global climate warming is a different kind of problem. It is not less serious; indeed, it may present a more threatening future than economic collapse or Palestine and Afghanistan/Pakistan, but it is on an entirely different timescale. It doesn't make much difference if you deal with global climate warming now or in two years. If you could develop a much more effective course of action by taking a year or two longer, it would be worth the delay. But the Copenhagen meetings loom on the near horizon and that does demand urgent action, and Obama has not put together a powerful team to address global climate warming. His first six months show it. He has effusively praised the House version of the Clean Energy Act.

What Can Be Said About the Clean Energy Act?

First, it defines the problem accurately by calling attention to the fact that the stock of GHG in the atmosphere is the serious problem and we must stabilize that level. It also states clearly that it is the policy of the US to work under the United Nations Framework Convention on Climate Change to establish binding agreements with all GHG-emitting nations to contribute equitably to the reduction of GHG emissions. But what follows from these grand assertions does not stand up well.

Second, its goal is too modest. The goal of reducing GHG emissions 17% by 2020 will

be embarrassing if that is what the Obama team takes to Copenhagen. The industrial nations that will be there were all signers of the Kyoto accord and have reached, or are well on the way to reaching, emission levels at or below 1990 levels, which the US hopes to achieve by 2020. Therefore, they certainly have no reason to follow US leadership. They may laugh; they may cry. Probably the latter because it is hard to see how the world will address global climate warming effectively if the biggest polluter is the biggest laggard.

Third, giveaway of the allowances is a grave error. When the European nations started a cap-and-trade system to control GHG emissions, they gave them away in the first year. The value of the allowances fell to almost nothing, and little was done to reduce emissions. They had to put a price on emissions. If allowances are sold to those firms that find it most expensive to cut emissions, they will be willing to pay for allowances, while those that can make the cuts cheaply will do so. It is the cheapest way to reduce emissions. But if the allowances are given away, who gets them and, more importantly, who decides who gets what? We have the makings of a game that will make earmarks look like penny-ante poker.

Fourth, the bill is too expensive. The explicit goal of the Energy and Commerce Committee was to propose a program in which GHG emissions would be reduced, but that no higher costs would be imposed on anyone. This means there have to be enormous subsidies. How much? We do not know because no cost estimate accompanies the Clean Energy Act. Nor is there any evidence that the committee took any account of the costs per ton of GHG abatement. And, by protecting almost everyone from any increase in the price of energy, the Clean Energy Act throws out any significant use of what is perhaps the most effective instrument to reduce GHG: prices. Indeed, the modest increase in electricity prices as a result of the bill means that there will be little incentive to cut back usage by purchasing energy-saving appliances. Instead of cushioning consumers against the impact of price increases, the committee should have provided for the allowances to be auctioned and used the revenue to mitigate the impact of increased prices on the most vulnerable. Instead, this bill in effect

calls for increased taxes or, more likely, increased borrowing to mitigate the impact of price increases. In short, in the next ten years, this act does not do enough to reduce GHG emissions, but it will make the federal deficit loom larger in the eyes of the public than global climate warming.

But there is even a deeper concern. Much of the tens, if not hundreds, of billions of dollars in subsidies plus the giveaway of allowances contained in this bill are in effect economic rents. They will create an army of rent seekers whose major motivation is simply to enrich themselves with little regard to mitigating GHG emissions. And these rent seekers will form a multitude of special interests seeking even more largesse from the public purse. Employment on K Street will swell. The new lobbyists there will outnumber the inventors and entrepreneurs who would have responded to higher energy prices with new energy-saving technology.

Fifth, the bill does get some things about right. Providing money for CCS is forward looking. The emphasis on savings in heating, air conditioning, efficient appliances, and energy-saving lighting and electronics is well placed. For example, setting performance requirements for lighting in terms of lumens per watt without specifying the technology that must be employed to reach those standards is the right way, and the cheapest way, to go. The aforementioned study on the cost of abatement showed that reductions of 700–800 megatons are possible in these housing and building areas, with large negative costs per ton. Table 1 shows that about 80% of electricity use in this country is in the residential and commercial sectors. Aggressive performance standards in these sectors are warranted. Virtually all the technology needed is already on the shelf. Increased electricity costs would be wise because they provide incentives to use electricity-saving technology. And, because of the large negative costs of GHG abatement in these sectors, they would not lead to a net increase in costs to consumers or businesses. But this latter wisdom escapes Congress.

By contrast, the treatment of transportation is an abomination. Specific technologies are chosen. The vision of the future of

the automobile that seems dominant in Washington, DC, is an electric car, a plug-in hybrid, and a flex-fuel vehicle that can use high ethanol blends or pure ethanol as a fuel. It should be well known by now that ethanol from starch is a totally inadequate and terribly expensive way to reduce GHG emissions. We do not have to echo the excellent studies that demonstrate this (Koplow, 2006 and 2007). But, in 20–30 years, virtually all passenger cars and light trucks will have to be electric if we are to meet necessary emission requirements. For the coming decade, though, and probably beyond, there will be no battery technology in mass production that will serve anything but a niche vehicle. The Chevrolet Volt due on the market in 2010 is an example. At \$40,000 or more, it is not likely to be a big sales hit. (How many Americans know that the core of the car, the battery, is made by LG in Korea?) By contrast, the BMW 320d wagon now available in Germany comes with a clear plastic sheet (removable) on the rear window with a big black number printed on it: 4.8. It means the car will go 100 km on 4.8 liters of fuel. To save the reader the nuisance of taking out a calculator, 4.8 liters is almost exactly 5 quarts; 100 km is 62.5 miles. This car will get 50 miles to the gallon in combined city and highway driving. The Volkswagen Punto Bluemotion gets 60–70 miles per gallon. It's a small car, but Daimler has announced a new S-class model (a big car) with a special 1.8-liter engine estimated to get 39.4 miles to the gallon. That engine is only slightly bigger than the engine that powers a Mini Cooper. The S-class model probably also goes over 120 miles per hour. A medium-sized car or crossover, which is the most popular size in the US, could probably get 60 miles to the gallon on a smaller version of that engine. As these examples suggest and as the McKinsey study (US Greenhouse Gas Abatement Mapping Initiative, 2007) shows, in the next 20 years the greatest reduction in petroleum use in cars and light trucks at the lowest cost will come from high-efficiency gasoline and diesel engines. This technology will also come with negative costs. [The *Economist* (2008a,b) has some very good reviews of this new technology.]

And, unlike earlier versions, new diesels are clean. In the 2007 New York Auto Show,

the two greenest cars were diesels and the third was a hydrogen-gas car of which only 100 were made. In 2008, the three greenest cars in the show were all diesels. In 2009, the Volkswagen Jetta diesel was named green car of the year. Hybrids do not show up on these lists. The Clean Energy Act standards seem to have been developed in complete ignorance of this technology.

Why does this get such little attention in the US? Here is an example that illustrates the reason. In 2008, Saturn introduced a new version of its VUE crossover. It is a German Opel with a few cosmetic changes. (More cup holders is the most obvious.) It comes with a 3.6-liter V6 engine and gets 16 miles per gallon in city and 22 in highway driving. At about the same time, General Motors introduced in England a new crossover under the Chevrolet label that is based on the same German Opel. It also comes in a five- or seven-passenger version. Its major difference from the German car is that it has the steering wheel on the right-hand side and the difference from the Saturn is only the engine. It comes with either a gasoline or a diesel engine, and the diesel versions gets 30–32 miles per gallon in city and highway driving combined. That is 50% better than the VUE. Why did not GM offer the car with a diesel when it was readily available? Because, in America, gasoline prices are too low. Gasoline prices are bound to climb in this decade. Whether OPEC or the US citizens reap the largesse is up to Congress, and the current thinking in Washington, DC, seems to suggest OPEC will be the winner.

Some environmentalists support the Clean Energy Act (the perfect is the enemy of the good); others oppose it (the bad is the enemy of the good). The basic question is “Is this a good base from which to move forward?” The answer to that question depends on President Obama. The ball is in his court. As a basketball player, he should know to go on the offensive.

The Next Six Months

Many environmentalists have expressed bemusement at the seeming tactical passivity of the Obama administration in its approach to Congress. For example, while

continually expressing strong support for cap and trade, it has left almost total control of the actual program design to Congress. In fact, this has been the approach taken to all major legislation, and it has often worked well. In dealing with climate change, however, it is very problematic.

There probably are two fundamental reasons why the Obama administration has adopted this approach. First, it fits into the overall persona President Obama seeks to present. He does not want to be viewed as a partisan of the Lyndon Johnson arm-twisting type. Rather, his goal is to be seen as a man of principle who seeks consensus. Second, President Obama, Vice President Joe Biden, Chief of Staff Rahm Emanuel, and Secretary of the Interior Ken Salazar all come from Congress. They respect its leaders and especially Congressman Waxman, the chair of the key House Energy and Commerce Committee. They believe Waxman got legislation passed with the fewest possible concessions.

This approach has worked reasonably well in many areas. Congress made the detailed choices in the stimulus package, but the administration was mainly concerned about its size and, on this, it got what it wanted. It failed in the big objective of mortgages to be considered as part of bankruptcy, but otherwise it achieved its objectives in credit card reform. On health care, the public option and the cost cutting it would entail may have to be jettisoned, but national health insurance is, at long last, likely to pass.

The climate-change act that has passed the House is, as we have pointed out, very weak. The difference between climate change and these other issues is that, on the latter, the main opposition was focused on one or two provisions that could, if necessary, be reluctantly sacrificed. Climate-change legislation, by contrast, has been dealt a hammer blow by the Energy and Commerce Committee by giving away allowances. As such, it emulates and is probably worse than the widely criticized and totally ineffective version initially employed by the Europeans.

Unfortunately, this was only the beginning. The legislation is currently on track

to suffer near death by a thousand cuts. This was clearly demonstrated even before the bill was introduced on the floor of the House when the powerful farm lobby weighed in. To gain a few necessary votes, a deal was struck with Congressman Colin Peterson, chair of the House Agricultural Committee, to transfer the regulation of agriculture from the EPA to the Department of Agriculture and to build support for the ethanol interest into the bill. To the ancient dictum concerning putting the fox in charge of the chicken coup we must add a new one: putting the hen in charge of the fox den. In either case the fox wins.

The Senate plays under different rules. The 60 votes required to end a filibuster will probably mean more of the muscle will be cut out, only to be replaced by fat. The effectiveness will decrease; the cost will increase. There is even a chance that under present circumstances that the bill will die in the Senate.

This all leads to a surprising question: Is it really better to pass such a bill before the Copenhagen meetings in order to show our "seriousness"? Will such a bill truly impress Europe and leverage China, India, and Brazil to take strong action against climate change?

What Is to Be Done?

Before yielding to this strategy, President Obama should take center stage. There are precedents for strong presidential leadership on environmental issues. In 1988, George H.W. Bush campaigned on an environmental platform, particularly in those states where air pollution was a central concern. Even before his inauguration, he was putting together a team to develop important amendments to the Clean Air Act, primarily to reduce urban air pollution from automobiles and to cut back dramatically on acid rain caused primarily from burning coal with high sulfur content. The draft bill was written in the White House with good technical input from the EPA. The team kept its operations under wraps. The major analyst of the process writes, "Even visits by the Bush team with key members of Congress and

their aides were perfunctory in substance, although the atmosphere was positive." He goes on to say, "The proposal they finally produced . . . packed a wallop. Over time, with secrecy, expertise, and wide latitude the [White House Team] came to write the first draft of the far reaching and ambitious overhaul of the nation's Clean Air Act" (Cohen, 1995, p. 61). It was passed by the Congress with no significant changes.

It should be noted that the first President Bush faced a Democratically controlled Congress with Robert Byrd from his position as chair of the powerful Senate Appropriations Committee fighting the cap-and-trade provisions in the bill with all his might and with John Dingel, often referred as the Congressman from General Motors and Chair of the House Energy and Commerce Committee that had jurisdiction of this bill in the House, strenuously opposed to some of the restrictions on tailpipe emissions.

Before this is dismissed as an exception to the rule that the president must give Congress wide scope, let us look at another example. In the 1980s, the United Nations urged the industrial nations of the world to face the problem of the thinning of the ozone layer and put into effect strict international regulations to drastically eliminate the emission of chlorofluorocarbons (CFCs). President Ronald Reagan appointed a small team to develop an American position and attend the meetings, mostly of the industrial nations, to work on a treaty. The American position called for the virtual elimination of all CFC production in the whole world. It was opposed by the British, the French, the Germans, and the Soviet Union and Japan, who were the only other significant producers of CFCs. But the American position won out. What became the Montreal Treaty and Protocols essentially eliminated the worldwide production of CFCs. President Reagan signed the treaty and sent it to the Democrat-controlled Senate, where it was accepted by an overwhelming majority. Congress had virtually no input into this treaty.

While we are not advocates of the kind of bypassing the Congress in the initial stages as was done in both these cases, they show

what a president can accomplish in difficult political circumstances. What are our recommendations? Ideally, Obama should supplement his team with some highly visible, widely respected, political heavy-weight to prepare a white paper on combating global climate warming with restrictions on emissions that will deserve international attention. It should use price as an instrument to control emissions and should be revenue neutral. (We want no increases in the federal deficit.) If cap and trade is proposed, allowances should be auctioned and, as a concession to Congress, some revenue should be used to provide the safety nets that Congress seems willing to borrow money to provide, and the rest should be returned, in the form of tax reductions, to the people.

Realistically, now that the House has passed the bill, we cannot go back. It may be wise to postpone action in the Senate until after the Copenhagen meetings in the hopes that discussions and possible agreements at the conference could be a basis for support for a stronger bill in the US. The key to whether the Copenhagen conference energizes political support, however, lies in what is required of China. While some opponents of action say China must be required to adopt sacrifices identical to those of the developed world, this is neither substantively or politically necessary. China must, however, be seen as taking parallel, timely, and effective steps to limit GHG emissions. If this occurs, the political dynamic in US would change for the better. With strong leadership from the president, the Senate might develop a stronger bill that would be the basis for bringing America into the coalition of nations that take global warming seriously and are committed to take effective action. If this does not occur, meaningful action will be even more difficult.

President Obama is crucial. He must use the Copenhagen meetings to help change the American political climate so that the global climate can be dealt with successfully at a global level. Even more crucially, he must have a detailed and comprehensive plan and must take a more hands-on approach to Congress.

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