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STATE LEADERSHIP TOWARDS A LOW-CARBON ENERGY FUTURE

HEARING

BEFORE THE

SELECT COMMITTEE ON
ENERGY INDEPENDENCE
AND GLOBAL WARMING
HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

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HEARING ON STATE LEADERSHIP TOWARDS A LOW-CARBON ENERGY FUTURE

WEDNESDAY, NOVEMBER 14, 2007

HOUSE OF REPRESENTATIVES,
SELECT COMMITTEE ON ENERGY INDEPENDENCE
AND GLOBAL WARMING,
Washington, DC.

The committee met, pursuant to call, at 10:05 a.m. in room 2318 Rayburn, Hon. Edward J. Markey (chairman of the committee) presiding.

Present: Representatives Markey, Blumenauer, Inslee, Larson, Solis, Herseth Sandlin, Cleaver, Hall, McNerney, Sensenbrenner, Shadegg, and Blackburn.

Staff present: Joel Beauvais.

The CHAIRMAN. Good morning. Welcome to the Select Committee on Energy Independence and Global Warming.

Supreme Court Justice Lewis Brandeis famously called the States laboratories of democracy, the places where innovative solutions to the Nation's challenges are developed. Nowhere is the States' pioneering role in our system more vital today than in the area of energy independence and global warming.

While the Bush administration has its head stuck in the sand on these critical issues, the States are in the vanguard of a green energy revolution. Twenty States have now set binding limits on global warming pollution, most of them more stringent than the Kyoto Protocol targets. Ten northeastern States have set up the Regional Greenhouse Gas Initiative, known as RGGI, the first regional cap-and-trade system in the country. Six western States have formed the Western Climate Initiative, which calls for a 15 percent reduction in emissions by 2020 and will establish a cap-and-trade system to achieve that goal. And in the next 2 days the 12-State Midwestern Governors Association is set to roll out yet another regional initiative to combat global warming and energy dependence. With each passing month it seems a new State joins this remarkable nationwide movement.

This morning we welcome two Governors who have been national leaders in the campaign, Governor Eliot Spitzer of the State of New York and Governor Janet Napolitano of the State of Arizona. In addition to their participation in RGGI and the Western Climate Initiative, respectively, their States have established aggressive targets for reducing global warming pollution. Both New York and Arizona have adopted strong renewable electricity and efficiency standards. And together with 13 other States, both will soon adopt California's clean car standards. Those standards can reduce tail-

pipe CO_2 emissions by 30 percent and dramatically curb our dependence on foreign oil, but only if the Bush administration gets out of the way by granting California's waiver request.

Perhaps most important, these States are demonstrating that the choice between protecting the planet and robust economic growth is a false one. While continuing delay in addressing global warming will have a terrible cost, prompt action can save billions in energy costs, secure our energy independence and open the door to vast new markets for clean energy technology.

We have a great deal to learn from these leaders' pioneering efforts, and I look forward to their testimony this morning. And although the States have taken the lead on global warming and energy independence, Congress must now put in practice what it has learned in these laboratories of democracy.

First, we must send a strong energy bill to the President's desk in the coming weeks. By boosting fuel efficiency and renewable fuel use the energy bill would by 2030 reduce our demand for oil by nearly twice the amount we now import from the Persian Gulf.

The best provisions of the House and Senate bills, including CAFE, a renewable electricity standard, and a renewable fuel standard, would achieve up to 40 percent of the emissions reductions needed to save the planet from global warming. With that down payment in place, we must then proceed as quickly as possible to enactment of an aggressive cap, auction and trade bill that will achieve the balance of the reductions needed.

The States have shown us the way forward. On a bipartisan basis they have listened to the warning of science, recognized the looming danger to the people they represent, and acted to fill the void left by an administration which to this day still does not concede that CO_2 emissions are a danger to public health and the environment.

The State response has demonstrated that strong limits on carbon emissions have broad public support and that they are compatible with vigorous economic growth, and the States offer a message for the President as well, and I hope that he will listen.

Let me turn and recognize the ranking member of the select committee, the gentleman from Wisconsin, Mr. Sensenbrenner.

[The prepared statement of Mr. Markey follows:]

THE SELECT COMMITTEE ON
ENERGY INDEPENDENCE AND GLOBAL WARMING

Opening Statement for Edward J. Markey (D-MA)
"State Leadership Towards a Low-Carbon Energy Future"
Select Committee on Energy Independence and Global Warming
November 14, 2007

Supreme Court Justice Louis Brandeis famously called the States "laboratories of democracy" – the places where innovative solutions to the Nation's challenges are developed. Nowhere is the States' pioneering role in our system more vital today than in the area of energy independence and global warming. While the Bush Administration has its head stuck in the sand on these critical issues, the States are in the vanguard of a green energy revolution.

Twenty states have now set binding limits on global warming pollution, most of them more stringent than the Kyoto Protocol targets. Ten northeastern states have set up the Regional Greenhouse Gas Initiative – known as "RGGI" – the first regional carbon cap-and-trade system in the country. Six western states have formed the Western Climate Initiative, which calls for a 15% reduction in emissions by 2020 and will establish a cap-and-trade system to achieve that goal. And in the next two days, the 12-state Midwestern Governor's Association is set to roll out yet another regional initiative to combat global warming and energy dependence. With each passing month, it seems, a new state joins this remarkable nationwide movement.

This morning, we welcome two governors who have been national leaders in this campaign – Governor Spitzer of New York and Governor Napolitano of Arizona. In addition to their participation in RGGI and the Western Climate Initiative, respectively, their states have established aggressive targets for reducing global warming pollution. Both New York and Arizona have adopted strong renewable electricity and efficiency standards. And, together with 13 other states, both have adopted or will soon adopt California's clean car standards. Those standards can reduce tailpipe CO2 emissions by 30 percent and dramatically curb our dependence on foreign oil – but only if the Bush Administration gets out of the way by granting California's waiver request. Perhaps most important, these states are demonstrating that the choice between protecting the planet and robust economic growth is a false one. While continued delay in addressing global warming will have terrible costs, prompt action can save billions in energy costs, secure our energy independence, and open the door to vast new markets for clean energy technology. We have a great deal to learn from these leaders' pioneering efforts, and I look forward to their testimony this morning.

Although the States have taken the lead on global warming and energy independence, Congress must now put into practice what has been learned in these "laboratories of democracy." First, we must send a strong energy bill to the President's desk in the coming weeks. By boosting vehicle fuel efficiency and renewable fuel use,

the energy bill would, by 2030, reduce our demand for oil by nearly twice the amount we now import from the Persian Gulf. The best provisions of the House and Senate bills – including CAFE, a Renewable Electricity Standard, and a Renewable Fuel Standard – would achieve up to 40 percent of the emissions reductions needed to save the planet from global warming. With that down payment in place, we must then proceed as quickly as possible to enactment of an aggressive cap-auction-and-trade bill that will achieve the balance of the reductions needed.

The States have shown us the way forward. On a bipartisan basis, they have listened to the warning of science, recognized the looming danger to the people they represent, and acted to fill the void left by an administration which – to this day – does not concede that CO2 emissions are a danger to public health and the environment. The state response has demonstrated that strong limits on carbon emissions have broad public support and that they are compatible with vigorous economic growth. And the States offer a message for the President as well, which I would echo and hope that he will heed: "Lead, follow, or get out of the way."

Mr. SENSENBRENNER. Thank you very much, Mr. Chairman, and I want to thank you for holding this important hearing today. And I welcome both Governor Napolitano and Governor Spitzer.

One of the purposes of this select committee, which does not have legislative jurisdiction, is to help provide Congress with additional guidance on how to address the sometimes related issues of energy independence and global warming. Therefore, I am very interested in what both the States and what local governments are doing to address climate change.

So far the committee has twice heard from mayors of cities, big and small, most recently when the committee held a field hearing in Seattle to accompany a U.S. Conference of Mayors meeting on global warming where New York City Mayor Bloomberg called for a carbon tax. By watching and seeing what the States and localities do to address this issue, Members of Congress can get a sense of what works and what doesn't.

To me, policies that help promote competition and technological change without driving up the cost of energy are policies that will work and will be supported by the American people. After all, what voter wants to see their energy bill rise. And as members of this panel and our witnesses must surely know, being on the opposite side of the voter definitely doesn't work. As I have said many times before, any global warming policy that costs jobs or hurts the economy doesn't work for me or for my Republican colleagues.

Unfortunately, I believe that some of what I learned from the cities and the States will be what not to do, especially when it comes to using regulations to address this issue. These regulations may work if everybody all over the world agreed to them and then actually complied with them. Internationally, this means that China and India must be part of the program. Otherwise, for all the feel good, back patting that greenhouse gas regulations might create here, it is unlikely that it would actually lead to a worldwide reversal of greenhouse gas emissions. Here these regulations will lead to some drop-off of emissions here in the United States, but just look to China and India and increases will be found probably from a manufacturer who decided against making a big investment in the U.S. in favor of a smaller price tag in Asia.

Additionally, without the transformational energy technologies that will allow for energy production without creating CO_2 emissions, I seriously question whether the voters of our States will show the patience or have the resources needed for these regulations to work.

So with that in mind I watch with great interest the States' efforts to regulate CO_2. In the end the question for our committee will be not whether New York or Arizona lowered their emissions, but whether they also lowered their standards of living in an effort to do so. Obviously the Governors will do their best not to let this happen. It is my hope that the States can be a laboratory of government policy and help Congress learn what it will take to lower greenhouse gas emissions while raising everybody's standard of living.

I thank the chair and yield back the balance of my time.

The CHAIRMAN. The gentleman's time has expired. The Chair recognizes the gentleman from Missouri, Mr. Cleaver.

Mr. CLEAVER. Thank you, Mr. Chairman. I will hold most of my comments for the question and answer period. I am very much interested in the regional system that has been implemented in New York, and I would like to delve into that after you, Governor Spitzer, speak to us. Thank you so much for coming.

The CHAIRMAN. The Chair recognizes the gentleman from Arizona, Mr. Shadegg.

Mr. SHADEGG. Thank you, Mr. Chairman. In the interest of time I am going to ask unanimous consent to place my full statement in the record and simply say at this point that I appreciate your holding this hearing. I want to welcome both of our witnesses.

I am especially pleased to welcome my Governor, Governor Napolitano. While she and I may not agree on every dot and tittle on this issue, I applaud her commitment to working on public policy problems, her devotion to public service. She and I had parallel careers before entering our current jobs. We used to litigate cases against each other and learn a lot from each other, and I enjoyed those days and I look forward to her testimony.

[The statement of Mr. Shadegg follows:]

Testimony of Congressman John Shadegg
Representative of the 3rd District of Arizona
Talking Points for Opening Statement
November 14, 2007

Select Committee on Energy Independence and Global Warming
Hearing on ***"State Leadership towards a Low-Carbon Energy Future"***

Thank you, Mr. Chairman, for holding this hearing today on what states are doing to create a low-carbon energy future. I want to welcome Governor Spitzer. In particular, I want to welcome Governor Napolitano from my home state of Arizona. Thank you for being here to discuss what Arizona is doing about greenhouse gas emissions. I look forward to hearing both of our witnesses discuss how their states are grappling with the issue of greenhouse gas emissions as well as the need to maintain local quality of life, job growth, and economic opportunity.

I believe climate change is real. The Earth's climate has always changed, and we know that it has been warming recently. I believe that humans play a role in this warming, but the size of that role has been overstated, to say the least. I remain uncertain as to whether climate change poses the risks that former Vice President Gore and others are claiming. I am even less

certain that the policy proposals under discussion today would provide measurable remedies, particularly considering the forecast growth in CO_2 emissions from China, India, Brazil, and other developing nations. That said, I remain open-minded about this issue and how we address it. I just hope we will rely on sound science and take the costs and benefits of policy options under consideration. We must be careful not to enact policies that will unnecessarily impose a financial burden on American families, especially those just barely making ends meet.

Mr. Chairman, I have serious concerns about federal mandates that will hurt small businesses and be very costly to the consumer, and I'm hoping that the witnesses here today might address that problem. We know that Europe has faced significant difficulties trying to get a mandatory cap-and-trade system to work. We have read that emissions have barely decreased, yet electricity prices have risen 25 percent in Germany. Some manufacturers are routinely shutting down for parts of the day to save on electricity costs, and outsourcing of jobs to non-EU countries like Morocco has increased. How will we avoid the mistakes Europe made if we use their system?

I am a strong supporter of markets. I fundamentally believe that markets are able to make better decisions and choose priorities more effectively than governments. But for markets to work, they cannot be artificial and must be transparent, which is why I believe we need to address a carbon tax. I worry that a cap-and-trade program for carbon will be purely an artificial market, at least in the manner many have discussed, with price ceilings and floors, off-ramps, and government-directed allocations. Such a system would in reality function as no more than a hidden carbon tax, and an extremely confusing and inefficient one at that. At least with an actual carbon tax, consumers could easily detect the increase in prices and be able to determine if they believe those increased costs were merited. This is not so with a cap-and-trade program.

Congress must ensure that any energy legislation it considers does not create obstacles to providing sufficient, reliable, and affordable power to homes and businesses across America. Policies that fail any prong of this test could potentially cripple our economy.

Another of my concerns is about the Renewable Portfolio Stand (RPS) because it does not address hydroelectricity as it should. Hydroelectricity is one of the cleanest forms of energy we can produce. It is emissions-free and it is completely renewable. While we continue to debate comprehensive

policies on greenhouse gases and energy independence, we must make sure that existing sources of clean, renewable, carbon-free, and emissions-free power are protected.

In the 2005 Energy Policy Act I successfully pushed to include several hydroelectric provisions in Title II of the bill. Each provision authorized $10 million per year to fund incentives for new or improved hydroelectric generation at existing dams. Another provision prohibited the use of any funds to breach, decommission, or remove any federal hydropower dams. It is vital to our national energy needs that we expand hydropower.

Hydropower turbines convert more than 90 percent of available energy into electricity. The best fossil fuel power plant is only about 50 percent efficient. Hydropower produces ZERO greenhouse gas emissions. Nationally, hydropower production offsets more carbon emissions than all the other renewable energy resources COMBINED. Hydropower has been overlooked as a resource for too long, and we need to give it the same attention as other renewables if we are to improve our energy security and reduce our dependence on foreign energy.

Thank you, Mr. Chairman. I look forward to hearing from our witnesses.

The CHAIRMAN. The gentleman's time has expired. The Chair recognizes the gentleman from New York, Mr. Hall.

Mr. HALL. Thank you, Mr. Chairman. And welcome to both Governor Spitzer from my home State of New York and also Governor Napolitano. I would like to hold my time for question and answer period and yield back. Thank you.

The CHAIRMAN. The Chair recognizes the gentleman from California, Mr. McNerney.

Mr. MCNERNEY. Thank you, Mr. Chairman. While I am proud of the work that we have done in Congress, the States really are leading the way on this issue.

Last year in my State of California we passed AB 32, which requires greenhouse gases to be reduced by 25 percent by the year 2020. This is landmark legislation. I am proud that my State is the one that is doing it. This may seem like a daunting task, reducing greenhouse gases by 25 percent. We are making great progress. And in fact the State is rallying around the need for change. And despite early opposition from businesses and industry, especially the large utility companies in California, they have now embraced this program and are starting to profit from it.

Visiting businesses around the State, I can tell you I am very inspired by what is going on. There is a broad level of innovation and these companies are going to be making business opportunities available for us throughout the State and throughout the Nation.

I believe we are at the tipping point on this issue. And the 30 States that have not adopted change are going to be doomed to be left behind.

I want to thank the witnesses. I look forward to your testimony. And with that, I yield back.

The CHAIRMAN. The gentleman's time has expired. The Chair recognizes the gentlelady from Tennessee, Mrs. Blackburn.

Mrs. BLACKBURN. Thank you, Mr. Chairman. And I thank you for the hearing, and I thank our witnesses for taking the time to be with us today.

We are all cognizant that addressing the need for energy independence and technological developments requires a partnership. And in Tennessee we have done a good bit of work on biofuels development and are using that as one of our focuses to do our part to help move our Nation toward energy independence. I fully believe that those are strategies where we are all in agreement and where our focus should be; on delivering that positive outcome.

Now, where we differ I think is that many people claim that catastrophic climate change is imminent and will produce apocalyptic effects, such as massive flooding of coastal cities, extensive droughts, and the collapse of agricultural markets, rampant disease, poverty and hunger. They also claim that the only way to prevent these catastrophes is to eliminate all CO_2 emissions and switch to renewable energy plans that do not produce greenhouse gases. These claims are not supported by scientific literature and merely represent alarmist views, views that will result in shifting economic investment away from present day global challenges like disease control, malnutrition and water sanitation. Mandating renewable portfolio standards will only reduce investment in cheap

sources such as coal and nuclear and increase investment in costly unreliable power generation.

Coal is a reliable low cost source of baseload power that is abundant within the United States, and to shift funds to more costly substitutes will significantly affect the economy, reduce household income, and give the loss of millions of jobs. Some estimates indicate that this reduced income and increased unemployment will cause premature mortality death rates to more than 150,000 annually.

In certain instances wind, solar and other renewable energies can contribute to the energy mix of a particular region or business, but it will take vast amounts of land for renewable energy facilities to generate sufficient amounts of electricity now provided by coal and nuclear plants. For example, it would take 60,000 acres of wind turbines to generate the same amount of electricity from a typical 1,000-megawatt coal-fired plant.

Mr. Chairman, the United States has the resources to become energy self-sufficient and renewable energy can and must play a part in this plan. But nuclear and coal also must play a part in this plan. And both Democrats and Republicans in Tennessee know this and are aware of this. Just this past month our former Lieutenant Governor, the longest serving elected official in the State, he is now State Senator, State Senator John Wilder, one of my constituents, a Democrat, wrote me a letter asking me to support responsible energy proposals such as coal-to-liquids and coal-to-gas because they will help promote America's energy independence. But many of the policies advocated by the witnesses today and items that we continue to hear will do little to prevent warming or future harm from CO_2 emissions.

I certainly believe that this Congress needs to address more immediate harms to national security, such as the pressing problems and concerns of terrorism and the impact of illegal immigration on our States and communities, and the need to push for energy independence with American solutions, rather than to focus on a problem that may or may not exist. We are still waiting to hear the science on that.

I thank you, Mr. Chairman, looking forward to hearing from our witnesses, and yield the balance of my time.

The CHAIRMAN. The gentlelady's time has expired. The Chair recognizes the gentlelady from South Dakota, Ms. Herseth Sandlin.

Ms. HERSETH SANDLIN. Thank you, Mr. Chairman. And I thank the Governors for being here. But I too will forego my opening statement and reserve the time for questions.

The CHAIRMAN. That time will be reserved. The Chair recognizes the gentleman from Oregon, Mr. Blumenauer.

Mr. BLUMENAUER. Thank you, Mr. Chairman. And I deeply appreciate the committee having extended the courtesy of an appearance to my Governor, Ted Kulongoski from Oregon, who unfortunately could not attend. I would like permission to have his statement entered in the record if I may.

The CHAIRMAN. Without objection, it will be included in the record at the appropriate point.

[The statement of Governor Kulongoski follows:]

November 14, 2007

The Honorable Ed Markey, Chairman
The Honorable James Sensenbrenner, Ranking Member
Select Committee on Energy Independence and Global Warming
U.S. House of Representatives
B243 Longworth House Office Building
Washington, DC 20515

Dear Chairman Markey and Representative Sensenbrenner:

I was sorry that I could not attend your hearing on what the States are doing to address global climate change. However, as the Governor of Oregon I wanted to take this opportunity to provide the Committee with a short review of our efforts that make Oregon a leader in addressing global climate change in the United States.

As you know, global warming has become a paramount policy issue across the United States with growing awareness and support among legislators and policy makers and the public. The science is clear that the United States has to join the rest of the industrialized world to provide much needed leadership in combating global warming and that the need for aggressive action is urgent.

As crucial as it is for Oregon and the nation to aggressively reduce greenhouse gas emissions for the health and wellbeing of our present and future generations, it also, if done right, will provide the *greatest* opportunity for economic development and investment the world has ever seen. It is no coincidence that the world leaders in the manufacture of renewable energy products and hybrid automobiles are found primarily in countries outside the United States. They are based in countries like Denmark, Germany, Spain, and Japan, where there has been leadership in climate change and renewable energy policy for years. Now is the United States' turn to capture its considerable share of technology development and economic benefit in these clean tech sectors.

While it has taken this Administration much too long to engage in the crucial issue of global warming, for many years, Oregon and other states and cities have been leading the efforts to aggressively address and combat global warming. There is no silver bullet to reducing greenhouse gas emissions or preparing for adaptation to the impacts of global warming. Consequently, in Oregon, we have been developing several key initiatives to collectively respond to this serious challenge. I would like to share some of these key efforts in Oregon to provide context for your deliberations.

Shortly after being elected to my first term, in 2003, I joined with my fellow governors from California, Governor Grey Davis, and Washington, Governor Gary Locke, to create the first regional initiative in the West to address global warming. Fortunately, the current Governor of California, Governor Arnold Schwarzenegger, and Governor of Washington, Governor Christine Gregoire, continued with this regional effort when they came into office. Through this effort we set the stage for several key policy approaches in our region:

- We adopted a "clean cars" corridor from Baja to Canada, based on the California tailpipe standards. As transportation makes up a large portion of greenhouse gas emissions, this is a key component of a comprehensive global warming strategy;

- To further support the clean cars corridor, we committed to and invested in a strategy to reduce diesel idling in truckstops along the I-5 corridor through our three states by creating electric hook-ups for trucks to operate needed conveniences while resting. Millions of dollars have been invested in this effort, and the Oregon Climate Trust recently sold the first verified emissions credits from North America into the European carbon market from one of these projects in Oregon;

- We are in the process of developing comprehensive statewide global warming plans to combat global warming. Oregon completed its advisory group process in 2004, which generated a report and over 60 recommendations to reduce greenhouse gas emissions in Oregon (http://www.oregon.gov/ENERGY/GBLWRM/docs/GWReport-Final.pdf);

- I announced Oregon's greenhouse gas reduction goals in the spring of 2005 and California and Washington followed soon thereafter. The Oregon reduction goals will arrest increased emissions by 2010; reduce emissions to 10 percent below 1990 levels by 2020; and reduce emissions to 75 percent below 1990 levels by 2050. These goals were placed into statute last year by the Oregon Legislature. The Legislature also created a permanent Global Warming Commission to assist policymakers and state and local governments in achieving those goals;

- All three states now have renewable electricity and fuels portfolio standards that are more aggressive than those set by or contemplated by Congress. Oregon passed renewable portfolio standards for both electricity and fuels in 2007. The electricity standard requires 25 percent of statewide electricity come from new sources of renewable energy by 2025, among the most ambitious in the nation. With Oregon's existing hydro-electric sources of energy, the standard would result in Oregon using over 60 percent non fossil fuel based electricity by 2025. The fuels standard requires that 2 percent of every gallon of diesel fuel be biodiesel (likely to be triggered in 2008), and that 10 percent of every gallon of gasoline be ethanol (already triggered and in effect starting in January of 2008);

- The three states have among the most aggressive building codes in the nation for energy efficiency, as well as the most aggressive appliance efficiency standards. Oregon passed legislation in 2005 and 2007 to conform to the appliance efficiency standards from California. In addition, we have revised our commercial and residential building code requirements over the past four years to increase energy efficiency. In addition, in 2007, the Legislature extended the collection of a 3 percent public purpose charge on certain electric utility bills through 2025. As the primary administrator of public purpose funds, the non-profit Energy Trust of Oregon invests approximately $54M each year in electric energy

efficiency and renewable energy projects around the state, made possible using this funding mechanism. A separate charge on gas utility bills results in another $10M annually for energy efficiency projects that save gas. This approach delivers comprehensive benefits to customers on how to save both gas and electricity, use energy more efficiently and take full advantage of renewable energy opportunities

The three-state initiative also led to what has become a much broader coalition of states and Canadian Provinces, called the Western Climate Initiative (WCI). The WCI was formed in January 2007, with Oregon, Washington, California, Arizona and New Mexico as founding members, and joined soon thereafter by Utah and the Canadian Provinces of British Columbia and Manitoba. In addition, the WCI has numerous formal observers from Western States, Canadian Provinces, and the Mexican State of Sonora.

The objectives of the WCI are to create a regional greenhouse gas reduction goal based on the existing goals of the participating jurisdictions, and to develop a regional cap and trade program as a key tool for achieving those reductions. The WCI announced the regional reduction goal in August of 2007 (to reduce emissions to 15 percent below 2005 levels by 2020), and is on track to complete a proposed regional cap and trade design by August of 2008 which would then be implemented by each of the member jurisdictions. This program, when implemented, will be the largest source of emissions reductions in the region and in Oregon. The program also is unique from the similar efforts on the East Coast in that it will likely extend beyond the electricity sector and include other major sources of emissions. Therefore, it is key to Oregon's strategy that the program not be preempted by federal legislation unless the federal legislation is as aggressive and would result in as much or more emissions reductions in our region.

Finally, in addition to the above mentioned statewide efforts, I have been committed to Oregon state government leading by example. To do so, I have initiated the following efforts within state government:

- I directed state agencies to collectively develop a comprehensive greenhouse gas footprint, to my knowledge, the first such effort by a state government in the country;

- I directed state agencies to use 100 percent renewable electricity by 2010. Again, to my knowledge, the first such effort by a state in the country. One example of this effort is our Department of Transportation looking to develop a pilot solar energy initiative using state rights of way;

- I directed state agencies to "green" their fleets and use increasing amounts of ethanol and biodiesel. To date, our largest fleet has converted to over 30 percent hybrid and alternative fuel vehicles and it uses E-85 as a standard fuel in the largest motor pools. Our Department of Transportation also has committed to using a B-20 blend throughout the Portland metropolitan area;

- I directed state agencies to increase energy efficiency and conservation by 20 percent from a 2000 baseline by 2015;

- I have directed state agencies to develop policies to reduce greenhouse gas emissions and to help the state achieve our reduction goals through their individual missions and policies. Key agency

directors are members of the permanent Global Warming Commission and will help to bring the resources of their agencies and missions into alignment with the reduction goals. As one example, the Department of Transportation is working to include climate change policy into its statewide planning, and climate change policy will be an integral part of the next transportation funding package.

As you can see, Oregon has been working hard to be a leader in combating global warming and is seeing the economic benefit of these aggressive actions. Rainy Oregon is becoming the solar manufacturer capitol of North America, now home to manufacturing expansions of two major international solar companies, SolarWorld and Solaicx. These manufacturing jobs are a small part of the solar jobs equation with thousands of jobs being generated around solar energy installation in homes and businesses.

In addition, Oregon has one of the most vibrant wind energy development corridors in the nation in the Columbia River Gorge. Also, Oregon is home to one of the first new forest-to-biomass energy projects in the country. Similarly, this year, Oregon opened its first major ethanol facility and should have a second facility opening in 2008. We also have seen several biodiesel facilities open or expand this year. And Oregon eagerly awaits the arrival of cellulosic biofuels.

This economic expansion is occurring not only in our major population centers around Portland and the Willamette Valley, but also in our rural communities, like Boardman, Clatskanie, and Lakeview. The Pacific Ethanol facility in Boardman, alone, represents a $100 million dollar investment in Oregon that resulted in more than 200 construction jobs followed by 40 full-time jobs for a rural community which equal approximately 1000 jobs in the Portland area.

I hope that Congress will be able to achieve important global warming legislation in the near future to complement the efforts that have been occurring at the regional and local levels. Thank you for allowing me to share with you the environmentally and economically profitable efforts in which Oregon is already engaged.

Sincerely,

Theodore R Kulongoski

Governor Theodore R. Kulongoski
State of Oregon

Mr. BLUMENAUER. And I will work real hard to resist the temptation for me to replicate what Ted would talk about if he were here, about joining with the Governors in the West Coast about a regional tailpipe initiative, clean cars corridor from Baja to Canada. We have already established in Oregon a 10 percent target for reducing greenhouse gases. And the City of Portland, Oregon, which I am proud to call home, has already reduced per capita greenhouse gases 4 consecutive years. We think we are on line to be the first city in North America to be Kyoto compliant. We have got a portfolio standard of 25 percent by 2025.

And most important of what Ted would have talked about is the linkage in our State between the land use planning, the environment and energy. It has made us one of the few States where we are actually, even though we are a rural state in the main, we have been able to decrease the amount of per capita vehicle miles traveled, which is absolutely critical, and it is an important part of the success from the State of New York and it is a challenge I know, a continuing challenge in Arizona, having an opportunity to work there over the years.

But I am looking forward to hearing from our two witnesses, to emphasize what our Governor would have emphasized; that this is an opportunity to improve the economy. Nothing here is talking about reducing quality of life. Indeed the status quo doing business as usual is a prescription for economic disaster, as we are seeing with spiraling energy prices. And I know that there are great examples in both States about how this is the future for not just energy security and a safer environment, but one that is going to revitalize economies, and I look forward to their testimony.

The CHAIRMAN. The gentleman's time has expired. And all time for opening statements from the members of the Committee has expired. We now turn to our panel.

Our first witness is Governor Eliot Spitzer of New York. Governor Spitzer was inaugurated as New York's 54th Governor in January of this year. Prior to being elected Governor he served for 8 years as New York State Attorney General, where he won national acclaim for protecting investors, consumers and the environment. Governor Spitzer has made New York a national leader in developing initiatives to combat global warming and promote renewable energy.

Welcome, Governor Spitzer. Whenever you are ready, please begin.

STATEMENT OF THE HON. ELIOT SPITZER, GOVERNOR, STATE OF NEW YORK

Governor SPITZER. Thank you. Good morning, Mr. Chairman and members of the committee. I commend you for the critically important work you are doing to confront the threat of global climate change. Let me begin by putting the effects of climate change into real terms from my perspective as Governor of New York.

Unless we take action now, by the end of the century New York's countryside will be altered permanently. Change in climatic patterns will push much of our State's agriculture towards collapse. Our abundant fisheries and forest ecosystems will be devastated. And the combined effects of rising sea levels and violent storms

will threaten the future of our coastal communities. This is the path we are on. Unless we take bold action now to reduce greenhouse gas emissions this will be our future.

Right now we find ourselves at a decisive moment. The Intergovernmental Panel on Climate Change predicts that between now and the end of the century global temperatures will rise between 2 degrees and 11.5 degrees Fahrenheit. That is the difference between climate change that is manageable and climate change that is catastrophic. The difference will be determined not by fate, but by whether or not we can rise to the occasion and make the sensible choices necessary to reduce our own greenhouse gas emissions.

We must lead the global community in an effort to reduce emissions worldwide. As part of this effort I believe that the Federal Government must follow the State's lead in adopting a cap-and-trade program to reduce greenhouse gas emissions from power plants. Let me briefly describe this effort.

Along with nine other northeastern States, New York has entered a historic cap-and-trade agreement known as the Regional Greenhouse Gas Initiative, or RGGI. In New York we will cap carbon dioxide emissions from power plants at approximately 64 million tons. The cap will hold steady until 2014, but will then be reduced by 2½ percent per year until 2019, resulting in a total reduction of 10 percent.

Under the trade portion of the program New York will auction allowances to generators. Each allowance will represent one ton of carbon dioxide. Generators will be able to buy and sell allowances in a secondary market. Generators that obtain more allowances than their actual emissions will be allowed to sell their excess allowances, and those who are short must buy allowances.

Our draft regulations for the entire program were published on October 24th and are now out for public comment. We expect permanent regulations to be in place by the spring of 2008. We hope that RGGI will ultimately serve as a model for national or international cap-and-trade programs to reduce emissions from power plants, which account for 40 percent of all greenhouse gas emissions nationally. In anticipation of launching RGGI, New York has aggressively pursued energy efficiency in renewable energy policies.

With regard to energy efficiency we are implementing what we call the 15 by 15 plan to decrease the demand for power by 15 percent from forecasted levels to efforts to increase energy efficiency. And with regard to renewable energy New York has adopted a renewable portfolio standard that requires at least 25 percent of electricity used in New York State to be produced by clean renewable resources by 2013. Both programs will be supported by the RGGI auction revenue.

There is another critical component in our strategy to both address the threat of global climate change as well as meet our energy needs. The government has the responsibility and obligation to help develop cleaner ways to generate energy if at the same time we impose new and stricter environmental standards. That is why New York State is actively researching the viability of carbon capture and sequestration in New York. We believe this technology holds tremendous promise in our fight against climate change and

strongly urge the Federal Government to increase its focus and funding on this effort.

Taken together, these efforts will ensure that New York will achieve the RGGI cap while also meeting our energy needs.

Once again I strongly urge the Federal Government to follow the lead of the States in developing a nationwide strategy to reduce greenhouse gas emissions, a strategy that should include a cap-and-trade program to reduce emissions from power plants as well as incentives for energy efficiency, renewable energy and carbon sequestration. The government of New York State looks forward to working with you at the Federal level to make this happen. We will stand with you and assist you in any way that is needed.

Thank you, and I look forward to answering your more detailed questions.

[The statement of Governor Spitzer follows:]

Governor Eliot Spitzer
State of New York
Albany, New York

TESTIMONY OF NEW YORK GOVERNOR ELIOT SPITZER
BEFORE A HEARING OF THE U.S. HOUSE OF REPRESENTATIVES
SELECT COMMITTEE ON ENERGY INDEPENDENCE AND GLOBAL WARMING

"STATE LEADERSHIP TOWARD A LOW CARBON ENERGY FUTURE"

November 14, 2007

Good morning Mr. Chairman and Members of the Select Committee on Energy Independence and Global Warming. I commend this Committee for the critically important work you are doing to confront the threat of global climate change. Thank you for the opportunity to testify before you today about the action New York State has taken—and the actions the United States must take—to address this issue.

Abstract terms and scientific language tend to dominate this debate. So let me put the effects of climate change into real terms from my perspective as Governor of New York.

The fact is that unless the global community takes bold action now to reduce greenhouse gas emissions, the Empire State itself could be virtually unrecognizable within our grandchildren's lifetimes.

Unless we take action now, by the end of the century, our state's vast and beautiful countryside will be altered permanently. Changing climatic patterns will push much of our state's agriculture, including the apple crop for which our state is known, toward collapse. Our abundant fisheries and forest ecosystems will be devastated. And, unless we take action now, the combined effects of rising sea levels and violent storms will threaten the future of our coastal communities.

This is the path we are on. Unless we take action now to reduce greenhouse gas emissions—not superficial action, but bold action that involves hard choices and standing up to special interests—this will be our future.

So right now, we find ourselves at a decisive moment.

The Intergovernmental Panel on Climate Change predicts that between now and the end of the century, global temperatures will rise between 2 degrees and 11.5 degrees Fahrenheit.

That is the difference between manageable climate change and catastrophic climate change. That is the difference between a relatively stable world, and a world plagued by increases in violent storms and far more disease, poverty and hunger.

The difference will be determined not by fate, but by whether or not we can rise to the occasion and make the hard choices necessary to reduce our own greenhouse gas emissions, and to lead the global community in an effort to reduce emissions worldwide.

Whether or not we rise to this challenge will be determined by our priorities. In a way, it boils down to a simple question: What is more important to us, the short-term priorities of a narrow group of special interests—or the stability of the world in which our children and grandchildren will make their lives?

I believe the people are ready for us to give the right answer to this question—even if it involves hard choices.

I believe that the federal government must follow the states' lead in developing a nationwide strategy to reduce greenhouse gas emissions. For example, 12 states—including New York—are waiting for the EPA to approve California's clean vehicle program that could reduce carbon emissions by 100 million tons by 2020. In addition, as I will discuss in today's testimony, the federal government can follow the lead of many states in adopting a cap and trade program to further reduce greenhouse gas emissions.

In this effort, I offer New York State's full assistance in sharing knowledge and best practices from our own effort to address global climate change. Let me briefly describe this effort, and then I will be happy to answer any questions you may have.

New York State's Actions to Address Global Climate Change

New York has a three-pronged approach to addressing climate change: the development of a carbon cap and trade program, an aggressive energy efficiency plan, and a State Renewable Portfolio Standard (RPS) to promote clean, renewable energy.

Carbon Cap and Trade: The Regional Greenhouse Gas Initiative (RGGI)

First, let me update the members of the Committee on the development of the Regional Greenhouse Gas Initiative (RGGI), a groundbreaking cap-and-trade program.

On December 20, 2005, New York State entered into an historic agreement with 10 Northeastern and Mid-Atlantic states to reduce greenhouse gas (GHG) emissions from power plants, which nationwide produce a sizable percentage—40 percent—of all GHG emissions. Under the agreement, the governors of these states have committed to cap carbon dioxide emissions from power plants in their states—and reduce those emissions 10 percent by 2019. In addition to New York, Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, Rhode Island, and Vermont are participating in RGGI. In recent months, the signatories have been drafting the regulatory language that will enact the carbon dioxide caps.

In New York State, we will cap carbon dioxide emissions at approximately 64 million tons from 2009 to 2014. After that, the cap will be reduced by two and one-half percent per year until 2019.

Under the proposed regulations for the "trade" portion of the cap-and-trade program, New York will auction 100 percent of available allowances, which each represent one ton of carbon dioxide. Generators will then be able to buy and sell allowances in a secondary market. Generators that obtain more allowances than their actual emissions will be allowed to sell their excess allowances, and those who are short must buy allowances.

In order to carry out this program, the New York Department of Environmental Conservation is proposing to establish the CO_2 Budget Trading Program, and the New York State Energy Research and Development Authority (NYSERDA) is proposing to establish the CO_2 auction program. Our draft regulations for the entire program were published on October 24 and are now out for public comment. We expect permanent regulations to be in place by Spring 2008.

With regard to the cost impact of implementing the RGGI program, our modeling shows that cost impacts will be low. Carbon dioxide allowance prices—the cost of complying with RGGI—are projected to increase from approximately $2 per ton in 2009 to about $3 per ton in 2015 and about $4.45 per ton in 2021.

By design, this creates winners and losers. Older, less efficient power plants with higher air pollution levels will pay more to comply with RGGI than newer, more efficient units. Dirty generators will be at a competitive disadvantage, and there will be a new incentive to build clean, efficient or renewable generation, such as wind or solar.

The cost of the allowance, just like the cost of fuel, will be built into the generators' electricity prices, but our modeling shows that these impacts will be negligible. For a typical New York residential customer (using 750 KWh per month), the projected increase in wholesale electricity prices in 2015 translates into a monthly retail bill increase of about 0.7 percent or $0.78. Thus, although some have argued that greenhouse gas controls are too costly for consumers, our modeling has shown otherwise. We can and must absorb these modest costs to reduce our greenhouse gas emissions—because the costs to our society of catastrophic global climate change will be far higher.

Finally, proceeds from the initial sale of allowances will be used to expand energy efficiency and renewable energy, especially for low-income consumers. Meeting our energy needs through efficiency and renewables reduces carbon dioxide emissions from the electricity sector and makes achieving the RGGI cap more likely and less expensive.

Overall, the greenhouse gas reductions that will be achieved by RGGI, while significant, represent only a first step towards the carbon dioxide reductions we need to achieve nationwide to seriously confront climate change. We hope it will serve as a model for a national or international cap-and-trade program.

To this end, New York has joined the International Carbon Action Partnership, which will provide an international forum in which governments adopting carbon cap and trade systems will share experiences and best practices on the design of emissions trading programs. In late October I traveled to Lisbon, Portugal, along with New Jersey Governor John Corzine, to participate in the first International Carbon Action Partnership conference. There, we met with world leaders

who have pledged to share information on effective programs that reduce greenhouse gas emissions.

Reducing the Demand for Power: "15 by 15"

In anticipation of launching RGGI, New York has aggressively pursued energy efficiency and renewable energy policies to make achieving the RGGI cap more feasible.

With regard to energy efficiency, New York State is implementing a plan to decrease the demand for power by 15 percent from forecasted levels through efforts to increase energy efficiency. We call this our "15 by 15" approach. This will not only eliminate growth in our forecasted electricity demand, but will actually lower electricity consumption *below* current levels. It is the most aggressive energy efficiency goal in the country.

"15 by 15" will rely on improved building codes, expanded appliance efficiency standards, dramatic reductions in state energy use, and expanded state and utility programs to facilitate efficiency retrofits in the private sector. It is estimated that "15 by 15" will result in an annual carbon dioxide reduction of about 12 million tons, which provides more certainty that we will be able to meet the RGGI cap.

A proceeding launched by New York State's Public Service Commission (PSC) is underway right now. The PSC is evaluating various program designs to achieve this goal at the lowest cost.

Increasing Renewable Energy: The Renewable Portfolio Standard

And with regard to renewable energy, New York already has one of the nation's most progressive standards. Three years ago, New York State adopted a Renewable Portfolio Standard (RPS) that requires at least 25 percent of electricity used in New York State to be produced by clean, renewable resources by 2013.

The program was designed to meet the growing demand for electricity without increasing greenhouse gases. But by adding renewable capacity, we also provide additional benefits such as increasing fuel diversity, reducing exposure to fossil fuel price spikes and supply interruptions, increasing economic development activity from a growing renewable energy industry, and improving the environment.

New York's RPS is funded by a surcharge collected by the State's regulated, investor-owned electric transmission and distribution utilities. The utilities transfer the collected funds to our Energy Research and Development Authority (NYSERDA), which is responsible for administering an incentive-based central procurement program.

To date, NYSERDA has successfully issued two solicitations, and 26 renewable energy projects have been selected. By the end of 2008, we expect that new renewable capacity installed since the onset of the RPS program could exceed 1,200 megawatts in New York.

This program has had a powerful positive impact on our state's economy. Our analysts have estimated that $1.9 billion will be invested in New York to construct these projects, and that the

economic benefits that will accrue to New York, in the form of land lease payments, local tax revenue and other benefits, could exceed $720 million over the next 20 years.

In addition, and most important to today's discussion, these renewable energy projects will reduce carbon dioxide emissions by 1.3 million tons per year, providing further certainty that New York's generators can achieve the RGGI cap.

Although New York recognizes that other states might not be able to reach the same goals we have set in our RPS program, we feel that a strong national RPS program is necessary and should be designed to recognize and accommodate existing state RPS programs. Furthermore, it is imperative that any federal RPS program does not preempt any existing state RPS programs that are more stringent than the federal program.

* * *

Addressing the climate crisis will not be easy. We will have to work with other nations to reduce their greenhouse gas emissions at the same time they are industrializing and attempting to raise the standard of living for their people. At home, we will have to fight the influence of powerful special interests that will attempt to preserve a status quo that works for them and no one else.

But the American people did not elect us to do what is easy. They elected us to boldly confront the problems we face.

Will we take action now to maintain climate change at manageable levels and pass on a stable world to our children and grandchildren? Or will we fail to take action, and put the short-term priorities of a few special interests ahead of the priorities of future generations?

I strongly urge the federal government to make the right choice, and follow the lead of the states in developing a nationwide strategy to reduce greenhouse gas emissions. In this effort, New York State will stand with you and assist you in any way that is needed.

Thank you.

The CHAIRMAN. Thank you, Governor, very much.

Our second witness is Governor Janet Napolitano of Arizona. Governor Napolitano was inaugurated in 2003 and reelected in 2006, and was the first woman in history to serve as the Chair of the National Governors' Association. Prior to her election as Governor of Arizona, she served one term as Arizona Attorney General and 4 years as U.S. Attorney for the District of Arizona. She has been one of America's top five Governors by Time Magazine and one of America's top women leaders by Newsweek.

We welcome you, Governor Napolitano. When you are ready, please begin.

STATEMENT OF THE HON. JANET NAPOLITANO, GOVERNOR, STATE OF ARIZONA

Governor NAPOLITANO. Well, thank you, Mr. Chairman and members of the committee. It is a pleasure to appear before you. I especially appreciate appearing with my friend, Representative Shadegg. It is nice to see you in a venue other than a courtroom, and I look forward to the hearing today.

Mr. BLUMENAUER. Should she clarify that?

Mr. SHADEGG. I did before you got there.

Governor NAPOLITANO. We were litigants in Federal Court many—several times actually.

Arizona and other western States now suffer from prolonged drought and will continue to be particularly hard hit as the decade moves along. With respect to the issue before the committee, Arizona is the fastest growing State in our country. Between 1990 and 2005, Arizona's net greenhouse gas emissions increased nearly 56 percent. We are forecasted to increase by 148 percent from 1990 levels by the year 2020. By way of comparison, national emissions are forecasted to rise by about 42 percent over the same period. So Arizona needs to take aggressive action to reduce greenhouse gases.

It is a matter of climate change, but it is also a matter of energy, energy independence and air quality, which is also a large issue for our State.

In 2005, I established the Arizona Climate Change Advisory Group via Executive order. This group developed 49 policy recommendations which cumulatively could eliminate hundreds of millions of tons of carbon dioxide and other greenhouse gases by the year 2020. We estimate that by implementing the recommendations the net economic benefit to Arizona will be more than $5.5 billion. This of course involves new energy, energy infrastructure, and the like.

I have accepted the recommendations of this group and we have agreed via these recommendations to reduce Arizona emissions to 2000 levels by 2020 and to 50 percent below 2000 levels by the year 2040. I have further directed that we achieve as much of this goal as possible by the year 2012, which is the year that Arizona turns 100.

In January 2007, I began moving the State fleet to low emission vehicles such as hybrids, E85 flex fuel vehicles, alternative fuel vehicles, and high mileage automobiles. Once EPA grants the necessary waiver we will implement the State clean car program to re-

duce greenhouse gases from new light duty vehicles starting in model year 2011.

In February of 2006, the New Mexico Governor Bill Richardson and I created the Southwest Climate Change Initiative. And in February 2007 we joined with the Governors of Washington, Oregon, California and New Mexico to establish the Western Climate Initiative. As was mentioned, a number of other States have joined that initiative, as well as two provinces from Canada and the State of Sonora in Mexico.

This initiative has a two-fold purpose: One, to reduce greenhouse gas emissions in the western region by 15 percent below 2005 levels by 2020 and, second, to develop a western regional cap-and-trade program for greenhouse gases. Each State in the initiative has also committed to implement the California greenhouse gas tailpipe emission standards, and we urge Congress to demand that the Environmental Protection Agency approve California's long-standing request for a Clean Air Act waiver.

We also as a group of western States have laid out four basic principles for legislation: First, to set strong national goals; second, to have a comprehensive market-based approach to climate policy; third, to act quickly; and, fourth, Congress must support State programs and not preempt the leadership given by the States.

Indeed, as was recognized by the ranking member, the States are the laboratory of democracy and a number of initiatives are under way that the Federal Government could take notice of. We must leverage action now to ensure that we can maximize the United States' competitive edge as we transition into a 21st century economy. And while we face great challenges in reducing greenhouse gases dealing with the effects of climate change, I am optimistic as always that the United States will be innovative and that we will meet these goals.

I could have one final suggestion for the committee to lead by example, and that is to have hearings for those of us who must travel a great distance by teleconference so that our carbon footprint for attending these hearings does not have to be offset.

I look forward to Congress' action and I look forward to answering the questions of the committee. Thank you.

[The prepared statement of Ms. Napolitano follows:]

Testimony of Janet Napolitano
Governor of Arizona

Submitted to the House Select Committee on Energy Independence and Global Warming

Hearing on "State Leadership in Combating Global Warming"

October 11, 2007

Chairman Markey and esteemed members, thank you for the opportunity to appear before you today to provide you with information on what the State of Arizona and other western states are doing to address global warming.

Scientific evidence makes clear that global warming is real and that human activities are contributing significantly to the build-up of greenhouse gases in the atmosphere that is warming our planet.

Arizona and other western states are suffering from prolonged drought, decreased snowfall, increased and earlier snowmelt, and more severe and devastating forest and rangeland fires as a result of recent climate changes. The scientific evidence is that the West – and especially the Southwest -- will be particularly hard-hit in the future by the effects of climate change.

The National Research Council of the National Academy of Sciences warned earlier this year that warmer future temperatures due to climate change will reduce future Colorado River stream flow and water supplies in the Colorado River Basin. Indeed, as I speak, Arizona and the six other basin states are engaged in negotiations on ensuring we manage the Colorado River so that no one state is harmed should we reach a point where we have to declare a shortage.

The impacts are real and aggressive action is needed to reduce greenhouse gas emissions because the effects of climate change are already being felt, especially in Arizona and throughout the West.

In the absence of meaningful federal action, it has been up to the states to show leadership on this critical issue. And that is exactly what we have done.

Arizona Action

In February 2005, I signed my first Executive Order on climate change, which established the Arizona Climate Change Advisory Group (CCAG) to develop practical approaches for reducing greenhouse gas emissions in Arizona. The CCAG was comprised of a wide range of stakeholders with an interest in global warming including representatives from utilities, the petroleum industry, business, tribes, conservation organizations and healthcare officials.

The CCAG developed a comprehensive set of 49 policy recommendations that could cumulatively eliminate the emission of hundreds of millions of tons of carbon dioxide and other greenhouse gases from Arizona by 2020 if fully implemented.

As one of the fastest growing states in the country, Arizona faces great risk from inaction. Between 1990 and 2005 Arizonans' net GHG emissions increased by nearly 56%. Forecasts predict that these emissions will increase by 148% from 1990 levels by 2020, while national emissions will rise by about 42% over this same period.

Because more than three-quarters of Arizona's greenhouse gas emissions are directly related to energy and transportation, the opportunity exists for our state to reduce our emissions while continuing our strong economic growth. We can accomplish that goal by developing clean and renewable energy sources; increasing the use of cleaner transportation modes, technologies and fuels; increasing energy efficiency; and building new infrastructure "right" in the first place to produce fewer emissions. These are all common sense steps that must be taken to secure our state's energy future and develop a 21st Century economy for our state.

In fact, the technical analysts that supported the CCAG estimated a net benefit of more than $5.5 billion to our state between now and 2020 by implementing the group's recommendations, due to the creation of new jobs, lower energy and fuel costs, and investments in better and more efficient infrastructure for our state.

In 2006, I issued a second Executive Order on Climate Change and adopted the CCAG recommendations. We are now working to develop strategies for implementation. We have already made some progess:

- I accepted the CCAG's recommendation to set a statewide goal to reduce Arizona's greenhouse gas emissions to 2000 levels by 2020, and to 50 percent below 2000 levels by 2040. And because it is so important to reduce our emissions as quickly as possible, I further directed that we seek to achieve as much of the goal as possible by 2012, Arizona's centennial year.
- I directed state agencies to take action to reduce Arizona's greenhouse gas emissions. Since the beginning of the year, most vehicles purchased for the state fleet are low-greenhouse-gas-emitting vehicles. The fleet is transitioning, with few exceptions, to only low-emission vehicles, such as hybrids, E-85 flex fuel vehicles, alternative-fuel vehicles, and high-mileage automobiles. I also ordered that by January 2010, the state will no longer own any vehicle that is not a hybrid, alt-fuel, or low-greenhouse-gas-emitting vehicle.
- We are moving forward with adoption of the State Clean Car Program to reduce greenhouse gas emissions from new light duty vehicles starting model year 2011 so we are poised to implement once EPA grants the necessary waiver.

Other changes to enact the CCAG recommendations will require legislative action, and I directed my staff to develop a comprehensive proposal to remove statutory barriers to clean and renewable energy production in the state. The proposal will recommend diversification of transportation fuels and standards for energy efficiency.

In addition, the State has reduced water consumption by 17% compared to 2004 water use rates and increased energy efficiency by 4.6% since 2002. All new state buildings must comply with efficiency standards. Later this year I will cut the ribbon to celebrate the State's first gold standard Leadership in Energy and Environmental Design (LEED) building, built with low-impact materials and using less energy and water.

In other words, we are taking action in Arizona, but state-level action alone will not address the problems.

Regional Action

As reported in the journal *Science,* within the next few decades the Western United States may see a perpetual drought similar to what struck the Great Plains in the 1930s. The fear is that our current drought – now in its 12th year –could become the norm.

That is why, in addition to taking action here in Arizona, I have been working with other Western states to reduce greenhouse gas emissions from our region. In February 2006, New Mexico Governor Bill Richardson and I created the Southwest Climate Change Initiative. And in February of this year, I joined with the Governors of Washington, Oregon, California, and New Mexico to establish the Western Climate Initiative (WCI).

Momentum for this regional effort continues to grow, in the West and beyond our borders. Since February, Utah and two Canadian Provinces – British Columbia and Manitoba – have joined the WCI as full partners. Five other states, as well as the Mexican state of Sonora and the Canadian provinces of Ontario, Quebec and Saskatchewan have joined as observers.

The purpose of the WCI is twofold. At the end of this summer, we established a collective goal to reduce greenhouse gas emissions in the WCI region to 15 percent below 2005 levels by 2020. And during this next year, we will develop a market-based mechanism to reach that goal. In other words, we are creating a Western regional cap and trade program for greenhouse gases.

We have also committed to do our share to reduce greenhouse gas emissions enough over the long term to significantly lower the risk of dangerous threats to the climate. Current science suggests that this will require worldwide reductions from 50% to 80% in carbon dioxide emissions from current levels by 2050. Even though the federal government has not acted to curb greenhouse gas emissions, we are.

In addition to creating a Western regional cap and trade program, the WCI partners committed to promote the development of clean and renewable energy and increase energy efficiency region wide. A critical element includes the implementation of California's greenhouse gas tailpipe standards in our states. California, Oregon, and Washington have adopted the standards, and Arizona, New Mexico, and Utah have committed to do so.

In September, we governors of the WCI states, joined by the governors of Connecticut, Maine, Maryland, Massachusetts, New York, Pennsylvania, and Rhode Island, sent a letter to the Big Six automakers urging them to withdraw their legal challenges to the clean vehicle standards and begin working with us to reverse the threat of global climate change. In other words, we want them to stop litigating and start cooperating.

Congressional Action

Earlier this year in June, the WCI states sent a letter to Speaker Pelosi and other congressional leaders setting forth our view on climate legislation as the Congress begins to deliberate and draft it.

There is tremendous opportunity for Congress to help the nation achieve energy independence and reduce these harmful emissions.

As a critical starting point, we urged Congress to demand that the U.S. Environmental Protection Agency stop dragging its feet and approve California's long-standing request for a Clean Air Act waiver to move forward with its clean tailpipe standards. There is simply no justification for EPA to continue to withhold the waiver.

We also laid out four basic principles for legislation:

- First, we need strong national goals. As we have said in the WCI, action must be taken to reduce greenhouse gas emissions by as much as 80% by 2050.

- Second, we need a comprehensive, market-based approach to climate policy. Key action areas that need policy support include: energy efficiency and conservation, clean and renewable energy, transportation and land use efficiency, agriculture, and forest conservation and carbon sequestration. These approaches also must be integrated with a market for emissions trading – i.e., a national cap and trade program.

- Third, we must act quickly. Greenhouse gases persist for very long periods. Today's emissions will endure for generations. Congress must act quickly to avoid decisions that result in irreversible levels of greenhouse gas emissions.

- Fourth, Congress must support state programs and leadership. Congress must reach out to states and not preempt our leadership. Federal legislation should build upon the efforts of the states and provide flexibility for states to take more aggressive action on global warming.

More specifically, I understand that Congress may be considering legislation to create a federal emissions registry. Please let me point out to that the states already have done that. Earlier this year, Arizona and 37 other states formed The Climate Registry -- a national climate registry for tracking greenhouse gas emissions and giving credit to business and entities that take action to cut their emissions. I am proud to say that Arizona was the first state to join The Climate Registry. The Climate Registry will be officially open for business in January. Congress should not undermine this important state endeavor.

Congress has a historic opportunity to adopt comprehensive energy legislation that would reduce oil use, slash global warming pollution, create jobs, and save families money. Both the Senate and House versions include provisions that would further these goals. I urge Congress to adopt a final energy bill before the end of the year that includes the following measures:

- Provides long-term incentives for renewable energy generation. The Western Governors have consistently advocated for long-term reauthorization of renewable production tax credits, which would allow developers to utilize the credits in long-term financial planning.

- Diversifies our energy base by creating incentives for a variety of homegrown fuels rather than focusing us on a single source. These incentives could lead to production of crops that are not only serving the areas in which they are grown but also fueling American vehicles with significantly reduced harmful emissions. Additional programs targeted at increasing the number of alternative fuel pumps around the nation must also be addressed.

- Recognizes the importance of reducing overall energy demand by setting new efficiency standards for modern buildings, appliances, and lighting. These are fairly easy but important steps Congress can take that will save consumers money on energy bills and reduce harmful carbon dioxide emissions.

The American Council for an Energy Efficient Economy estimates that the final energy bill that includes the best efficiency and renewable energy provisiosn from the Senate and House bills would reduce greenhouse gas pollution by nearly 20% by 2030 compared to the status quo. These reductions would be an important down payment on the 50% to 80% greenhouse gas reduction required to avoid the worst impacts of global warming. And with oil prices rising, the prompt adoption of these policies would reduce oil demand and prices.

Governors stand ready to provide any assistance needed to help Congress complete this critical legislation before the end of the year.

Arizonans and Americans are "can do" people. Once we establish a goal and timeline, we will put our brain and muscle power to work to accomplish it. We need Congress's help to increase increase energy independence and slow global warming by the establishment of firm standards and realistic deadlines. These are critical elements in solving these problems.

While we face great challenges in reducing our greenhouse gas emissions – and in dealing with the impacts of climate change that already are occurring -- I am optimistic that we can reverse the course our country, and our planet, is on.

I urge Congress to act, and I look forward to working with you.

The CHAIRMAN. Thank you, Governor. And next year we are going to try to do that because I think that is an excellent suggestion.

So the time for opening statements from our witnesses has expired. The Chair will recognize himself for a round of questions. Let me begin with you, Governor Spitzer.

You have decided to auction 100 percent of the allowances under RGGI. That has not been tried by any other cap-and-trade system. Can you give us your rationale for it and how you will deal with those who are protesting that it will not allow proper relief?

Governor SPITZER. Our premise, and as you point out quite properly, this has not been done before, so we acknowledge the possibility that it will not play out precisely as we anticipate. But we believe this is a better way to bring the market to bear on the decisions that will be made by the participants. The earlier we can create a market-based pricing for essentially the right to pollute, a price that will then be pushed back into the cost of the product that will create incentives for those who pollute to be more efficient, to use less energy, to generate less pollution, the more effective the entire system will be.

Frankly, those systems in Europe where they gave away the opportunity to pollute, as it were, did not work terribly well. There was both an oversupply and there was no capacity to price this opportunity. And so our belief is, and the economic modeling suggests, that it will be a much more effective mechanism if you go to the 64 million tons of polluters, the power plants themselves, their owners necessarily, and say, purchase this right, we have priced it out, we believe the price will not be significant, and it will begin to send market signals back into the process.

And to pick up on what my colleague said, this is an effort to use a market-based system rather than a regulatory framework. The market will push and create the incentives, and that is what the auction will do.

The CHAIRMAN. Governor, have you had any ability to think about this question of auctioning of the credits?

Governor NAPOLITANO. In the Western Climate Initiative, Mr. Chairman, we are going to have a cap-and-trade program. We are, like you, looking at what is happening with RGGI to see how it works. In other words, the States can be laboratories for the Federal Government, but they can also be laboratories for other States, so we are exploring that.

The CHAIRMAN. Could you, Governor Napolitano, talk to us about this request from California and other States for a waiver from the Federal Government you mentioned earlier? Could you talk about why that is important to Arizona?

Governor NAPOLITANO. Yes, Mr. Chairman. The waiver for California would enable California to set a Clean Air Act standard for emissions that is stricter than the EPA currently allows. And Arizona and the other western States want to share in that standard for a number of reasons. We estimate that around 77 percent of the greenhouse gas emissions in Arizona come from either cars or energy production. We also estimate that if we could implement the California standard in Arizona by the year 2020 we would signifi-

cantly, by about a third, reduce greenhouse gas emissions in our State.

And again, as a rapidly growing State, we want to be able to implement some of these things now quickly so that as we grow we have already taken these emissions into account.

The CHAIRMAN. Governor Spitzer, the States are acting even though the Federal Government has yet to act. The argument that is often heard is we shouldn't act as a nation until China and India act. Could you give us some sense of why you feel it is appropriate for the States to move even though the Federal Government has yet to move and what lessons we might learn in our relationship then with India and China?

Governor SPITZER. Certainly. It is a powerful question, and I think there is no doubt it would be desirable. And at the end of the day, indeed, it may be imperative that we seek and obtain the participation of economies such as those of China and India that are growing, that are an increasing percentage of the international GDP, to participate in this if we will reach our final targets in terms of greenhouse gas emissions.

Having said that, the absence of their participation is not an excuse for our failure to act either at a moral level where we believe we have indeed almost a moral obligation to begin to confront what is very clearly an impending crisis. It is also too easy an excuse for inaction when we wait for that individual or entity who defines the lowest common denominator to do anything. We must define a higher level of behavior and lead by example, and also by leading generate the economic progress that is created by saying to the marketplace when you define products that are more efficient with lower emissions you define products such as the Prius and energy systems that will move us forward economically.

Indeed, some of the fastest growing economic areas of New York State depend upon clean energy technology, where R&D is generating thousands of jobs, high paying jobs, that are based upon the innovative technical skills of New Yorkers to create the economy of the next century.

And so at an environmental level, at an ethical level, in terms of the experimentation of the famous quote of the States as laboratories of democracy, we are the ones who can now begin to set those examples to find new boundaries and accomplish what is, in small steps initially but larger steps as we move along, the critical objective of controlling our emissions.

The CHAIRMAN. Thank you. The time of the Chair has expired. The Chair recognizes the gentleman from Wisconsin, Mr. Sensenbrenner.

Mr. SENSENBRENNER. Thank you very much, Mr. Chairman. President Clinton signed the Kyoto Protocol in 1998, but did not submit it to the Senate for ratification. Did he make a mistake in failing to submit the treaty to the Senate for ratification?

Governor SPITZER. I will rarely say this. I think that is a question beyond the ken of my jurisdiction. That really relates more to a political judgment that was made back then.

And I will say this. I wish we had an international accord with respect to the issue of greenhouse gas emissions, one that had as its membership and constituent members those very nations that

I know you will focus on by virtue of their size, their hesitancy to participate right now. And I agree with your opening statement that we will do well to persuade them to participate as we go forward, and we need that.

Mr. SENSENBRENNER. Two years before Kyoto the United States Senate unanimously approved a resolution sponsored by Senators Byrd and Hagel stating that they would not ratify a treaty that was not worldwide in application and which hurt the United States economy. Do you think the Senate made a mistake in unanimously voting for that resolution?

Governor SPITZER. Again, I will answer it in a slightly different way. I am not going to agree or disagree with the precise resolution whose terms I haven't read and passed in a context that maybe is different than that we face today. But I will challenge the premise that resolutions of that sort or behavior of that sort is harmful to our economy.

I think just the opposite. I think the experience that we have seen is that energy innovation, moving towards greater efficiency, moving towards energy sources that do not depend upon greenhouse gas emissions, those types of actions and behaviors stimulate our economic growth, push us into frontiers where we have innovative products that we generate the sorts of creativity that drive our economy, and so I think that is where we want to go.

Mr. SENSENBRENNER. Well, the bottom line in this debate is whether there will be a cap and trade system or whether we would rely on technology and innovation to reduce greenhouse gases without the bureaucracy of cap and trade. Now, as you have described, Governor Spitzer, cap and trade will require certain electric utilities in your State to buy these offsets, and thus I would presume fold the cost of the offsets into their pricing mechanism on how much they charge consumers.

Nine years ago Clinton's own appointed Energy Information Agency head testified before the Science Committee that this type of scheme would result in an increase in electric rates from somewhere between 14 percent to somewhere over 60 percent.

How do we justify this indirect tax, and wouldn't it be better to go along with what Mayor Bloomberg said, if we are doing this, to have a direct carbon tax because at least then politicians are being honest to say that they are taxing consumers?

Governor SPITZER. Well, let me answer you. You have a couple of statements built in there, of course. First, the percentage increases that you talk about are simply wrong based upon our calculations. In fact, we think consumers will save money because the efficiency savings that will result from our comprehensive energy approach will mean that there will be less energy consumed. And even if the unit price is stable or increased marginally the consumption will be lower so the total cost will go down.

I also think it is important to recognize that what we are talking about here in our cap and trade system, and everything I have been talking about, and this goes back to our joint—I am not sure if Janet in Arizona were parties to this litigation when we were both Attorneys General—litigations we brought about the Clean Air Act. This is market economics. This is eliminating an externality, a cost that is being imposed upon us that is measurable,

that has enormous impact upon us in terms of health, in terms of quality of life that is not measured that should be brought back into the unit cost of production. And any economist who has an understanding of welfare economics would acknowledge that. All we are doing is capturing that cost, bringing it back into the cost of the product so the consumer can actually see the total cost of the product.

Mr. SENSENBRENNER. I guess I would spin it a little bit differently, Governor.

Governor SPITZER. Well, you acknowledge yours is a spin and mine is not.

Mr. SENSENBRENNER. Yeah. I think what you just described is a politician's dream because it is a tax that no politician has to vote for, and that is how you accomplish it. I will—I don't agree with what the Mayor of New York told us a couple weeks ago in Seattle. But what I will say is that at least he is honest and direct in stating that there ought to be a tax on it rather than this cap-and-trade system where the increased cost of doing what you want to do ends up being folded into the cost of the product that politicians can then scream and yell about because utilities in most areas are regulated.

My time has expired, and thank you very much.

The CHAIRMAN. The gentleman's time has expired. The Chair recognizes the gentleman from Oregon, Mr. Blumenauer.

Mr. BLUMENAUER. Thank you. I would just like to take up where my esteemed friend from Wisconsin left off about taxation and the burden that is being put on industry and consumers. Is it not safe to say that right now business as usual is imposing a huge tax in terms of the—and you mentioned the environmental items, Governor Spitzer. There is also escalating costs of doing business. I am just wondering if either of you would comment on what will be the economic consequences in your States if it is just business as usual, escalating energy prices and ignoring this until we are forced to make a change.

Governor NAPOLITANO. Yes, Representative. As I mentioned in my testimony, we actually did an economic analysis of what our program would be. And it showed a net positive effect to Arizona of $5.5 billion between now and the year 2020. But business as usual, as you comment, is really a silent tax as well, because we have escalating energy prices, and it is nonsustainable.

The ranking member mentioned Kyoto and the need to have everybody participating. In a global climate change initiative, that is the ideal situation. But recognize there are two other domestic issues involved here as well. One is our own country's energy independence and, secondly, air quality. And air quality is a key concern for counties like Maricopa County in Arizona.

So there is a domestic aspect to this in addition to the global climate change. But as your question is premised, yes, right now business as usual is a silent tax on Americans and it is nonsustainable.

Governor SPITZER. If I may add two thoughts. We have an enormous asthma problem in the City and State of New York. And that asthma problem we have has been reported the highest asthma rates in our inner cities of any major cities in the Nation. That is,

we believe, a consequence of the emissions from power plants outside of New York State. And I am not saying that to cast blame, but to say this is one of the enormous costs that is imposed upon us, the health cost, the medical cost, the limitations upon development that accrues to those who have the asthma, one of thousands of such costs that are not measured that should be brought back into the cost of the product that is being created.

And I would also say to Mr. Sensenbrenner, I think that we really have a fundamental policy choice to confront. When we simply say let us maintain the status quo without involvement and we see the price of a barrel of oil having gone up to $100 a barrel, money that leaves this Nation, goes elsewhere and is not used for any affirmative purpose here, and the alternative that we face which is that we can reduce that demand in multiple ways, increase efficiency and capture that money to use it here to create alternative sectors and creative products, I don't think anybody would rationally argue it is better to have the money flown overseas.

Mr. BLUMENAUER. Terrific. There are some apologists for the administration's foot dragging at EPA in not granting the waiver saying, well, we can't have 50 State standards, the auto industry can't cope with that. But I am hearing from your testimony, Governor Napolitano, that there are a number of States that would unite around the standard that is already being argued for in California so that a major portion of the market would be this. Is that correct? Do I hear that right?

Governor NAPOLITANO. Yes, you are correct. Under the Western State Climate Initiative we would all move to the California standard, and that standard alone and the number of States that are involved in that represent I think at least one in four, maybe one in three automobiles sold in the United States. So you could have the EPA standard and a California standard and not 50 standards.

Mr. BLUMENAUER. My final point just deals with the connection between land use and transportation, because we have two States that are sort of the book ends. The transportation efficiency for much of the State of New York is such that people have choices and there is very little demand, particularly in the Valley of the Sun until at least recently with work that you have done with mass transit. There were very few choices, and vehicle-mile standards were just going through the roof. Some sense about how you folks are looking to connect land use into this equation?

Governor NAPOLITANO. I have created actually what I call the Growth Cabinet, which is a subgroup of my own Cabinet dealing totally with issues of growth, involving interlocking issues of land use, transportation, environmental quality, and water resources that go with being the fastest growing State in the United States. We are, and I met yesterday morning actually in my State capital with a number of legislatures and then a number of representatives from power companies and the like, looking at a transportation measure for our own ballot that would include financing for rail, in addition to the light rail that is being installed in Maricopa County right now, as well as an aggressive road building program just to handle the traffic that we have.

Governor SPITZER. I would just comment briefly. You are correct that New York State, because we have several large urban cities,

in particular New York City, of course, is on a per capita basis more efficient in terms of our emissions because we have both more multiple dwelling units and a greater percentage use of mass transportation. Having said that, we are focusing on the construction, new construction in particular, to make it green construction so that as we build new office buildings and residential housing that those units will be more efficient and that will have an enormous impact on the emissions as we move forward.

The remainder of the State are suburban and more rural areas. We have the same smart growth constraints and issues that other States have. And we are trying to use smart growth in planning to get us to the point where we will be more efficient in terms of energy demand.

Mr. BLUMENAUER. Thank you very much.

The CHAIRMAN. The gentleman's time has expired. The Chair recognizes the gentleman from Arizona, Mr. Shadegg.

Mr. SHADEGG. Thank you, Mr. Chairman. And let me start with a personal peccadillo, Governor. As you know, recently there have been both news articles and editorials dealing with our high occupancy vehicle lanes in Arizona. You and I, I am sure, would agree that one way to reduce greenhouse gas emissions is to encourage people to carpool. And yet these reports indicate that Arizona has a very high rate of noncompliance. In some instances during rush hour it is 20 percent, some others say 23 percent. Governor, I was driving to the airport in rush hour yesterday and I swear that at least a third of the cars that went by me had neither blue plates, which allow them to be in that lane, nor two people in the vehicle.

I am anxious to hear if you are taking a lead, will push Arizona to put up signs warning violators of the carpool lane, and otherwise push our enforcement agencies, the DPS, which you control, to stop people from cheating on that issue.

Governor NAPOLITANO. The answer is yes. And I get as aggravated as you when I am driving and see single drivers in the high occupancy vehicle lane. So the answer is DPS is doing what it can, recognizing that DPS is stretched already because we have also been asked to help with the border situation and we have also been asked to do a number of other things that in an ideal world DPS would not be asked to do. But they are also directed to do that. But the answer is yes.

Mr. SHADEGG. We all go to California and we all see that in California nobody cheats in HOV lanes, at least not that I can see, and it frustrates me when I come home and see our people cheating.

Governor NAPOLITANO. Let me raise another point, Congressman, and that is I did take the lead in asking the Federal Highway Administration to allow us to put hybrid vehicles in the high occupancy lanes and to get a waiver from Federal regulations to enable us to do that so there would be an incentive for people to buy those kinds of vehicles. It took well over a year to get such a waiver, and to get a waiver to allow certain other types of single vehicle drivers to get in that lane I think would be doubtful.

So yes, we will focus on enforcement now.

Mr. SHADEGG. I commend you for doing that. In the Arizona Climate Change Advisory Group they put forward 49 policy recommendations which you discussed in your testimony. I have re-

viewed those. And one of them touches upon the problem that we have here with this issue, and that was raised with Governor Spitzer already. And that is enforcement in one jurisdiction being taken advantage of by other jurisdictions. For example, if we go to a cap-and-trade system here will other countries not join in, and if so, and the Governor I think made a good argument for why we should be doing it on any basis. One of the 49 recommendations to you was that we should set a maximum speed for commercial vehicles. In the Commerce Committee last winter when gasoline prices spiked I suggested that that was an issue we ought to consider, and it fell to the ground with a thud.

Have you proposed to the Arizona legislature such a restriction on the speed limit for commercial vehicles because they consume much more fuel and emit much more greenhouse gas when they are running at high speeds? Question one, have you proposed it? And question two, do you worry about that placing Arizona at a competitive disadvantage with other States?

Governor NAPOLITANO. I have not yet proposed it, in part because the legislature hasn't been in session since many of those recommendations have been developed. We are in the process of developing an omnibus energy bill for this term of the legislature, so I am in the process of considering whether a segment of that bill will be a cap on speed limits.

Mr. SHADEGG. This one I would certainly discuss with you because it is something we could be doing, and it is something we could be doing immediately rather than kind of this esoteric out in the future.

Governor NAPOLITANO. Yes. And it is something that can be done at the State level, and again evidence as how the States can be laboratories for the other States.

Mr. SHADEGG. One small point. In your testimony at page 3 you say that as of, I believe it is 2010, the State will no longer own any vehicle that is not a hybrid, alt fuel or low greenhouse gas emitting. In a previous setting you talk about few exceptions. Is it possible to achieve an absolute ban on those? That is, for our large trucks at the highway department, can we in fact have them fit in one of those three categories; hybrid, alt fuel or a low greenhouse gas emitting for the big trucks?

Governor NAPOLITANO. Mr. Chairman, it is our goal to be able to do that by 2010. Obviously if we can't, we can't, because it depends in part on manufacturers. The other possible exception is for certain law enforcement vehicles.

Mr. SHADEGG. Fair enough. I appreciate it. You have been very aggressive on this issue, and I commend you for it, both in the Arizona Climate Change Advisory Group and also in the Western—I forgot the phrase—Western Coalition. But I note that in neither of their recommendations, in the 49 recommendations by the Arizona Climate Change Advisory Group, and in nothing that I have seen about the western States' effort is there an embracing or a recommendation of moving to second generation nuclear. Arizona, as you know, has a very large nuclear plant. We also produce a lot of hydroelectricity in Arizona. People don't know that. But hydro is not mentioned also. Some people believe that both hydro and nu-

clear are ways to get quickly away from greenhouse gas emitting energy production. Others have reservations.

I would like to know, are you a supporter of second generation nuclear and are you willing to work on that or is there a reason that Arizona Climate Change Initiative left out nuclear and left out any recommendation on the hydro?

Governor NAPOLITANO. Yes. The answer is that I am in favor of second generation nuclear provided that we can get a better handle on the nuclear waste issue. I differ with some of my colleagues on that, quite frankly. But I believe our experience in Arizona with nuclear is a good example for other places. Even though our plant is an aging one it is overall well-maintained and well-operated. And I think that the second generation technology is feasible and is something that would make a major impact on greenhouse gas emissions.

So the answer is that is something that I would favor.

Mr. SHADEGG. Governor Spitzer, is that your position as well or are you on the other side of that issue?

Governor SPITZER. We have a number of nuclear facilities in New York State and we have a rather mixed record where some were constructed at enormous cost and never began operation because of construction issues and concerns about the capacity to evacuate. And we have one in Westchester, which I think all would agree and even point to, is poorly sited just from the perspective of the potential need to evacuate in the event of a disaster. Elsewhere in the State we have facilities in communities who not only welcome but are encouraging construction of additional nuclear facilities, and we are looking at that.

Mr. SHADEGG. He is tough with the gavel. Second generation support or not?

Governor SPITZER. We support the possibility and continue discussion of it. I share my colleague's concern about disposal issues. Now, having said that, the disposal problem is so enormous one can rightly say it is there regardless. And in the context of greenhouse gases there is an argument for nuclear expansion.

Mr. SHADEGG. Is my time expired?

The CHAIRMAN. It has.

Mr. SHADEGG. Mr. Chairman, if I might, I have a number of other questions. I presume we won't get to a second round. Might I submit those in writing?

The CHAIRMAN. Without objection, and would ask the witnesses to answer them.

Mr. SHADEGG. Thank you, Mr. Chairman.

The CHAIRMAN. The gentleman's time has expired. The Chair recognizes the gentleman from Missouri, Mr. Cleaver.

Mr. CLEAVER. Thank you, Mr. Chairman. Governor Napolitano, Arizona has already joined the climate registry for tracking greenhouse gas emissions. If Congress should move to establish such a registry, what would the impact be on States that have already done it? Or will it be a negative impact in your opinion?

Governor NAPOLITANO. It depends on how Congress acts. Thirty-seven States have now joined the climate registry. So there is a broad bipartisan and biregional—multiregional participation already. And I would hope that should Congress establish a national

registry, it incorporate that which already exists and certainly not go backwards.

Mr. CLEAVER. So if we were to do a best practices kind of legislation, which would require States then to conform to what we did even though they have already moved ahead? I mean, the States are the headlights and the Federal Government on this issue is serving as the taillight. So what do you think the response would be?

Governor NAPOLITANO. Well, I think the Federal Government should move to headlight status and then the States would meet that.

Mr. CLEAVER. So you would also agree—well, this—Governor Spitzer came close to this, this whole issue of climate change and our response to it, do you believe that it is a moral imperative or a political or ideological issue?

Governor NAPOLITANO. I think it is all. I think that I have been convinced that the science is there for climate change. I think there is some dispute about the rate with which that change will occur, but is definitely occurring, and that the sources of our energy production are a catalyst for some of that climate change. And this is a short-term political issue, but it is a long-term moral issue as well.

Mr. CLEAVER. Governor Spitzer.

Governor SPITZER. I think my colleague got it just right. As I said earlier, there is a moral imperative based upon the science that we now understand and the political dynamics will ebb and flow perhaps, but I think in the context of history, when people look back 100, 200 years from now, they will be mystified at our failure to respond more rapidly and probably will blame the political backdrop but will conclude, no doubt, that we must do something.

Mr. CLEAVER. Thank you, Mr. Chairman. I yield back the balance of my time.

The CHAIRMAN. The gentleman's time has expired. The Chair recognizes the gentlewoman from Tennessee.

Mrs. BLACKBURN. Thank you, Mr. Chairman. And I, like my colleague from Arizona, have several questions. I am going to submit some of these in writing and request a response. As I said, I like to focus on the areas where we agree. And working for energy independence is something that I think we all agree on.

And Governor Spitzer, I appreciate the plan that you gave us as to how you all are looking at emissions and renewable portfolio standards. And a question for each of you, since you represent States that have started working on this, a lot of our States have. In Tennessee, we are doing a good deal of work with biofuels and we have a governor that has made that a priority. So should the Federal Government come in now and mandate a standard? You know, my colleague was just talking about us kind of being the taillights on this. Should the States be allowed to work toward finding solutions with what they have? Should we just incentivize the work that they are doing? Or should we override and come in and say, no, you need to do it our way? So I would love to hear from each of you on that.

Governor SPITZER. I think you stated as either/or propositions that can be combined into something that is better than either of the options you articulated because what—and I think, and Governor Napolitano and I both dealt with this issue of preemption when we were attorneys general and it is possible for the Federal Government to articulate a standard that might be a minimum threshold without preempting States that do more without overriding more creative or alternative approaches that States have adopted. I would not want to see the Federal Government come in on a renewable portfolio standard, for instance, and mandate a number that was lower than what we have set out to do, nor would I want the government to——

Mrs. BLACKBURN. So you are saying, give us something that will challenge us and will not condescend to the work that we have in progress.

Governor SPITZER. And will set a threshold, but will not preclude our surpassing that threshold, setting more rigorous standards or doing it in a marginally different way.

Mrs. BLACKBURN. Okay. Anything to add, Governor Napolitano?

Governor NAPOLITANO. Well, I would echo what Governor Spitzer has said and also reiterate a point that is implicit in your question, which is the flexibility of how that renewable energy is met. Tennessee is biofuel. I believe Arizona should be the Persian Gulf of solar energy by way of comparison. So States have different resources available to them.

Mrs. BLACKBURN. Right. And in Tennessee we are doing a lot with that second generation nuclear. We have two—TBA has two nuclear reactors that have come online since the 2005 Energy Act was passed and we are looking forward to having more of those. There are answers there to questions that you all have. And we think some shared work can be a good thing.

Governor Napolitano, you mentioned an omnibus energy bill that you are planning before the end of the year. I would love to know in that if you are doing things that are going to incentivize clean coal, clean nuclear more on your renewable standard? And also if there is anything in there working with the educational community to incentivize the development of some of the bioscientists and the nuclear engineers that we are going to need to help solve this problem? Are you all incorporating that into your omnibus plan?

Governor NAPOLITANO. Yes. The answer is, we are looking at different types of incentives for renewables and for people to purchase renewables. For example, tax credits for the installation of solar.

And the answer is, with respect to education, absolutely. And we have been doing that; for example, at Arizona State University, they have recently opened a whole college that is focused on sustainability. And a big part of that of course is our sustainable energy future. So we are working with the academic communities as well as looking at pure public policy on the ground level.

Mrs. BLACKBURN. Governor Spitzer, anything to add on any of those initiatives?

Governor SPITZER. I would echo what Governor Napolitano just said; we are trying to do the same thing in New York State and focusing to a great extent in the context of clean coal on the possibility of sequestration, whether it is going to be technically feasible,

whether it will be economically feasible are two significant hurdles. So we need to overcome those, and we are trying to work them through. We have a number of projects we are examining right now that could be test opportunities to see if the economics work out. But certainly, clean coal is something we are looking at very, very seriously.

Mrs. BLACKBURN. Thank you. Mr. Chairman, I will yield back and submit the balance of my questions.

The CHAIRMAN. The gentlelady's time has expired. The Chair recognizes the gentleman from New York, Mr. Hall.

Mr. HALL. Thank you, Mr. Chairman. Thank you, Governor Spitzer and Governor Napolitano, for your testimony. I just wanted to pick up on my colleague from Tennessee's mention of biofuels. We have heard testimony before this committee within the last couple of weeks that there is a surplus nationwide right now of biodiesel and ethanol because of a difficulty or a lack of infrastructure to get it to market. One of our district offices, my district office in Putnam County, New York, got a call from a very excited lady saying, I just bought a flex fuel vehicle. Where can I get some flex fuel? And we had to tell her—she was disappointed to hear that there are two pumps in New York State selling E85. So first off, I am curious, Governor Spitzer, if you can tell us what plans you have in the works and how we can help you in terms of getting that mixture of ethanol up or the delivery of any biofuels to the pump.

Governor SPITZER. It is an excellent question you ask. The infrastructure has to follow the production of the product itself. So we are working with, for instance, the gas stations along the throughway to see if we can ensure that it would be possible to get ethanol mixed fuels at those gas stations. And the problems arose when the vehicle in which I drive as governor had a nice sticker on the side saying, ethanol powered. I said, that is great. Where do we get the ethanol? It turned out there were, as you point out, very few gas stations. So I was a little worried. So we are working vigorously to make sure pumps are accessible. And I think in due course—I can't give you a date right now, but in due course, that will happen.

Mr. HALL. Governor Napolitano, you have done a quite a bit of preferential purchasing of alternative fuel vehicles. Have you had any success on getting more pumps for alternative fuels?

Governor NAPOLITANO. Like Governor Spitzer, we are working on that infrastructure and in part, it will follow the number of vehicles on the road because this is a market-driven system. And as we increase demand via these vehicles, I think infrastructure will be there as well. But yes, from time to time, I have wondered where the gas pump is going to be.

Mr. HALL. Thank you. Both of you are governors of States which lie within the so-called national interest electric corridors, recently designated by DOE. With the mid-Atlantic corridor, it is likely that transmission could rely on old coal fired power plants. Would you be able to comment, Governor Spitzer, first, I guess, about how the NIETC designations would impact your efforts to formulate a regional response to greenhouse gas emissions?

Governor SPITZER. You are exactly correct. It is something we find problematic. It is one of several issues we have with the des-

ignation because it will really lead to our perhaps forced importation of energy that does not satisfy the thresholds and the objectives we have laid out. It could be dirty energy in the sense of sort of old traditional coal with emissions we want to limit, and it would be beyond our power to limit it because of the designation. So we are pushing back to see if we can challenge the designation, and we are pursuing various options.

Mr. HALL. Governor Napolitano.

Governor NAPOLITANO. Yes. On behalf of Arizona, we have serious questions about the imposition of those corridors with respect to their interference not just with the initiatives on greenhouse gases but with respect to the kind of infrastructure that will be crossing Arizona without respect to some of the land use issues that we all also have.

Mr. HALL. Thank you. I am just recalling how when seat belts were first mandated and when airbags were first mandated and when the Clean Water Act first came out, and Clean Air Act first came out, that industry and certain representatives of government cried that this was going to kill jobs and it was going to kill industry, and it was going to cause economic dislocation. And in each case, it actually caused the creation of a new industry to create seat belts or to make scrubbers for exhaust for power plants or to make airbags and so on. Have you seen any evidence in your States so far of new industries being created to meet these green initiatives you are working on?

Governor SPITZER. I would observe that one of the most dynamic sectors we have and has led recently to a very significant investment by General Electric in Schenectady is in renewable energy, wind power. Wind power is moving and growing at a remarkable clip, partly because of the incentives, partly because of programs such as the ones we are talking about this morning.

So rather than inhibit growth, they are creating new products that are being engineered. And the wind turbines themselves are on the cutting edge of technology. They are being produced domestically and could not be more demonstrative of what I believe our underlying point is, this will generate economic growth and a better environment simultaneously.

Governor NAPOLITANO. Likewise. And there was a question raised about, well, what about China and India? They are not incorporating some of these standards yet. In my view, we are moving ahead on some of these technologies. They are new markets within the United States. But I also view China and India as possible huge markets for production of these technologies from the United States.

Mr. HALL. Well, Governor Spitzer, in Westchester, as you are aware, the county executive has recently changed their fleet of hybrid buses in the county bus loop to hybrid bio-diesel buses. And I am wondering when he is going to go to plug-in hybrid biodiesel buses. And it seems to me that pyramiding more new technology on top of the other is a way to get even away from the amount of oil we are importing or burning. Does that figure into your plans as well?

Governor SPITZER. We are trying to generate, as Governor Napolitano mentioned, in terms of the State fleets, greater effi-

ciency, greater use of hybrids and County Executive Spano is always on the cutting edge. So I will have to call him and ask what the next addition to that litany of moves will be. But we will certainly be seeking to do the same thing with the State fleet and see if others also do it.

Mr. HALL. You have mentioned NYCERTA in your testimony. NYCERTA, 35 years ago or so, had a study that showed that there were low head hydro sites of small waterfalls and dams in New York State that were not being used that were sufficient in their view to power the entire City of New York's consumption at that time. Of course, understanding that New York's consumption of electricity has grown since then.

There was a study done by the Idaho National Laboratory maybe 44 years ago that located approximately 4,000 low head hydro sites in New York and said that they would combine if we harvested them by putting a turbine where the water is already falling and just capture that energy that is being lost every day, that it was greater than 1,200 megawatts, which is more than 60 percent of the Indian Point nuclear plant that you referred to at peak output. So I just wanted to know if you are planning on that as well. Is that part of your——

Governor SPITZER. Well, I have to confess ignorance of that particular study. But I will tell you that obviously because of our renewable portfolio standard has targeted 25 percent, we are seeking to maximize our use of hydro. And this extends to our use of hydro internationally in terms of accessing the international market, hydro Quebec and Canadian generation as well. So we are doing what we can do.

Mr. HALL. Thank you very much. I yield back.

The CHAIRMAN. The gentleman's time has expired. The Chair recognizes the gentleman from California, Mr. McNerney.

Mr. MCNERNEY. Thank you, Mr. Chairman. I want to thank you for coming here today. And I hope to encourage my own governor, Arnold Schwarzenegger, to come and testify sooner or later because he brings a certain showmanship and a lot of flare to the job. And it is something that it actually helps. Not to denigrate you all, but——

Governor SPITZER. We understand what you are saying.

Mr. MCNERNEY. I see global warming, as both of you do, as a tremendous opportunity for growth. If we encourage innovation and entrepreneurship, we will grow and broaden our economy not only in terms of domestic issues but in terms of selling American products to vast markets overseas. And my State and your States will benefit from this. Industries in America that resist this will be left behind. And I don't want to point too many fingers. But I hope that the American auto industry embraces this program for the sake of its own future and the sake of its own profitability.

I will go into some questions here. I am very intrigued by your RGGI approach and program, the idea of auctioning off permits or—what was the word you used—allowances. In California, we have had a fairly negative experience with the sort of marketing of utility favors in the 2001 period. Do you have a way to prevent gaming of that system or some way to prevent that kind of outcome that we experienced in California?

Governor SPITZER. The answer—I don't think I can say more than I think so. The regs are going to be finalized in the spring of 2008 and the system will be effective not long thereafter. We have created an auction system, spoken with all the regulators and examined the history of these types of markets. And so we think we have created a smooth and fairly transparent operating marketplace.

And one other aspect of it that I didn't mention earlier that I think bears mention is that the revenue that we derive from the auction of these allowances will then be used to support clean technology and clean energy research and development. And so, instead of merely giving away the allowances and giving that value to the utilities themselves, we derive an opportunity here, have an opportunity to subsidize and create new research opportunities.

Mr. MCNERNEY. Well, I appreciate that. And I just caution you to look at what happened in California in 2001, make sure that that doesn't replicate itself there in some way. Because it seems like auctioning does open up an opportunity for gaming and problems like that. What is the plan in New York to encourage automobiles to become more efficient other than just making fuel available?

Governor SPITZER. Well, we are a party with other States to the California standards. We are permitted to join with them and we consequently have joined in seeking to have EPA grant the waivers so the California standards can be embraced and then define a greater and greater share of the marketplace. I have long believed that the CAFE standards should be raised and raised significantly. That will move us dramatically in the context of efficiency. I agree with you, it will create new markets, force technology, and R&D that will create the products that the American consumer wants to buy, and I think the history of the Prius over the last number of years demonstrates that there is a real thirst in the marketplace not only for environmentally friendly products, but automobiles in particular with greater efficiency.

Mr. MCNERNEY. Thanks. I think Governor Napolitano mentioned some incentives that are in place or about to be in place in Arizona. Could you elaborate on those a little bit in terms of what consumers would benefit from buying a hybrid or more efficient vehicle?

Governor NAPOLITANO. Well, the incentive that I initiated via executive order once I got a waiver from the Federal Highway Administration was to allow hybrids to use the high occupancy lanes. And if you have ever driven in rush hour in Arizona, you will know what a value that is. Rush hour is sort of an oxymoron right now in Arizona. So we have done that. But we are also looking at other types of incentives, primarily through tax policy that would help people, for example, install solar in their homes.

Mr. MCNERNEY. Thank you. One last thing about sequestration. I know that sequestration is a technical hurdle. One of the problems with sequestration is that when you burn coal, you generate not only carbon dioxide but you generate a lot of other gases, especially if you use air. If you use pure oxygen then you just generate CO_2. So you can have not only to bury carbon dioxide, but NO_X and

SO_X, along with those which makes the problem a lot more difficult.

You mentioned wind energy. I spent my career in wind turbines. And most of the wind turbine production, it is not baseload. It is intermittent. And so the intermittent energy can be used to create hydrogen oxygen and the oxygen can be used to burn with coal and then you get the clean CO_2. So there is a lot of opportunities out there. And I am really anxious to see these things unfold in the future.

Mr. MCNERNEY. Thank you very much.

The CHAIRMAN. The gentleman's time has expired. The Chair recognizes the gentlelady from South Dakota, Ms. Herseth Sandlin.

Ms. HERSETH SANDLIN. Thank you, Mr. Chairman. Picking up on where Mr. McNerney left off with wind energy. Governor Napolitano, you mentioned that Arizona, in your opinion, and perhaps many other Arizonans, is the Persian Gulf of solar energy. In South Dakota, we viewed ourselves as the Saudi Arabia of wind energy. And so I am curious as it relates to your thoughts on transmission. In the Energy Policy Act of 2005, there were provisions that dealt with energy corridors, dealt with FERC's authority to cite these authorities mostly over Federal lands. That has been controversial in some parts of the country.

But to get our energy, renewable energy resources to other parts of the country, not just community-based and within the State, we have to upgrade our transmission capacity in this country and I am just curious to see your thoughts and Governor Spitzer, yours as well, as it relates to our transmission capacity in the country and what you think the appropriate Federal policy should be in the future to enhance it.

Governor NAPOLITANO. Yes, I agree with your statement that the transmission issues are large issues particularly in the western States. We would prefer to be able to work those out regionally as opposed to having Washington, D.C. dictate where the transmission corridors are to be located. Because in my view, FERC, in particular, has a very limited perspective on the western grid and how transmission can occur in the western States.

Governor SPITZER. I would add merely that we have significant transmission issues in the east as well in the sense that we have just a geographic gap between where there is access to hydro power, wind power, for instance, or some of the clean coal facilities we are talking about, which might be sited on one of the regions of the State, and the energy demand may be elsewhere in the State. And siting transmission lines is often a rather knotty issue because people are not often thrilled to have the high tension wires proximate to their property.

We are looking very hard at what rights of way the State already has, whether it is through throughways or railways, whatever it may be, to see if we can take advantage of those existing rights of way and thereby not need to encounter the very difficult problems of creating new rights of way.

Ms. HERSETH SANDLIN. Do either of your States have a renewable fuel standard? Let me first clarify. You both have renewable electricity standard? Both States do? Either State have a renewable fuel standard, like the State of Minnesota and other States

have passed, that would require a certain percentage of the gasoline sold to carry 10 percent, 15 percent, 20 percent of ethanol biodiesel?

Governor SPITZER. I am not sure.

Governor NAPOLITANO. We have standards in order to meet some ozone issues in the summer. So we have winter fuel and summer fuel. But we don't have a standard such as Minnesota's.

Ms. HERSETH SANDLIN. I just raise that in response to Mr. Hall's questions as it relates to one of the barriers for biofuels being the infrastructure and the availability of the distribution system across the country. Certainly, I commend you for your efforts within the State and the throughways, trying to address—I know they are doing this in Texas as well—to get as many stations with E85 or biodiesel as possible along the routes most widely traveled. But the other issue here is that refiners, some refiners in the country are not blending more ethanol than they are required to blend.

And this highlights the importance of the energy bill that is pending in the Congress, both as it relates to incentives for infrastructure and distribution as well as a more aggressive renewable fuels standard. And so taking that along with the renewable electricity standard, the issue of citing transmission, we just don't have time to be sitting around, waiting for refiners to decide they are going to blend more or utility companies to decide that they are going to figure out a way through efficiency and through other sources to meet these standards. And we don't have time for the NIMBY problem to hold us up for the importance of the next generation dealing with the energy issues, energy independence as well as the greenhouse gas problems of climate change.

So again, I commend you for what you are doing at the State level. I hope that your Western Governors Association and the eastern—is it the eastern governor's? North Atlantic? What is your——

Governor SPITZER. I am not sure. Too many associations, I lose track of them.

Ms. HERSETH SANDLIN. If you would encourage, in a bipartisan way, support for the energy bill that is pending so that we can get the momentum before the end of the year to pass that legislation. Thank you both.

Governor SPITZER. Thank you.

The CHAIRMAN. The gentlelady's time has expired. The Chair recognizes the gentlelady from California, Ms. Solis.

Ms. SOLIS. Thank you, Mr. Chairman. I want to thank both of our witnesses for coming here today, and also to thank you for joining in with California in our lawsuit against EPA. I really do want to commend you for that. But I wanted to ask a question, Governor Spitzer, that you kind of touched based on in terms of what impacts this has negatively on communities. And I am very concerned about low-income and underrepresented communities. And you mentioned asthma as one factor. And I wanted to read this if I could. I am concerned about climate change. And recently as of October, the CDC limited their full testimony and deleted very important material on information and impacts of climate change on racial and ethnic minority communities and recommended that public health preparedness for climate change was somewhat minimized and that assessments probably shouldn't take place.

I want to get your opinion and hear what you have to say about that.

Governor SPITZER. Well, I think the point you were making is a very valid one. The burdens of—the environmental burdens, the health burdens of where energy plants are sited and the consequential costs, the externalities I guess the economists would call them, fall disproportionately on the lower end of our economic spectrum and that often means on communities of color and the minorities in our community as well.

So we need to think about this as a distributional issue. There is a very potent environmental justice advocacy community that argues with great merit that when we talk about siting energy facilities, we have to think about it in the context of environmental justice precisely because of the distributional issues you raised.

Ms. SOLIS. Thank you. And for Governor Napolitano, thanks for also being here. And I know that you have a number of issues and challenges you face with respect to low-income communities, particularly farm workers and those rural communities that are also disadvantaged. And I wanted to hear if Arizona is developing any plans to do outreach to those communities to ensure that impacts, such as the ongoing droughts, fires and things and persistent heat waves, how those affect the community and what kind of efforts are you making to help inform those communities about prevention, awareness and what they can do?

Governor NAPOLITANO. Well, there are a number of efforts both at the State level primarily through the Department of Environmental Quality and the Department of Agriculture and the Department of Water Resources on the educational level and on the variety of issues that you list and also localities and the like. One of the things that we are really trying to now instigate in Arizona as we grow are transit options other than the automobile. And so, within for example, Maricopa County, our most populous county, we will be opening 20 miles of light rail by the end of 2008 with another 40 on the books to that. And as I said earlier, we are also looking at the possibility of rail, for example, between Phoenix and Tucson. In other words, there are environmental reasons for doing it, but there is also just pure transportation reasons to help people move from one place to another.

Ms. SOLIS. One of the other issues I wanted to raise with Governor Spitzer was with respect to the ports and pollution. And of course, California just recently experienced a tremendous oil spill. And that is going to damage much of our ecosystem there. And I am wondering what is New York doing also to look at the negative impacts that vessels, marine vessels have on communities that are immediately affected by the air pollutants that are so devastating and have a very, very high negative impact on respiratory diseases, chronic illnesses and the like.

Governor SPITZER. I will, with your permission, get back to you to see what, in particular, the Port Authority which has jurisdiction over the major ports in New York State is doing with respect to that. I will tell you I recall from my days as attorney general, we brought a number of cases with respect to the dumping of bilge water by ships which they would do in harbors and out in the oceans as well, which had accumulated all sorts of environmental

pollutants that should have been handled different. So I know it is an issue we look at. I do not know precisely what the Port Authority is doing with respect to that issue. But I will get back to you.

Ms. SOLIS. I just raise that because in Los Angeles, one of the largest points and Long Beach are both looking very aggressively at how to curtail that negative footprint there which has a tremendous impact on the entire region of Southern California. Yes, Governor.

Governor NAPOLITANO. I would like to add, that you also I would recommend look at land ports because we haven't improved the port infrastructure on the land ports between the U.S. and Mexico for years. That results in truck and car waiting lines that can be 5 or 6 hours long. They were 6 hours at the crossing at Lukeville, Arizona 2 weeks ago. And as you might imagine, sitting in an idling vehicle for that long is a problem. The whole land port infrastructure I would hope would be part of your recommendations.

Ms. SOLIS. Thank you.

The CHAIRMAN. The gentlelady's time has expired. The Chair recognizes the gentleman from Washington State, Mr. Inslee.

Mr. INSLEE. Thank you. You might sense there is tremendous jealousy from this end of the table when we listen to governors and mayors and see this spectacular progress and we haven't made it here. We are envious of your great progress. And one of the reasons is we have just got folks here in D.C. who are afraid of moving, to really move into this clean energy economy. I was hoping you might give our colleagues confidence in our ability to do so both economically and politically. I just wonder, if you could talk about the political lay of the land on these issues in your States to the extent they are bipartisan, to the extent there has been pushback or rollback since you have adopted these. My sense is there is great movement without great political risk, frankly, in your States moving forward on these issues. So I was wondering if you would address these issues.

Governor SPITZER. I thank you for your kind words, but I would merely caution, that we have aspirational objectives that are still years out. We have not yet accomplished these thresholds. We certainly hope to and expect to. I would make this observation, in New York at least, the move towards an environmentally sound and environmentally conscious economy is bipartisan. Mayor Bloomberg is taking now an independent, ran as a Republican; my predecessor, Governor Pataki, a Republican were certainly very aggressive in this area as well. I think there is a bipartisan consensus that our economy will benefit, our environment will benefit simultaneously when we move in these directions in each of the various mechanisms through each of the various mechanisms we have been discussing.

Governor NAPOLITANO. I would note also that for example, the Western Climate Initiative is joined in by States like Utah which may be the most heavily Republican State by registration in the country, certainly must be close. And in my view, in Arizona, the politics have changed on this. As more information has become available to people, they have become more engaged in the issue and more concerned with the impact of greenhouse gas emissions,

not just as a global warming issue, but on energy independence and on air quality overall.

And so while there is always some pushback, oh, you are going to add to the cost of the car or this or that, it has not certainly been overwhelming and indeed the contrary is what I have been seeing is people really want to see that we are taking action in this area and see the possibility and the future and the opportunity for us to do so.

Mr. INSLEE. Well, we hope that bipartisanship will be coming in effect to Washington, D.C. too. And I know I have taken a scientific poll in New York City of the mayor's efforts to have hybrid taxis. Both taxi cab drivers—I was up there a week ago talking to the Wall Street folks who are already developing the infrastructure for national cap and trade system. But both taxi cab drivers wholeheartedly supported the move to hybrids. So that is a scientific poll.

Governor SPITZER. That is.

Mr. INSLEE. Could you give us your thoughts about decoupling? Some of us think decoupling the revenues of utilities from the amount of electricity they sell immediately creates an incentive to help them finance infrastructure improvements and efficiency and conservation. I am told there has been some action in your States about that. Could you enlighten us at all?

Governor SPITZER. Sure. I agree with you entirely. Decoupling so we actually create an incentive for the utilities to sell less energy. It sounds counterintuitive. We say to them, you can make more money by encouraging efficiency, which is, of course, the policy we want, is something we have sought. The Public Service Commission is studying that issue right now. It is something I have encouraged them to move forward on so the revenue of the utilities, the energy generators does not depend upon merely selling more. But we can say, by promoting efficiency, you will do better and the entire economy will thrive.

Mr. INSLEE. We have made efforts in our current energy bill actually have a Federal requirement for local communities to adopt energy efficient building codes. The first time ever the Federal Government would have any entry into that field. It does not have any sanction attached to it. It calls under local communities under Federal law required to do this, but has absolutely no sanction involved in it. If we do this, will that be of assistance to local leaders to get them to move forward to building codes or do we have to have a sanction associated with it to actually make this an effective tool of national policy?

Governor NAPOLITANO. Well, I always find the ability—I am a former attorney general—the ability of a sanction is nice leverage to get communities to move in the right direction. We are doing it voluntarily now and we are leading by example. And my executive order in Arizona I have directed that State buildings be built to lead standards in order to meet really the environmental requirements of the age in which we live moving forward.

And I have encouraged our cities to follow that example. I have not mandated it. But if you are going to go and go vote for a mandate, it seems to me there ought to be something associated with it.

Mr. INSLEE. Well, we are pushing it. I haven't got there yet. Last question about auctions, some of us believe the larger percentage of auction the sooner the better as far as the real economic ramifications. Could you give us your comments about them and how you decided on a particular percentage of auction?

Governor SPITZER. We moved to 100 percent auction on the theory that implicit in your statement, if you auctioned off the allowances, then you create a greater incentive and greater opportunity for the market to actually value the allowance, and so we just think it will work better. As I said in my testimony, I believe it has not been done elsewhere. So we will have to wait and see how it works before we can state definitively. But we believe theoretically, it is the right way to go.

Mr. INSLEE. Thank you very much.

The CHAIRMAN. The gentleman's time has expired. And all time for questions has expired. Thank you, first of all for your bold leadership. It is a real example to the country. We do have an intention to bring an energy bill to the House floor in the next 4 weeks. We will hopefully increase the fuel economy standard to 35 miles per gallon, create 36 billion gallons of renewable fuels and have a 15 percent electricity standard for the whole country, in addition to having standards for all appliances and buildings going forward in the country. And that would have the effect of reducing by 40 percent the greenhouse gas emissions of our country by 2030 in terms of the goal for our country.

But we need your leadership. And without question, you are driving this entire process. That is why the Congress is responding. Your leadership is very much appreciated. We thank you for it. And with that, this hearing is adjourned.

[Whereupon, at 11:35 a.m., the committee was adjourned.]

House Select Committee on Energy Independence and Global Warming
State Leadership Towards a Low Carbon Energy Future
Wednesday, November 14, 2007
Testimony of Governor Deval L. Patrick of Massachusetts

Thank you, Chairman Markey and members of the Committee, for the opportunity to offer this testimony. I congratulate the House for taking leadership on the critical issues of energy independence and global warming by convening this select committee. Chairman Markey, I thank you in particular for you tireless efforts in these areas. And I thank you for holding this hearing on the initiative being taken by states around the country to lead us toward a future where we meet our energy needs while slowing global climate change.

Climate change is the critical environmental challenge of our time, and it can be met only with global solutions, which requires federal leadership. So far, in the United States, national action has not been forthcoming. We look to your leadership to bring the era of federal inaction to an end.

As you know, the basic science on climate change is now incontrovertible. The Nobel Prize winning work of the Intergovernmental Panel on Climate Change has shown through its impacts report, and recent regional studies what the impact of climate change will be *here* – on our coasts, in our cities, in our forests. If no action is taken, these reports, and a range of other studies, predict greater extremes of weather, increasing heat-related illness, respiratory and cardiovascular disease, and disruptions to our economic sectors dependent on natural systems, like agriculture and fisheries. Massachusetts has 1,500 miles of coastline and a third of our population lives in the coastal zone. Fishing, agriculture, tourism, and energy production facilities located on our coasts are all subject to impacts such as coastal erosion, marine ecosystem changes, sea level rise, warmer temperatures and increasingly powerful storm surges.

What we in Massachusetts, and in other states that are taking action, have come to realize is that we are at an energy crossroads. If we continue down the path we're on, using more and more energy from fossil fuels, what lies ahead is economic, societal, and environmental catastrophe. But there is another path, one that promises relief from the threat of climate change, and also offers enormous opportunity to develop clean energy technologies and sell them to the world -- all while bolstering our state's economy through additional job creation and reduced energy costs. We in Massachusetts are choosing the path toward a Clean Energy Future. I strongly urge Congress to do the same for the nation.

It's not enough to reduce greenhouse gas emissions, though that is necessary. We need to create non-emitting alternatives that will meet our energy needs for economic growth. That is, we need to move toward a **Clean Energy Economy**.

That means growing the market for renewable energy for power generation, and it means making energy efficiency – the cleanest energy of all – compete with power generation to meet our electricity needs.

Massachusetts has been a leader:

- **Comprehensive energy legislation:** Last week I stood with the leadership of the Massachusetts legislature, and leaders in the business and environmental communities to announce a comprehensive energy bill that will go a long way to mitigate climate change. This bill will unleash energy efficiency and more aggressively push our renewable energy programs even beyond our already existing Renewable Portfolio Standard.

  - **Energy Efficiency:** Massachusetts is plagued by some of the highest energy costs in the country. We have no native sources of fossil fuel, and we are literally at the end of the pipeline for gas and oil. We pay the highest prices, and are subject to volatility in the market. To reduce costs, we have a history of harnessing our greatest resource – the creativity and innovation of our citizens, institutions, and entrepreneurs. We have an unbroken 20-year history of investing in energy efficiency Currently, energy efficiency programs run by the utilities take a small portion of the customer's bill and invest it in projects for businesses and homeowners – efficient lighting, new pumps and motors, insulated windows. For an investment of $370 million in ratepayer funds from 2003 to 2005, participating customers captured bill savings of $1.2 billion over the life of those improvements.

    These programs already meet one third of the growth in electricity demand every year, but we know we can do better. We are putting in place plans to grow our economy without growing our electric consumption *at all,* by fully tapping our potential for energy efficiency gains. In that same 2003-05 period, our energy efficiency programs purchased energy savings at a cost of 3 cents per kilowatt-hour, compared with 8 cents for power generation. There is much more low-cost energy savings to be had. The legislation would capture all available energy efficiency that costs less than power generation. Our analyses indicate that this could triple the amount of energy efficiency investments that are made each year. As more businesses, institutions, and households avail themselves of efficiency improvements, they will save money by buying less electricity, and less demand overall will save money for all consumers, and reduce emissions of greenhouse gases.

  - **Renewable Energy:** Our state was also a leader on starting a Renewable Portfolio Standard to provide incentives for the development of renewable energy. I applaud Congress for considering such a program nationwide. As Congress debates an RPS, please consider rewarding early movers, holding ratepayers in states with already existing RPS programs harmless, and extending farther into the future the production tax credit for all renewable energy. Four of the six New

England states have meaningful RPS programs and we work collaboratively to assure that the regional market works effectively. Since the launch of the Massachusetts program, we have seen our capacity of new renewable energy projects grow from 218 MW in 2004 to 744 MW today. In the town of Hull, the municipal utility has installed two wind turbines that produce 13 percent of the town's electricity demand. Already they have saved the town, businesses and residents $1.5 million. The first turbine paid for itself in less than 5 years; the second turbine is on track to pay for itself even sooner. Hull is now planning to install offshore wind turbines, ultimately providing nearly 100 percent of the electricity in town. And, as I'm sure you know, Massachusetts will – we hope soon – be the home of the first offshore wind farm in the United States. The Cape Wind project has been controversial, but I am convinced that the benefits of clean, renewable power outweigh the concerns expressed by opponents, and my administration gave initial environmental approval to the project in March.

We have learned from this history with an RPS, and this new legislation builds on that experience. First, we more aggressively ramp up renewable energy requirements, meeting at least 20 per cent of the state's electric load by the year 2020 through new, renewable generation. Second, this bill will establish a pilot long term contract provision for renewable energy, providing certainty for renewable energy developers seeking financing.

- **RGGI:** In January, in one of my first acts as Governor, Massachusetts joined the Regional Greenhouse Gas Initiative (RGGI). RGGI will be the first cap-and-trade system for Greenhouse Gases in the country, harnessing the power of the market to achieve cost-effective emissions reductions. Through RGGI, the region will stabilize carbon dioxide emissions at 2005 levels starting at 2009 through 2014, and further reduce these emissions by 10% by 2019. Massachusetts is a leader in RGGI's implementation. We are the first RGGI state to issue draft regulations governing the auction of emissions allowances and plan to auction 100 percent of these allowances by the second quarter of 2008. Giving out allowances for free would amount to a financial windfall for power generators. By auctioning, we will capture the value of those allowances and invest the money back into energy efficiency and other ratepayer relief. Indeed, our analysis shows that using those funds to boost energy efficiency will actually *save* consumers money. We all know that regional approaches to emissions reduction have limitations, but we hope that RGGI, as well as the Western Climate Initiative, will pave the way for the federal program we know we need.

- **Environmental Reviews:** We will encourage more clean-energy thinking among businesses and developers by becoming the first state to incorporate greenhouse gas emissions analysis in our state environmental review process. Under the Massachusetts Environmental Policy Act review process

(like federal NEPA), the definition of "damage to the environment" now includes the emission of various greenhouse gases. As a result, proponents of projects subject to this policy will have a duty to quantify the greenhouse gas emissions generated by the project, including transportation impacts, and to identify measures to avoid, minimize, or mitigate such emissions. With this action, we have brought greenhouse gas emissions into the mainstream of environmental protection. Recently, Harvard University, which voluntarily subjected itself to the Greenhouse gaspolicy while it was still pending, went much further than the policy required, and made a voluntary commitment to legally binding emissions reduction goals in its proposed 200+ acre expansion of its campus.

Firms throughout the state understand that saving energy is good business. Genzyme, a world-class biotech firm, designed its new headquarters in Cambridge to use 41 percent less energy than a comparable building built to code. But they also use solar power and use bi-product steam from a cogeneration power plant. The result: 74 percent of the time, no additional fossil fuel consumption for all of their energy use in the building.

- **Biofuels:** The Massachusetts Senate President, Speaker of the House, and I filed nation-leading legislation that establishes minimum content requirements and tax incentives for **biofuels.** Already a leader in R&D in this arena, we expect this legislation to expand research and dramatically grow biofuels commercialization, refining and distribution sectors of our Clean Energy Economy.

- **Low Emissions Vehicles Standard:** Massachusetts also stands poised to adopt the California Low Emission Vehicle standards. In fact, our state law requires us to do so. But the U.S. Environmental Protection Agency has been unwilling to grant the waiver necessary for California, as well as states like Massachusetts, to put them into effect. . As was made clear by the lawsuit filed last week, I stand with California in calling on the EPA to end years of delay and give California its waiver, so that the states can lead the way. I also call on the EPA to begin regulating greenhouse gas emissions, as the US Supreme Court directed it to do, in a case where Massachusetts was the lead plaintiff.

- **Jobs:** In Massachusetts we have come to see the Clean Energy Future as not only an environmental imperative, but an economic opportunity as well. While some might claim that emission reductions are a cumbrance that could disadvantage economic competition with countries like China and India, we see an opportunity. Venture capital investments in the clean technology sector are projected to exceed $19 billion by 2010 and create up to 500,000 new jobs nationwide. With our technological know-how, high-skilled workforce, and venture capital resources, Massachusetts should and will become a leader in the development and deployment of clean energy technologies –reaping the benefits in jobs and economic growth. On an international level, the same should be true of the United States as a whole.

- We set a goal of increasing installed **solar power** from 4MW today to 250 MW in 2017, through state incentives and a first-in-the-nation alliance between an electric utility and a solar panel manufacturer. – Evergreen Solar's first US manufacturing plant will be built in Marlborough, Massachusetts and create 375 new jobs.

- We won DOE designation for a **Wind Technology Testing Center**, one of two sites in the country to test large-scale wind-turbine places, which should make Massachusetts a hub for wind-power research and development.

- We have committed to building a **Clean Energy Cluster**, by convening clean energy executives and encouraging them to establish a Clean Energy Council, or trade association, to make their presence and their needs known to state officials. Such a group is in the process of formation. Today, Massachusetts has 556 companies in the clean energy sector, accounting for 14,000 jobs. And with a growth rate of 20 percent a year, the Clean Energy Cluster is poised to become 10th largest industry in Massachusetts.

- Massachusetts is also pursing the clean energy path, for transportation to achieve economic and environmental benefits. We recently announced a pilot program to test the feasibility of **plug-in hybrids** for our state vehicle fleet. All indications are that this is the next clean energy technology for transportation, and it is being developed in Massachusetts. We hope that our demonstration of this technology will speed the commercialization of plug-in battery technology.

- Our goal of achieving **zero electricity load growth** by 2010, by meeting all additional electricity needs through efficiency, rather than additional power generation, will not only save money for customers but build demand for energy efficiency products and services that will create an estimated 3,500 new jobs.

As I said at the beginning, we are at a crossroads, and you on this committee have the responsibility to choose the right path As Governor of Massachusetts, I have made my choice. I could not, in good conscience, choose for my state the path of continued high energy costs and dependence on imported fossil fuels. In the other direction lies a Clean Energy Future – full of challenges, to be sure, but full of opportunities as well. That's the path for me, and for the Commonwealth I am honored to serve. I ask you to join me on that path.