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THE IMPLICATIONS OF THE SUPREME COURT'S DECISION REGARDING EPA'S AUTHORITIES WITH RESPECT TO GREENHOUSE GASES UNDER THE CLEAN AIR ACT

HEARING

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

FIRST SESSION

APRIL 24, 2007

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ONE HUNDRED TENTH CONGRESS
FIRST SESSION

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C O N T E N T S

Page

APRIL 24, 2007

OPENING STATEMENTS

Boxer, Hon. Barbara, U.S. Senator from the State of California 1
Inhofe, Hon. James M., U.S. Senator from the State of Oklahoma 4
Lautenberg, Hon. Frank R., U.S. Senator from the State of New Jersey 7
Bond, Hon. Christopher S., U.S. Senator from the State of Missouri 8
Whitehouse, Hon. Sheldon, U.S. Senator from the State of Rhode Island 11
Thomas, Hon. Craig, U.S. Senator from the State of Wyoming 13
Lieberman, Hon. Joseph I., U.S. Senator from the State of Connecticut 14
Klobuchar, Hon. Amy, U.S. Senator from the State of Minnesota 16
Carper, Hon. Thomas R., U.S. Senator from the State of Delaware 17
Cardin, Hon. Benjamin L., U.S. Senator from the State of Maryland 19

WITNESSES

Johnson, Stephen L., Administrator, U.S. Environmental Protection Agency ... 20
Prepared statement 21
Reilly, William K., Senior Advisor, TGP Capital Founding Partner, AQUA International Partners 46
Prepared statement 48
Response to an additional question from Senator Boxer 52
Browner, Carol M., Principal, The Albright Group, LLC 52
Prepared statement 54
Klee, Ann R., Partner, Crowell and Moring 60
Prepared statement 62
Doniger, David, Policy Director, Climate Center, Natural Resources Defense Counsel 73
Prepared statement 75
Glaser, Peter, Partner, Troutman Sanders, LLP 77
Prepared statement 79
Responses to additional questions from Senator Inhofe 82

THE IMPLICATIONS OF THE SUPREME COURT'S DECISION REGARDING EPA'S AUTHORITIES WITH RESPECT TO GREENHOUSE GASES UNDER THE CLEAN AIR ACT

TUESDAY, APRIL 24, 2007

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

The committee met, pursuant to notice, at 9:45 a.m. in room 406, Dirksen Senate Office Building, Hon. Barbara Boxer (chairman of the committee) presiding.

Present: Senators Boxer, Inhofe, Bond, Cardin, Carper, Klobuchar, Lautenberg, Lieberman, Thomas, Warner, Whitehouse.

Senator BOXER. The Committee will come to order.

We welcome everybody here. We look forward to a very productive morning. Senator Inhofe and I will take up to 10 minutes for our opening statement, and then colleagues will have 5 minutes for their opening statements, and then we will go to the Administrator and then to our distinguished panel.

OPENING STATEMENT OF HON. BARBARA BOXER, U.S. SENATOR FROM THE STATE OF CALIFORNIA

Senator BOXER. On April 2, 2007, 22 days ago, the Supreme Court of the United States of America ruled that EPA has the ability to regulate greenhouse gases as an air pollutant under the Clean Air Act. This landmark opinion confirms that EPA can take action now, using existing law, to begin fighting to save our planet. The world's leading scientists tell us, including our own National Academy of Sciences, that prompt action is needed and we can't afford a delay.

Because EPA chose to challenge the plain language of the Clean Air Act and go to court, rather than take immediate action, we have lost several critical years in the fight against global warming. With years of litigation, both time and taxpayer dollars have been wasted just in the effort to overcome EPA's resistance to regulating greenhouse gas pollution.

I very much appreciate the Supreme Court's opinion in this matter, but I do regret that it was necessary, when the language of the Clean Air Act is so clear. EPA has the authority to regulate carbon dioxide and other greenhouse gases as an air pollutant because the Act's, and I am quoting here, "sweeping definition of air pollutant includes any physical or chemical substance which is emitted into

the air." This is the Supreme Court saying this. EPA has authority to regulate carbon dioxide and other greenhouse gases as an air pollutant under the Clean Air Act because the Act's sweeping definition of "air pollutant" includes any physical or chemical substance which is emitted into the air.

Now, what I find interesting is that if you go and look closely at comments made by the Administration, they have actually admitted that the threat posed by global warming is very real, and requires our leadership to confront it. Just go to the White House website and read the President's own words under the heading, Leading the Global Effort on Energy Security and Climate Change.

This is what the President says: "The issue of climate change respects no border. Its effects cannot be reined in by an army nor advanced by any ideology. Climate change, with its potential to impact every corner of the world, is an issue that must be addressed by the world," President George W. Bush, July 13th, 2001.

Upon issuance of a recent IPCC report on global warming, the Bush administration issued a press release stating, "The report confirms what President Bush has said about the nature of climate change. It reaffirms the need for U.S. leadership."

The Bush administration's own Pentagon commissioned a report on global warming and national security. It includes that the U.S. will find itself in a world where Europe will be struggling internally with large numbers of refugees washing up on its shores, and Asia in serious crisis over food and water, disruption and conflict will be endemic features of life. And that is a report by the Bush administration's Department of Defense.

The current administrator, Mr. Johnson, who is here today, has said in public statements that EPA takes this issue seriously. All of these words, ladies and gentlemen, should add up to action. But instead, Mr. Johnson, you chose to hide behind a bogus legal argument that was decimated by the Supreme Court. But now in light of this Court decision, there is an unmistakable green light for action now.

EPA Administrator Johnson is here today to testify on behalf of the Administration, and Mr. Johnson, when we got your testimony on Sunday, I read it with great anticipation. Surely, I thought, the time has come for us to begin to tackle this problem together. We have had all these statements from your Administration, and you, the DOD, the IPCC, everybody, the President, the Supreme Court decision. But when you take away the rhetoric and the nice words and the 19 pages of EPA testimony delivered to us yesterday, and I surely hope that you are going to change some of that and give us some action. I surely hope that over the last 48 hours you have thought about this. But if you just give us what you gave us in writing, you don't get to the issue of global warming until page 17 in terms of what you are going to do about this—page 17 of 19 pages.

Administrator Johnson says, "It is impossible to date to understand and explain fully how the decision may have any specific impact." That is what you write to us. "It is impossible to date to understand and explain fully how the decision may have any specific impact."

I don't know what decision you read, sir. This decision is so clear, and I urge you to read it again. Don't have it filtered by anybody. Just read the clarion call of that Supreme Court decision.

And you write more about the great bureaucracy involved and the numerous procedural options even to grant California's request for a waiver to regulate global warming emissions under the Clean Air Act so California can get on with this challenge, according to the will of the California people, our Democratic legislature, our Republican Governor.

So when we look behind the words of the current Administrator, we seem to be getting next to nothing. Again, I hope you have had a second thought and will give us something new today.

Now, today we will hear from two former Administrators of EPA, both Republican and Democratic, and they will tell you EPA can begin to take action now on the California waiver for vehicle regulations, on vehicles nationally, on power plants and more. And early analysis on this was done years ago during the Clinton Administration, so a lot of the work has been done. There is no excuse for a delay.

California's request for a waiver to regulate vehicle emissions has been pending for 16 months. I thought this Administration respected State's rights. Eleven additional States, including Maryland, Vermont, Connecticut, New York, New Jersey, Rhode Island, all represented on this Committee, as well as Washington and Pennsylvania, have moved forward to adopt the California standards.

EPA stands in the way of action. Vehicles represent about one third of global warming emissions. California will cut emissions by one third. It is a serious start, but all of these States have been blocked by the Environmental Protection Agency. EPA could issue a notice for public comment today, and I hope you will do that. It is not in your statement, but you can still do that.

In a few short months, this waiver could be in place. I expect action from EPA. I will pursue this issue with Mr. Johnson and this Administration week after week until California and 11 States are free to act and much more gets done.

The stakes are high. The U.N. representing hundreds of the world's leading scientists told us our water resources are threatened, the most vulnerable in our society are threatened, and as many as 40 percent of the species on Earth—40 percent. I sat right here in this room last week where the scientists showed us that chart. Senator Whitehouse was there. Forty percent of God's creation is threatened with extinction if we don't act soon. We have heard from the Bush Administration that they respect the findings of this organization.

So I would just say unless there is a change, the EPA's current plans, which Mr. Johnson will tout today, will leave us all in serious trouble. I have materials used in a briefing with the Administrator early this year where he was informed that the Bush Administration plan would allow global warming emissions to continue to grow and would make very little difference when compared to the status quo. There will be no stabilization of emissions under the current plans, and dangerous climate change will not be averted.

And by the way, in the last few years, our emissions have gone up 3.3 percent since the Administration took office. We cannot afford to have our emissions increasing, and they are. That is not in dispute. Slowing the increase, which has up to now been the Administration's plan, doesn't protect us in the future. EPA has the tools to take action now. EPA has a duty to act. It is time for the U.S. to be the leader in this global fight. We can't afford to wait, and EPA has the full authority to act today.

Thank you very much.

Senator BOXER. And now for a different perspective. Senator Inhofe.

[Laughter.]

Senator INHOFE. Oh, not that different.

OPENING STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM THE STATE OF OKLAHOMA

Thank you very much. It is really good to see people that you haven't seen for a long time. Ms. Browner, I have always held you in a very high, high regard, but it has been a long time since I have seen you. It is nice to have you back.

And of course, we see quite a bit of you, Stephen.

Let me just mention that if you go to the website that Senator Boxer was talking about, I think you will see why, and I find myself also in agreement with many of the things that both the U.N. and the IPCC said. In that report, they said they downgraded man's contribution. They downgraded man's contribution by 25 percent. They have changed the sea level rise, downgraded that by 50 percent. They came out and said that livestock emissions emit more greenhouse gases than the entire transportation sector. So there are a lot of things that we just don't seem to talk about that came out in that report.

But I thank you for having this so that we may examine the recent Supreme Court decision that, more than any other in recent years, usurps congressional authority. It represents judicial activism at its worse, where five judges chose to place their own policy concerns above the rule of law. Through this decision, the Court's liberal judges have not only chosen to provide the executive branch with authority it clearly was not granted, but to create a regulatory quagmire in which the EPA is granted the authority to regulate carbon dioxide through a statute which clearly was not intended to deal with it.

Ironically, when the Clean Air Act was passed in the 1970's, the doomsayers in society were not saying the world was going to turn into a ball of fire, but a ball of ice. Another ice age was coming and surely we were all going to die.

The simple fact is that this issue is not only extremely complex from a scientific perspective, but also from an economic one. How it is handled will have profound consequences for every American because of fossil fuel energy is the very lifeblood of our economy. Attempts to eliminate greenhouse gas emissions will bring as yet unimagined hardships to American poor and elderly and working class.

We talked about this in the last couple of hearings, the fact that the type of reductions that were mandated in the Kyoto Treaty and

many of the other concepts that have come along would be equal to ten times the size of the Clinton-Gore tax increase of 1993. It is the poor and those on fixed incomes, the elderly and the working class that pay a greater percentage of this in terms of their income.

The Constitution clearly intended Congress to be the branch of government to deal with extremely intricate and far-reaching questions, not for the executive branch to be handed sweeping authority based on tortured and stretched interpretations of statutory language. But we are where we are, and the Supreme Court has ruled, and whether that was wise or not, it has ruled.

I do not envy you, Mr. Administrator. No doubt you are being pressured to exercise that authority that you have had forced upon you, and to make carbon regulation the central organizing principle of our society, but I caution you against it. I suspect that you, as a scientist, are all too well aware of how politicized the science of climate change has become. In the rush to forge a consensus, there has been a coordinated effort to squash scientific findings and voices which the alarmists find inconvenient.

Yet as John Kollias recently wrote in the San Antonio Express News, he said, and I am quoting now, "The scientific consensus used to be that the Earth was flat, that the sun traveled around the Earth, and until 30 years ago, that we were entering into a new ice age." That was the scientific consensus in those areas.

Our understanding of the climate is now in its infancy, and more information is coming in all the time. Just last year, just a year ago I think this month, it was discovered that trees emit methane, which is an anthropogenic gas, a greenhouse gas. This is something that they didn't seem to know before. I have to ask the question: What else don't we know, if it is something as basic as trees emitting methane was something that was unknown?

A study published last week, April 18, in the Geophysical Research Letters, finds that wind shear in the Atlantic will increase with global warming, leading to fewer and weaker tropical storms. So I would almost have to say, Madam Chairman, it looks like Al Gore got it wrong again. Apparently, the hurricanes might not be so angry after all.

In assessing whether greenhouse gases endanger public health and welfare, how will you evaluate the most recent cutting edge findings which demonstrate what we all know to be true, that climate fluctuations, whether natural or caused by man, will have good as well as negative consequences. How will you work into your analysis the number of deaths and economic damage that would be averted in a warmer world due to an increased wind shear, and thus decreased Atlantic storm activity? How will you calculate increased food production from longer growing seasons? In short, how will you quantify both sides of this equation?

I am sure you, Mr. Administrator, recognize that national ambient air quality standards for greenhouse gases cannot be crafted without putting every county in the Nation into nonattainment. Since even in theory, States could not possibly craft implementation plans showing they would attain a NAAQS standard, wouldn't EPA have to disapprove their plans and take over the programs?

Now, that is something that we have gone through before. We did this in previous Administrations, finding ourselves out of com-

pliance. It looks like we would be there again. Since China will become the world's biggest carbon emitter this year, wouldn't this mean we are putting China and other developing countries in charge of whether States receive their highway dollars?

The Clean Air Act was never designed to control carbon dioxide. As Richard Lindzen, an MIT climate scientist said on the Weather Channel in March, "Controlling carbon is a bureaucrat's dream. If you control carbon, you control life."

So, Mr. Administrator, you have a mess on your hands, and I urge you to think carefully about it.

Thank you very much.

[The prepared statement of Senator Inhofe follows:]

STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM THE STATE OF OKLAHOMA

Thank you Madam Chairman for holding this hearing today. As has been noted, Lieutenant General Robert Van Antwerp is currently Commander of the U.S. Army Accessions Command. His nomination to be Chief of Engineers comes at a very challenging time for the Army Corps, but he is certainly well qualified and highly regarded. I have no doubt that he will be successful at this new post.

Although General Van's nomination is officially the jurisdiction of the Armed Services Committee, I think it is important that this Committee have a chance to hear from him prior to his confirmation. The Armed Services Committee, of which I am also a member, held a hearing and approved his nomination last month. There we heard from General Van on the wide range of issues that are the responsibility of the Chief, but it is this Committee that has the expertise regarding the Civil Works mission of the Corps of Engineers.

The new Chief will face many difficult decisions and management challenges just within the Civil Works mission. He will need to oversee the continued rebuilding and improvement of the hurricane protection system in South Louisiana, with all of the engineering difficulties that presents. He will need to continue implementation of the many changes that have begun as a result of the hurricanes down there, such as the emphasis on integrated water resources management and the use of risk assessment tools to guide our decisions and inform the public.

As the new Chief, General Van would take charge of a vast regulatory program that needs to begin providing clarity and certainty to the regulated community in the wake of two Supreme Court decisions that haven't seemed to clarify much of anything.

The new Chief will need to implement whatever new policy provisions are included in the WRDA bill we all hope to have enacted as soon as possible. In particular, both House and Senate bills include various so-called "Corps reform" provisions. Whatever the final mix is, General Van as Chief of Engineers would be responsible for ensuring that these items are incorporated into the Corps procedures efficiently and effectively.

Finally, on a note specific to my home State of Oklahoma-General Van, over the past four years, State and Federal agencies have devoted much resources and effort to remediation and resident assistance at the Tar Creek Superfund Site in northeastern Oklahoma. I want to get your commitment to make the work at Tar Creek a top priority and to ensure timely cooperation with State agencies that are involved in assisting the area residents.

General Van, upon confirmation you will face many difficult tasks, but I have every confidence that you will meet these challenges and be a strong leader for the Corps of Engineers.

Senator BOXER. Thank you so much, Senator.

We are going to call on Senators in the following order of arrival. It is going to be Lautenberg, Bond, Whitehouse and Thomas. All right?

Senator Lautenberg.

OPENING STATEMENT OF THE HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Senator LAUTENBERG. Thank you, Madam Chairman, for holding this hearing on EPA and how it once again failed to protect the health of the environment and the health of the American people.

Thankfully, the recent Supreme Court ruling could reverse this trend. The Court's conclusion confirms that EPA can regulate greenhouse gases from vehicles. The EPA had argued that this was beyond its authority. I think some of that thinking may have been propelled from this Committee. At one point when we adopted a replication of Comedy Central, when it was said that global warming is nothing but a hoax perpetrated on the American people. Finally, perhaps we have dismissed that bad joke.

To us, and anyone concerned about the environment, it is just plain common sense that EPA would regulate emissions from cars and trucks. These emissions account for approximately one third of all greenhouse gas emissions. And those emissions cause global warming, which leads to rising sea levels, risks to wildlife, and countless other effects to human beings.

And so my question for the Administration, Mr. Johnson, as someone with your background, your intellect, your training, why has it been so difficult to convince you that your agency should act to protect our environment? It is obvious that you maybe believe that you are simply a soldier in the ranks, just doing your duty. However, you are a top general, a veritable chief of staff, leading the fight against the formidable enemy. And it was my hope, and frankly, Mr. Johnson, the hopes of grandchildren across this Country, that you would at least protest the orders that you were given and lead the fight against this enemy.

Why have four previous EPA Administrators, including two right here today, argued for action when this Administration has chosen not to act? The EPA's mission is to protect human health and the environment. It takes bold action to fulfill that mission. Previous EPA Administrators, including the ones testifying here today, displayed that leadership. Administrator Reilly worked to curb the production of the CFCs that created the hole in the ozone layer. Administrator Browner saw that particulate matter had major health impacts. She responded with strong standards to improve air quality.

It is time for this Administration to stop denying the real impacts of global warming, and instead to confront them. States are already taking action. Bold, visionary States, including my State of New Jersey, have adopted the California standard for emissions. This standard will work to reduce greenhouse gas emissions from cars by 30 percent by the year 2016. And all that is needed for these States to adopt these standards is a waiver from EPA, and they have waited more than a year for this waiver, but it still hasn't come.

It is time for this EPA to be bold and act in the best interests of the American people by regulating greenhouse gases. I hope you will take on this task, Mr. Johnson, with all the skill, the knowledge and the honor that you possess.

Thank you, Madam Chairman.

Senator BOXER. Thank you very much, Senator Lautenberg.

Senator Bond.

OPENING STATEMENT OF THE HON. CHRISTOPHER S. BOND, U.S. SENATOR FROM THE STATE OF MISSOURI

Senator BOND. Thank you very much, Madam Chair.

Welcome, Administrator Johnson. We appreciate this hearing on the Supreme Court's recent decision regarding EPA authority. This Supreme Court decision certainly does remind us of the power of activist judges using the courts to achieve legislative policy goals. I think it is interesting to note in this regard that we have Congressman John Dingell of Michigan, who as Chairman of the House Commerce Committee, basically wrote the 1990 Clean Air Act Amendments, saying that he purposely did not give EPA legislative authority to regulate carbon dioxide.

Nevertheless, five members of the Court still have found a way to provide that authority. Congratulations. But we have our decision, and now the new law of the land. Some, as we have heard, are very eager and impatient for EPA to move forward. They want EPA to rush, rush, rush with new carbon regulations. They wonder why EPA can't just go ahead with new carbon regulations. They do not accept warnings and cautions that this is a complicated undertaking that must be undertaken very deliberately.

They will be too impatient to accept that regulations that will pervade almost every corner of the economy, threaten the jobs of millions, raise the heating and power bills of hundreds of millions, might take a little time. They will berate this witness, as we will hear and have heard. They will accuse him of stalling and they will say: Why, Mr. Administrator, aren't you moving faster?

Some have promised to hound you for quick action to call you back week after week, week after week, week after week, to ask you why is EPA taking so long to implement the new carbon regulations. Well, personally, I would like to see you get it right, rather than quick, because this is a long-term consideration.

Well, when those who were saying you need to act immediately, it is more of a case of do what I say, not what I do. If you look at what some of the carbon proponents are doing. They are taking things much more slowly, much more deliberately. An example is what California says about how to implement a greenhouse gas program. It reads, "Such an ambitious effort requires careful planning and a comprehensive strategy." Not a bad idea. That doesn't sound like hurry, hurry, hurry to me.

Of course, it has been only 3 weeks since the Supreme Court decision, and you should have had a decision out yesterday. Maybe California thinks such an ambitious effort that requires careful planning and a comprehensive strategy would take maybe at least a few months.

No, California does not think this will take weeks. It does not think it will take months. California expects their carbon regulation planning and development will take years. Here is the schedule they envision. It was passed in 2006. They think it will take 3 years to develop a plan, until 2009. They think it will take another 2 years to develop regulations, for 5 years. And they think it will take another year, until 2012, to implement regulations.

Well, the Supreme Court has passed over and eliminated the legislative consideration policy, which should have taken some time here. So all we have is a tight 6 year time table now that they have passed the law, to get the regulations implemented.

Three weeks after the Supreme Court passed its new law, some seek to criticize. Of course, California is taking early actions, but so is the U.S. The President is committed to cut greenhouse gases by 18 percent or 100 million additional tons through 2012, and the President's Advanced Energy Initiative, with a 22 percent increase in clean energy and technology funding. The Asia Pacific Partnership is the most important thing we can do in global warming, to work with India, China, Japan and others, to get clean coal technologies to China and India, who together will put out five times more carbon emissions by 2012 than Kyoto cut. The President's 20/10 Initiative announced in the State of the Union, sets an aggressive new goal to use 20 percent less gasoline in 10 years; a biofuels mandate in the energy bill, as well as a host of other energy and conservation efforts.

We have come a long way. We need a lot more to do, but we can't put the burden of unduly harsh stringent regulations on the backs of low-income families, low-income seniors, blue collar manufacturing families in my part of the world who depend heavily on coal for energy.

Thank you, Madam Chair.

[The prepared statement of Senator Bond follows:]

STATEMENT OF HON. CHRISTOPHER S. BOND, U.S. SENATOR FROM THE STATE OF MISSOURI

Thank you, Madame Chairman, for hosting this hearing on the Supreme Court's recent decision regarding EPA authority to regulate greenhouse gases under the Clean Air Act.

The Supreme Court's decision certainly does remind us of the power of activist judges using the courts to achieve policy goals. In this case, you have Congressman John Dingell, of Michigan who as Chairman of the House Commerce Committee basically wrote the 1990 Clean Air Act Amendments, saying that he purposely did not give EPA the authority to regulate carbon dioxide. Nevertheless, the courts still found a way to provide EPA that authority.

But, we have our decision and it is now the new law of the land. Some, as we have heard, are very eager and impatient for EPA to move forward. They want EPA to rush, rush, rush with new carbon regulations. They wonder why can't EPA just go ahead with new carbon regulations.

They do not accept admonitions that this is a very complicated undertaking that must be undertaken very deliberately. They will be too impatient to accept that regulations that will pervade almost every corner of the economy, threaten the jobs of millions, raise the heating and power bills of hundreds of millions, might take a little time.

They will berate this witness, they will accuse him of stalling, they will ask why he isn't moving faster. They are promising to hound him for quick action, calling him back "week after week, week after week, week after week" to ask him why is EPA taking so long to implement new carbon regulations.

Well I think this is more a case of "do what I say, not what I do." If you look at what carbon proponents are doing, they are taking things much more slowly, much more deliberately.

Here, for example, is what California says about how to implement a greenhouse gas program. [Refer to Chart]. It reads, "SUCH AN AMBITIOUS EFFORT REQUIRES CAREFUL PLANNING AND A COMPREHENSIVE STRATEGY."

CA ON REDUCING GHG

EMISSIONS

". . . such an ambitious effort requires careful planning and a comprehensive strategy."

Source: California Air Resources Board, "Proposed Early Actions to Mitigate Climate Change in California"

That does not sound like "hurry, hurry, hurry." Of course it has been only 3 weeks since the Supreme Court decision. Maybe California thinks that "such an ambitious effort that requires careful planning and a comprehensive strategy" will take at least a few months.

No, California does not think this will take weeks. It does not think it will take months. California expects their carbon regulation planning and development will take years.

Here is the schedule they envision. [Refer to Chart] California passed its Global Warming Solutions Act, AB 32, in 2006. They will allow 3 years just to develop an overall greenhouse gas reduction plan. They will allow a total of 5 years to develop reduction regulations. And they expect implementation of regulations to come no sooner than 6 years from enactment.

CALIFORNIA GLOBAL WARMING

SOLUTIONS ACT OF 2006

(AB 32)

Passed	2006	
Develop Plan	2009	3 years
Develop Regs	2011	5 years
Implement Regs	2012	6 Years

And what do we have here? Three weeks after the Supreme Court's decision some seek to criticize EPA's actions.

Of course, California is taking early actions to reduce greenhouse gas emissions. They have just released a list of actions they can take in the near future. Similarly, this administration is undertaking a host of actions to bring about lower greenhouse gases. Administrator Johnson's testimony is filled with pages and pages of examples.

We have: the President's commitment to cut U.S. greenhouse gas intensity by 18 percent, or 100 million additional metric tons of reduced carbon-equivalent emissions through 2012; the President's Advanced Energy Initiative with a 22 percent increase in clean-energy technology funding; the Asia-Pacific Partnership to get new clean technologies to China and India who together will put out five times more new carbon emissions by 2012 than Kyoto will cut; the President's "20 in 10" initiative announced in the State of the Union setting the aggressive new goal for the U.S. to use 20 percent less gasoline in 10 years; a biofuels mandate we adopted in the Energy bill and now will most likely expand this year to increase our use of renewable and low carbon emitting ethanol and biodiesel; as well as a host of other efficiency and conservation efforts across the government.

We have done a lot, and we will do more. But at a minimum we owe our constituents a thoughtful approach that will thoroughly consider and seek to minimize the pain imposed on them. We owe the low income family struggling to keep their homes warm in the winter. We owe the fixed-income seniors who can't keep their homes cool in the summer. We owe the blue collar manufacturing worker fighting

to keep their families in the middle class. We owe the coal dependent States across the Midwest and South who face the harshest power bill increases. We owe workers in the chemical, fertilizer, plastics and manufacturing who face more of their jobs going overseas to China. We owe them careful planning and a comprehensive strategy.

Thank you

Senator BOXER. Thank you, Senator.

I want to put a couple of things in the record at this point. First, I want to put in the record the names of the Supreme Court Justices who wrote this opinion and who appointed them. The majority of the five were appointed by Republicans, one by Ford, one by Reagan, and one by Bush I, and two others by Clinton. So I think it is important because Senator Inhofe said "those liberal judges" and Senator Bond said "activist judges." So I just wanted to make sure that these liberal activist judges that we all understand that three of the five were appointed by conservative Presidents, or at least those who call themselves that.

[The referenced material was not received at time of print.]

Senator BOND. Madam Chair, I agree with that, but it doesn't make them right.

Senator BOXER. Well, I am just putting in the record who appointed these judges. I think that that is a very important point.

And also one more point, I want to put in the record the names of the 11 States that have asked EPA to grant the waiver they have waited 16 months for. For the record, California, Connecticut, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington.

I also have another announcement. Senator Inhofe and I have made a decision that at this point, everyone here will make opening statements, but anyone coming from now on will forfeit their right to an opening statement, because we really need to get moving.

So at this point, we are now going to hear from Senator Whitehouse, followed by Senator Thomas, followed by Senator Lieberman.

OPENING STATEMENT OF THE HON. SHELDON WHITEHOUSE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Thank you, Madam Chair. Administrator, welcome back.

We are here today for two troubling reasons. We are here today because global warming, as our Chairwoman knows only too well, is a serious and urgent problem that we have to address in our communities and our States and in our Country, and I would also say in our time.

We are also here because of the decision handed down in Massachusetts v. Environmental Protection Agency reflects yet another instance of what I see as a disturbing legal trend, which is courts having to force your agency, the EPA, to do its job. Massachusetts v. EPA presents a major step forward to reduce automotive greenhouse gas emissions. As you know, Administrator Johnson, the ruling made clear that EPA does in fact have the authority under the Clean Air Act to regulate vehicle CO_2 emissions, contrary to the Agency's constant insistence otherwise.

I hope this ruling will compel your agency not only to recognize its authority, but also to act on it.

Further, in issuing its opinion, the Court removed any remaining excuse your agency has for failing to approve long overdue waiver requests allowing Rhode Island and other States to set more stringent vehicle emissions standards than currently required under Federal law. EPA's years of legal stonewalling by delaying the implementation of these standards has allowed millions of tons of carbon dioxide pollution into our air and made it more difficult to reverse the effects of climate change.

Make no mistake, climate change is already having a distressing effect on Rhode Island's treasured coastal environment and on our communities. The annual mean winter temperature in Narragansett Bay has increased significantly over the past 20 years, causing ecosystem changes such as reduction in abundance of winter flounder, a once-thriving species. Predicted sea level rise will endanger many parts of the Ocean State's coastline.

Just last week, we were struck by a nor'easter that tore up our shoreline. Coastal erosion is obviously not a new phenomenon in Rhode Island, but as global warming continues to worsen, the damage will only increase.

And then there is the other problem: EPA's track record in court during the Bush Administration. Over and over, weak public health protections have been overturned, where EPA has conceded illegal action. Consider these examples: three air toxics rulemakings in the past month alone; a national smog rulemaking, especially important to downwind communities in Rhode Island and the rest of New England; and another significant air pollution loophole that the Court said was sensible only in a humpty-dumpty world.

Courts have even begun rebuking EPA for defying the law, reminding EPA of the proper way to appeal cases, for example, or what political considerations it must considers when it carries out the Clean Air Act.

My experience with this Administrator was as Rhode Island's Attorney General when I had to join other Attorneys General from Northeastern States to sue the Bush administration for the pollution emitted by powerplants in the Midwest. Prevailing winds blow those emissions onto us in Rhode Island. The emissions from those Midwestern powerplants are so bad that even if in Rhode Island we stopped all our in-State emissions, we would still fail Federal ozone standards entirely due to pollution traveling in from out of State. We needed to go to court to get help from the Federal Government because you weren't there for us.

I don't see how it is that we should have to do this to enforce the laws of the land against the big business interests. EPA has refused to carry out the duties already conferred upon it by Congress. This raises real questions about this Administration's commitment to protecting the people of this Country and its environment against harmful pollution.

It also raises real questions about the dissonance between your fine words and your meager actions as Administrator. You were here before. You spoke beautifully, sir. But here we go again and again and again in the courts. As the Chairman has pointed out, we have had a lot of Republican Presidents. These are not liberal

activist courts. These are courts applying the law, and over and over again your agency has been found failing.

I look forward to learning more today about the steps you are taking to reconsider your decision and allow States like Rhode Island to move forward with efforts to curb the harmful effects of greenhouse gas emissions.

Thank you, Madam Chair.

Senator BOXER. Thank you, Senator.

Senator Thomas.

OPENING STATEMENT OF THE HON. CRAIG THOMAS, U.S. SENATOR FROM THE STATE OF WYOMING

Senator THOMAS. Thank you, Madam Chair. I will go along with your idea of moving ahead, so I will be very short.

Let me say that the Court ruled that EPA has authority to regulate greenhouse gases as an air pollutant. The Court did not rule that EPA must regulate greenhouse gases from motor vehicles since before EPA can do that, it must determine that emissions are gases that "reasonably anticipate to endanger public health and welfare." This is part of the Court decision.

So there is some room here to have to make some decisions. In any event, I don't call myself a climate skeptic. I am trying to be realistic about it, however, and certainly we all oppose the climate change legislation that would suffer consequences in the next election if we were opposed to that. On the other hand, let me tell you that people who are going to have to pick up the costs are going to be a little opposed to doing some of those things as well.

Cheyenne Light Fuel and Power serves 80,000 customers. They offered for $3 a month a green pricing to customers. How many took advantage of it? Thirty people were excited about doing that.

So I guess we just have to understand who is going to pay the costs, and we have to have bills that we can abide by before we pass them. We included in the Energy Policy Act the provisions that the government should participate in the demonstration of technologies before we move particularly forward. So I hope we can do that.

We have already passed an energy bill. We already know how to do some of the things that will have an impact, such as clean coal. So before we pass too many regulations, we ought to be urging people to do the things that we know how to do that will have an impact on it.

So I am concerned that we don't spend too much time working people up about the issue that we fail to find workable solutions, and that is what we are designed to do. So I am anxious to hear the Administrator's plans.

Thank you.

Senator BOXER. Thank you very much, Senator.

Senator Inhofe, just a quick diversion here for a second. Did you want to say something?

Senator INHOFE. Here is what I would like to know. I know that Senator Craig had a Statement he wanted to make. I notice that Senator Thomas had 2 minutes left, and I had 3 minutes left. If you will yield your 2 minutes to him, I will yield my 3 minutes, and I will have his five. Does that sound good?

Senator THOMAS. That is fine.

Senator INHOFE. All right.

Senator BOXER. So here is what has been happening. We have been getting complaints because we made a decision that is not a popular one, and so both of us together, Senator Inhofe and I. And so what we are going to do is, anyone who shows up now would have 3 minutes, but in the future if people come after the first 30 minutes of a hearing, we are going to have to ask you to defer your opening Statement to your question time.

So what we are going to do now is when any Senator comes, we will give them 3 minutes for an opening Statement. So it is Senators Lieberman, Klobuchar, and Carper.

OPENING STATEMENT OF THE HON. JOSEPH I. LIEBERMAN, U.S. SENATOR FROM THE STATE OF CONNECTICUT

Senator LIEBERMAN. Thanks, Madam Chairwoman, Senator Inhofe, and Administrator Johnson.

Even before the Supreme Court issued its decision in Massachusetts v. EPA on April 2d, I think a lot of people in this Country, including a lot of the larger sources of greenhouse gas emissions, saw the inevitability of new Federal laws mandating cuts in greenhouse gas emissions. The only question was when. They felt that because they realized that the American people simply would not let the Federal Government stand idly by in the face of the scientific consensus that our children and grandchildren would suffer dearly for our inaction.

What the Supreme Court decision adds, I think, is a sense of imminence, or if I may put it, Madam Chair, knowing your love for musicals and the words of a great musical, when it comes to global warming, I think something's coming, something good.

The decision of the Supreme Court sends a message that if Congress does not enact nationwide requirements for reducing global warming pollution within the next few years, then the Environmental Protection Agency has the responsibility under law to promulgate such requirements.

I understand that the Court did not order EPA to promulgate new rules, but in documents filed in that Court case, EPA itself has conceded the causal connection between man-made greenhouse gas emissions and global warming. And the Administration has accepted the findings of the Intergovernmental Panel on Climate Change.

In light of those official positions, I cannot see how EPA can avoid issuing emission reduction requirements for greenhouse gases without inviting an even more forceful response from the courts than the one the Supreme Court gave on April 2d.

I know that an agency can draw out the rulemaking process when it is reluctant to issue new regulations, but the law does place limits on administrative foot-dragging.

I think, then, that greenhouse gas emitters and a lot of others are going to realize that they will see an EPA global warming rule in the foreseeable future unless, of course, Congress acts earlier. I am confident personally that Congress will act earlier. For one thing, I believe that it is clear that the private sector would like to see now a statute that charts a clear nationwide efficient and sensible course, rather than facing a multitude of State legislation

on global warming, or agency rules that will be subject to litigation with all the uncertainties that that entails.

Indeed, Congress has started to act, and what is most encouraging, has started to act in a bipartisan way. Last week, two members of this Committee, Senator Carper and Senator Alexander, one a Democrat and one a Republican, introduced bills that would achieve very substantial reductions in the greenhouse gas carbon dioxide from the electricity-generating sector of the economy.

And last week, another member of the Committee, Senator Warner, who I am glad to say is the Ranking Member of the Subcommittee on Climate Change which I am pleased to chair, stated that Congress should establish new rules or controls to combat global warming. He said that the new Federal program must, "allow for an economy-wide approach that incorporates market-based flexibility, provides for a measure of Federal investment in new technologies, includes cost containment mechanisms, and has environmental integrity."

I look forward to working with Senator Warner on our subcommittee to produce bipartisan anti-global warming legislation. So I am optimistic today about what this Congress and the Senate in particular can and will accomplish to curb global warming, but that does not relieve EPA of its legal and, in my opinion, moral obligation to act with all deliberate speed to comply with the Supreme Court's decision.

In particular in an initial matter, I hope that Administrator Johnson will grant California's petition for a waiver of Federal preemption with respect to the State's greenhouse gas emission standards for vehicles. My State of Connecticut and other States have had the good sense to adopt the California standards and we await your action on that. Frankly, I don't see how EPA could deny the waiver petition now, without contravening the Supreme Court's holdings.

Finally, Madam Chair, I want to express my own gratitude to my Governor, a Republican; my Attorney General, a Democrat; for the work they did, along with all the other petitioning States, municipalities and public interest organizations that led to this landmark Supreme Court decision, which is a victory in the battle to do something about global warming.

Thank you very much.

[The prepared statement of Senator Lieberman follows:]

STATEMENT OF HON. JOSEPH I. LIEBERMAN, U.S. SENATOR FROM THE STATE OF CONNECTICUT

Thank you, Madame Chairwoman.

Even before the Supreme Court issued its decision on April 2, I think most large industrial firms in this country saw the inevitability of new Federal laws mandating cuts in greenhouse gas emissions. They were smart enough to realize that the American people would not let the Federal Government get away with inaction in the face of the scientific consensus that our children and grandchildren would suffer dearly for it.

What the Supreme Court decision adds, I think, is a sense of imminence. The decision ensures that if Congress does not enact nation-wide requirements for reducing global warming pollution within the next few years, then the Environmental Protection Agency will promulgate such requirements.

I realize the Court did not order EPA to promulgate new rules. But EPA has conceded the causal connection between man-made greenhouse-gas emissions and global warming, and the Administration accepts the findings of the Intergovernmental

Panel on Climate Change. In light of those official positions, I cannot see how EPA can avoid issuing emission-reduction requirements for greenhouse gases without inviting an even more forceful response from the courts.

I am also aware that an agency can draw out the rulemaking process when it is reluctant to issue new regulations. But the law does place limits on administrative foot-dragging.

I think, then, that sophisticated industrial concerns in this country realize that they will see an EPA global warming rule by 2010 unless Congress acts earlier.

I think Congress will act earlier. For one thing, I think the private sector would like to see a statute chart a clear, nation-wide, efficient, and sensible course. I do not think American businesses want to subject themselves totally to agency rules that will be subject to litigation, with all the uncertainties that entails.

Indeed, Congress has started to act. Last week, A Republican member of this committee, Senator Alexander, introduced a bill that would achieve very substantial reductions the greenhouse gas, carbon dioxide, from the electricity generating sector of the economy. I was pleased to co-sponsor that strong bill—just as I was pleased to cosponsor a comparably strong power plant pollution bill introduced by Senator Carper.

Also last week, another Republican member of this committee, Senator Warner, stated that Congress should establish new rules or controls to combat global warming. He said that the new Federal program must "allow for an economy-wide approach that incorporates market-based flexibility, provides for a measure of Federal investment in new technologies, includes cost-containment mechanisms, and has environmental integrity. Most importantly, the Federal Government must ensure international participation by developed and developing nations." I happen to know of—and a lot about—a pending multi-sector, market-based climate bill that might serve as the basis for legislation that could earn Senator Warner's support.

So I am optimistic about what this Congress, and the Senate in particular, can and will accomplish to curb global warming. That brewing action does not, however, relieve EPA of the legal and, in my opinion, moral obligation to act with all deliberate speed to comply with the Supreme Court's decision. In particular, and as an initial matter, I hope that Administrator Johnson will grant California's petition for a waiver of Federal preemption with respect to the State's greenhouse-gas emission standards for vehicles. Connecticut and other States have had the good sense to adopt the California standards. I do not see how EPA could deny the waiver petition without contravening the Supreme Court's holdings.

Finally, Madame Chairwoman, let me just congratulate Connecticut, along with Massachusetts and all the other petitioning States, municipalities, and public-interest organizations for this landmark court victory. I am very proud to represent a State that stood on the right side of history here.

Thank you, Madame Chairwoman.

Senator BOXER. Thank you so much.

Senator Klobuchar, 3 minutes.

OPENING STATEMENT OF THE HON. AMY KLOBUCHAR, U.S. SENATOR FROM THE STATE OF MINNESOTA

Senator KLOBUCHAR. Thank you, Madam Chair. I apologize, I was late. We had an Agriculture Committee meeting in which we discussed the sudden decline in the honeybee population across the Country, including in Minnesota, something that may come your way, Administrator Johnson.

I am pleased that this Committee has switched from talking about whether or not global warming exists, to how we can solve it, and to talking about under the Chairwoman's leadership how we can become an international leader in this area.

Our State, and I can't remember when you came last time, Administrator Johnson, that this happened, but our State just recently adopted a very aggressive portfolio of standards for electricity, 25 percent renewable by 2020 and 30 percent for excel [phonetically]. I am very pleased it was done on a bipartisan basis, and signed into law by a Republican Governor.

But I don't think that should be an excuse for inaction on the work that is being done in California and New Jersey and other States by the Federal Government. I think it was Justice Brandeis that once said that the States are the laboratories of democracy, but I don't think that he meant that they would be the only place where the action is taken in democracy.

That is why I was so pleased by this Supreme Court opinion, which basically said that the EPA could avoid promulgating regulations for greenhouse gases only if, "it determines that greenhouse gases do not contribute to climate change, or if it provides some reasonable explanation as to why it cannot or will not exercise its discretion to determine whether they do."

In the coming weeks as you decide whether or not to initiate an enforcement action for greenhouse gases, I strongly recommend that you consider the sound science. We heard about it in a very good briefing last week by the scientists from the Intergovernmental Panel for Climate Change. The report, as you know, was written by hundreds of scientists and reviewed by outside experts.

I urge you to take seriously the findings of the scientific community, and I also encourage you to do what it takes to expedite this rulemaking process. As Senator Lieberman was mentioning, processes can start and they can go on and on and on. Clearly, what you are hearing from a number of people on this Committee is that this process must start immediately and it must be done on an expedited basis. The EPA needs to roll up its sleeves and get to work.

Thank you.

Senator BOXER. Thank you, Senator.

Senator Carper, 3 minutes.

OPENING STATEMENT OF THE HON. THOMAS R. CARPER, U.S. SENATOR FROM THE STATE OF DELAWARE

Senator CARPER. Thank you, Madam Chair.

Mr. Johnson, welcome. Thank you for joining us today. We look forward to hearing from you, and our other witnesses, a couple of whom are sitting right behind you. It is nice to see you all.

Earlier this morning, I was with a couple of our colleagues from the House, a Democrat and a Republican, and we were before a forum of folks who were interested in climate change. One of the questions of our panel was, what are the Presidential candidates likely to do, whoever is nominated or elected, what are they likely to do on climate change.

Somebody is going to get elected President and Vice President, and they are going to have to put together a cabinet and they are going to have to figure out all the promises that they made in their campaigns, and how to get started on climate change. I look at all the Democrats that are running and I think they are all going to want to do something, and most of the Republicans will want to get going as well.

I think we would make a big mistake if we waited until after the election to get started. We shouldn't have to wait that long. We don't have to wait that long. Frankly, I think people elected us, and the real message I took out of the last election is folks want us to get stuff done. They want us to find a way to work together. They want us to find a way to govern from the middle.

The Supreme Court has given you a great opportunity at EPA to get started, and my hope is that you will do that.

I am going to be asking you some questions. I will telegraph this pitch: I am going to be asking you some questions of thing that I think you can do absent any kind of legislation, whether it is my legislation, Senator Lieberman's legislation, or legislation that Senator Boxer has introduced, or Senator Alexander. There are some things that you can do, and I think you might want to do. And I look forward to having a chance to talk with you about that in just a few minutes.

The important thing for us is to not do something foolish. The important thing for us is to not do something that is going to mess up our economy or put it in a tailspin or to somehow unduly burden consumers. We don't have to do that. There are a whole lot of things that we can do. If we fall short of passing a climate economy-wide bill like Senator Lieberman has introduced, if we come up short passing just an industry-specific bill, like I have introduced with some colleagues, we have some other things we can do, and we look forward to talking with you about those at this hearing. Thank you.

Thank you, Madam Chair.

[The prepared statement of Senator Carper follows:]Senator Thomas Carper

I'd like to thank the Chair for convening this hearing.

I would not necessarily call myself a "climate skeptic". I do try to be realistic though, and with that in mind, I'd like to make a few remarks.

I believe we owe it to the folks we represent to fully understand the consequences of the legislation and proposals we consider. It has been said, by some, that members who oppose climate change legislation will suffer some sort of consequences in the next election. I have even seen a recent poll that says three-quarters of Americans believe global warming is a problem.

I remind my colleagues, however, that legislation which increases the price consumers pay for energy will also have consequences. I'd like to share an example from my home State of Wyoming.

Cheyenne Light, Fuel & Power is an electric utility in my State. It provides energy to some 80,000 customers. For an extra $3.50 a month, they offered "green pricing" to customers; that means you could get power with no carbon emissions for just $3.50 extra, per month. I found it interesting that only 30 people signed up.

Now, if that were an election, I don't think I'd want to be the one who made "green pricing" mandatory.

I think we need to remember that these so-called "solutions" to climate change cost a lot of money. We need to be honest about who we expect to pay those costs.

We must also make sure that we can abide by laws before we pass them. That is why I included Sec. 413 in the Energy Policy Act of 2005 to demonstrate clean coal technology. That provision authorizes the government to participate in a demonstration of the technologies we need to move forward.

It seems like we talk an awful lot about climate change lately. We seem to forget that we are already doing a lot to address it. We already passed an energy bill in 2005 that allows us to take significant action toward figuring our next steps.

But this hearing is about the implications of a Supreme Court decision, and it is about what the EPA is going to do next.

I did want to explain that there is a middle-ground to be had in this debate, however. I am concerned we spend so much time getting people worked up about this issue that we risk failing to find workable solutions.

I am anxious to hear what the Administrator's plan is, and I yield the remainder of my time.

Senator BOXER. Thank you.

Senator Cardin.

OPENING STATEMENT OF THE HON. BENJAMIN L. CARDIN, U.S. SENATOR FROM THE STATE OF MARYLAND

Senator CARDIN. Madam Chair, let me first thank you for holding this hearing. It is nice to have you here, Mr. Johnson. I appreciate your testimony here today and the challenges that the Supreme Court has really laid to you to be aggressive in regulating the greenhouse gases. I look forward to your testimony. I can assure you that we want to work together.

This Committee really wants to be aggressive in dealing with the issues of global warming, and we would very much welcome working with the Administration to come up with an aggressive plan to deal with in a responsible way our responsibilities here in the United States and show leadership internationally.

So I look forward to your testimony and welcome.

[The prepared statement of Senator Cardin follows:]

STATEMENT OF HON. BENJAMIN L. CARDIN, U.S. SENATOR FROM THE STATE OF MARYLAND

Thank you for holding this hearing today.

I represent a State which relies heavily upon the Army Corps of Engineers' civil works programs.

Maryland has 31 miles of Atlantic Ocean coastline, which are the site of two critical Corps projects—a hurricane protection project at our premier beach resort community, Ocean City, and a mitigation project at Assateague Island National Seashore.

The Chesapeake Bay is America's largest estuary. The Corps' oyster and habitat restoration, shoreline protection, and sediment management programs are integral to our efforts to restore the Bay.

We have a geography and topography which makes the Chesapeake Bay particularly susceptible to erosion. This erosion contributes millions of cubic yards of sediment annually to the bay, adversely affecting water quality and clogging navigation channels.

The Port of Baltimore is one of the largest ports on the east coast and a vital engine of economic activity, contributing $2 billion to the State's economy and employing 18,000 Marylander's directly and tens of thousands more indirectly.

There are 126 miles of shipping channels leading to the Port of Baltimore. Maryland also has more than 70 small navigation projects around the Chesapeake Bay and Atlantic Ocean. These navigation projects are critical to commercial and recreational fisherman, to local and regional commerce and to local economies.

We rely heavily on the U.S. Army Corps of Engineers for flood protection in communities in Western Maryland and for water supply.

In short, the Corps of Engineers has projects and provides assistance to virtually every jurisdiction in the State of Maryland

Our efforts in Maryland focus on four areas:

- maintaining the navigational channels serving the Port of Baltimore and numerous communities in our State, and finding responsible and environmentally sound solutions for disposing of the dredged material from these channels,
- restoring the Chesapeake Bay and the rivers and streams which flow into the Bay,
- addressing the shoreline erosion problems on Maryland's Atlantic Coast , and
- mitigating for previous construction of civil works such as the rewatering of the C&O Canal in Cumberland.

I have talked with met with the nominee and reviewed his impressive background. We need a Chief of Engineers that understands the importance of the range of issues facing Maryland and the nation. I think that Lt. Gen. Van Antwerp has the potential to bring to the job a strong background and a willingness to work with us that will combine to make him an excellent chief. I look forward to asking the nominee a few questions, and I anticipate working closely with him in the years ahead.

Senator BOXER. Thank you, Senator.

Just to reiterate to Senators and staffs, if they want to let their bosses know, we will give them an extra 3 minutes for their opening statement when they arrive, added on to their question time.

Administrator Johnson, welcome and please proceed.

STATEMENT OF STEPHEN L. JOHNSON, ADMINISTRATOR, U.S. ENVIRONMENTAL PROTECTION AGENCY

Mr. JOHNSON. Thank you, Madam Chairman.

Chairman Boxer and members of the Committee, thank you for the opportunity to testify today on the landmark Supreme Court decision, Massachusetts v. EPA.

As you know from my previous appearances before this Committee, and over the last 6 years, this Administration has invested more than any other nation in the world, $35 billion, in a comprehensive climate change agenda. This aggressive, yet practical, strategy is supporting world class scientific research, providing tax incentives for renewable and alternative energy, forging results-oriented partnerships, and developing and deploying the next generation of clean technologies.

Currently, EPA is moving forward to meet the Supreme Court's decision in a thoughtful, deliberative manner, considering every appropriate option and every appropriate tool at our disposal. Throughout our review, I have sought guidance from the agency's legal and policy professionals to understand the Court's findings, and what that means for EPA. Let me provide you with what are, in my view, the three most salient points from the decision that are directly relevant to today's hearing.

First, the Court found that greenhouse gas emissions are indeed pollutants under the Clean Air Act.

Second, the Court ordered EPA to reconsider its denial of a petition from the State of Massachusetts and several other groups seeking regulation of greenhouse gas emissions from new motor vehicles and engines. One of the most significant things EPA must determine is whether greenhouse gas emissions endanger public health or welfare based upon the requirements of the Clean Air Act.

Finally, the Court was very clear that, if an endangerment finding is made, the Agency possesses considerable flexibility in how it regulates greenhouse gas emissions from mobile sources. It is incumbent upon us to act expeditiously and prudently, making decisions informed by the best available science.

Along with addressing the decision's substantive ramification, the Agency is considering the appropriate procedural steps to take if the Court remands the petition. Whatever we decide on that and many other issues, I can assure you that we are committed to receiving broad public input prior to making sound decisions.

As we review the Court's decision, the Administration will continue moving forward, both domestically and internationally to address the serious challenge of global climate change. Under the President's leadership, our Nation is making significant progress in tackling emissions. According to the International Energy Agency, from 2000 to 2004, U.S. emissions of carbon dioxide from fuel combustion grew by 1.7 percent, during a period when our economy expanded by nearly 10 percent. This percentage increase was lower

than that achieved by Japan, Canada, the original 15 countries of the European Union, India and China.

IEA data also shows that the United States reduced its carbon dioxide intensity by 7.2 percent between 2000 and 2004, better, for example, than Canada, Japan, or the EU 15.

I would also note that the U.S. is on track to meet and possibly exceed the President's goal to reduce greenhouse gas intensity by 18 percent by 2012. By contrast, only two of the original EU 15 countries in the Kyoto Protocol are on schedule to meet their Kyoto targets.

As part of our forward progress, just this morning we signed the formal notice that starts the public process for considering the California waiver petition process. This is in keeping with my and the Agency's commitment to expeditiously begin the process following the Supreme Court ruling. The decision we make in response to Massachusetts v. EPA will be integrated in the Administration's existing climate policy and will build on the progress we have already achieved.

Again, thank you for the opportunity to testify. Before I take questions, Madam Chairman, I would like that my full written statement be submitted for the record.

Thank you very much.

[The prepared statement of Mr. Johnson follows:]

STATEMENT OF STEPHEN L. JOHNSON, ADMINISTRATOR, U.S. ENVIRONMENTAL PROTECTION AGENCY

Good morning Madam Chairman and Members of the Senate Committee on Environment and Public Works. I appreciate the opportunity to appear before you today to discuss the Environmental Protection Agency's (EPA) efforts to address the challenges posed by climate change. Today I will speak to you about both the Administration's ongoing work to address climate change and the recent Supreme Court decision in Massachusetts v. EPA.

INTRODUCTION

President Bush and the Environmental Protection Agency are firmly committed to taking sensible action to address the long-term challenge of climate change. Long before the Supreme Court issued its decision in Massachusetts v. EPA, the Administration had been implementing aggressive steps to tackle climate change, both domestically and internationally. We will continue to move forward with the President's comprehensive climate change agenda as we consider the ramifications of the Supreme Court's decision.

President has requested, and Congress has provided, substantial funding for climate change science, technology, observations, international assistance and incentive programs—approximately $35 billion since 2001. Federal programs are helping to further reduce scientific uncertainties associated with the causes and effects of climate change; promoting the advancement and deployment of cleaner, more energy efficient, lower carbon technologies; encouraging greater use of renewable and alternative fuels; accelerating turnover of older, less efficient technology through an array of tax incentives; and establishing numerous international climate partnerships with the world's largest greenhouse gas emitters. Through a comprehensive suite of mandates, incentives, and partnerships, the President's climate change policies are contributing to meaningful progress in reducing the growth rate of U.S. greenhouse gas emissions, even as our population grows and our economy continues to expand.

ADMINISTRATION CLIMATE STRATEGY

PROGRESS TOWARD THE PRESIDENT'S GOAL

In 2002 President Bush committed to cut U.S. greenhouse gas intensity by 18 percent through the year 2012. This commitment was estimated to achieve about 100 million additional metric tons of reduced carbon-equivalent ($MMTCO_2$) emissions in 2012, with more than 500 $MMTCO_2$ emissions in cumulative savings over the decade.

According to EPA data reported to the United Nations Framework Convention on Climate Change (UNFCCC), U.S. greenhouse gas intensity declined by 1.9 percent in 2003, by 2.4 percent in 2004, and by 2.4 percent in 2005. Put another way, from 2004 to 2005, the U.S. economy increased by 3.2 percent while greenhouse gas emissions increased by only 0.8 percent.

To build on the substantial progress in meeting the 18 percent intensity reduction, President Bush has announced four major energy policies in the last 2 years. In his 2006 State of the Unions Address, President Bush proposed the Advanced Energy Initiative (AEI)—a 22 percent increase in funding for 2007 for clean-energy technology research to change how we power our homes, business, and cars. The 2008 President's Budget includes $2.7 billion for the AEI, an increase of 26 percent above the 2007 Budget.

This year, in his State of the Union Address, the President announced his "20-in-10" initiative, which sets an aggressive new goal for the United States to use 20 percent less gasoline in 2017 than currently projected. As part of this effort, the Administration recently sent legislation to Congress to create an Alternative Fuel Standard (AFS) which would mandate the use of 35 billion gallons of alternative fuel in 2017. Should the AFS become law, it will complement and build upon the Renewable Fuel Standard (RFS), which EPA recently finalized. The AFS would rely on credit, banking and trading mechanisms that EPA developed for the RFS, thereby achieving market efficiencies while ensuring the use of an increasing amount of renewable and alternative fuel by our Nation.

Another component of the 20-in-10 plan is reforming cars, and for further increasing light truck and SUV standards. We believe new technologies can be deployed to significantly improve fuel economy without impacting safety. If enacted, this legislation will reduce projected gasoline consumption by up to 8.5 billion gallons in 2017.

When approaching the issue of greenhouse gas emissions from the transportation sector, it should be recognized that 95 percent of such emissions consist of carbon dioxide, with the remaining 5 percent of emissions consisting of nitrous oxide and methane exhaust emissions and hydroflourocarbons from air conditioners. In addressing greenhouse gas emissions from the transportation sector, the President's 20-in–10 plan recognizes that on-board technology to control carbon dioxide emissions from vehicles does not currently exist. Therefore, the 20-in–10 plan addresses two primary factors that can reduce carbon dioxide emissions from vehicles; greatly increasing the use of renewable and alternative fuels and increasing the fuel economy of vehicles.

Fuels, such as cellulosic ethanol, can offset lifecycle greenhouse gas emissions by over 90 percent when compared with gasoline derived from crude oil. Biodiesel can result in the displacement of nearly 68 percent of lifecycle greenhouse gas emissions relative to diesel made from petroleum. Increasing the use of such fuels in the transportation sector has the potential to make substantial reductions in greenhouse has emissions. For any given fuel, increasing the fuel economy of a vehicle will decrease greenhouse gas emissions. Combining the fuel savings from reforming and increasing CAFE with reductions achieved under the AFS, annual emissions of carbon dioxide from cars and light equivalent of "zeroing out" annual emissions from 26 million automobiles.

As part of the "20-in–10" commitment, the President has also issued an Executive Order in January of this year that directs the government to reduce fleet petroleum consumption by 2 percent annually, increase the use of alternative fuels by at least 10 percent annually, increase the purchase of efficient and flexible fuel vehicles, make government buildings more efficient, and take other steps with regard to improving energy efficiency with respect to the government's purchase of power. The President's budget also redirects Department of Transportation funds to a new $175 million highway congestion initiative for State and local Governments to demonstrate innovative ideas for curbing congestion. These ideas include congestion pricing, commuter transit services, commitments from employers to expand work schedule flexibility, and faster deployment of real-time traffic information. In just

1 year, wasted fuel accounts for more than 20 million metric tons of carbon dioxide emissions.

In addition to these initiatives, the President's Farm Bill proposal includes more than $1.6 billion of additional new funding over 10 years for energy innovation, including bio-energy research, energy efficiency grants, and guaranteed loans for cellulosic ethanol plants.

U.S. EPA CLIMATE INITIATIVES

While EPA explores options in response to the recent Supreme Court decision in Massachusetts v. EPA, we will continue to implement the initiatives that have proven effective in reducing greenhouse gas emissions, and which form an integral component of the President's comprehensive strategy to address climate change.

EPA climate programs include a wide array of partnerships, which rely on voluntary measures to reduce greenhouse gas intensity, spur new investments, and remove barriers to the introduction of cleaner technologies. Many of these partnership programs provide near-term solutions that focus on reducing emissions. These programs complement the work of other Federal agencies investing in long-term research and development programs, such as the Department of Energy's (DOE) FutureGen and fuel cell development programs. EPA is also one of many Federal agencies participating in the multi-agency Climate Change Technology Program.

In addition, EPA also invests in a long-term global change research and development program. EPA's global change research focuses on understanding the effects of global change (particularly climate change and variability) on air and water quality, ecosystems, and human health in the United States. The goal of the program is to produce timely and useful information and tools that enable resource managers and policymakers to more effectively consider global change issues in decision-making. The program's activities are coordinated with other Federal agencies' climate change research through the U.S. Climate Change Science Program.

TRANSPORTATION

While transportation is crucial to our economy and our personal lives, it is also a significant source of greenhouse gas emissions. Travel growth has outpaced improvements in vehicle energy efficiency making it one of the leading economic sectors in greenhouse gas emissions. Through a combination of new technology development, voluntary partnerships, consumer information and renewable fuels expansion, EPA is working to reduce greenhouse gas emission from this sector. By focusing both on vehicles and fuels, these efforts follow the same successful approach the Agency has used to cut emissions from motor vehicles.

REDUCING VEHICLE FUEL CONSUMPTION

EPA's SmartWay Transport Partnership is a public-private partnership that aims to reduce greenhouse gas emissions, fuel consumption, and criteria pollutants from ground freight transportation operations. Nearly 500 companies, including some of the nation's largest shippers and carriers, have joined the SmartWay program.

The efforts of these companies, which include the use of fuel efficient technologies and anti-idling practices, will reduce greenhouse gas emissions and fuel consumption. EPA estimates that by 2012, the companies that participate in the SmartWay Transport Partnership will cut carbon dioxide (CO_2) emissions by up to 66 million metric tons per year, and nitrogen oxide (NO_2) emissions by up to 200,000 tons per year. It will save to heat 17 million houses for 1 year.

EPA also is working to develop and commercialize new, State-of-the-art low greenhouse gas technologies at its National Vehicle and Fuel Emissions Laboratory in Ann Arbor, Michigan. EPA invented and patented the world's first full hydraulic hybrid vehicle system, capable of achieving a 40 percent reduction in greenhouse gas emissions and a 60–70 percent improvement in fuel economy.

PROMOTING TODAY'S TRANSPORTATION TECHNOLOGIES

EPA is also working to maximize the potential of today's fuel-efficient technologies. For example, the recent phase-in of ultra low sulfur diesel fuel opens up new markets for clean diesel passenger cars and pickup trucks. These vehicles are up to 40 percent more efficient than conventional gasoline vehicles, reducing lifecycle carbon dioxide emissions by up to 20 percent.

In addition, EPA has ongoing efforts to keep the public informed about the fuel economy performance of the vehicles they drive. As evidenced by the million plus monthly "hits," the on-line Green Vehicle Guide has proven to be a popular con-

sumer tool to help car shoppers identify the cleanest and most fuel efficient vehicles that meet their needs. EPA recently issued new test methods designed to improve the accuracy of window sticker fuel economy estimates to better reflect what consumers actually achieve on the road. We also redesigned the fuel economy label to make it easier for consumers to compare fuel economy when shopping for new vehicles.

Ensuring Access to Clean Renewable and Alternative Fuels. The Energy Policy Act of 2005 established the Renewable Fuel Standard (RFS)—a requirement for the use of 7.5 billion gallons of renewable fuels in the U.S. by 2012. EPA recently completed this rulemaking. The U.S. Department of Energy (DOE) now projects that ethanol use will greatly exceed the legal requirement, EPA estimates that the RFS will reduce carbon dioxide equivalent greenhouse gases by 8 to 13 million tons, about 0.4 to 0.6 percent of the anticipated greenhouse gas emissions from the transportation sector in the U.S. in 2012.

ENERGY EFFICIENCY

EPA has long recognized that energy efficiency offers one of the lowest cost solutions for reducing energy bills, improving national energy security, and reducing greenhouse gas emissions—all while helping to grow the economy through increased electric grid reliability and reduced energy costs in the natural gas and electricity markets.

ENERGY STAR

In 1992 the EPA introduced Energy STAR as a voluntary labeling program designed to identify and promote energy-efficient products. Computers and monitors were the first labeled products. Through 1995, EPA expanded the label to additional office equipment products and residential heating and cooling equipment. In 1996, EPA partnered with the U.S. Department of Energy for particular product categories. The Energy STAR label is now on major appliances, office equipment, lighting, home electronics, and more. EPA has also extended the label to cover new homes and commercial and industrial buildings.

Through its partnership with more than 8,000 private and public sector organizations, Energy STAR delivers the technical information and tools that organizations and consumers need to choose energy-efficient solutions and best management practices. Over the past decade, Energy STAR has been a driving force behind the more widespread use of such technological innovations, such as LED traffic lights, efficient fluorescent lighting, power management systems for office equipment, and low standby energy use. In 2006, Americans, with the help of Energy STAR, saved $14 billion on their energy bills and prevented greenhouse gas emissions equivalent to those of 25 million vehicles—the number of cars in California and Illinois combined.

ENERGY SUPPLY

In partnership with a variety of Federal agencies and other organizations, the Agency is currently engaged in a number of initiatives that foster development and deployment of cleaner energy production technologies. The power generation sector is a critical element in addressing climate change because the combustion of fossil fuels for non-transportation energy uses constitutes roughly 40 percent of the greenhouse gas inventory for the United States, with the majority of these emissions resulting from the burning of coal.

COAL AND CO_2 Capture and Storage

Coal is an important fuel to achieve energy security and increase economic prosperity in the United States. Currently, about 50 percent of electricity in the United States is generated from coal, and according to DOE, at current rates of consumption, coal could meet U.S. needs for more than 250 years. To achieve our goal of energy security coal must continue to play a major role in the generation of significant contribution to reducing greenhouse gas emissions from coal-fired electricity generation, while allowing continued use of our ample coal reserves. To address the potential environmental impact of coal-fired power plants, EPA, DOE, and others are exploring technological innovations that would allow coal to be burned more efficiently and with fewer emissions. Recognizing the importance of advanced coal technology, EPA is working to ensure that these new technologies are deployed in an environmentally responsible manner.

The Administration is investigating the prospects for carbon dioxide capture from power plants and other industrial sources and long-term storage in geologic forma-

tions. EPA's role consists in ensuring that carbon capture and storage is developed and deployed in a manner that safeguards the environment. We are currently focusing our efforts on two fronts: (1) partnering with public and private stakeholders to develop an understanding of the environmental aspects of carbon capture and storage that must be addressed for the necessary technologies to become a viable strategy for reducing greenhouse gases; and (2) ensuring carbon dioxide storage is conducted in a manner that protects underground sources of drinking water, as required by the Safe Drinking Water Act.

COMBINED HEAT & POWER PARTNERSHIP

Combined Heat and Power (CHP) is an efficient, clean, and reliable approach to generating power and thermal energy from a single fuel source. By installing a CHP system designed to meet the thermal and electrical base loads of a facility, CHP can increase operational efficiency and decrease energy costs, while reducing emissions of greenhouse gases that contribute to climate change. EPA's CHP generation. The Partnership works closely with energy users, the CHP industry, State and local Governments, and other stakeholders to support the development of new projects and promote their energy, environmental, and economic benefits.

OTHER INDUSTRIAL SECTORS

A number of EPA's climate initiatives cut across multiple industrial sectors:

CLIMATE LEADERS

Climate Leaders is an EPA partnership that encourages individual companies and other organizations to develop long-term, comprehensive climate change strategies. Partners develop corporation-wide greenhouse gas inventories, including all emission sources of the six major greenhouse gases (CO_2, CH_4, N2O, HFCs, PFCs, SF6), set an aggressive corporate-wide greenhouse gas emissions reduction goal to be achieved over 5 to 10 years, report inventory data annually, and document progress toward their emissions reduction goals. Since its inception in 2002, Climate Leaders has grown to include nearly 100 corporations whose revenues add up to almost 10 percent of the United States' gross domestic product and whose emissions represent 8 percent of total U.S. greenhouse gas emissions. Five organizations have achieved their GHG reduction goals—Baxter International, General Motors Corporation, IBM Corporation, National Renewable Energy Laboratory and SC Johnson.

High GWP Gas Voluntary Programs EPA has a set of voluntary industry partnerships that are substantially reducing U.S. emissions of high global warming potential (high GWP) (HFCs) and sulfur hexafluoride (SF6)-are manufactured for commercial use or generated as waste byproducts of industrial operations. Some of these gases have valuable uses as substitutes for ozone depleting substances. However, some species of these gases, while released in small quantities, are extremely potent greenhouse gases with very long atmospheric lifetimes. The high GWP partnership programs involve several industries, including HCFC–22 producers, primary aluminum smelters, semiconductor manufacturers, electric power companies and magnesium smelters and die-casters. These industries are reducing greenhouse gas emissions by developing and implementing cost-effective improvements to their industrial processes. To date, these voluntary programs have achieved significant emission reductions and industry partners are expected to maintain emissions below 1990 levels beyond the year 2010.

INTERNATIONAL EFFORTS

EPA's global leadership on climate change extends not only to our suite of domestic programs, but also to our pioneering and effective international partnerships.

METHANE TO MARKETS PARTNERSHIP

The United States launched the Methane to Markets Partnership in November 2004 with active participation from EPA, DOE, the U.S. Agency for International Development, and the State Department. The Methane to Markets Partnership is a multilateral initiative that promotes energy security, improves environmental quality, and reduces greenhouse gas emissions throughout the world. The Partnership consists of 20 Partner countries, and involves over 350 private sector and other Network.

Under the Partnership, member countries work closely with private sector development banks, and other governmental and non-governmental organizations to promote and implement methane recovery and use opportunities in four sectors: oil and

gas systems, underground coal mines, and landfills and animal waste management systems. Capturing and using "waste" methane not only provides an additional energy source that stimulates economic growth but also reduces global emissions of this powerful greenhouse gas. The United States has committed up to $53 million for the first 5 years of the Partnership. EPA estimates that this Partnership could recover up to 500 billion cubic feet of natural gas (50 $MMTCO_2$) annually by 2015.

Asia-Pacific Partnership on Clean Development and Climate (APP) EPA is an active participant in this Presidential initiative, which engages the governments and private sectors in six key nations—Australia, China, India, Japan, the Republic of Korea and the United States—that account for about half of the world's economy, energy use and greenhouse gas emissions. Partners are enhancing deployment of clean energy technologies to address their energy, clean development, and climate goals. An example of APP success is the leveraging of a $500,000 U.S. Government grant to build the largest coal mine methane power facility in the world in China, which, when completed, will avoid the annual equivalent emissions of one million cars. Another success story is the provision of technical support to China to develop a voluntary energy efficiency label similar to Energy STAR.

This Administration is meeting unparalleled financial, international and domestic commitments to the reduction of greenhouse gas emissions, and as outlined today, EPA plays a significant role in fulfilling those commitments. The initiatives discussed above represent only a sample of EPA's climate change activities. We will continue to move forward to address climate change in ways that produce meaningful environment benefits and maintain our nation's economic competitiveness.

The recent Supreme Court decision in Massachusetts vs. EPA comes against the backdrop of this Administration's comprehensive climate policy. My testimony will now discuss the Supreme Court's decision.

THE SUPREME COURT DECISION

On April 2, the Supreme Court issued its decision in Massachusetts v. EPA. Prior to the Supreme Court decision, the D.C. Circuit had upheld EPA's denial of a petition to regulate greenhouse gas emissions from new motor vehicles under Section 202(a)(1) of the Clean Air Act. In our briefs before the Supreme Court, we raised three arguments for why the Court should affirm the D.C. Circuit's decision. The Court, in a 5-4 decision, disagreed with our three arguments and reversed the lower court decision.

First, the Court found that Massachusetts had standing to sue and therefore could challenge the petition denial in Federal court. Specifically, the Court found that Massachusetts had suffered a risk of injury due to EPA's decision. One noteworthy finding in the majority's opinion is that it gave the State "special solicitude" in establishing the constitutional standing requirements. The dissent, written by Chief Justice Roberts, suggested he found this to be an unjustified expansion of established constitutional principles and precedent.

Second, the Supreme Court held that the Clean Air Act authorizes EPA to address global climate change through the regulation of greenhouse gas emissions from motor vehicles. Importantly, the Court did not hold that EPA was required to regulate greenhouse gas emissions under section 202, or any other section, of the Clean Air Act. Rather, the Court merely concluded that greenhouse gas emissions were "air pollutants" under the Clean Air Act, and, therefore, they could be regulated under section 202 by the EPA subject to certain determinations as discussed below.

The Court also considered whether—given the authority to regulate greenhouse gas emissions under section 202 the Clean Air Act—EPA properly decided not to regulate greenhouse gas emissions from motor vehicles. EPA's decision stemmed in part from expressions of uncertainty as stated in a 2001 National Research Council report on the science of climate change. In denying the petition in 2003, EPA also had articulated additional policy reasons for why even if the Agency had authority to regulate greenhouse gas emissions, it was not appropriate to do so at that time. Those reasons included the Administration's achievements through and investments in technology advancement and voluntary programs, as well as recognition of the global nature of addressing climate change concerns, which must take into account developing nations such as China and India. In contrast, the Court found that EPA could not consider such "policy considerations" as a basis for denying the petition.

The Court held that, on remand, EPA must decide whether or not greenhouse gas emissions from motor vehicles cause or contribute to air pollution that is reasonably anticipated to endanger public health or welfare, or to explain why scientific uncertainty is so profound that it prevents making a reasoned judgment on such an endangerment determination. Importantly, the Court's decision explicitly left open

the issue of whether EPA can consider policy considerations when writing regulations in the event EPA were to make an endangerment finding. Indeed, the Court seemed to recognize that EPA has significant latitude with regard to any such regulations.

What is next? The Supreme Court will send the case back to the U.S. Court of Appeals for the District of Columbia. Then the Court of Appeals will most likely issue an order sending the petition back to EPA.

While technically the petition is not yet back before the agency, EPA is exploring and studying the issues raised by the Court's decision, including potential ramifications on other provisions of the Clean Air Act. The Agency fully recognizes the decision as one of the most important environmental law decisions in year—accordingly, we are trying to assure that the Agency is in the best possible position to address its ramifications. However, given the complexity of the decision and the very short time that has elapsed since the Court issued the opinion, at this early date it is impossible today to understand and explain fully how the decision may have any specific impact.

What I can tell you today is the Court left open the question of what procedure EPA is to follow on remand regarding a potential endangerment finding. Any such process should various procedural options to consider, including whether we should reopen the public comment period on the petition; whether we should hold a public hearing or hearings; and whether we should, or, are required to, use rulemaking procedures to decide the petition.

In addition, I am aware of a number of other pending petitions, judicial cases, and permitting actions in which parties might reference the Supreme Court's decision in support of or against various positions. For example, the Governor of California 2 weeks ago met with me and my staff to discuss his views regarding the impact of the decision on California's request for a waiver of Clean Air Act preemption of its standards regulating greenhouse gases from certain motor vehicles. The D.C. Circuit Court of Appeals currently has before it consolidated challenges to 2006 revisions to the

Section 111 New Source Performance Standards for utility boilers, and some of these challenges are based on arguments that we should regulate CO_2 emissions from the boilers as part of the revised NSPS—this case was severed and stayed pending the Court's decision in Massachusetts v. EPA. There are air permit applications pending before the agency in which similar arguments have been made, and there are cases being litigated in the courts addressing California's and other States' greenhouse gas standards for motor vehicles.

All these actions present complex issues of their own, and I cannot comment at this time on how the Supreme Court's recent decision may or may not relate to them. In my position as Administrator, I also must be mindful that the appropriate process is followed in addressing these issues, which requires that I not prejudge any determinations. At the same time, all these decisions make clear that we must be aware of potential broader ramifications. I can assure you that we are focusing not only on the complex issues directly addressed in the Massachusetts v. EPA decision, but on these issues as well.

CONCLUSION

The Administration remains committed to addressing climate change in a manner that promotes a healthy environment and a healthy economy. Today, I have outlined the myriad of programs, partnerships, and investments the Administration is deploying to meet this challenge. We look forward to analyzing the choices we must make in light of the Supreme Court decision.

Thank you.

Senator BOXER. OK. You have just stated that you have started the process to grant the waiver. Is that what I heard?

Mr. JOHNSON. Madam Chairman, what I said is we have started the process, which is a public notice and comment on the petition itself. Written comments are due June 15, and there will be a hearing on May 22, in Washington, DC.

Senator BOXER. OK. Can you give us a time line after the hearings are complete? What is your time line for making a decision?

Mr. JOHNSON. What I committed to the Governor is that we would move expeditiously, but responsibly. Not knowing what the comments will be, that was the extent of my commitment.

Senator BOXER. I am asking you more than that, because you don't report to the Governor, you report to us and to the President. So I am asking you what do you see your time line as? Give us a sense of it. Give us the quickest. Give us the longest.

We need to know. We have Senators sitting here whose States have put out a lot of taxpayer money. We want to know what the schedule is. We are very happy that you did add this to today's testimony. We expected it. We are very happy it happened, but please tell us what is your general feeling as to how long it will take.

Mr. JOHNSON. What I said to the Governor and the California Air Resources Board was that I would act on their request shortly after the Supreme Court had ruled its decision. I have honored that commitment, and I am reporting to you today that I will act expeditiously.

Senator BOXER. Well, your people who work for you have told us that it could take three to 4 months maximum. Would you agree that that is accurate, three to 4 months to get this done?

Mr. JOHNSON. I won't commit to a specific three to 4 month schedule because I don't know what the comments are.

Senator BOXER. Do you agree with them that it could be done in three to 4 months?

Mr. JOHNSON. Again, I would like to hold that in abeyance until I see what the comments are.

Senator BOXER. OK. Well, we will call you back here right after the comment period has expired to then get your opinion, because I think I am asking you a very general question. Give me the shortest time. Give me the longest time. And you won't give us that answer, and we have had 11 States waiting for 16 months. So when the comment period is completed, we will have another hearing. I will ask you about that.

Now, it is my understanding that California has never been denied a waiver. Is that your understanding?

Mr. JOHNSON. That is my understanding.

Senator BOXER. OK. So you have laid out the early part of the schedule, but you will not know the rest of the schedule until you have seen the comments. So the comments are completed on what date?

Mr. JOHNSON. The comment period closes June 15.

Senator BOXER. OK. So then we will at that point set up a hearing to get your timeframe.

Can you give me a schedule as to when you will take action to make an endangerment finding for emissions of greenhouse gases that would require regulation under the Clean Air Act?

Mr. JOHNSON. As I said, Senator, the decision is complex, analyzing the endangerment, and the standards of what the Clean Air Act says. For the decision, we will move expeditiously, but we will move responsibly.

Senator BOXER. OK. Now, let me again read to you what our President has said: "The issue of climate change respects no border. Its effects cannot be reined in by an army nor advanced by any ideology. Climate change, with its potential to impact every corner of the world, is an issue that must be addressed by the world." Now, in addition, the Department of Defense has warned us.

So, you are still telling me it is complex. So you can't give me any timeframe as to when you would make a finding as to whether or not this is a danger.

Mr. JOHNSON. As I have said, we are going to be moving expeditiously, but we are going to be moving responsibly.

Senator BOXER. When are you going to undertake this issue of determining whether or not you will make an endangerment finding?

Mr. JOHNSON. It started on April 2, as soon as the Supreme Court issued its decision. That is when we began to consider the ramifications.

Senator BOXER. And when you say we began, I assume this is behind closed doors. So what have you done so far, since April 2nd?

Mr. JOHNSON. I have had a number of briefings inside the Agency, and across the Federal Government.

Senator BOXER. You have had briefings. And when will those briefings conclude?

Mr. JOHNSON. As soon as I am satisfied that I have looked at all the options, and particularly what the Supreme Court has directed us to do, of making the decision as to whether there is an endangerment finding. Clearly, the Supreme Court said, as you pointed out, we have significant latitude in developing regulations under Section 202 of the Clean Air Act. I want to carefully consider all those options before I make a decision.

Senator BOXER. OK. I just want to call your attention to the fact that the Court wrote on page 18, "The harms associated with climate change are serious and well recognized." Just so that I understand, and I am going to have a second round, so I will hold here and turn to Senator Inhofe, but as I understand it, you have started within the Agency a review as to whether or not climate change, global warming is a danger, and whether or not you will make that endangerment finding, but you have no schedule as to when you will complete this.

It takes me to Senator Carper's point. Either we are going to start or we are going to lose more time. We have lost a lot of time. So we will stay on this, and I would expect that you will be hearing from me for an update on how these meetings are coming, and at what point do you say, we are going to make a finding. Because I think it has been stated by others here who are attorneys that you have to be in good faith here. Everything the President has said, the DOD has said, you yourself has said, your spokespeople have said, and the embrace of the IPCC says, and our National Academy of Sciences says, that this is a danger.

It just seems to me, and I sense this and I hope I am proven wrong, believe me, that I don't hear in your voice a sense of urgency as to when to decide to make this finding. But we will get back to it in the second round.

Senator Inhofe.

Senator INHOFE. Thank you, Madam Chairman.

Administrator Johnson, I keep listening to my colleagues on this side as if you can just snap your finger and have this done. Even as Senator Bond said, in California, that the legislature said initially 4 years, and I understand maybe 6 years to get into this issue.

Those who say that we should rush into action, maybe I am wrong on this, but I am going to read to you the provisions of the Act that are potentially relevant to CO_2. Stop me if you think any of these you would disagree with. All right?

Mr. JOHNSON. Yes, sir.

Senator INHOFE. Title I, that is your power and your manufacturing portion, Sections 108, 109, 110, 111, 112, 129, 165, 172 and 173. That is in Title I.

Mr. JOHNSON. Those are all the sections of the Clean Air Act under Title I that may be impacted by this decision.

Senator INHOFE. All right. Title II, that is the transportation sector, and again, stop me if I am wrong on this. That would be Sections 202, 209, 211, 213, and 231, and then Titles V and VI, which is the permitting Sections 502, 612, and 615.

I guess there may be more, but my point is based on the Supreme Court decision earlier this month, is it reasonable to assert you can simply rush out on these regulations?

Mr. JOHNSON. I think that would be irresponsible, sir.

Senator INHOFE. Having gone through a similar thing in years past in terms of States getting into attainment, if you found that carbon dioxide constitutes an endangerment to public health, and you set ambient air quality standards, do you believe that some of the counties would be in attainment and others would be out? Or do you believe, as I believe, that all counties could be out of attainment?

Mr. JOHNSON. I wouldn't want to speculate, Senator, as to what the impact would or wouldn't be. Again, my first focus is evaluating the Supreme Court decision with regard to motor vehicles and what this means. Other parts of the Clean Air Act add to the complexity. I said this decision is very complex and that we want to take sufficient time, moving expeditiously, but responsibly to act.

Senator INHOFE. Let me ask you this. How would States demonstrate a plan to attain these standards if in fact ambient air quality emissions would continue to climb because of China, India, Mexico, Brazil, other developing countries? Even if the States were to shut down all manufacturing, shut down all generation plants, couldn't they still be out of attainment?

I think that is the reason, as the Chairman pointed out in quoting President Bush, he said it is a problem that has to be addressed by the world, not just by us. What is your thinking about that? Am I way off base when I say that a State could shut down everything and still have the problem?

Mr. JOHNSON. It is clear that for global climate change, both from developing as well as developed nations, we need to be working together. By our own estimates, by the year 2015, developing nations will actually overtake developed nations with regard to greenhouse gas emissions.

So it is not good enough just for the U.S. to be doing it alone, but in fact to be doing it on a world scale. That is why the President, under his leadership, has initiated the Asia Pacific Partnership, the Methane to Markets Partnership and other programs to try to reach out and help that part of the world.

Senator INHOFE. The amount that we have in this Administration as proposed, and we have spent in terms of technology and in

terms of the partnership approaches is a huge amount. I don't know how anyone can say that we are not addressing it in terms of a percentage of the overall budget, because it has been just unbelievable.

In my State of Oklahoma, it is my understanding there are, with clean coal technology, three pending applications for coal-generated electricity. And yet we went through 15 years between 1990 and 2005 without licensing any coal generation plants. We were talking about China. China has been cranking out about one every 3 days.

Do you see any indication, sitting over here where you sit and looking around the world, that this is not just a huge world problem, if we recognize it as a problem, if the findings are that carbon dioxide constitutes an endangerment to public health, that we in this Country can do it without other countries participating?

Mr. JOHNSON. Senator, it is a global problem, and we need help across the world.

Senator INHOFE. Yes. If you were to regulate greenhouse gases under the Clean Air Act, do you believe that the structure of the Act is well suited for regulation?

Mr. JOHNSON. Well, that is one of the questions we are asking ourselves, Senator, as part of our analysis, whether in fact all the parts of the Clean Air Act, which you recited, are applicable and whether that is the best approach.

Senator INHOFE. Yes. If you were to craft new source performance standards, what factors would go into the determination of those standards?

Mr. JOHNSON. At this point, Senator, I wouldn't want to speculate on new source performance standards, particularly those under Section 111. Again, the focus of the Supreme Court decision was on motor vehicles, which is Title II of the Clean Air Act, which is where our focus is, but also considering what the implications are across other parts of the Act, including the NSPS, the new source performance standard.

Senator INHOFE. And in those standards, wouldn't you include the cost benefits?

Mr. JOHNSON. That is one of the issues that, depending upon under what part of the Clean Air Act, that we would consider regulating.

Senator INHOFE. I understand that. This is a problem because they always say that we can't do that, and I saw the Administrator shaking her head. I look forward, Administrator.

But it is my understanding that was just if it is an endangerment of public health that you would not use it. Maybe I am wrong on that, but I can assure you that the cost is going to be something that is going to be discussed at some length.

How wide-ranging is the authority that the Supreme Court has granted you? You have new authority now. Does this go into regulating fuels, power plant emissions, factories? How wide-ranging is it?

Mr. JOHNSON. They spoke to Section 202 on motor vehicles, but we are assessing both the impact under Title II, as well as under other titles of the Act, from stationary sources under Title I, all the way to Section 615 which addresses the stratosphere.

Senator INHOFE. Yes. When they first started talking about this—

Senator BOXER. Senator, your 7 minutes are up. So could you finish?

Senator INHOFE. I am finished. Thank you very much.

Senator BOXER. Thank you.

We are going to go back and forth in order of arrival.

Senator Lautenberg.

Senator LAUTENBERG. Thank you.

Mr. Johnson, what we all heard here this morning is that just using California, for instance, as an example, we saw the placard that confirmed a point of view that it could take up to 6 years to be able to start reducing greenhouse gas according to the standards of global warming and greenhouse gases.

But do we do better by not starting because it is going to take so long to get these changes into place?

Mr. JOHNSON. Senator, we began reviewing this decision as soon as the decision was issued on April 2. It is very complex. As Senator Inhofe pointed out, there are many parts of the Clean Air Act that may be impacted. I want to make sure that I consider all options, carefully consider them. I understand the sense of urgency that has been expressed here. I want to move expeditiously, but I do want to move responsibly.

Senator LAUTENBERG. Yes. What is the biggest responsibility? Is it to make sure that prices don't go up some? Or is it to protect the lives of those in the future, the lives, the health and the lives of those who will be here during the years ahead? What is the biggest responsibility? Public health?

Mr. JOHNSON. The biggest responsibility is, according to the Supreme Court, is to maximize——

Senator LAUTENBERG. The Supreme Court?

Mr. JOHNSON. Well, they have given a very specific direction, if you will. Justice Scalia, even though dissenting, put a three part test or three steps that his summarizes what——

Senator LAUTENBERG. How about your summary?

Mr. JOHNSON. Well, my summary is: the first step is to determine under the Clean Air Act whether cause and contribute then triggers the endangerment finding. As the Supreme Court says, if it does, then I am required to regulate. If it does not, then I am not required to regulate.

Senator LAUTENBERG. Isn't there something in the mandate at EPA that when there are questions about whether or not public health was endangered, that they have to move on it? We know that it is a complicated task. We know that it has been looked at for years. We also know that there has been enormous resistance on the part of EPA to get going on these things.

We also know that there was considerable doubt at EPA about whether or not it pays to move it. In the opinion of the Court, when they issued their opinion, they said in their view, EPA nevertheless maintains the decision not to regulate greenhouse gas emissions from new motor vehicles contribute so insignificantly, in EPA's view. And they go on to say that petitioner's injuries, that the Agency cannot be hailed into Federal court to answer for them, for the same reason. EPA doesn't believe that any realistic possibility

exists that relieve petitioners so they could mitigate global climate change and remedy their injuries.

And here we have heard about the futility of our pursuit because China and India are going to contribute more greenhouse gas in the future. So we are saying, if the fire is next door in the building down the block, why bother? It is not getting to us. I don't see that kind of laissez faire attitude, to say, well, it is going to be terrible anyway; why bother?

They say here, directing EPA's view, the predicted increase in greenhouse gas emissions from developing nations, particularly China and India, are likely to offset any marginal domestic decrease.

So is it your view that it is not worth bothering because these other countries are just going to make it bad anyway?

Mr. JOHNSON. Senator, my view is to implement what the Court has directed me to do under the Clean Air Act. That is what I am in the process of doing. I am going to do it expeditiously, but I am going to do it thoughtfully and responsibly.

Senator LAUTENBERG. Well, we know you are thoughtful. We just wish you were more hasty.

Thanks very much.

Senator BOXER. Thank you, Senator.

Senator Thomas.

Senator THOMAS. Thank you, Madam Chairman.

Administrator, if you kind of take a broad look at regulation versus incentives for reducing carbon and having cleaner energy produced, how do you measure those two things in terms of the accomplishment of our goals?

Mr. JOHNSON. I think we all recognize there are many tools in our toolbox for dealing with global climate change. Legislation is one tool. Regulation is a second tool, and partnership programs are certainly a third tool. What our experience to date at EPA is that our partnership programs are working. They are delivering environmental results. They are reducing greenhouse gas emissions, whether it be our ENERGY STAR Program or our Methane to Market Program, or as we move into our Asia Pacific Partnership Program, or Climate Leaders Program.

All the programs that I mentioned in my written testimony, all contribute to reducing greenhouse gas emissions. Of course, what is before me today, which is the subject of this hearing, is now, given the Supreme Court's decision, what does this mean for regulation at EPA. That is what I am sorting through right now.

Senator THOMAS. Sure. I understand. There is, of course, California, for example, has great demands for energy, and those demands keep growing. They say we don't want any energy made from coal, but that will turn the lights off if they don't do that.

So we need to balance between having regulations and moving toward that, and having ways to produce energy in another way, it seems to me, in order that we have to have energy. We have to have energy.

Mr. JOHNSON. We have to have energy.

Senator THOMAS. It is a little hard.

You mentioned the Asia Pacific Partnership. I think one of the witnesses there believes that the activities with the Asia Pacific

Partnership, if I can quote his statement, "utterly ineffective effort to look busy." How do you react to that assessment?

Mr. JOHNSON. Well, as one of the world's leaders, we are the first country to reach out to our Asia Pacific partners to actually begin addressing global climate change, and on specific projects, specific areas such as, like you said, clean energy, clean coal technology, to actually deliver results.

So I am very proud of the fact that we are the first country to reach out and that we are working to deliver results, not only here in the United States, but across the globe.

Senator THOMAS. Climate change is kind of a global issue, isn't it?

Mr. JOHNSON. It is.

Senator THOMAS. I guess I continue on the Energy Committee and dealing with some of these things, it is sort of a balance between having some regulations, which is rather easy to do, and sit here and do it in the Congress; it is another to be able then to produce the energy that is necessary under those regulations. So I hope we can give as much attention to doing some of the things we now know how to do. Nuclear energy, for example, is very clean. We know how to do that. We know how to make clean coal. We can reduce that, but still we haven't done anything to encourage IGCC plants. We haven't got FutureGen on the ground yet, and those kinds of things.

So you noted in your testimony that since 2001, we have spent $35 billion on CO_2 reductions in the government.

Mr. JOHNSON. Yes.

Senator THOMAS. How does that compare with what other countries are doing? How do you evaluate the effectiveness of that $35 billion?

Mr. JOHNSON. That is an unparalleled investment. No other country in the world has invested as much as the United States. Not only is that investment for science and technology, as well as some tax incentives, but we are delivering programs. I talked about some of those programs, certainly in the partnership area, and we are delivering real results.

Senator THOMAS. Thank you very much.

Thank you, Madam Chairman.

Senator BOXER. Thank you very much, Senator.

Senator Whitehouse?

Senator WHITEHOUSE. Thank you, Chairman Boxer.

Administrator Johnson, in your view, what is the single greatest environmental hazard facing our Nation and our world right now?

Mr. JOHNSON. I would not identify one. As Administrator, I see a number of challenges.

Senator WHITEHOUSE. Pick the one that you think is the most serious.

Mr. JOHNSON. I don't see one as being the most serious. I see a number of issues ranging from clean water and infrastructure, to air issues, including global climate change, to dealing with hazardous waste sites.

Senator WHITEHOUSE. So you think global warming is on exactly the same scale and of no greater hazard to our Nation and our

world than, say, an infrastructure issue or the cleanup of toxic waste facilities?

Mr. JOHNSON. I would say that they are all very serious issues in need of environmental protection, and they all need to be addressed in an appropriate way.

Senator WHITEHOUSE. Isn't it part of your job to rank them in terms of priority and define what the most significant hazards are that our Country faces, so that you can, if there is in fact a difference, proceed against it with due regard for the priority that it entails?

Mr. JOHNSON. Indeed, it is my responsibility to protect public health and the environment, and I take that responsibility, as I have for 26 years at EPA, very seriously. But to put all the Agency resources on one issue to the exclusion of others would be foolhardy, in my opinion.

Senator WHITEHOUSE. I think you will agree that that was not the question I asked, was it, Administrator?

Mr. JOHNSON. I wasn't sure where you were headed, sir.

Senator WHITEHOUSE. Don't anticipate where I am heading. Just answer the question. That is all you need to do. And the question is: What is the most serious environmental hazard that we face in our Country and our Nation? Is that a complicated question?

Mr. JOHNSON. It is not complicated at all, and I will give you my same answer. I think that there are a number of issues of equal importance, and that it is important as a Nation, and certainly as an Agency, that we address all of those, including global climate change.

Senator WHITEHOUSE. You astonish me.

In the months leading up to the Massachusetts v. EPA decision, what was your view of the argument that you had regulatory jurisdiction in this area?

Mr. JOHNSON. Senator, I now accept what the Supreme Court has said. What I thought of the opinion before doesn't really matter because it is now the Supreme Court's decision. I accept it. CO_2 is a pollutant and now I am moving expeditiously, but responsibly, to decide what are next steps at EPA.

Senator WHITEHOUSE. I am asking you what you thought beforehand of the argument.

Mr. JOHNSON. As I said, I am not going to get into revisionist history. It was the Agency's position. I am the head of the Agency. We thought that it was not clear as to it being a pollutant. That is certainly what our position was. Clearly, for the Court, it was not a unanimous decision, five to four, so clearly the Supreme Court had questions even of itself. But for now, I accept the decision and now my focus is——

Senator WHITEHOUSE. Did you think it was a legitimate argument being made by the other side?

Mr. JOHNSON. Again, I accept the Court's decision and I am moving forward with——

Senator WHITEHOUSE. I am not asking you about going forward. I am asking you about going back. That is the focus of my question. The question is, what did you think then? Did you think that this was a credible argument? Did you think that these were, you know,

crazy people? That this was a wild idea that you didn't need to prepare for the eventuality that you might lose the case?

Mr. JOHNSON. It was a credible argument and, again, my focus is now on the decision moving forward, not revisiting the past.

Senator WHITEHOUSE. But in evaluating your performance, I think we need to evaluate the past, don't we?

Mr. JOHNSON. I will leave that up to you, sir.

Senator WHITEHOUSE. OK. Well, here is where I am. I think you agreed that it was a somewhat legitimate credible argument, even though the EPA took the contrary position. It is at least one of the most significant environmental issues facing our Nation and our world. Wouldn't it be prudent in a situation like that to prepare a little bit in advance so you are not starting on day one after the decision comes down? Wouldn't it be prudent to have in place some of the administrative infrastructure ready to move forward in the event that the decision went against you?

Mr. JOHNSON. Senator, I think what is prudent is to focus on the decision that was made and what our next steps are, and that is where I am focusing my attention. What was done in the past, whether it was under Administrator Browner's tenure or Administrator Reilly's, is interesting historically, but what is before the Agency now is a decision by the Supreme Court. How that is carried out under the Clean Air Act is my responsibility and I take it very seriously. I am working on it very carefully, but expeditiously and responsibly.

Senator WHITEHOUSE. But how it is carried out under the Clean Air Act now—my apologies. My time is exceeded.

Senator BOXER. Thank you.

Senator Lieberman.

Senator LIEBERMAN. Thanks, Madam Chair.

Mr. Johnson, thanks for your testimony. I want to ask you a couple of questions emanating from the Supreme Court decision.

In your written testimony today, you say, "that the Court left open the question of what procedure EPA is to follow on remand regarding a potential endangerment finding." I was troubled by that, and let me put it in this context. As I have followed EPA decisionmaking processes in these regards, once the Agency has found an endangerment, which is to say that a pollutant endangers public health and welfare, then it has generally speaking acted to eliminate the factors that caused that endangerment, by its regulations.

So why would the procedure in this matter be any different than the ones EPA has followed to date with respect to other pollutants that it finds endangers public health and welfare?

Mr. JOHNSON. Well, Senator, you are absolutely right. In fact, the procedure, the process is that we need to look at all of the science, look at what the Clean Air Act directs us to do under the various sections. In this case, the Supreme Court focused on Section 202(a) dealing with motor vehicles.

So what does that mean with regard to the Clean Air Act? And has an endangerment finding been made? So just like we have done for other pollutants, that is one of the key steps to address, is there endangerment. And so we are following that same process on that very important question of endangerment, and then if there

is, certainly the Supreme Court has directed us that we must regulate.

Of course, if they say that isn't endangerment, then we should not regulate.

Senator LIEBERMAN. Right. So tell me what you meant when you said in your statement, then, that the Court left open the question of what procedure the Agency is to follow on remand regarding the potential endangerment finding? In other words, in what way would you contemplate, and I know you have to make a finding. I am obviously not asking what your finding will be at this point. But how might you change the procedure from what it has been traditionally been under your leadership or that of your predecessors?

Mr. JOHNSON. Again, we would follow the same procedure that we have for other rulemakings. If we chose to go down that path and there was an endangerment finding made, again, the first question, which the Supreme Court clearly left to me: is there an endangerment finding or not? And if there is, then proceed with regulation. But as they point out, the Supreme Court also uses the phrase, even in that, there is "significant latitude,(that is the point in that phrase, in developing regs under Section 202 of the Clean Air Act.

Senator LIEBERMAN. OK, I've got you. So in some sense what you have answered alleviates some of my concerns, as I understand your answer, which is to say that while the Court left open the question of what procedure you would follow on remand regarding the endangerment finding, that it is your intention to follow the procedures that you generally follow.

Mr. JOHNSON. Yes.

Senator LIEBERMAN. Thank you.

I have one final question. In writing for the majority of the Court, Justice Stevens noted, "EPA does not dispute the existence of a causal connection between manmade greenhouse gas emissions and global warming." Is that correct?

Mr. JOHNSON. That is correct.

Senator LIEBERMAN. OK. So it would seem then that the only way you as EPA Administrator could avoid finding that manmade greenhouse gas emissions endanger public health and welfare would be if you determined that global warming does not endanger public health and welfare. As a scientist, and a respected scientist, surely you acknowledge that global warming does endanger public health and welfare; that there is enough evidence to suggest it. Is that not correct?

Mr. JOHNSON. Senator, global warming is a serious issue, and I certainly support, as does the President, the two IPCC reports that have been referenced earlier. Taking into context what the Clean Air Act directs me to do, and making the endangerment finding, is precisely what I am in the process of doing. And so, again, I am not prejudging that decision. It is complex, but that is certainly the heart of the first step of the process that I need to go through in making the decision, because if I make an endangerment finding, then we must regulate. If I don't make an endangerment finding, then we don't regulate.

Of course, the Court also, if you will, identifies a third option, which then says you have to explain why we chose the third approach.

Senator LIEBERMAN. Thanks. My time is up.

Thank you.

Senator BOXER. Thank you, Senator.

Senator Warner, welcome.

Senator WARNER. Thank you, Madam Chairman. I welcome this opportunity with our distinguished Administrator. In the next row behind us there are many familiar faces that have been in this room in years past. So I look forward to their testimony.

I am down on the Armed Services Committee running that hearing with the Chairman this morning, so I am sorry not to have been here earlier.

So you are about to make this endangerment to public health decision. What sort of timeframe are you looking at?

Mr. JOHNSON. Senator, that has been the million dollar question all morning.

Senator WARNER. If you have answered it, then I have kindly contributed a worthwhile question to this hearing. Is that it?

[Laughter.]

Senator BOXER. From my perspective, absolutely.

Mr. JOHNSON. Senator, I answered the question. I am not sure that everyone on the Committee likes my answer.

Senator WARNER. I want to give a little bit of preamble to the question. Because our Country, on this Administration, is spending quite a substantial amount of money trying to stimulate, private sector and everybody else, to sort of on their own do certain things. So it seems to me that two trains moving along, a rather heavy expenditure on our taxpayers, moving in this direction, and now your key finding, and back to the question of what is your timeframe.

Mr. JOHNSON. Senator, my response is that I am moving very expeditiously, but I am going to move responsibly before making a decision. Clearly, this is an issue of great importance. Global climate change is a serious issue. But I believe that I need to take all the science, the policy implications, the legal implications into account before I make a decision as to what the next steps are, given the Supreme Court decision.

This is an issue that has been debated since the late 1970's. There have been multiple legal opinions, there have been multiple analyses done. Having said that, that is not an excuse for not addressing what the Supreme Court said. I am just merely pointing out that there is a lot of history. Again, my interest is to move expeditiously, but move responsibly. This is a major decision by the Supreme Court, and what follows, whatever decision I end up making, will be a major decision as well. I want to make sure that I have sufficient time, but at the same time I want to be responsible.

Senator WARNER. I have your answer very clearly in mind. Let me suggest that, I hope you are not just going to take everything that you recounted, all the money, opinions and so forth, you will assess those. But what new initiatives might you take that probe other areas of knowledge to bring into this difficult equation, all aspects of it? In other words, aren't there some areas that independently you might go out and seek some advice and some ideas? Let's

move beyond the frontiers as they are now and try and find other opinions.

Mr. JOHNSON. Those are among the options that we are considering. Again, I am considering all options, given the Supreme Court decision. Again, the Supreme Court decision, as you know, was focused on motor vehicles. But it has potential implications for other areas of the Clean Air Act, from stationary sources to other parts of the Clean Air Act. I want to make sure we are considering those before making a decision.

Senator WARNER. Lastly, how are you proposing to work through the complex issues leading to the rest of the world? Therein, the Secretary of State is primarily responsible. We have to act in concert with the other nations. We cannot simply push America so far ahead that we begin to jeopardize our economic stability in the world and competitiveness.

How do you factor that in?

Mr. JOHNSON. Sir, you are asking the very question that I am asking my staff and my colleagues across the Government: What are the requirements under the Clean Air Act, how or should these other factors be taken into consideration? Those are very important questions. Again, I am emphasizing why this is a complex decision and one, in my opinion, that we should not rush to judgment. We need to move expeditiously, which I am, but let's not rush to judgment.

Senator WARNER. Thank you very much.

Thank you, Madam Chairman and our distinguished Ranking Member.

Senator BOXER. Next is Senator Klobuchar.

Senator KLOBUCHAR. Thank you, Madam Chairman and Administrator Johnson.

As I am listening to this and you correctly acknowledge that the Supreme Court decision is about Section 202 and the emissions from mobile sources. But you are also saying it is possible as you perceive it, some kind of rulemaking, you would include stationary sources as well?

Mr. JOHNSON. What I said, Senator, is that we are evaluating the implications, not only for the motor vehicle section, Section 202, as you point out, but also for other sections of the Clean Air Act, which include stationary sources. We are evaluating what are the implications of the Supreme Court decision for these other areas.

Senator KLOBUCHAR. But you are evaluating it, but is it possible that you would promulgate some sort of rules regarding stationary sources? Is that one of the things you are considering, or are you just seeing what effect doing something about emissions would have, mobile sources would have on stationary ones?

Mr. JOHNSON. My first focus is dealing with the petitions before the Agency, actually not yet before the Agency. The Court has not remanded or, if you will, sent the decision officially to the Agency, which I expect soon. We don't even have the decision officially before the Agency. So my focus is on the motor vehicle piece and also considering other implications.

Senator KLOBUCHAR. So it could require another Supreme Court decision to get you to the place of looking at the stationary sources?

Mr. JOHNSON. Again, I am looking at what are all the implications. This decision is complex. Then determining what our next steps are under the Clean Air Act.

Senator KLOBUCHAR. Do you consider yourself as some kind of, as the EPA, independent mission by virtue of your job to move on this outside of the Supreme Court decision? You personally just in answer to one of the questions that you and the President support the findings of the scientists for their reports that I addressed in my opening comments. So is there something outside of the Supreme Court decision that would give you the authority you would need to start moving on this?

Mr. JOHNSON. Senator, under the Clean Air Act, the responsibility for making the decision on the Clean Air Act rests with the Administrator. But just as all administrators, I think good government includes working with my other Federal colleagues, including the White House.

Senator KLOBUCHAR. OK. In your opening comments, you talked about how you had seen the growth of greenhouse gas, it went up by less than 1 percent in 2005. You said it showed the Administration's program to address global warming is delivering real results. Then I saw this report released by the Department of Energy that said that the slow growth in emissions from 2004 to 2005 can be attributed mainly to higher energy prices that suppressed demand, low or negative growth in several energy-intensive industries, and weather-related disruptions such as Katrina.

So how do you respond to their take on why we saw slower growth, compared to your take?

Mr. JOHNSON. I think there are many reasons why we see a reduction. One of those, which we have talked about before is, for example, our ENERGY STAR program. We keep track of that. This past year, Americans saved $14 billion in energy bills and prevented greenhouse gas emissions equivalent to 25 million cars. We track that. So we think that program and other programs are making a difference.

Clearly there are other factors that make a difference, as the Department of Energy has pointed out as well.

Senator KLOBUCHAR. And I just want to again reiterate that this report said that that slow growth could be attributed mainly to these other factors, beside any kind of program. Because it says mainly to higher energy prices, suppressed energy demand, low or negative growth in several energy-intensive industries, and weather-related disruptions in the energy infrastructure along the Gulf Coast that shut down both petroleum and natural gas operations.

Mr. JOHNSON. I would also ask you to take a look at what our trends are, not just over 1 year. Certainly, as you look year to year at the trends of greenhouse gas intensity, in fact, it is not just that one snapshot of 1 year, as the Department of Energy said, but the long-term reduction in greenhouse gas intensity.

Senator KLOBUCHAR. Thank you.

Senator BOXER. Thank you, Senator.

Senator Carper and then Senator Cardin. And then, what I am going to do, because Administrator Johnson has to go to a meeting, I am going to ask unanimous consent if it is OK, rather than just decree this, that Senator Inhofe and I would have an additional

round, and if members don't mind, we will then go to the former EPA Administrators, who have been waiting patiently.

Is that all right?

Senator INHOFE. I object. Let me explain why. Never in the years I have been on this Committee and in the 4-years that I chaired it, witnesses always, most of the time, tell us what time they are available. He was available until 11:30. And I don't recall one time I had my staff check on it, that we have not kept our commitment to a witness. I don't think we should do it. I think at 11:30, that witness should be excused and we should go to the next panel.

Senator BOXER. Well, Senator, his staff has agreed he can stay and extra 10 to 15 minutes.

Senator INHOFE. If that is the case, that is different.

Senator BOXER. The point is, I don't want to get into an argument about this. But let's just move on. Otherwise everyone else will have a round, and if the Administrator leaves in the middle, I can't help that. But we are going to move forward with Senator Carper.

Senator INHOFE. I just want to find out——

Senator BOXER. I wouldn't say it if it wasn't accurate. Thank you.

Senator CARPER. I don't object to moving forward. Mr. Johnson, welcome again. I talked about this a little bit before, and I just want to come back to it again.

I would be interested in us finding out what we can do now, not next year, not in the next Administration, but what can we do now? Not necessarily what we can do, but to some extent what you can do, what you and the folks you have at EPA can do, that none of us are going to quarrel with that would help lay the groundwork for moving forward. I have introduce legislation that focuses on the utility sector, as you know. You and your folks were good enough to model that proposal, along with the President's proposal and the earlier proposal by Senator Jeffords. We are grateful for that.

Mr. JOHNSON. Thank you.

Senator CARPER. Here is what I am interested in finding out. In terms of things that can be done now, we have heard from several people that among the steps that can be taken, the first one could be developing a detailed registry of an inventory of greenhouse gas sources in the U.S., having a better understanding of the major sources of greenhouse gases. My view is to help us target our regulations better.

Another important first step would be to develop health and safety standards for carbon sequestration. As you may know, I am an advocate, a strong advocate for clean coal. I want us to be able to use coal to generate electricity, and I would like to do it in a way that puts out a lot less CO_2 and other bad stuff into our air.

One of the things that is going to make sure that happens is the ability to inject carbon dioxide gases into the ground. If we are going to ask people to do that, we ought to have a proper set of rules governing that practice.

The third item I am going to ask you to comment on deals with whether or not EPA could help us with agriculture sequestration and carbon dioxide. We have talked about this, our farmers can be part of the solution to global warming. The bill that I have intro-

duced with some of my colleagues seeks to promote those efforts and to reward them.

I would like to see EPA develop standards and practices for our farmers to begin implementing, so they can sell offsets in a cap and trade system.

Those are really small, but I think not insignificant steps that could be useful in helping us to answer the question how to regulate greenhouse gases. What I want you to do, I am not going to ask you to commit to a time table here to say, this is when we will promulgate regulations or this is when we are going to start writing the regulations or this is when I am going to invite the comment on proposed regulations.

But what I am looking for is your reaction. Those three areas, are those three areas that could be potentially fruitful, potentially beneficial, that are not full of controversy, that we could actually get started? And if we pass legislation this year, and that is great, whether we do or not, having done those things, make progress on those things, better inform the legislative process?

Mr. JOHNSON. Those are three very important issues. Certainly, again, as part of our overall decision as to next steps after we sort through the endangerment findings, carbon sequestration, whether it is geologic or agriculture driven, and what kind of additional guidance, besides the guidance we put out in March in terms of regulation, those are all very, very important questions. I look forward to working with you, Senator, and certainly I will have my staff followup with you as to next steps.

Senator CARPER. Again, there are three that I am interested in focusing on. One, implementing a detailed registry and inventory of greenhouse gas sources here in the United States, that would be No. 1. No. 2 is to establish health and safety standards for the operation of geological sequestration of greenhouse gases. That would be No. 2. And the third we would like to work with you on is to establish standards and practices for the measurement and verification of emissions offsets for agricultural sequestration.

I just want us to get started.

Mr. JOHNSON. I look forward to future conversations.

Senator CARPER. Thanks. I look forward to that as well.

Senator BOXER. Thank you very much. Senator Cardin.

Senator CARDIN. Thank you, Madam Chair.

Administrator Johnson, I have listened very carefully to your answering my colleague's questions. There is no question that you have the responsibility to carry out the Supreme Court decision. I hear you say that. But you also have the responsibility to implement the authority of Congress and the intent of Congress and to carry that out.

I think another key responsibility you have as the Administrator, you have the opportunity given to you by Congress, given to you by your position as Administrator, and I see Administrator Browner, who served in a Democratic administration, and Administrator Reilly, who served in a Republican Administration. I think both of those individuals carried out that responsibility, knowing what they could do to help future generations as far as the environment of our Country with great distinction.

I just would hope that you would talk with them and use this opportunity you have as Administrator to say at the end of the day what you want to make sure you have accomplished, within the authority given to you by Congress, a better environment for future generations. I understand you have to make a decision on the California waiver, that you need to go through a process in making that decision. And we want you to go through that process. It has a direct effect on the people of Maryland. As you know, Maryland is one of those States whose legislature passed the California standards, and we need the California waiver to be granted in order for our State to move forward.

To me, I think it is kind of an easy decision, quite frankly. I know that you are in a comment period that, I believe you said expires on June 15th, starts today, by the signing and then ends on June 15th.

Mr. JOHNSON. The 15th, right.

Senator CARDIN. So I am just going to say what I think is reasonable. I know I can't pin you down to a specific time. But I think it is reasonable, within 30 days after the comment period ends, for us to have a decision on the California waiver. I am just letting you know how I think we are going to be judging your time schedule on that. Thirty days seems reasonable to me. Any objections?

Mr. JOHNSON. As I said earlier, I want to withhold judgment on a timeframe until I have seen what the nature and the extent of the comments are.

Senator CARDIN. But understand how we are going to be looking at this.

Mr. JOHNSON. I understand, sir.

Senator CARDIN. No. 2, in the endangerment determination, listening to Senator Lieberman make the connection between, we have already acknowledged the problems with greenhouse gases and global warming and climate change. So I think that also is going to be a kind of easy decision for you to make, that there clearly is an endangerment. You go back in the EPA, as early as 1998, when there were determinations made about the danger of greenhouse gases, and the scientific information since 1998 has only gotten stronger and more dramatic.

So I would hope that that timeframe would also be done in a rather quick way. But I just urge you, as you are going through that process, don't slow down. In fact, speed up as to ways in which you can use the regulations over motor vehicles, automobiles, as you have said, which was the Supreme Court decision, but also in other sources to deal with this. So you already have a game plan in place that you can aggressively move forward. I expect that you are going to make the right decision on endangerment.

But I hope then we don't have to go through another lengthy process before we can start implementing changes, so that we can really make a start. That is important, not only for America, U.S. direct interests. But as has been pointed out by so many of my colleagues, if we are going to have the credibility internationally, we have to lead by example. If we just keep dragging our feet, saying, OK, we have finished this process, let's go through the next process and that is going to take another couple hundred years before we get there, I think it compromises America's standing internation-

ally. You have that opportunity, as the Administrator, to set the leadership.

I really do believe not only Americans are looking at this, but the international community. And the Supreme Court has given all of us hope that we can come together as a Nation to exercise our responsibility. I understand you have to go through your procedures. But I would hope it is not going to be, well, we have to wait for A to be done before we can plan for B. Because right now, we should be having, on the planning stages, working with us, working with the Congress, working with the different interest groups.

What we are going to do to really change the impact that Americans have by their automobiles on greenhouse gases and what impact we have on the other sources. As important as motor vehicles may be to the solution, I think close to one third of the greenhouse gas problems, we need to look at the other sources of problems as well.

So I just urge you to carry out your responsibility as the Administrator, and I look forward again to working with you. Thank you, Madam Chair.

Mr. JOHNSON. Thank you.

Senator BOXER. Thank you.

We will have you out at a quarter of, as your staff said you wanted to be. So I will take my last 5 minutes, and if Senator Inhofe wants his, that is fine.

I have been listening carefully to you. You have used the word complex many times during this hearing. I have been around here since 1983. I was in the House for 10 years, then I came over here. I have been to so many hearings, and you kind of get used to when people use words like difficult to understand, difficult to comprehend, complex, confusing, that sometimes it is a code word for, we are just going to take our sweet time.

It is an impression that I sense throughout the Committee here, that we are a little worried about slowing up. Senator Carper talks about, let's not wait until a long time, Senator Cardin was very clear on, he expected action in 30 days. Senator Warner asked a question to you about this. And of course there are some who I think agree with the fact that it ought to take a long time. But I would have to say that most of us are looking forward to your acting.

As far as I know, search the record, we didn't wait for another country to act before we passed the Clean Air Act. We didn't wait for another country to act before we passed the Clean Water Act, even though other countries did contribute to the pollution in both cases. So the fact is, we need to act, and we shouldn't hide behind China. I am offended by that. Since when do we wait for China to do the right thing before we act, whether it is in foreign policy or labor regulations or environment or anything else?

First, it seems to me the EPA under George Bush the second, not the first, has hidden behind legalistic arguments. Those arguments were shot down by the courts. Let me tell you what they said about China, you went in there, not you personally, your lawyers went in and said, we can't act until China and India act. Listen to what they said, they took it on. They said, "It is not dispositive that developing countries such as China and India are poised to increase

greenhouse emissions. A reduction in domestic emissions would slow the pace of global emissions increase, no matter what else happens elsewhere."

So get out behind China, get out from behind India and let's get going. So with that in mind, you have said that you are looking at a number of options of what to do. And those are all being discussed by your staff since the day after the Supreme Court case, which is heartening to know that you went right to it.

So I am asking you that at the end of May, would you come forward and let us know what those options are that you are considering? Not your final conclusions, but what are those options.

Mr. JOHNSON. Senator, I will be happy to discuss with you where we are in our decision process. Again, it is complex.

[Laughter.]

Senator BOXER. We get it.

Mr. JOHNSON. Good. Thank you.

Senator BOXER. I am not asking you about where you are in the process. I am asking you, will you come before us or put in writing by the end of May all the things you are now discussing behind closed doors? Your salary and mine, paid for by taxpayers. Will you come and let us know at the end of May, either personally or in writing, as to what are the options your staff is considering to do about global warming?

Mr. JOHNSON. I would be happy to share with you considerations, and wherever we are in our discussions.

Senator BOXER. So I will take that as a yes, that we will have from you by the end of May what options you are considering to addressing greenhouse gas emissions?

Mr. JOHNSON. That by the end of May, we may not be ready for evaluating——

Senator BOXER. No, no, I wasn't asking you for an evaluation. I want to know what you are considering, what is the laundry list that you are considering. I think this Committee has an interest in that, because frankly, if there are things on that, for example, Senator Carper gave you three very interesting ideas. We want to know, are those on the list. I am going to take it as a yes, you said you would, so let's just not waste a lot of time, and hopefully you will be able to do that, because you are going to come here in June to discuss where you are on the waiver, so we will ask you about that as well.

I want to ask you about the coal to liquid fuel. Isn't it true that coal to liquid fuel emit more CO_2 than traditional petroleum products?

Mr. JOHNSON. With present technology, that is correct.

Senator BOXER. OK, very good. Because that is important as we look at any fuels bill looking forward. We want to make sure we don't go ahead with fuels that commit us to even more greenhouse gas emissions. We want to have some standards in that.

Also, are you aware that your plans for reducing greenhouse gas emissions using the intensity as your central focus means there will be more global warming and not less?

Mr. JOHNSON. Senator, just a few weeks ago I was meeting with the other environment ministers as part of a G8 plus 5 environment ministers meeting. Among the conclusions that they reached

as environment ministers was the need to consider sustainable economic development in the equation as we address global climate change. Addressing greenhouse gas intensity is one of the ways of doing that. That is why we are doing that, because it is important to consider economic sustainability.

Senator BOXER. Well, let me just make a point here. You have praised the IPCC report. We have to start reducing, not reducing the increase. That is the trick. We have to actually start reducing.

Senator Inhofe, you have a minute—five minutes, 5 minutes and a half.

Senator INHOFE. I appreciate Senator Carper bringing up the farmers and how it affects this. I come from a farm State. When I look at what has happened, the price of natural gas going from $2 to about $7.6 just in the last 4 years, which is one of the main ingredients of the price of fertilizer and the other things, I think that the farmers really need to be a part of this, and need to understand how this is all affecting them.

I won't take any more time, because you have been very patient and very honest in your answers and I appreciate it very much. But I think we made a commitment to you to be out of here 12 minutes ago, and I am going to keep that commitment. Well, it is too late to keep that, but I will do the best I can. Thank you.

Mr. JOHNSON. Thank you.

Senator BOXER. Thank you very much, Administrator Johnson. See you soon.

Mr. JOHNSON. Thank you, Madam Chairman.

Senator BOXER. And if we could move along and have our two very patient former EPA Administrators come forward. We are going to go right into your testimony.

Which one of you would like to proceed first? Is there an order that you have decided upon? Well, why don't we start with Mr. Reilly, because he was the first EPA Administrator, before Administrator Browner. We will start there and move forward. And the former General Counsel of EPA is going to join you, so please, do. Ann Klee is coming.

Mr. Reilly, we really welcome you. We are so appreciative to the whole panel for being here and being so patient. Go ahead.

STATEMENT OF WILLIAM K. REILLY, SENIOR ADVISOR, TGP CAPITAL FOUNDING PARTNER, AQUA INTERNATIONAL PARTNERS

Mr. REILLY. Thank you, Madam Chair, Senator Inhofe, members of the Committee. It is a great honor——

Senator BOXER. Is your mic on? I know, you haven't done this in a while.

Mr. REILLY. I haven't done this in a while, no. This is the Committee for whom I did it. Senator Lautenberg and Senator Lieberman were here at that time.

I am very pleased to testify here, and I salute you for organizing this hearing so promptly after the Supreme Court's decision.

I would say at the outset that were I the EPA Administrator, I would welcome this decision. I think that the decision farmers the issue of planetary protection in a somewhat limited but a very useful way, limited to the extent that it applies to the Environmental

Protection Agency. But essentially I think what this decision does is put the ball, frankly, in your court. It calls for action. We will not regulate carbon dioxide or the other greenhouse gases adequately without the full range of interests being involved, without the kind of attention to the complexities of the questions that Administrator Johnson was referring to being addressed by the Congress.

Nevertheless, the specific responsibility now is very clear. It does rest on the Environmental Protection Agency to respond to the Court's decision. It has huge ramifications. I might say that I am appearing in a private capacity, but for the last several years, I have been co-chair of the National Commission on Energy Policy. It has had a highly inclusive membership, very extensive research financed by Hewlett Foundation and others. It in my view has, and it has been analyzed by the Energy Information Agency, its costs have been found to be reassuringly modest.

I suggest that that could be a starting point for the Country with respect to addressing the full range of issues involved in carbon dioxide regulation. I think frankly it has the best prospects for enactment of any of the depending bills at this time.

The EPA has a number of responsibilities now, and I will suggest several areas in which I think they ought to concentrate. First of all, what this Country, what the world needs very urgently is a sequestration rule. Industry needs it. The utility industry particularly needs it. China needs it. Beginning on the development of a sequestration rule ought to be the primary objective, priority in response to this decision.

Second, I would say that, with respect to sequestration, too, EPA has tremendous experience in underground injection. The Department of Energy has a good deal of money that is now engaged in looking at the issues with respect to sequestration. It would be extremely helpful if some of that funding were available to the professionals who deal with underground injection at EPA and could bring that expertise fully to bear on the Energy Department's activities.

Turning to the States, my advice to the Environmental Protection Agency is, collaborate with them, and in some cases, get out of the way of them. I am very pleased to hear that there will be action now with respect to the waiver for the regulation of CO_2 for vehicles in California. I would also encourage the Agency to work with Governor Schwarzenegger on the executive order policy he established, to have low carbon fuels. I would point out, both of these matters have tremendous public support, bipartisan support in California, including from Conoco Phillips, the Nation's largest refiner, with respect to the low carbon fuels.

I would look very carefully at what the European Union has done, particularly with respect to allocation. They have over-allocated in the first instance. We need to learn from their mistakes. That has had pernicious effects on the effectiveness of their regulations, it has caused the price of permits to plummet and has created windfalls for some firms and disillusion on the part of many. We need to understand what they have done, so that we don't repeat it.

China and India are key, as has been said today. Someone has referred to the issue as involving coal cars, China and America. That is how the carbon dioxide, and that is how the planetary protection from greenhouse gases will be achieved. In my time we had a great deal of experience with China, technical assistance to the Chinese for recovery of methane from coal mines, CFC elimination. The Chinese, in my experience with them, and I have a good bit, would welcome this technical assistance. They are themselves trying to improve the energy efficiency of their economy. They will learn, I think, from experience with us and be more ready to accept sequestration when the time comes.

The final point I would make, if I might, Madam Chairman, is when I took office in February 1989, we immediately began work to try to implement, to develop a comprehensive Clean Air Act. That included several provisions: upper atmospheric ozone protection; ground level ozone; toxics; and the very path-breaking acid rain program. Four months later, we submitted that legislation to the Congress.

You will find, I believe, if you consult, and the Administrator does, the very savvy, experienced professional staff at the Environmental Protection Agency, who have been preparing for this day for the better part of 20 years, that they are much more prepared than we might imagine. Challenge them to respond.

One other point I would make is, the recommendations I have made to you are all actions the Administration and the Administrator can take, irrespective of their decision with respect to endangerment. I very much hope that the Administrator makes that decision. But essentially, I believe that, as I said, we are asked now to get on the right side of history. We have an extraordinarily important opportunity. The Supreme Court has identified it for us. The rest of us, I think, need to respond. Not just the Agency, but I hope very much the Congress as well. Thank you.

[The prepared statement of Mr. Reilly follows:]

STATEMENT OF WILLIAM K. REILLY, SENIOR ADVISOR. TGP CAPITAL FOUNDING PARTNER, AQUA INTERNATIONAL PARTNERS

Madame Chairman, Senator Inhofe, Members of the Committee, my name is William K. Reilly. I served as Administrator of the U.S. Environmental Protection Agency under President George H. W. Bush, from 1989 to early 1993.

Thank you for the opportunity to appear before the Committee. I applaud your initiative on this urgent and compelling matter. And I am pleased to appear with my distinguished successors, Administrators Johnson and Browner. With your permission, I will submit my formal statement for the record.

Though I am appearing on my own behalf, I note for the record that since 2002 I have co-chaired the bipartisan National Commission on Energy Policy. Our 2004 report recommended a mandatory program to reduce greenhouse gases with various safeguards, as well as addressing many other issues in energy policy, including oil security, supply, efficiency, technology, and more. The Commission's staff continues to confer widely with Members of the Senate and the House on these matters. Were I the EPA Administrator, or a Member of Congress, I would recognize the extensive research and inclusive membership of the Commission, and take the Commission's recommended policy on climate change as both an effective national starting point and also as the policy proposal that stands the most realistic chance of being enacted. Extensive, detailed research financed generously by the Hewlett and other foundations underlies the Commission's recommendations. The Energy Information Agency has analyzed the costs of the Commission's proposals and concluded they are reassuringly modest. So my advice to the Congress and the Administration is, take a hard look at the Commission's report.

You've asked me to discuss EPA's role in the wake of the Supreme Court decision holding that EPA has authority as a matter of law to regulate carbon dioxide. I'm not going to delve into the legal reasoning or the language of the Court's decision. I read it as expansive with regard to taking action on harmful pollutants. Suffice to say, the law has now been settled and EPA does have the authority. I might add that if I were EPA Administrator, I would welcome that authority.

The Court's decision is of immense consequence and signals the growing significance of concern about climate change. The decision represents the intersection of science and public policy. All that follows must be grounded in good science. Indeed, the science is becoming increasingly compelling. This Administration, as well as those of President Clinton and of President Bush, whom I served, deserves great credit for their support for the scientific research underpinning our understanding of climate change. The nation has spent billions of dollars to get to this point. This year's reports of the Intergovernmental Panel on Climate Change (IPCC) affirm the high degree of confidence that hundreds of participating scientists have in the scientific findings.

When I was named EPA Administrator, one of my first briefings was on climate change, by Dr. Frank Press, then president of the National Academy of Sciences. EPA also had underway in the policy office a couple of reports on the effects of climate change and policy options to address them. Most of this work and the work of others was premised on computer modeling and projections, and the findings were subsequently subjected to a lively debate about the assumptions inherent in the models and their accuracy.

We are no longer limited to relying on computer models. As the IPCC reports made clear, we are already seeing signs of climate change and variability associated with the buildup of greenhouse gases in the atmosphere. The models have been greatly refined and it is my understanding that they now comport well with the mounting evidence from field observations and related research in any number of areas, from wildlife behavior to snow pack and melting glaciers, to sea level rise, changes in precipitation, temperature records that cannot be dismissed as merely the result of urban heat island effect, and more.

Not all matters are resolved, of course. Questions remain about the timing, the magnitude, and the local impact of the effects, and there is still much to learn about how the systems function to shape climate on earth. But given what the IPCC reported, we cannot afford to wait until all matters are resolved. That was the thrust of the amicus brief that I submitted in concert with Administrators Browner, Costle and Train. We have not required in the past, nor should we require in the future, an unrealistic level of certainty in addressing serious and urgent problems such as climate change, even as we acknowledge that we may have to change course, to take more or less aggressive action as further information becomes available. To delay action on climate change means that down the road, what we do will necessitate more expensive and more draconian measures.

In light of this evidence and the Supreme Court's decision, what should EPA do?

The Court's decision confronts the EPA with a choice of contesting the scientific consensus regarding the causes of global warming, which it has conceded, and then of asserting or rejecting in its judgment the merits of regulating what the Court has determined to be a "pollutant." It is difficult to see how the Agency can now refrain from moving forward to regulate greenhouse gases from automobiles and by implication from other sources as well. The practical realities must be faced, however. The regulation of greenhouse gases is hugely consequential for many sectors of the economy, as for the health and well-being of Americans and others. To ask EPA to assume the full burden of recommending in a regulatory program the full gamut of measures necessary to the task is unrealistic. It is particularly so given that the Agency is part of an Administration that has consistently declined to embrace the regulation of carbon dioxide. One cannot expect a robust rulemaking in such a circumstance. The situation cries out for Congressional action and that, in my view, is a principal merit in the Court's decision.

So it is enormously ambitious to expect that a regulatory agency alone, even one as well-versed as U.S. EPA, can craft a regulatory regime governing something so far-reaching with such substantial impacts on our economy and industry, on the natural resources on which we depend, on U.S. foreign policy and the prospects for development in the world's poorest countries. And yet that is the challenge.

I would note that regarding the Clean Air Act of 1990, with which I had something to do, it took more than a decade for this legislation to come together on acid rain, standards for air toxics, upper atmospheric ozone depletion, and the other issues it addressed and for the political context to ripen. EPA staff had spent the 1980s preparing the analyses which they knew would one day be needed when the moment came that clean air legislation stood a serious chance of passage. Between

my swearing in and the President's submission of a comprehensive legislative proposal to Congress, we required just four months.

That we could move so quickly is a tribute to the substantial and rigorous work done by the Agency during the 1980s, including seminal work on emissions trading with Environmental Defense Fund and Resources For the Future, analyses of costs and benefits, and more. The acid rain trading program, which emerged from the 1990 clean air law and which by all accounts has been a resounding success, is the reference case for our way into a cap-and-trade regime for carbon dioxide.

I would be remiss if I didn't state my high regard for the senior career staff in the EPA's Air Office and those who served in what was our Office of Policy, Planning and Evaluation. Contrary to the belief in some quarters, they are not eco-cowboys who find something to regulate under every rock they lift. They are smart, creative, experienced, and dedicated people, and they grasp full well the implications and tradeoffs, the costs and benefits associated with fulfilling their mission to clean up and safeguard our nation's air. The country has been well served by these civil servants, and I expect no less from them in dealing with climate change.

During the past few years they have been carrying out the research and analysis of options for regulating greenhouse gases just as in the 1980s they prepared analysis of directions a new clean air act might take. What are realistic targets and timetables? Would analysis show a carbon tax to be more effective? Or a cap-and-trade system? What are the downsides? Clearly, a carbon tax is beyond EPA's jurisdiction and I would be wary of recommending one if the implication was that EPA would therefore take no steps to regulate carbon pursuant to the Agency's authority.

For an emissions trading program, do we want a safety valve to contain costs? What is the point of regulation, which sectors? How would permits be distributed, how many, and based on what criteria? What are the implications of these approaches? What is the state of technology, the connections with other emissions of concern, notably mercury, sulfur dioxide and other criteria pollutants? EPA staff are more prepared than we know to put forth the options for designing a carbon policy. They have spent more than 15 years preparing for this moment. So my advice is, challenge them to present the policy options.

I do not expect that even with heroic efforts, these matters will translate immediately into a regulatory program. There is a lengthy regulatory process, as you know, involving not just interagency reviews, but consultations with States and industrial sectors and others outside the federal family. There are formal administrative procedures to follow and a record to prepare, and that could be substantial for an issue as complex as regulating carbon dioxide. And of course, there is the potential for litigation once a rule is adopted. Bill Ruckelshaus once observed that 4 of every 5 major EPA decisions wind up in court.

To be sure, there is much activity in Congress, both in the Senate and the House, and I believe that ultimately the issue of climate change needs to be addressed by Congress. That said, there is no reason for EPA to delay. On a parallel track, EPA should begin the regulatory process for carbon dioxide. This would be a timely and useful step, and would both inform the legislative debate and keep pressure on Congress to continue its work. At the same time, EPA's efforts now will prepare the Agency for quick progress in implementing any legislation after enactment, as was the case after passage of the 1990 Clean Air Act.

I would welcome the full involvement of the President and the Administration in these deliberations. Indeed, that would help engage some who are still skeptical about the science or the nation's ability to take the issue head on, and would help ensure that economic impacts, foreign policy concerns, and other important considerations are taken into account. I do not support the case for awaiting the arrival of a new President and a new Administration to address this issue.

Besides beginning this process, there are a number of other important steps the Agency should take.

First, California has a request pending for a waiver to reduce CO2 emissions from automobile fuels by 30 per cent, beginning with the 2016 model year. I understand that process is getting underway, and I would urge all due speed. California's proposal is the product of a bipartisan effort and has tremendous public support. The Supreme Court's decision should remove any roadblocks with respect to the review process.

Second, I would urge EPA to take a good look at what Governor Schwarzenegger of California has called for, via Executive Order, to set a low carbon standard for fuels. This seems to me a very innovative approach to ensure that, as we struggle with the very real issue of oil security, we do not substitute for what we now use new fuels with worse greenhouse gas impacts. I doubt any regulatory entity has the experience with fuels that EPA does, with a world-class mobile source laboratory in Michigan, and from the Agency's prior experience in removing lead from gasoline,

and the work regarding particulates, ozone, and the recent well-regarded rule lowering sulfur content in diesel fuel. I applaud Administrator Johnson's decision and the support he had from the Administration in getting this rule out. It is one of the most significant contributions to clean air. I should point out that the low carbon standard for fuels initiative also enjoys widespread support in California, including that of ConocoPhillips, the nation's largest refiner.

Third, I would like to see EPA develop the regulatory approach for carbon capture and sequestration. That is the key to using our abundant coal resources and to ensuring that other countries with substantial coal reserves do not undo all that we might accomplish in reducing greenhouse gases. Because of its experience and its record in dealing with underground injection, EPA's Water Office in partnership with other parts of the Agency, and most importantly with the Department of Energy, is well-suited to undertake this task. It is my understanding, however, that although the Energy Department has substantial funding to develop this critical technology, EPA has little, making it difficult to draw on the Agency's experience and credibility with the various stakeholders. I would add that many in the power industry want to see a regulatory program for carbon capture and sequestration quickly, lest the absence of a regulatory framework delay testing and deployment of this promising, indeed, essential technology. Not just America, but China, India and other coal-rich nations stand in urgent need of carbon sequestration technology.

Fourth, a number of States are taking action on greenhouse gas reductions and I would ensure that EPA is well-versed on these actions and the regional compacts that are beginning to emerge. A national program invariably invites the question of federal pre-emption and that will surely surface with respect to regulating carbon dioxide. Moreover, it behooves us to learn from what the States are doing. I would add that virtually every law in the EPA administrator's portfolio had origins at the State level, none more so than California and air quality.

I would also call your attention to the good work of the Center for Climate Strategy, which has been working with a couple of dozen states to prepare greenhouse gas inventories, consider policy options, costs, and associated measures, with an eye toward State action and the role of states in implementing a national program.

Fifth, I would urge EPA to become fully versed in the European Union's emissions trading program. There is evidence that too many credits were distributed in the first round of permit allocations, resulting in less than optimal performance, a drop in permit values, and a windfall for some firms. We need to learn from that experience in this area of allocation, lest we repeat it.

Sixth, I would encourage EPA and others in the federal government to remain on top of climate developments in China and India, two critical countries with respect to greenhouse gas emissions. My experiences in China with the Energy Foundation's China Sustainable Energy Program suggest that although not now party to any international protocols requiring it to reduce greenhouse gases, China is well aware of the potential impacts and is taking measures to improve efficiency of energy use. We will need to engage these countries in international forums and we would be well-served by following developments in those countries closely, and by establishing contacts at the technical level which I believe the Chinese would welcome.

In closing, let me state that as important as a mandatory national program is to reduce carbon dioxide emissions, it is but one measure we need. If scientists are right about the impact of doubling carbon dioxide in the atmosphere over pre-industrial levels, which is where we are heading under business as usual indeed, we may see a tripling or more if we don't take action soon then we will be called on to make far more drastic cuts in greenhouse gas emissions, well below today's level, even while we continue to grow in population and economic activity.

That goal would be achievable only with a suite of policies and programs going beyond a cap-and-trade system. We will need substantially improved mileage standards for automobiles, trucks, and other vehicles, which will help on oil security as well. We will want a national renewable portfolio standard to advance deployment of renewable energy technologies, much as a couple of dozen States have already enacted. We will need to invest heavily in technology research, development, and deployment. I mentioned carbon capture and sequestration. Cellulosic ethanol and other promising bio-fuels also merit increased funding. We will want to move aggressively on efficiency standards. Some 22 or so are currently under development at the Department of Energy. We will need to involve the States, for they have a major role in building codes, water resource management, land use and transportation planning. They build and operate public buildings and institutions, and we now know that for all of the design techniques to improve energy efficiency, most of the savings come in operations over the life of a facility.

And as important as mitigation is in fending off the worst scenarios, we will need to prepare to adapt, for the science is telling us that we are seeing the effects today

and we know that carbon dioxide and other greenhouse gases are long-lived in the atmosphere, so more elevated concentrations are already built into the system.

Congress has engaged the climate issue in a direct and serious way. Within the next several months, there may be a window of opportunity for legislation on climate change. You know better than I. After that, we may well see 2008 campaign politics adding to the hurdles. That would make EPA's endeavors all the more important. I wish you and your colleagues success. The country, indeed the entire world, is counting on it.

Thank you.

RESPONSE BY WILLIAM K. REILLY TO AN ADDITIONAL QUESTION FROM SENATOR BOXER

Question Earlier this year, a buyout of Texas Utilities Corporation was led by an investor group primarily led by Kohlberg Kravis Roberts & Company, Texas Pacific Group, and Goldman Sachs & Company. Articles written at the time indicate that conversations about TXU's coal plants occurred prior to the buyout bid. When was the first time you discussed TXU's proposed coal plant constructions with Fred Krupp, President of Environmental Defense, as well as any other environmental organization representatives? Also, when did you communicate with any of them about the investor group's plans to reduce the number of coal plants built?

Response. I first communicated the investor group's interest in negotiating future TXU power plant development plans with Natural Resource Defense Council's Ralph Cavanagh on Saturday, February 10, 2007. I described generally the framework of the investor group's thinking about future plans of Texas Utilities affecting the environment, should the investor group succeed in acquiring the company. I later communicated the same message of interest in negotiating with Fred Krupp of Environmental Defense and Dave Hawkins of NRDC on Monday, February 19, 2007.

Senator BOXER. Thank you so much, former Administrator Reilly. I think your words were very straightforward and eloquent.

Now we will hear from former EPA Administrator Browner, who was appointed by the Clinton Administration and served well. We are going to add another minute thirty, so you will have six thirty.

STATEMENT OF CAROL M. BROWNER, PRINCIPAL, THE ALBRIGHT GROUP, LLC

Ms. BROWNER. Thank you very much, and thank you, Madam Chair, for the opportunity to be here, Senator Inhofe and members of the Committee.

Madam Chair, if I might begin by applauding your leadership specifically on the issue of climate change and particularly the introduction of the Sanders-Boxer legislation. Let me also join with my predecessor, Mr. Reilly, in recognizing the tremendous people who work at the EPA, the long-serving, career scientists, engineers and lawyers. As he has said, they have been thinking about this day for a very, very long time.

I am here today to speak to you about the most important, the most pressing environmental public health issue the world has ever faced. I am very pleased with all the things I was able to accomplish during my tenure, my 8 year tenure at EPA, including the fact that in 1998, in response to a question from Congressman DeLay, we wrote a legal memorandum reviewing the Clean Air Act and determined that the Clean Air Act on the books, passed by Mr. Reilly's leadership in 1990, does in fact allow EPA to regulate greenhouse gas emissions.

Mr. Reilly, myself and two other Administrators joined together to file an amicus brief in the Supreme Court matter. I am very, very proud of the fact that the legal memorandum was actually ref-

erenced in the Supreme Court's opinion. This is a landmark decision. There are a number of things EPA can and should do.

I am encouraged that Administrator Johnson today announced that they will commence a process with respect to the California waiver. Let me say, as someone who made a lot of regulatory decisions, it is not unreasonable, as Senator Cardin suggested, that they could be done by the middle of this summer, as apparently the EPA's staff themselves has suggested. That is not an unreasonable timeframe. The States have been waiting. They deserve an answer.

Second, I think they can make an endangerment finding. I made several during my tenure at EPA. They have more science than any decision EPA has ever sought to make. They have an overwhelming amount of science on which they can base an endangerment decision. Again, I think they can do this in a timely manner. This is not something that should take years. It make take several months, but certainly not years. If they move forward in a manner which suggests years, they are simply dragging their feet.

In addition to what EPA can do today, and there are many other things, I do believe, as Mr. Reilly said, that it is incumbent upon Congress to act. The magnitude of this problem is such, it will take the leadership of this body to put in place the kind of programs that I ultimately think will be important.

It is interesting, when you look at our 30, 35 years of history with respect to environmental protection in this Country, of the Clean Air Act, the Clean Water Act, there are really three things that have always guided our efforts. First is the science. As I already said, we have an abundance of science. Second, we have been guided by a belief that American innovation and ingenuity will rise to the occasion, will find the answers.

Someone spoke previously about chlorofluorocarbons. In 1990, when this body, when the Congress decided to ban chlorofluorcarbons, there were debates about there are no replacements, what are we going to do, we won't have refrigeration. Well, guess what? Once Congress said, they're banned, and Mr. Reilly played an important role in that, once that was said, good old American innovation and ingenuity found a solution. We found it more quickly and for less money than we anticipated. We can meet this challenge.

The third principle that has guided us is a moral imperative, an imperative that we protect our environment, that we protect the health of our people. And so we should be guided here. I believe that EPA has the morals, and with the Supreme Court decision, the clear legal authority to set greenhouse gas standards in accordance with the Clean Air Act, to limit climate change, to protect the health of future generations.

It is said that nine-tenths of wisdom is being wise and kind. Congress also had the prerogative to ensure that EPA does its duty, to hold EPA accountable and ultimately to take bold action on its own. We have the science. The will has been summoned. The technology will follow. Have no doubt: we can address this problem. Anything else would be a felony against the future, a failure to meet our responsibility to our children and theirs.

I thank you for the opportunity to be here to talk about, again, what I believe is the greatest threat to environmental and public health and a security threat to this world. Thank you.

[The prepared statement of Ms. Browner follows:]

STATEMENT ON CAROL M. BROWNER, PRINCIPAL, THE ALBRIGHT GROUP, LLC

Good morning, Madam Chairman, Senator Inhofe, and members of the Committee. I appreciate the opportunity to speak to you today on the most pressing environmental and public health issue that our country, and for that matter the world, has ever faced. That is, climate change.

During my 8 years as the Administrator of the EPA, I worked hard to protect the environment and public health, both for our generation and future generations. Today, I would like to discuss how the current EPA can use the mandate given by the Supreme Court in Massachusetts v. EPA to respond to the climate change crisis immediately.

First—the EPA can grant California its federal waiver to enforce its own greenhouse gas standards. California has thus far outpaced the Federal Government on greenhouse gas regulation—it has ignored critics and naysayers, moving ahead with an aggressive plan. The EPA should in turn recognize this plan by granting California the authority to put it into place. Second—EPA should act now on setting greenhouse gas standards for vehicles and power plants, two significant sources of emissions.

These are a few things EPA can do right now to regulate emissions, but it is not enough. The magnitude of the Supreme Court decision warrants Congressional leadership and immediate action as well.

As we seek to address climate change, both through the actions of EPA and through Congress, three realities should guide us. First, that the science on climate change cannot, at this point, be in doubt. Second, that we can find common-sense, cost-effective ways to regulate greenhouse gas emissions. And third, that EPA and Congress now have the undisputed authority and responsibility to regulate the emission of greenhouse gases.

When it comes to science, the facts continue to roll in, and the scientific community has reached a consensus. The considered judgment of twenty-five hundred of the world's top climate change scientists, 11 national scientific academies, and hundreds of scientists contributing to the IPCC is simply this: climate change is real, it is caused by human activities, it is rapidly getting worse, and it will transform both our planet and humanity if action is not taken now.

Such action need not bankrupt us or disrupt our economy. We can and we must find cost- effective ways to meet greenhouse gas standards. Historically, American innovation and ingenuity have served us well. Let us harness them now. In the past, we have been willing to set standards without having in hand the actual technology necessary to meet such standards. For example, when Congress decided to ban chlorofluorocarbons, there

was no technology to replace CFCs. But once Congress made the decision, there was a guaranteed market for replacement; companies competed with each other and, within a relatively short time, there was a replacement, and at far less cost than had been anticipated. We may not have a perfect formula for cutting greenhouse gas emissions yet, but that is no reason to hold off on setting regulations and enforcing them.

The EPA has the moral—and now the legal—authority to set greenhouse standards in accordance with the Clean Air Act to limit climate change and protect the heath of future generations. It is said that nine-tenths of wisdom is being wise in time. Congress also has the prerogative to ensure that EPA does its duty and to take bold action on its own.

We have the science; the will has been summoned; the technology will come. Have no doubt - we can stop global warming. Anything less would be a felony against the future, a failure to meet our responsibility to our children and theirs. My request is that we do our duty.

Thank you very much. Now I would be pleased to respond to any questions you might have.

Thank you.

Attachment A: "EPA's Authority to Regulate Pollutants Emitted by Electric Power Generation Sources" Memorandum from Jonathan Z. Cannon to Carol M. Browner, April 10, 1998.

Attachment B: Testimony of Gary S. Guzy before a joint hearing of the Subcommittee on National Economic Growth, Natural Resources and Regulatory Affairs

of the Committee on Government Reform and the Subcommittee on Energy and Environment of the Committee on Science, US House of Representatives, October 6, 1999.

ATTACHMENT A:

I. INTRODUCTION AND BACKGROUND

This opinion was prepared in response to a request from Congressman DeLay to you on March 11, 1998, made in the course of a Fiscal Year 1999 House Appropriations Committee Hearing. In the Hearing, Congressman DeLay referred to an EPA document entitled "Electricity Restructuring and the Environment: What Authority Does EPA Have and What Does It Need." Congressman DeLay read several sentences from the document stating that EPA currently has authority under the Clean Air Act (Act) to establish pollution control requirements for four pollutants of concern from electric power generation: nitrogen oxides (NO_x), sulfur dioxide (SO_2), carbon dioxide (CO_2), and mercury. He also asked whether you agreed with the Statement, and in particular, whether you thought that the Clean Air Act allows EPA to regulate emissions of carbon dioxide. You agreed with the Statement that the Clean Air Act grants EPA broad authority to address certain pollutants, including those listed, and agreed to Congressman DeLay's request for a legal opinion on this point. This opinion discusses EPA's authority to address all four of the pollutants at issue in the colloquy, and in particular, CO_2, which was the subject of Congressman DeLay's specific question.

The question of EPA's legal authority arose initially in the context of potential legislation addressing the restructuring of the utility industry. Electric power generation is a significant source of air pollution, including the four pollutants addressed here. On March 25, 1998, the Administration announced a Comprehensive Electricity Plan (Plan) to produce lower prices, a cleaner environment, increased innovation and government savings. This Plan includes a proposal to clarify EPA's authority regarding the establishment of a cost-effective interstate cap and trading system for NO_x reductions addressing the regional transport contributions needed to attain and maintain the Primary National Ambient Air Quality Standards (NAAQS) for ozone. The Plan does not ask Congress for authority to establish a cap and trading system for emissions of carbon dioxide from utilities as part of the Administration's electricity restructuring proposal. The President has called for cap-and-trade authority for greenhouse gases to be in place by 2008, and the Plan States that the Administration will consider in consultation with Congress the legislative vehicle most appropriate for that purpose.

As this opinion discusses, the Clean Air Act provides EPA authority to address air pollution, and a number of specific provisions of the Act are potentially applicable to control these pollutants from electric power generation. However, as was made clear in the document from which Congressman DeLay quoted, these potentially applicable provisions do nor easily lend themselves to establishing market-based national or regional cap-and-trade programs, which the Administration favors for addressing these kinds of pollution problems.

II CLEAN AIR ACT AUTHORITY

The Clean Air Act provides that EPA may regulate a substance if it is (a) an "air pollutant,"and (b) the administrator makes certain findings regarding such pollutant (usually related to danger to public health, welfare, or the environment) under one or more of the Act's regulatory provisions.

A. Definition of Air Pollutant

Each of the four substances of concern as emitted from electric power generating units falls within the definition of "air pollutant. under section 302(g). Section 302(g) defines air pollutant" as

any air pollution agent or combination of such agents, including any physical, chemical, biological, [or]—radioactive . substance or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant, to the extent that the Administrator has identified such precursor or precursors for the particular purpose for which the term "air pollutant" is used.

This broad definition States that "air pollutant" includes any physical, chemical, biological, or radioactive substance or matter that is emitted onto or otherwise enters the ambient air SO_2, NO_x, CO_2, and mercury from electric power generation are

each a "physical [and] chemical . . . substance which is emitted into . . . the ambient air," and hence, each is an air pollutant within the meaning of the Clean Air Act.[1]

A substance can be an air pollutant even though it is naturally present in air in some quantities. Indeed, many of the pollutants that EPA currently regulates are naturally present in the air in some quantity and are emitted from natural as well as anthropogenic sources. For example, SO_2 is emitted from geothermal sources; volatile organic compounds (precursors to ozone) are emitted by vegetation and particulate mater and NO_x, are formed from natural sources through natural processes, such a naturally occurring forest fires. Some substances regulated under the Act as hazardous air pollutants are actually necessary in trace quantities for human life, but are toxic at higher levels or through other routes of exposure. Manganese and selenium are two examples of such pollutants. EPA regulates a number of naturally occurring substances as air pollutants, however, because human activities have increased the quantities present in the air to levels that are harmful to public health, welfare, or the environment.

B. EPA Authority to Regulate Air Pollutants

EPA's regulatory authority extends to air pollutants, which, as discussed above, are defined broadly under the Act and include SO_2, NO_x, CO_2, and mercury emitted into the ambient air. Such a general Statement of authority is distinct from an EPA determination that a particular air pollutant meets the specific criteria for EPA action under a particular provision of the Act. A number of specific provisions of the Act are potentially applicable to these pollutants emitted from electric power generation.[2] Many of these specific provisions for EPA action share a common feature in that the exercise of EPA's authority to regulate air pollutants is linked to determination by the Administrator regarding the air pollutants' actual or potential harmful effects on public health, welfare or the environment. See also sections 108, 109, 111(b), 112, and 115. See also sections 202(a), 211(c), 231, 612, and 615. The legislative history of the 1977 Clean Air Act Amendments provides extensive discussion of Congress' purposes in adopting the language used throughout the Act referencing a reasonable anticipation that a substance endangers public health or welfare. One of these purposes was "to emphasize the preventative or precautionary nature of the act, i.e., to assure that regulatory action can effectively prevent harm before it occurs, to emphasize the predominant value of protection of public health." H.R. Rep. No. 95294 95th Cong., 1st Sess, at 49 (Report of the Committee on Interstate and Foreign Commerce). Another purpose was "No assure that the health of

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[1]See also section 103(g) of the Act (authorizes EPA to conduct a basic research and technology program to develop and demonstrate nonregulatory strategies and technologies for air pollution prevention, which shall include among the program elements "[i]mprovements in nonregulatory strategies and technologies for preventing or reducing multiple air pollutants, including sulfur oxides, nitrogen oxides, heavy metals, PM——10 (particulate matter), carbon monoxide, and carbon dioxide, from stationary sources, including fossil fuel power plants.")

[2]See. e g., section 108 (directs Administrator to list and issue air quality criteria for each air pollutant that causes or contributes to air pollution that may reasonably be anticipated to endanger public health or welfare and that is present in the ambient air due to emissions from numerous or diverse mobile or stationary sources); section 109 (directs Administrator to promulgate national primary and secondary ambient air quality standards for each air pollutant for which there are air quality criteria, to be set at levels requisite to protect the public health with an adequate margin of safety (primary standards) and to protect welfare (secondary standards)), Section 110 (requires States to submit State implementation plans (S1Ps) to meet standards); Section 111 (b) (requires Administrator to list, and set Federal performance standards for new sources in, categories of stationary sources that cause or contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare); section 111(d) (States must establish performance standards for existing sources for any air pollutant (except criteria pollutants or hazardous air pollutants) that would be subject to a performance standard if the sources were a new source), section. 112(b) (lists 188 hazardous air pollutants and authorizes Administrator to add pollutants to the list that may present a threat of adverse human health effect or adverse environmental effects); section 112(d) (requires Administrator to set emissions standards for each category or subcategory of major and area sources that the Administrator has listed pursuant to section 119(c)); section 112(n)(1)(A) (requires Administrator to study and report to Congress on the public health hazards reasonably anticipated from emissions of limited hazardous air pollutants from electric utility steam generating units, and requires regulation if appropriate and necessary); section 115 (Administrator may require State action to control certain air pollution if, on the basis of certain reports, she has reason to believe that any air pollutant emitted in the United States causes or contributes to air pollution that may be reasonably anticipated to endanger public health or welfare in a foreign country that has given the United States reciprocal rights regarding air pollution control) Title IV (establishes cap-and-trade system for control of SO_2 from electric power generation facilities and provides for certain controls on NO_x).

susceptible individuals, as well as healthy adults, will be encompassed in the term 'public health,' . . ." Id. at 50. "Welfare" is defined in section 302(h) of the Act, which States:

[a]ll language referring to effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants.[3]

EPA has already regulated SO_2, NO_x, and mercury based on determinations by EPA or Congress that these substances have negative effects on public health, welfare, or the environment. While CO_2, as an air pollutant, is within EPA's scope of authority to regulate, the Administrator has not yet determined that CO_2 meets the criteria for regulation under one or more provisions of the Act. Specific regulatory criteria under various provisions of the Act could be met if the Administrator determined under one or more of those provisions that CO_2 emissions are reasonably anticipated to cause or contribute to adverse effects on public health, welfare, or the environment.

C. EPA Authority to Implement an Emissions Cap-and-Trade Approach

The specific provisions of the Clean Air Act that are potentially applicable to control emissions of the pollutants discussed here can largely be categorized as provisions relating to either State programs for pollution control under Title I (e.g., sections 107, 108, 109, 110, 115, 126, and Part D of Title I), or national regulation of stationary sources through technology-based standards (e.g., sections 111 and 112). None of these provisions easily lends itself to establishing market-based national or regional emissions cap-and-trade programs.[4]

The Clean Air Act provisions relating to State programs do not authorize EPA to require States to control air pollution through economically efficient cap-and-trade programs and do not provide full authority for EPA itself to impose such programs. Under certain provisions in Title I, such as section 110, EPA may facilitate regional approaches to pollution control and encourage States to cooperate in a regional, cost-effective emissions cap-and-trade approach (see Notice of Proposed Rulemaking: Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone, 62 F.R. 60318 (Nov. 7, 1997)). EPA does not have authority under Title Ito require States to use such measures, however, because the courts have held that EPA cannot mandate specific emission control measures for States to use in meeting the general provisions for attaining ambient air quality standards. See Commonwealth of Virginia v. EPA, 108 F.3d 1397 (D.C. Cir. 1997). Under certain limited circumstances where States fail to carry out their responsibilities under Title I of the Clean Air Act, EPA has authority to take certain actions, which might include establishing a cap-and-trade program.[5] Yet EPA's ability to invoke these provisions for Federal action depends on the actions or inactions of the States.

Technology-based standards under the Act directed to stationary sources have been interpreted by EPA not to allow compliance through intersource cap-and-trade approaches. The Clean Air Act provisions for national technology-based standards under sections 111 and 112 require EPA to promulgate regulations to control emissions of air pollutants from stationary sources. To maximize the opportunity for trading of emissions within a source. EPA has defined the term "stationary source" expansively, such that a large facility can be considered a "source." Yet EPA has never gone so far as to define as a source a group of facilities that are not geographically connected, and EPA has long held the view that trading across plant boundaries is impermissible under sections 111 and 112. See, e.g., National Emission Standards for Hazardous Air Pollutants for Source Categories; Organic Haz-

[3]The language in Section 302(h) listing specific potential effects on welfare, including the references to weather and climate, dates back to the 1970 version of the Clean Air Act.

[4]Title 1V of the Act provides explicit authority for a cap and trade program for SO_2 emissions from electric power generating sources.

[5]For example, section 110(c) requires EPA to promulgate a Federal implementation plan where EPA finds that a State has failed to make a required submission of a SIP or that the SIP or SIP revision does not satisfy certain minimum criteria, or EPA disapproves the SIP submission in whole or in part in addition, section 126 provides that a State or political subdivision may petition the Administrator for certain findings regarding emissions from certain stationary sources in another State. If the Administrator grants the petition, she may establish control requirements applicable to sources that were the subject of the petition.

ardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry, 59 Fed. Reg. 19402 at 19425–26 (April 22, 1994).

III. CONCLUSION

EPA's regulatory authority under the Clean Air Act extends to air pollutants, which, as discussed above, are defined broadly under the Act and include SO_2, NO_x, CO_2, and mercury emitted into the ambient air. EPA has in fact already regulated each of these substances under the Act, with the exception of CO_2. While CO_2 emissions are within the scope of EPA's authority to regulate, the Administrator or has made no determination to date to exercise that authority under the specific criteria provide under any provision of the Act.

With the exception of the SO_2 provisions focused on acid rain, the authorities potentially available for controlling these pollutants from electric power generating sources do not easily lend themselves to establishing market-based national or regional cap-and-trade programs, which the Administration favors for addressing these kinds of pollution problems. Under certain limited circumstances, where States fail to carry out their responsibilities under Title I of the Act, EPA has authority to take certain actions, which might include establishing a cap-and-trade program. However, such authority depends on the actions or inactions of the States.

ATTACHMENT B:

STATEMENT OF GARY S. GUZY, GENERAL COUNSEL, U.S. ENVIRONMENTAL PROTECTION AGENCY

Thank you, Chairman McIntosh, Chairman Calvert, and. Members of the Subcommittees, for the invitation to appear here today. I am pleased to have this opportunity to explain the U.S. Environmental Protection Agency's (EPA) views as to the legal authority provided by the Clean Air Act (Act) to regulate emissions of carbon dioxide, or CO_2.

Before I do, however, I would like to stress, as EPA repeatedly has Stated in letters to Chairman McIntosh and other Members of Congress, that the Administration has no intention of implementing the Kyoto Protocol to the United Nations Framework Convention on Climate Change prior to its ratification with the advice and consent of the Senate.' As I indicated in my letter of September 17, 1999 to Chairman McIntosh, there is a clear difference between actions that carry out authority under the Clean Air Act or other domestic law, and actions that would implement the Protocol. Thus, there is nothing inconsistent in assessing the extent of current authority under the Clean Air Act and maintaining our commitment not to implement the Protocol without ratification.

Some brief background information is helpful in understanding the context for this question of legal authority. In the course of generating electricity by burning fossil fuels, electric power plants emit into the air multiple substances that pose environmental concerns, several of which are already subject to some degree of regulation. Both industry and government share an interest in understanding how different pollution control strategies interact. These interactions are both physical (strategies for controlling emissions of one substance can affect emissions of others) and economic (strategies designed to address two or more substances together can cost substantially less than strategies for individual pollutants that are designed and implemented independently). EPA has worked with a broad array of stakeholders to evaluate multiple-pollutant control strategies for this industry in a series of forums, dating back to the Clean Air Power Initiative (CAPI) in the mid–1990's. While the CAPI process focused on SO_2 and NO_x, a broad range of participants, including representatives of power generators, the United Mine Workers, and environmentalists, expressed support for inclusion of CO_2 emissions, along with SO_2, NO_x, and mercury, in subsequent analyses. One conclusion that emerged from these analytical efforts is that integrated strategies using market-based "cap-and-trade" approaches like the program currently in place to address acid rain would be the most flexible and lowest cost means to control multiple pollutants from these sources.

On March 11, 1998, during hearings on EPA's fiscal year appropriations, Representative DeLay asked the Administrator whether she believed that EPA had authority to regulate emissions of pollutants of concern from electric utilities, including CO_2. She replied that the Clean Air Act provides such authority, and agreed to Representative DeLay's request for a legal opinion on this point.

Therefore, my predecessor, Jonathan Z. Cannon, prepared a legal opinion for EPA Administrator Carol Browner on the question of EPA's legal authority to regulate several pollutants, including CO_2 emitted by electric power generation sources. The legal opinion requested by Rep. DeLay was completed on April 10, 1998. It ad-

dressed the Clean Air Act authority to regulate emissions of four pollutants of concern from electric power generation: nitrogen oxides (NO_x), sulfur dioxide (SO_2), mercury, and CO_2. Because today's hearing is focused exclusively on CO_2, I will summarize the opinion's conclusions only as they relate to that substance.

The Clean Air Act includes a definition of the term "air pollutant," which is the touchstone of EPA's regulatory authority over emissions. Section 302(g) defines "air pollutant" as any air pollution agent or combination of such agents, including any physical, chemical, biological, [or] radioactive . . . substance or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant, to the extent that the Administrator has identified such precursor or precursors for the particular purpose for which the term "air pollutant" is used.

Mr. Cannon noted that CO_2 is a "physical [and] chemical substance which is emitted into. . . the ambient air," and thus is an "air pollutant" within the Clean Air Act's definition. Congress explicitly recognized emissions of CO_2 from stationary sources, such as fossil fuel power plants, as an "air pollutant" in section 103(g) of the Act, which authorizes EPA to conduct a basic research and technology program to include, among other things, "[i]mprovements in nonregulatory strategies and technologies for preventing or reducing multiple air pollutants, including sulfur oxides, nitrogen oxides, heavy metals, PM—10 (particulate matter), carbon monoxide, and carbon dioxide, from stationary sources, including fossil fuel power plants." (Emphasis added.)

The opinion explains further that the status of CO_2 as an "air pollutant" is not changed by the fact that CO_2 is a constituent of the natural atmosphere. In other words, a substance can be an "air pollutant" under the Clean Air Act's definition even if it has natural sources in addition to its man-made sources. EPA regulates a number of naturally occurring substances as air pollutants because human activities have increased the quantities present in the air to levels that are harmful to public health, welfare, or the environment. For example, SO_2 is emitted from geothermal sources; volatile organic compounds (VOS_s), which are precursors to harmful ground-level ozone, are emitted by vegetation. Some substances regulated under the Act as hazardous air pollutants are actually necessary in trace quantities for human life, but are toxic at higher levels or through other routes of exposure. Manganese and selenium are two examples of such pollutants. Similarly, in the water context, phosphorus is regulated as a pollutant because although it is a critical nutrient for plants, in excessive quantities it kills aquatic life in lakes and other water bodies.

While CO_2, as an "air pollutant," is within the scope of the regulatory authority provided by the Clean Air Act, this by itself does not lead to regulation. The Clean Air Act includes a number of regulatory provisions that may potentially be applied to an air pollutant. But before EPA can actually issue regulations governing a pollutant, the Administrator must first make a formal finding that the pollutant in question meets specific criteria laid out in the Act as prerequisites for EPA regulation under its various provisions. Many of these specific Clean Air Act provisions for EPA action share a common feature in that the exercise of EPA's authority to regulate air pollutants is linked to a determination by the Administrator regarding the air pollutant's actual or potential harmful effects on public health, welfare or the environment. For example, EPA has authority under section 109 of the Act to establish National Ambient Air Quality Standards for any air pollutant for which the Administrator has established air quality criteria under section 108. Under section 108, the Administrator must first find that the air pollutant in question meets several criteria, including that:

it causes or contributes to "air pollution which may reasonably be anticipated to endanger public health or welfare;" and its presence in the ambient air "results from numerous or diverse mobile or stationary sources . . . ."

Section 302(h), a provision dating back to the 1970 version of the Clean Air Act, defines "welfare" and States:

all language referring to effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants.

Thus, since 1970, the Clean Act has included effects on "climate" as a factor to be considered in the Administrator's decision, as to whether to list an air pollutant under section 108.

Analogous threshold findings are required before the Administrator may establish new source performance standards for a pollutant under section 111, list and regu-

late the pollutant as a hazardous air pollutant under section 112, or regulate its emission from motor vehicles under Title II of the Act.

Given the clarity of the statutory provisions defining "air pollutant" and providing authority to regulate air pollutants, there is no statutory ambiguity that could be clarified by referring to the legislative history. Nevertheless, I would note that Congress' decision in the 1990 Amendments not to adopt additional provisions directing EPA to regulate greenhouse gases by no means suggests that Congress intended to limit pre-existing authority to address any air pollutant that the Administrator determines meets the statutory criteria for regulation under a specific provision of the Act.

I would like today to reiterate one of the central conclusions of the Cannon memorandum, which Stated: "While CO_2, as an air pollutant, is within EPA's scope of authority to regulate, the Administrator has not yet determined that CO_2 meets the criteria for regulation under one or more provisions of the Act." That Statement remains true today. EPA has not made any of the Act's threshold findings that would lead to regulation of CO_2 emissions from electric utilities or, indeed, from any source. The opinion of my predecessor simply clarifies—and I endorse this opinion—that CO_2 is in the class of compounds that could be subject to several of the Clean Air Act's regulatory approaches. Thus, I would suggest that many of the concerns raised about the statutory authority to address CO_2 relate more to factual and scientific, rather than legal, questions regarding whether and how the criteria for regulation under the Clean Air Act could be satisfied.

I also want to note, however, EPA has strongly promoted voluntary partnerships to reduce emissions of greenhouse gases through the EnergyStar and Green Lights programs and other non-regulatory programs that Congress has consistently supported. These successful programs already have over 7,000 voluntary partners who are taking steps to reduce greenhouse gas emissions, reduce energy costs and help address local air pollution problems. These programs also help the United States meet its obligations under the United Nations Framework Convention on Climate Change, which was ratified in 1992. I would also note, as EPA has indicated in past correspondence with Chairman McIntosh and others, in the course of carrying out the mandates of the Clean Air Act, EPA has in a few instances directly limited use or emissions of certain greenhouse gases other than CO_2. For example, EPA has limited the use of certain substitutes for ozone-depleting substances under Title VI of the Act, where those substitutes have very high global warming potentials. I wish to stress once more, however, that while EPA will pursue efforts to address the threat of global warming through the voluntary programs authorized and funded by Congress and will carry out the mandates of the Clean Air Act, this Administration has no intention of implementing the Kyoto Protocol prior to its ratification on the advice and consent of the Senate.

This concludes my prepared Statement. I would be happy to answer any questions that you may have.

Senator BOXER. Thank you so much for your eloquence as well.

Ms. Klee, we welcome you. You are now with a private firm, but you were the counsel——

Ms. KLEE. I was the General Counsel of EPA through July 2006.

Senator BOXER. We welcome you. Go right ahead. You will also have 6 minutes.

STATEMENT OF ANN R. KLEE, PARTNER, CROWELL AND MORING

Ms. KLEE. Thank you, Madam Chair, Senator Inhofe, members of the Committee. My name is Ann Klee, and as Senator Boxer noted, I was the former General Counsel of EPA. I am now a partner in a private law firm, Crowell and Moring, in Washington, DC.

Before I begin, I would like to emphasize that the views that I express today are purely my own. I am not here on behalf of any client or any industry sector.

I would like to make three points about the Supreme Court's decision. First, I think as both former Administrators have alluded to, the Massachusetts decision has clearly changed the regulatory landscape with respect to greenhouse gases, by increasing signifi-

cantly, I think, the likelihood of more regulation of new motor vehicles and ultimately stationary sources.

That does not mean, however, that it will have a meaningful effect in terms of reducing the global atmospheric concentrations of greenhouse gases. I do not believe that it will.

At best, the Massachusetts decision forces the square peg of greenhouses gases through the round holes of EPA's existing regulatory tools under the Clean Air Act. Although that may reduce U.S. emissions over time, it makes little sense from a regulatory perspective.

We have all heard about the Supreme Court's decision and the fact that it puts to rest the question of whether not greenhouse gases are air pollutants under the Clean Air Act. The Court held that they are, and therefore are potentially subject to regulation.

But that is not the end of the analysis. Under Section 202 of the Clean Air Act, EPA is required to set standards for new motor vehicles only if in the judgment of the Administrator those gases cause or contribute to air pollution that can reasonably be anticipated to endanger public health and welfare.

To date, and this is important to note, EPA has never made that finding with respect to greenhouse gas emissions or carbon dioxide. Nor did the Court concluded that greenhouse gas emissions endanger public health or welfare. So until that timing is made, while EPA may regulate greenhouse gas emissions, it is under no legal obligation to do so.

It is also true, however, that the Court's narrow interpretation of what the Administration may consider when he makes that endangerment finding may very lead to an affirmative finding and ultimately regulation. It is equally true that the reasoning of the Supreme Court's decision will likely eventually be applied by proponents of regulation to support additional controls on stationary sources.

The fact that EPA has the authority under existing law to regulate carbon dioxide for climate control purposes does not mean that regulation, at least not regulation using existing regulatory tools, will be effective. To the contrary, it is my view that the Clean Air Act in its current form simply isn't well suited to deal with a global air pollutant like CO_2. That view is shared by my predecessors in the Office of General Counsel at EPA. Administrator Browner has referred to the Cannon memo that the Supreme Court cited that was prepared during her tenure at EPA. The fact that they shared that view I think may account for why the previous Administration also did not seek to regulate carbon dioxide under the current Clean Air Act.

While both of my former predecessors were of the view that the Clean Air Act provided EPA with the authority to regulate carbon dioxide, both concluded that revisions to the law would serve to clarify EPA's authority to craft the most effective regulatory mechanisms to deal with carbon dioxide emissions and climate change. The National Ambient Air Quality Standards program is a very good illustration of why the fundamental structure of the Clean Air Act may not be well suited to address carbon dioxide.

Under the current law, EPA could certainly make an argument to list carbon dioxide as a criteria pollutant and then set national

standards, which would have to be achieved. But in order to trigger the regulatory mechanism that would then prompt reductions in emissions, EPA would have to set the standard essentially at a level below current atmospheric concentrations. That in turn would mean that the entire Country would be designated a non-attainment area. No State would ever be able to achieve attainment, and certainly not within the 12 year statutory deadline, simply because greenhouse gas emissions are going to continue to grow dramatically in countries like India and China. That is just one example of why the Clean Air Act structure may not work.

Climate change is an international issue and calls for an international solution. That is not to say that the United States should act, or that the United States should hide behind the country of China. Of course, we should act. But the reality is that we are. Businesses across the United States are significantly reducing their carbon footprint. They are increasing energy efficiency, investing in new technologies and reducing emissions. Administrator Johnson has articulated just a few examples of the programs that the Administration is currently pursuing. Those programs, those combined efforts are having an impact.

While we are slowing the growth of greenhouse gas emissions domestically and working toward reversing the trend line, China is dramatically increasing its greenhouse gas emissions at a pace commensurate with its rapidly growing and largely unregulated economy. It is a magnet for more cars, more manufacturing, more emissions. Whatever we do here must not result in the relocation of U.S. businesses and U.S. jobs in countries that are not also reducing their emissions. Unless our trading partners are part of the global effort to address climate change, piece-meal regulation in the United States will achieve little and may in fact result in increased global emission.

The Supreme Court has answered one question, but it has not solved the problem. To do that, we need to identify the best tools to effectively address climate change. We need to develop the new technologies that are necessary for clean energy production, advanced coal technology, ICC, nuclear. And we need to work with China and India to ensure that they, too, are part of the international effort to reduce greenhouse gas emissions.

Thank you, Madam Chair, for the opportunity to testify on this very important issue.

[The prepared statement of Ms. Klee follows:]

STATEMENT OF ANN R. KLEE, PARTNER, CROWELL AND MORING

Madam Chairman, Members of the Committee, I am pleased to be here today to testify on the issue of EPA's authority to regulate greenhouse gas emissions under the Clean Air Act in the wake of the Supreme Court's decision in Massachusetts v. EPA, No. 05-1120, 549 U.S. ——— (2007). Before I begin, however, I would like to make clear that my testimony today reflects my personal views and analysis of the law based upon my experience as General Counsel of the U.S. Environmental Protection Agency (from 2004 until August 2006), as Chief Counsel of this Committee (from 1997 until 2000), and most recently as a lawyer in private practice.

OVERVIEW

On April 2, 2007, the U.S. Supreme Court issued its landmark vacating the Environmental Protection Agency's (EPA's) denial of a petition to regulate greenhouse gas emissions from new motor vehicles. The Court's majority found that greenhouse

gas emissions are "air pollutants" under the Clean Air Act and, therefore, potentially subject to regulation if, in the judgment of the Administrator, they "cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare." The Court did not reach the issue of whether greenhouse gases from new motor vehicles, in fact, endanger public health or welfare, but it potentially significantly constrained EPA's discretion with respect to that determination.

Undoubtedly, the decision has changed the regulatory landscape. The determination that greenhouse gases are air pollutants will likely lead EPA to regulate greenhouse gas emissions, and carbon dioxide (CO_2) in particular, from new motor vehicles. It also likely will lead to regulation of stationary sources of greenhouse gases since the Clean Air Act's stationary source provisions are also triggered by an "endangerment" finding. In this respect, the decision is a significant one—an endangerment finding under one program will make it very difficult for EPA not to regulate under other programs.

The decision will not, however, have any meaningful impact in terms of addressing global climate change. Forcing the square peg of greenhouse gas emissions through the round holes of EPA's existing regulatory tools—tailpipe standards, national ambient air quality standards, new source performance standards, etc.—may have the effect of reducing U.S. emissions over time, but it will do nothing to reduce atmospheric concentrations of greenhouse gases, which is the true measure of effectiveness of regulation for climate change purposes. Unless our trading partners, China and India in particular, are also part of the effort to reduce global emissions of greenhouse gases, piece-meal regulation in the United States will not only achieve little; it may, in fact, have the unintended effect of leading to increased emissions by encouraging the relocation of U.S. businesses to countries not subject to greenhouse gas regulation.

THE MASSACHUSETTS V. EPA DECISION

The Massachusetts case involved a challenge to EPA's denial of a petition to regulate greenhouse gas emissions from new motor vehicles under section 202 of the Clean Air Act. EPA denied the petition on the grounds that it lacked the authority under the Act to regulate emissions for climate change purposes and, in the alternative, that even if it had the authority to set greenhouse gas standards, it would not be "effective or appropriate" to do so at this time. On appeal to the Supreme Court, petitioners raised two central questions: (1) whether EPA has the statutory authority to regulate greenhouse gas emissions from new motor vehicles under section 202 of the Clean Air Act; and (2) if the Agency does have the authority, whether its stated reasons for declining to regulate greenhouse gas emissions from new motor vehicles was consistent with the statute.[1]

Writing for the Majority in a 5-4 decision, Justice Stevens answered the first question in the affirmative, concluding that the Clean Air Act's language is unambiguous and that carbon dioxide is an "air pollutant" within the meaning of the Act and, therefore, potentially subject to regulation. Justice Stevens went on to reject the basis upon which EPA had decide not to regulate greenhouse gas emissions at this time. Justice Scalia filed a dissenting opinion on the merits on behalf of himself, Chief Justice Roberts, and Justices Alito and Thomas. The dissenting opinion reached the opposite conclusion with respect to both questions.

The term "air pollutant" is defined in the statute as "any air pollution agent or combination of such agents, including any physical, chemical,. . . substance or matter which is emitted into or otherwise enters the ambient air." Focusing solely

[1]A substantial portion of the Majority's opinion focuses on the issue of standing and, in particular, whether the petitioners in this case have satisfied the elements of Article III standing under the Constitution. After setting forth a novel theory of standing premised upon "a special solicitude" for the State of Massachusetts based upon its "stake in protecting its quasi-sovereign interests," the Stevens Majority concludes essentially that loss of Massachusetts coastline constitutes sufficient injury in fact that might be traced, in some small part, to climate change and redressed, again in some small part, by future regulation of emissions from new motor vehicles. Chief Justice Roberts, in a dissenting opinion joined by Justices Scalia, Thomas and Alito, would have rejected the challenge to EPA's action as nonjusticiable. The dissent notes that there is no basis in law for the Majority's "special solicitude" for the State of Massachusetts in its standing analysis. Furthermore, as the dissent sets forth in some detail, the State's injury is neither particularized, nor imminent; the injury cannot reasonably be traced to the lack of regulation of greenhouse gas emissions from new motor vehicles, particularly given the numerous and complex factors that affect all predictions with respect to climate change; and, finally, the injury cannot be meaningfully addressed by the action sought—regulation of new motor vehicles—because emissions from new motor vehicles account for only a minute percentage of the global atmospheric concentration of carbon dioxide. For these reasons, the State of Massachusetts and the other petitioners cannot meet the three requirements of Article III standing.

on the language following the word "including," Justice Stevens adopts the view that carbon dioxide is a chemical or physical substance emitted into the air and must therefore be an air pollutant.[2] His opinion does not address whether carbon dioxide meets the first element of the definition, namely whether it is first an "air pollution agent." As EPA argued in its brief, and as Justice Scalia noted in his dissenting opinion, the fact that the statutory definition uses the words "any" and "including" does not end the analysis. As he points out, "in order to be an air pollutant' under the Act's definition, the substance or matter [being] emitted into the . . . ambient air' must also meet the first half of the definition—namely it must be an "air pollution agent or combination of such agents." The phrase following the term "including" can be illustrative of the kind of substances that might also be air pollution agents, but does not necessarily substitute for the first element of the definition. EPA provided the following example, quoted by Justice Scalia, in support of this point: "The phrase any American automobile, including any truck or minivan,' would not naturally be construed to encompass a foreign-manufactured [truck or] minivan." Scalia Dissent at 9.

Having concluded that greenhouse gas emissions are "air pollutants" within the meaning of the statute, Justice Stevens has "little trouble concluding" that EPA is "authorize[ed] to regulate greenhouse gas emissions from new motor vehicles in the event that it forms a "judgment" that such emissions contribute to climate change." Slip op. at 25. Section 202(a)(1) of the Act provides that EPA "shall by regulation prescribe . . . standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in [the Administrator's] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." To date, EPA has never made an endangerment finding with respect to carbon dioxide.

Finally, the Court rejected EPA's alternative basis for its decision not regulate greenhouse gas emissions from new motor vehicles at this time. EPA had argued that even if the Clean Air Act did authorize the Agency to regulate greenhouse gas emissions from new motor vehicles, that it appropriately exercised its discretion not to make an endangerment finding and regulate those emissions at this time. The Agency based its decision on, among other things, the continuing scientific uncertainties that were summarized in a 2001 National Academy of Sciences Report, as well as legitimate policy considerations, including the President's comprehensive approach to addressing climate change through investment in technology and voluntary actions. As EPA noted, "establishing [greenhouse gas] emissions standard for U.S. motor vehicles at this time would . . . result in an inefficient, piecemeal approach to addressing the climate change issue. . . . .A sensible regulatory scheme would require that all significant sources and sinks of [greenhouse gas] emissions be considered in deciding how best to achieve any needed emissions reductions." 68 Fed. Reg. 52,929-931.

The Court, however, concluded that EPA"s exercise of its "judgment" in this case was based upon "reasoning divorced from the statutory text" and therefore invalid. Slip op. at 30. Even though the statute is silent with respect to how the Agency shall exercise its "judgment" in the context of an endangerment finding, and even though the term "endanger" is not defined in the statute, the Court substantially constrained the Agency's ability to exercise its judgment, at least with respect to a determination under section 202 of the Act. In effect, the Court held that "EPA can avoid taking further action only if it determines that greenhouse gas emissions do not contribute to climate change or if it provides some reasonable explanation as to why it cannot or will not exercise its discretion to determine whether they do." Slip op. at 30. With respect to the latter, the Court suggests that the only basis for not exercising its discretion would be if "the scientific uncertainty is so profound that it precludes EPA from making a reasoned judgment as to whether greenhouse gases contribute to global warming." Slip op. at 31.

Significantly, the Court did not reach the question of whether EPA must actually make an endangerment finding, only that its explanation for making, or not making, such a finding must be based upon permissible statutory grounds—i.e., the relationship between greenhouse gas emissions from new motor vehicles and public health or welfare.

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[2]As Justice Scalia noted in footnote 2 of his dissenting opinion, this interpretation of the language of the definition of "air pollutant" would make little sense as it would then follow that "everything airborne, from Frisbees to flatulence, qualifies as an air pollutant." Scalia dissent at 10.

IMPLICATIONS OF THE MASSACHUSETTS DECISION

In the wake of the Supreme Court's decision, there has been both a call for EPA to take immediate action to begin regulating carbon dioxide emissions from motor vehicles and, perhaps more interestingly, intensified lobbying for Congressional action on climate change legislation. The former is hardly surprising. The Supreme Court held that carbon dioxide is an air pollutant, thereby setting the stage for EPA to initiate the regulatory process, or at least the process for deciding whether or not to make an endangerment finding. The latter, however, suggests that even advocates of regulation recognize that the victory of the decision may be a hollow one. If the goal is truly to reduce the atmospheric concentration of carbon dioxide and other greenhouse gases that scientists indicate are causing or contributing to global warming, and all of its attending effects, regulation under the Clean Air Act is not the answer. As discussed in greater detail below, the tools of the Clean Air Act are simply not well suited to address a global pollutant like carbon dioxide.

First, it is important to understand exactly what the Court's decision does, and does not, require.

- As noted above, the Court did not reach the issue of whether EPA must make an endangerment finding. On remand, however, if the Agency opts not to make an endangerment finding, it must articulate why there is such profound scientific uncertainty that it cannot make that finding.
- If the Agency does make an endangerment finding, it must then propose regulations to address greenhouse gas emissions from new motor vehicles. That is really the only true regulatory mandate of the Supreme Court's decision.
- Significantly, the Agency retains substantial discretion with respect to the content of any regulation. The Majority opinion states that "EPA has no doubt significant latitude as to the manner, timing, content and coordination of its regulations with those of other agencies." Slip op. at 30.
- The Supreme Court's decision does not address stationary sources and therefore does not require that EPA undertake any action with respect to the regulation of stationary sources.

EPA'S EXISTING STATUTORY AUTHORITY TO REGULATE AIR POLLUTANTS

As noted above, the Court's decision could have far-reaching implications beyond simply the regulation of mobile sources under section 202 of the Clean Air Act. First, the Court's holding that greenhouse gases are "air pollutants" means that EPA has broad authority to regulate greenhouse gases under all the significant Clean Air Act programs, including the National Ambient Air Quality Standards (NAAQS), New Source Review (NSR), New Source Performance Standards (NSPS), Prevention of Significant Deterioration (PSD), stratospheric ozone (Title VI), and mobiles sources and fuels (Title II) programs. Second, the Court's constrained approach to the endangerment finding may limit, although not preclude, EPA's ability to decide not to regulate greenhouse gas emissions under those programs since they, like section 202, are triggered when the Administrator determines that an "air pollutant" causes or contributes to air pollution that "may reasonably be anticipated to endanger public health or welfare." Having the authority to regulate under existing law, however, does not mean that regulation will be effective.

NATIONAL AMBIENT AIR QUALITY STANDARDS

Section 108 of the Clean Air Act requires the Administrator to publish and, "from time to time thereafter revise," a list of air pollutants: (1) emissions of which, in his judgment, cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare; and (2) that are emitted from numerous or diverse mobile or stationary sources.[3] Once a pollutant is listed, EPA is required to establish primary and secondary air quality standards for that pollutant.

States deemed to be in attainment must develop State Implementation Plans ("SIPs") demonstrating how they will maintain compliance; nonattainment States must develop SIPs demonstrating how they will come into attainment with the

[3]The six listed criteria pollutants are: ozone, nitrogen dioxide, particulate matter, sulfur dioxide, carbon monoxide and lead.

standards "as soon as practicable" but no later than five years after designation.[4] States that fail to submit SIPs or to come into attainment within the statutory deadlines attain face potential sanctions, including the potential loss of highway funding, and a federal takeover of their CAA programs.

Although the argument could be made that CO_2 meets the statutory threshold for designation and regulation as a criteria pollutant, it is evident that this would make little sense from a regulatory perspective. If the standard were set at a level intended to force reductions in emissions, i.e., at some atmospheric concentration below current levels (approximately 370-380 parts per million CO_2, then the entire country would be designated as being in nonattainment.[5] This would trigger the regulatory mechanisms of the NAAQS program—SIPs, NSR, reasonably available control technologies (RACT)to reduce emissions—but the reality is that none of the measures will have any effect in terms of bringing any individual State or county into attainment. Unless international emissions are also reduced, global CO_2 concentration will continue to increase and the entire United States would remain in nonattainment status. Even with international reductions, which are not currently occurring, the statutory deadline for compliance—a maximum of 12 years—is patently unrealistic and unachievable. This should be of concern to States that face potentially significant penalties for persistent nonattainment. For these reasons, it should be clear that the NAAQS program is ill suited to address a global pollutant like CO_2.

NEW SOURCE PERFORMANCE STANDARDS

Section 111(b)(1)(a) of the Clean Air Act requires the Administrator to adopt new source performance standards for categories of emission sources that "cause[], or contribute[] significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." EPA is also required to review, and, if appropriate, revise, the NSPS every eight years to ensure that the standards continue to protect public health and the environment. CAA § 111(b). These standards are developed on a specific unit-by-unit basis, and apply to both attainment and nonattainment areas. Emission standards under the NSPS program must reflect "the degree of emission limitation achievable through the application of the best system of emission reduction" that has been "adequately demonstrated," while considering the "costs of achieving such reductions and any non-air quality health and environmental impact and energy requirements." CAA § 111(a)(2).

In the wake of the Supreme Court decision, EPA could issue sector-specific emissions standards for CO_2, assuming that it makes the necessary endangerment finding. These standards, however, by definition would not be economy-wide and furthermore would generally apply only to new sources. It is true that the Agency could, through multiple rulemakings, ultimately seek to regulate a number of industry sectors, but the process would certainly be a lengthy one extending over a period of many years. The standards themselves must be based upon the best demonstrated technology, which EPA has interpreted to mean technology that is in existence and widely commercially available. This could further limit the value of NSPS in terms of achieving significant and immediate reductions in emissions.

CAP AND TRADE PROGRAMS

Most proponents of regulation or legislation to address greenhouse gas emissions argue that the most effective means of achieving reductions is through a market-based cap and trading program. In a more limited context, EPA has successfully implemented a trading program to reduce sulfur dioxide (SO2) from utilities under the Acid Rain program specifically authorized by Title IV of the Clean Air Act. It subsequently developed a cap and trade program for nitrogen oxides (NOx) under the NOx SIP call using its authority under section 110 of the Act. More recently, the Agency promulgated the Clean Air Interstate Rule (CAIR) pursuant to its authority

[4]The statute provides that States must come into attainment within five years, but it authorizes EPA to grant one five-year extension. Additionally, states can seek two additional one-year extensions. Thus, under the CAA, can get up to twelve years to attain the (non-ozone) NAAQS.

[5]Alternatively, if the standard were set above current levels of CO_2, the entire country would, at least for the short term, be classified as an attainment area and no regulatory mechanisms to reduce emissions would be triggered. This result, would be short-lived, however, as emissions from China and India continue to increase dramatically. Thus, regardless of what individual States or counties do with respect to their CO_2 emissions, global atmospheric concentrations will continue to increase.

under section 110, to further reduce NOx and SO2 from power plants. These programs have generally been upheld by the courts or not challenged.

Whether or not EPA has the authority to develop a cap and trade program for greenhouse gases, however, may still be at issue. Experience with the NO_xSIP call and CAIR suggest that a trading program under section 110 of the Act would likely survive judicial challenge. That would first require the listing and regulation of CO_2 as a criteria pollutant, which as discussed above, makes little sense. Alternatively, EPA could use its authority under the NSPS provisions of section 111 of the Act to create a cap and trade program, as it did recently for mercury in the Clean Air Mercury Rule. However, the mercury rule, and specifically EPA's assertion of authority under section 111 to create a cap and trade program rather than unit-specific standards, is being challenged in the D.C. Circuit. Until that fundamental legal question is resolved, EPA's ability to craft an effective cap and trade program under existing law remains unclear.

CONCLUSION

While the Massachusetts v. EPA decision put to rest the question of whether greenhouse gases are "air pollutants" under the Clean Air Act, this in and of itself, will do little to address climate change in a meaningful way. The Clean Air Act's existing regulatory tools were simply not designed to address global pollution. Climate change is an international problem; it demands an international solution. It is a national policy issue; it demands a national policy solution.

Senator BOXER. Thank you so very much.

I am going to take 5 minutes, we are each going to take 5 minutes and then we are going to go to the next panel.

Thank you to the full panel. I want everyone to listen for the two Cs—complex and China. Just listen for the two Cs. That is the code word here for doing as little as possible.

OK. Administrator Browner, in 1997, you were required by court order to set a new National Ambient Air Quality Standard within 6 months. The Agency rose to the challenge, set a standard for both particulate matter, PM, and ozone. By the way, particulate matter in my State is a huge problem. The way you handled it was ultimately upheld in the Supreme Court.

Do you see any reason why the Agency couldn't rise to the challenge in this situation, set a national standard for greenhouse gases for motor vehicles within 6 months' time?

Ms. BROWNER. I do not. I think that they can certainly act within 6 months. I would think they could act probably in a slightly shorter timeframe, but certainly within 6 months. There is not reason they cannot be done.

Senator BOXER. Administrator Reilly, you helped write and pass the Clean Air Act amendments in 1990. Thank you for that. At that time, one of the key problems was acid rain. There were arguments made in those days that more study of acid rain was needed. The Congress took action with you. We never looked back, and we know we are having a good impact here. Can we afford to wait until every last question regarding global warming is settled? Or do we have more than enough information to act?

Mr. REILLY. I think before we acted, we had the National Acid Precipitation study that had been strongly supported for some years. The Intergovernmental Panel on Climate Change has reported several times now, three times, I think. We have 11 national academies of science that have supported this as well. We are ready to move, I think.

Senator BOXER. Thank you. Administrator Browner, if we listen to Ms. Klee, who is very articulate, she is saying essentially that

great things, good things are happening, good things are happening, we are reducing the amount that we expected to increase in terms of greenhouse gas emissions. Well, the Bush Administration has said, a voluntary intensity reduction goal of 18 percent by 2012. However, under their own intensity approach, actual emissions could rise by 12 percent or more, even if the voluntary goal is met.

In your time as an administrator, do you recall trying to attack a major threat to public health through a voluntary goal that allowed the situation to become worse? Or did you look for real benefits and decreases in the pollutants?

Ms. BROWNER. I agree that voluntary programs and partnerships can be an important part of how the Agency does its job. However, there will always be companies, there will always be sectors of the economy that will not join in those programs. So that is why we have a regulatory scheme. That is why Congress has given EPA the authority to set rules so that all companies who are contributing to a problem, all polluters who are part of the problem, can be held accountable and can be required to do their fair part.

And I don't even say it is fair. If I am a company that decides to invest to meet a regulatory standard and make the kinds of capital investments that are required to meet that standard, I want to make sure that my competitor is similarly making those kinds of investments. I don't doubt we can do some good things, and we have done some good things in partnership. But when it comes to this issue of climate change, it will not be enough. We need a set of regulatory programs that everyone is held accountable to.

Senator BOXER. Well, my question is a little bit different. My question is, even if everybody joined in, emissions could rise by 12 percent or more, even if the voluntary goal was met. So in other words, they are reducing the increase. I am just wondering if, when you were Administrator and you were faced with a public health question, you felt it would be progress to keep emissions rising rather than actually going down.

Ms. BROWNER. Absolutely not. Slowing the amount of fine particles you put into the air, rather than dramatically reducing the amount of fine particles put into the air, this would have been two very different decisions. Slowing the progress or the increase would not have provided the public with the level of protection that they are entitled to under the Clean Air Act.

Senator BOXER. Thank you.

Administrator Reilly, since leaving EPA, you have served in many capacities, including on the boards of some major businesses. Recently, the U.S. Climate Action Partnership urged Congress to enact mandatory global warming limits which would reduce emissions significantly by 2050.

Do you think that taking action on global warming is something that business should support?

Mr. REILLY. One of the points, Madam Chairman, that the chairman of Dupont made in testimony before this Congress was that Dupont has been regulated under the Kyoto Protocol in all but two of the countries in which it operates. And it is doing fine. Conoco Phillips has recently joined U.S. Climate Action Partnership, first

major U.S. oil company to do so, indicates support for mandatory regulation of carbon dioxide.

I think these companies are to some extent out ahead of the rest of us. They have been looking at the need to promote more efficiency, they have been looking at higher fossil fuel costs, they are as sensitive themselves, because they have significant scientific resources to the overwhelming evidence of planetary impact of greenhouse gases, and they are proposing the policy give them a clear sense of the future and the playing field on which everyone will have to respond.

Senator BOXER. Thank you very much.

Senator Inhofe.

Senator INHOFE. Thank you, Madam Chairman.

Let me just mention, Mr. Reilly, since I am from Oklahoma, and that is Conoco Phillips, they did have a proviso that said, provided it would not be damaging to the economy, which I think is very significant.

Ms. Browner, in 1997, you talked about in a speech before at Florida State University that based on years of rigorous science analysis to know that we must begin dealing with this problem, we have to start dealing with this problem now. Then just a few minutes ago, you talked about how you submitted a brief saying you had the authority to do it.

Well, if you said we needed to do it now, and you had the authority to do it, why didn't you do it?

Ms. BROWNER. We were working on it. If we had been given another 4 years, I am sure we would have done it. We were engaged in the scientific work that was going on, both in the United States and around the world. We were extremely active, as you are well aware, in preparing international agreements.

Senator INHOFE. Very good. That answers the question.

Let me ask you, Ms. Klee, you said something just a minute ago, and I have to ask you this question as a result of that. Does the decision, Massachusetts v. EPA decision, require the EPA to regulate greenhouse gas emissions from cars and trucks?

Ms. KLEE. No, Senator it does not. It does, however, require EPA to make an endangerment finding or provide a reasonable explanation as to why it cannot do so.

Senator INHOFE. All right. And did the decision give the EPA the discretion to develop a reasonable and effective approach to addressing greenhouse gas emissions?

Ms. KLEE. Yes, absolutely. In fact, if EPA makes the endangerment finding, the majority opinion expressly noted that EPA retains wide latitude as to the manner, the timing, the content of the regulation, and in coordination with other Federal agencies. So EPA would have wide discretion at that point.

Senator INHOFE. You have heard me talk about the costs of this. Does EPA have the authority under the Clean Air Act or other legal authority to raise revenues, like a carbon tax, to fund the development of the technologies that are necessary to reduce the emissions of carbon dioxide?

Ms. KLEE. No, EPA does not have that authority. As both former Administrators know, EPA also has very limited resources for the development of the new technologies that are necessary. That is

really important, because the solution to climate change in the long term will depend on the development of clean coal technology, not just for the United States, which has an ample supply of coal and relies very heavily on the use of coal, but China's coal consumption will double.

So they don't have the resources, they don't have the inclination that we have seen so far, to invest in those technologies. So if we don't develop those technologies and work with them to export those technologies, nothing we do in the United States will make any difference. So having that funding for technology is critical.

Senator INHOFE. I think the key word there is they are not inclined, the inclination to do it. They are not inclined to do it. I have heard statement after statement, when we talked about how many coal-fired plants are coming out with every 3 days or so, that they have no intention, in fact they actually have talked about, one of them said, if you think you have seen job flight before, you wait until we are the ones that have the energy.

I would ask you, does EPA have the legal tools under the Clean Air Act to efficiently and effectively regulate greenhouse gas emissions?

Ms. KLEE. No, Senator, I really don't believe that the current regulatory tools are very effective. I mentioned the ambient air quality standards. There has been some discussion about setting New Source Performance Standards for stationary sources. But even there, I would note that there are significant shortcomings or challenges for the Agency, these New Source performance standards are sector specific, they are not economy-wide. They apply only to new sources unless EPA goes through a NO_x sip-call process.

And it doesn't clearly authorize EPA to undertake a cap and trade program, which I think most of the major bills that are currently pending would provide for. Certainly again referring back to the Cannon memo, that was the factor, I think, that was very influential in his thinking.

Section 111 of the Clean Air Act, I believe, could give EPA the authority to develop a cap and trade program. But that issue is currently being challenged in the context of the mercury rule in the D.C. Circuit. So if the D.C. Circuit takes that tool away, you will be losing, or the Agency will be losing a very significant tool.

Senator INHOFE. There is a tendency to try to say, this can be done, this can be done fast. Were you here when I read the list of provisions in the Clean Air Act and the Titles I, II, V and VI, some 17 sections that could be, could deal with this issue? Do you agree with his answer to that?

Ms. KLEE. Yes, absolutely. All of those could come into play.

Senator INHOFE. All right. And last, Administrator Browner, there were a couple of years in the Clinton Administration, after the Kyoto was signed, how come you never sent it to the Senate for ratification?

Ms. BROWNER. As the President himself said at the time, he recognized that this body was not prepared to ratify and that there were things that would need to be done, and that he would work to try and do those things. He did take the step of signing it, and we did obviously take the step of engaging in the international de-

bate to try and secure an agreement, and we were successful in that regard.

Senator INHOFE. Thank you.

Senator BOXER. Thank you very much.

Senator Lautenberg, the vote just started, so we will conclude with the two, and then we will vote. I will come back, I don't know who else will, for the last panel. Go ahead, Senator.

Senator LAUTENBERG. Thanks, Madam Chairman, thank you all for being here and challenging, effectively, the fact that we can't get EPA off its protective cover that it creates to make these decisions, to really search beyond the ordinary and as our Chair said before, that we've got to stop hiding behind everybody else's contributions and get on this ourselves.

Each of you had interesting periods of time when you served as administrators, and each of you, I think, contributed substantially to the general well-being of our society, and recognized problems that we were having with our environment.

I look at it through the eyes of my grandchildren. This is kind of an interesting story around here, but I talk about my grandkids, the oldest of whom is 13, the youngest of whom is 3. It is what I want for them that propels so much of my activity here, anti-violence, better air quality, less war, peaceful Country, opportunity to get an education, all of those things. And if it is good for my grandchildren, it has to be good for everybody's grandchildren. That is the way I see things.

I have visitors, I have families come in with autistic children, I have families that come in with diabetic children, I have families come in with asthmatic children. My oldest grandchild has a fairly severe asthmatic condition, and it really is a terrible thing to see him wheezing and sometimes choking, gasping for air. My daughter, when she takes him to play baseball or whatever, always looks for the nearest emergency clinic among the first things she does in the area, just in case he needs attention.

So I have to tell you, it offends me to hear these excuses blamed about the complexity, as you said, Senator. There has been incredible misbehavior in these last few years, altered reports, redacted statements. We have them here. Word changes that say, will cause, may cause, silly things like that.

So when we try to, and I think it is a short jump from the evidence at hand that endangers the environment, to go right to public health endangerment. At what point you say, oh, fish are dying and animals are dying, and coral is dying and this, but we don't see any direct effects on health. And I look at the Court document, the Supreme Court. And they say, you know, climate change is dangerous, it does not minimize Massachusetts' interest in the outcome of this legislation. This is what the Court said, and they continue, "These rising seas have already begun to swallow Massachusetts' coastline." I think it was remarked about before.

So Massachusetts is one of 50, and the land is being swallowed up and the ecology is changing, what does it take to say, I ask either, any one of you, all three of you, to go from there to say that this is an endangerment, a future endangerment of public health? Ms. Browner?

Ms. BROWNER. I don't think it takes very much. If I might just quote from the Clean Air Act about what you have to look at or what findings you can make, welfare includes but is not limited to effects on soils, water, crops, vegetation, man-made materials, animal or other wildlife, disability, climate, damage to and deterioration of property, and the list goes on and on. They don't have to find all of those things are occurring. They can simply find that some of those things are occurring. And then you have an endangerment.

Senator LAUTENBERG. Mr. Reilly.

Mr. REILLY. I would be very surprised if they do not conclude it, if the Administrator does not conclude that endangerment is involved here. The box that they are in, particularly having conceded the significance of the science, not having disputed the science, that is to say, as the Administrator himself said today, that they concede the impact of greenhouse gases, humanly caused greenhouse gases on the environment, I think leads very directly to an endangerment decision.

I would just say, during our administration, Bob Teter, who was the President's principal pollster, commented that something happened with respect to environmental views and values in the previous 15 to 20 years. He said they entered the core values of the American people. I think that is essentially what has happened in the last year to 3 years with respect to climate change.

It seems to me the environment we are in, the larger environment, is one in which the endangerment is conceded by the vast portion of Americans, who want to see a more forward-leaning policy with respect to climate change. I don't disagree with Ms. Klee about the complexity of addressing this problem, or the Administrator. Nor that the Clean Air Act is not the optimal instrument for solving the problem. But it is the instrument for solving the one problem that the Supreme Court has recognized. I don't see that there is a way around that.

Senator BOXER. We have 5 minutes to go vote. Senator Cardin, we are going to have put your questions into the record. Will you answer those questions? Do you have a 10 second answer?

Ms. BROWNER. I just wanted to say, with the Supreme Court, Mick Jagger once said, you don't always get what you want, but sometimes you get what you need. Well, what EPA got in that Supreme Court decision is what they need, the opportunity to move forward. What we all want is for Congress to act, I suspect.

Senator CARDIN. Senator Boxer, my question, and I will put it into the record. First of all, I think the courts, the Judiciary is ahead of the Legislative and executive branches on the seriousness of global climate change. My question is, on the authority they have now, the determination that is made, what could they do? What were the options that you believe EPA could come up with to deal with greenhouse gases with the authority they have currently, assuming the determination is made?

If I could have that answer for the record.

Senator BOXER. Senator, we will. I want you to know that our staff here has done some research. They said right now they could just grant this waiver by summer, make the endangerment finding right away, move on clean coal. There are a whole host of things

I think would be wonderful to hear from our, well, frankly our three witnesses, if our third one is interested in participating.

Ms. KLEE. I would be happy to.

Senator BOXER. Tell us what you think we could do right now, it would be great.

Since we now have 4 minutes, I just want to say, Ms. Klee, I know you have read the Supreme Court case. I am not a lawyer, but I am married to one and I'm the mom of one. But I have read this. The thing that is so beautiful about this decision is, it is so not complex. It is so clear. On the question of China, that everyone on the other side hides behind, they take on China head-on, in two paragraphs. I am going to make sure those go in the record right now.

They say, forget about China, those are my words, but they basically say, they say that, judged by any standards, U.S. motor vehicle emissions make a meaningful contribution. They say that China and India are not dispositive to the case; a reduction in domestic emissions would slow the pace of global emissions increase, no matter what else happens.

[The referenced material was not received at time of print.]

Senator BOXER. So please, I mean, I hope your side can get some new arguments. Because China and complexity, we just really see through that.

I want to thank all of you very much. I will be back for the final panel. You two were just great, you are continuing the bipartisan momentum for action.

[Recess.]

Senator BOXER. The Subcommittee will come to order and we will resume our hearing.

Our final panel is Mr. David Doniger, Policy Director, Climate Center, at the NRDC; and Mr. Peter Glaser, Partner, Troutman Sanders LLP.

Why don't we start with you, Mr. Doniger.

STATEMENT OF DAVID DONIGER, POLICY DIRECTOR, CLIMATE CENTER, NATURAL RESOURCES DEFENSE COUNSEL

Mr. DONIGER. Thank you, Madam Chair, and thank you for having the fortitude to come back for this panel.

I am David Doniger. I represent the Natural Resources Defense Council and its 1.2 million members and supporters in the Massachusetts case and in related global warming litigation. I want to salute the coalition of States, cities and environmental organizations which were engaged in the Massachusetts case and engaged in the other global warming cases. We couldn't have done it without everybody else's help and I salute them.

We began this case during the coldest part of the little ice age in global warming policy in Washington. The President had broken his campaign pledge to control CO_2, the Congress was inactive, the States weren't moving yet. This Administration tried to nail the door shut on the use of the Clean Air Act. We went to the last available place, the independent judiciary, to upheld the Nation's laws.

Much has been said about the Massachusetts decision. I won't repeat it in summarizing my testimony. But it is clear that there are

four immediate results. The first, Administrator Johnson has to decide afresh whether to set greenhouse gas emission standards for new motor vehicles. That has to start with a determination on the basis of the science only, the Supreme Court said, whether there is a contribution from those emissions to global warming. We don't see how he could reach anything other than a positive determination.

The same thing is true with respect to power plants. There is another case pending in the D.C. Circuit which is bout the Administrator's refusal to regulate CO_2 from new power plants under Section 111. And they gave as their sole basis the lack of authority. So that decision also will be reversed very soon by the D.C. Circuit, I predict, and the Administrator will have to make the endangerment decision for power plants as well.

The third area which has received a lot of attention today is the waiver for California. I am pleased that the Administrator has signed the notice, undoubtedly prompted by the appearance here in front of you. So the hearing has had one enormous beneficial impact already. You set a relatively quick schedule for having the hearing and the comment period, and I applaud your efforts to hold him to account for a quick decision after that, as well as the court decision on the endangerment findings.

My written testimony goes into some of the other kinds of litigation which the Supreme Court case will affect. Suffice it to say that it knocks the legs out from under most of the arguments the auto makers are making in a series of district court cases, one of which is on trial now in Vermont, challenging the California standards on preemption theories. We predict that those cases will be favorably resolved before long.

There is a nuisance case pending in the Second Circuit, on a theory that stems right from the Georgia v. Tennessee Copper case that the Supreme Court relied on and cited with favor in its decision. So I think we have new life in that case, too.

As others have said, there is now a two-track process, what EPA must do under existing law, and I think renewed more fuel under the kettle for congressional action created by this decision. So you have more and more companies, as has been noted, the forward-leaners who are embracing the need for legislation. Some of the backward-leaners may have concluded that it would be better to have Congress resolve these issues in the near term than leave these decisions for Stephen Johnson, or worse, the next Administrator.

In the NRDC's view, global warming legislation needs to include a mandatory declining cap on multi-sector initiatives that start cutting emissions now and reduces from 80 percent by 2050. There needs also to be performance standards for vehicles, fuels, power plants, buildings, appliances and other equipment, to quickly deploy today's emissions-cutting technology and promote the rapid development of tomorrow's.

The third element of the legislation is targeted incentives drawn mainly from the value of emissions allowances to promote that technology to protect consumers and workers and communities, and help manage adaptation to the climate changes we can't avoid. There is still time, only a little time, to avoid the worst effects of

global warming. NRDC looks forward to working with this Committee and all stakeholders to pass this legislation in this Congress.

Thank you.

[The prepared statement of Mr. Doniger follows:]

STATEMENT OF DAVID DONIGER, POLICY DIRECTOR, CLIMATE CENTER, NATURAL RESOURCES DEFENSE COUNSEL

Madame Chairman, members of the Committee, thank you for the opportunity to testify today on Massachusetts v. EPA, the Supreme Court's decision upholding the Environmental Protection Agency's authority to regulate global warming pollution under the Clean Air Act. I am policy director and senior attorney for the Natural Resources Defense Council's Climate Center. I represent NRDC and its 1.2 million members and supporters in the Massachusetts case and in related global warming litigation. I work closely with the broad coalition of States, cities, and environmental organizations engaged in these cases. In the 1990's, I served as director of climate change policy in the EPA air office, under Carol Browner.

We began this case during the coldest part of the Little Ice Age in global warming policy in Washington. The President had broken his campaign pledge to control carbon dioxide. The Congress was inactive. The States were not yet moving. Yet the science was growing ever clearer on the dangers of global warming, and the nation's Clean Air Act already empowered the government to react to that science. When the Bush Administration tried to nail this door permanently closed, our coalition of States, cities, and environmental organizations took the last step available, appealing to the independent third branch to uphold our nation's laws.

The Supreme Court's April 2, decision in Massachusetts v. EPA repudiates the Bush administration's legal strategy for doing nothing on global warming. The nation's highest court set the White House straight: Carbon dioxide is an air pollutant. EPA has—and has always had—the power and responsibility to start cutting the pollution that is wreaking havoc with our climate. We need EPA to act now.

The Court's decision has four immediate game-changing consequences:

First, Administrator Johnson now must decide afresh whether to set greenhouse gas emission standards for new motor vehicles under Section 202 of the Clean Air Act. The Court clearly stated that this decision must be based on the science, and the science only:

Under the clear terms of the Clean Air Act, EPA can avoid taking further action only if it determines that greenhouse gases do not contribute to climate change or if it provides some reasonable explanation as to why it cannot or will not exercise its discretion to determine whether they do.[1]

The Court rejected all of the Administration's "laundry list of reasons not to regulate"-preferences for voluntary action, concerns about piecemeal regulation, claimed interference with foreign policy. No, the Court said, the decision must be made on the science only: "To the extent that this constrains agency discretion to pursue other priorities of the Administrator or the President, this is the congressional design."[2]

The Court was especially clear that "while the President has broad authority in foreign affairs, that authority does not extend to the refusal to execute domestic laws."[3] The Court also observed that while economic considerations figure into the level and timing of standards under the Clean Air Act, they are not relevant to determining the need for such standards.[4]

The Court found that "EPA has not identified any congressional action that conflicts in any way with the regulation of greenhouse gases from new motor vehicles."[5] Specifically, the Court found no conflict with the Energy Policy and Conservation Act, under which the Corporate Average Fuel Economy (CAFE) standards are set: "[T]hat DOT sets mileage standards in no way licenses EPA to shirk its environmental responsibilities. EPA has been charged with protecting the public's "health" and "welfare," . . . a statutory obligation wholly independent of DOT's mandate to promote energy efficiency."[6]

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[1] 127S.Ct. 1438, 1462 (2007).
[2] *Id.*
[3] *Id.* at 1462-63.
[4] *Id.* at 1461.
[5] *Id.* at 1461.
[6] *Id.* at 1462.

Given the Administration's embrace of the Intergovernmental Panel on Climate Change (IPCC)—more than 90 percent certainty that anthropogenic emissions are causing global warming—it is difficult to imagine how Administrator Johnson could not now conclude that vehicular emissions of these pollutants are contributing to climate change. He must act, and now.

Since the Supreme Court's decision, however, the Administration has made statements that give reason for concern about their intentions to comply with the Court's decision. On April 3d, while acknowledging that the Court's decision is "the new law of the land," President Bush himself went right back to the well of extraneous considerations that the Court 1 day before had declared illegal: research, voluntary action, waiting for other countries to act.[7] Administrator Johnson sounded the same notes at a press conference on April 10th. And Council on Environmental Quality Chairman James Connaughton declared the Court's decision "somewhat moot" and "inconsequential" because "the President is already committed to regulatory action"—by which he meant that the Administration had asked Congress for new laws on fuel economy and alternative fuels.[8]

This Committee will no doubt hear about a long list of voluntary programs and initiatives. Some of EPA's programs, such as EnergySTAR labeling, have brought about real changes in the energy-consuming products we purchase. Other programs, such as the Asia-Pacific Partnership (on which I have testified before), are utterly ineffective efforts just to look busy.

Altogether, these voluntary efforts have failed to stop the steady growth in U.S. emissions, which has continued during the Bush years at the same rate as in the prior decade—about 14 percent per decade. The Administration cloaks its statistics in the deceptive metric of "emissions intensity." Celebrating improvements in emissions intensity is like a dieter's claiming victory when he succeeds only in slowing his weight gain.

This Committee has a special role and responsibility to hold Administrator Johnson's feet to the fire. Demand that Mr. Johnson give you a specific schedule for determining that vehicles' heat-trapping emissions are in fact contributing to global warming. Do not accept procedural dodges and delays. There is no more legal basis, and no more time, for these lame excuses.

Second, and equally important, the Massachusetts decision removes the major obstacle to State initiatives, led by California, to cut global warming pollution from vehicles. California and 11 other States—Connecticut, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington—have adopted clean car standards to cut heat-trapping emissions by 30 percent by model year 2016. Arizona and New Mexico—and perhaps others—will soon join. Together, these States account for more than a third of the U.S. vehicle market. The Clean Air Act allows California to set its own air pollutant standards, provided only that it gets a routine waiver from EPA. California asked for the waiver nearly 16 months ago, but EPA has been dragging its feet.

I welcome Administrator Johnson's recent commitment to Governor Schwarzenegger that he will now allow the waiver process to start, and that EPA will soon publish a notice scheduling the required hearing. But the Administrator has declined to give California any schedule for making the waiver decision itself. The standards apply starting in the 2009 model year, which is fast approaching. This Committee should demand a clear and near-term deadline from Administrator Johnson for his decision. It is time for the Administration to stop stalling and get out of California's way.

Third, the Supreme Court's decision has implications for other pending global warming litigation. At the top of the list is a parallel case on power plants. A coalition of States and environmental organizations has challenged EPA's refusal to add a CO_2 emission standard to the new source performance standards and emission guidelines for new and existing power plants under Section 111 of the Clean Air Act in a case called New York v. EPA.[9] EPA's sole reason for refusing to regulate was the claim that it had no legal authority to control CO_2—the very issue now settled by Massachusetts. The D.C. Circuit stayed that case pending the Supreme Court's decision, and now we intend to seek an immediate reversal of the EPA position.

So Administrator Johnson now will also have to decide whether CO_2 emissions from power plants contribute to global warming. Again, based on the clear scientific evidence, we cannot see how he could reach any other conclusion. As with vehicles,

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[7]http://www.whitehouse.gov.news.releases/2007/04/20070403.html.

[8]Jeff Bernard (AP), "Rulings Go Against Bush Administration," *Casper Star-Tribune* (Apr. 18, 2007)(attached).

[9]No. 06-1322 (D.C. Cir.)

Administrator Johnson must act on power plants, and now. We hope this Committee will press him for action here too.

The Massachusetts decision will very helpfully affect other cases also. It knocks the legs out from under cases brought by the auto industry in California, Vermont, and Rhode Island, alleging that those States lack Clean Air Act authority to set clean car standards, and alleging conflict with the CAFE standards. Massachusetts also strengthens the States' position in Connecticut v. American Electric Power, a case pending in the Second Circuit Court of Appeals. In that case, eight States, New York City, and two land conservation trusts allege that the five electric power companies with the highest CO_2 emissions are creating a public nuisance. Their theory stems directly from Georgia v. Tennessee Copper,[10] the case relied on by the Supreme Court in Massachusetts to buttress States' standing and States' right to go to Federal court to abate pollution outside their borders.

Fourth, and most important, the Supreme Court's decision has added new momentum to the legislative process. Even before April 2, the legislative kettle was nearing a boil. Since Hurricane Katrina, and since the November elections, public sentiment has shifted dramatically on global warming. Congress's new leaders and committee chairs have expressed the strong commitment to pass comprehensive global warming legislation. Many forward—looking business leaders have come forward to embrace the desirability—or at least the inevitability—of new legislation. Perhaps motivated by the prospect that this Administrator—or the next one—will use his Clean Air Act powers, even more industry leaders are coming to the table now to help hammer out new global warming legislation. As they say, "If you're not at the table, you're on the menu."

NRDC supports placing every ounce of pressure you can on the Administration to faithfully execute the existing law of the land. The actions already within EPA's power would take a big bite out of global warming. At the same time, we also support enactment of new economy-wide legislation to comprehensively address global warming.

In NRDC's view, solving global warming requires three things:

- A mandatory declining cap on national emissions that starts cutting emissions now and reduces them by 80 percent by 2050.
- Performance standards—for vehicles, fuels, and power plants, as well as buildings, appliances, and other equipment—to quickly deploy today's emission-cutting technology and promote rapid development of tomorrow's.
- Incentives—drawn mainly from the value of emissions allowances—to promote new technology, to protect consumers (especially low-income citizens), workers, and communities, and to help manage adaptation to climate impacts that we cannot avoid.

There is still time—though only a little time—to avoid the worst effects of global warming. If the United States and other industrial countries commit to action on this scale, and if key developing countries also reduce their emissions growth and follow suit with similar reductions later in the century, then we can still keep greenhouse gas concentrations from exceeding 450 parts per million (CO_2 equivalent) and maintain at least a 50/50 chance of avoiding warming of more than another 2° Fahrenheit. Exceeding this level, more and more scientists tell us, is extremely dangerous.

NRDC looks forward to working with this Committee and with all stakeholders to pass this legislation in this Congress.

Senator BOXER. Thank you so much, Mr. Doniger.

Mr. Glaser.

STATEMENT OF PETER GLASER, PARTNER, TROUTMAN SANDERS, LLP

Mr. GLASER. Thank you, Madam Chair. My name is Peter Glaser. I am a partner in the Washington office of the Troutman Sanders law firm. I practice in the areas of environmental and energy law, and represented the Washington Legal Foundation in the filing of an amicus brief in the Massachusetts v. EPA case.

I appreciate the opportunity to testify before the Committee this morning.

[10] 206 U.S. 230 (1907)

Let me begin by stating that I am not here before the Committee representing or advocating the particular position of any particular company or industry in views that I am expressing today on my own. In addition, I am not here to recommend any particular course of action by this Committee or Congress, but simply to offer my views as a practicing attorney on issues pertaining to the potential regulation of greenhouse gases by EPA under the Clean Air Act.

Under the Court's decision in Massachusetts v. EPA, EPA will be required to decide whether greenhouse gases emitted by new motor vehicles may reasonably be anticipated to endanger public health and welfare. Based on its analysis of the science, EPA's options are to make an endangerment finding, make a non-endangerment finding or decide that the science is insufficiently certain to decide either way.

Although the Massachusetts case concerned potential regulation of greenhouse gas emissions from new motor vehicle sunder Title II of the Clean Air Act, the Court's ruling that greenhouse gases are air pollutants under the statute may have implications for other Clean Air Act regulatory programs. Indeed, the question of EPA regulation of greenhouse gas emissions from power plants under the Section 111 New Source Performance Standard program is likely to be before the Agency shortly. There may be requests for regulatory action as to other sources as well.

However, whatever regulatory choices EPA may make, greenhouse gas regulation is likely to be, I am sorry to say, a highly complex undertaking. For instance, and without trying to be comprehensive, attempting to regulate greenhouse gas emissions from power plants and other large stationary sources under the Section 111 New Source Performance Standards is likely to involve—and here are some more adjectives—difficulty, lengthy and controversial administrative hearings.

In the first place, EPA's ability to use cap and trade as a regulatory mechanism under Section 111 is currently in litigation in the context of the Agency's power plant mercury regulations. In addition, whether or not cap and trade is authorized under Section 111, EPA would not be authorized under that section to create regulations based solely on a desire to reduce greenhouse gas emissions.

Under Section 111, EPA can only require sources to move for what is called best demonstrated technology, or BDT. As interpreted by the D.C. Circuit, BDT means technology that is achievable in the real world. The standard may be set at a level that is technology forcing, but in the end, the technology EPA prescribes must be adequately demonstrated as being an available technology.

This could be a difficult standard for EPA to apply in the near term as the basis for regulating power plants and other large sources. While there are many promising new technologies in development, neither the Department of Energy nor the Electric Power Research Institute expects technologies to be ready for widespread use in the industry until after 2020. This is the case not just for technologies that capture CO_2 from the emissions stream; it is also true for very long-term reliable underground storage of the CO_2 once captured.

Thus, while industry appears more than capable of addressing the CO_2 issue over the long term, questions arise as to whether the necessary technology can be adequately demonstrated as being available now. Moreover, according to the D.C. Circuit, the analysis EPA must undertake in setting BDT involves weighing "cost, energy and environmental impacts in the broadest sense at the national and regional levels, and over time as opposed to simply at the plant level in the immediate present." The Court said that the analysis could be essentially the functional equivalent of an environmental impact statement.

Obviously this type of broad consideration of potential greenhouse gas regulations by EPA will be no easy task, to say the least. A wide variety of evidence will be relevant and a very large number of parties are likely to be interested in wanting to be heard. So this will be a highly challenging undertaking at EPA and at best, an uncertain conclusion.

Certainly, in my view, quick action cannot reasonably be expected. Thank you.

[The prepared statement of Mr. Glaser follows:]

STATEMENT OF PETER GLASER, PARTNER, TROUTMAN SANDERS, LLP

My name is Peter Glaser. I am a partner in the Washington, D.C., office of Troutman Sanders LLP. I received a B.A. from Middlebury College in 1975 and a J.D. from the George Washington University National Law Center in 1980. I practice in the areas of environmental and energy law. I represented the Washington Legal Foundation in filing an amicus brief before the Supreme Court in the Massachusetts v. EPA litigation.

Let me begin by stating that I am not here before the committee representing or advocating the position of any particular company or industry. I am not receiving remuneration from anyone for my testimony, and the views expressed in my testimony are my own and not necessarily those of any company or group that I currently represent or have represented.

In addition, I am not here to recommend any particular course of action by this Committee or Congress. I have been asked to offer my views as a practicing attorney of issues pertaining to the potential regulation of greenhouse gases (GHGs) for global warming purposes by the U.S. Environmental Protection Agency (EPA) under the Clean Air Act (CAA).

Under the Court's decision in Massachusetts v. EPA, EPA will be required to decide whether GHGs emitted by new motor vehicles may reasonably be anticipated to endanger public health or welfare. The Court did not require EPA to make an endangerment finding. It remanded the case to EPA for further consideration of the endangerment issue. Therefore, based on its analysis of the science, EPA's options are to make an endangerment finding, make a nonendangerment finding, or decide that the science is insufficiently certain to decide either way.

Although the Massachusetts case concerned potential regulation of GHG emissions from new motor vehicles under Title II of the CAA, there is no doubt that the Court's ruling that GHGs are "air pollutants" under the statute may have implications for other CAA regulatory programs. Indeed, EPA was asked to set New Source Performance Standards for carbon dioxide (CO2) from fossil-fuel-fired electric generating units under Section 111 of the CAA. EPA declined that request last year, stating it had no authority to regulate GHGs for global warming purposes, and the matter was appealed to and is pending in the U.S. Court of Appeals for the D.C. Circuit. It can now be expected that the case will be remanded to EPA for further action in light of the Massachusetts v. EPA decision.

Thus, it is likely that EPA will have two formal cases before it in the near term in which it will be examining potential GHG regulation. One of the cases will address motor vehicles under Title II, and the other will address electric generating units under Title I. In addition, it is possible that EPA on its own motion or in response to further petitions may consider potential GHG regulation for other sources.

However, the character of any such regulation remains uncertain. Although the Court's decision clearly provides for EPA regulation under Title II if an endangerment finding is made, the decision does not say anything at all about what

that regulation should be or when it should become effective. Those matters are left to EPA judgment confined by the specific CAA provisions under which EPA would invoke regulation. One of the arguments made by EPA and supporting parties in the Massachusetts litigation was that the CAA was not designed to address an issue such as global climate change. While the Court ruled that GHGs meet the CAA's definition of "air pollutant," the fact remains that GHG regulation under the CAA is likely to be an uncomfortable fit.

The most obvious example is the National Ambient Air Quality Standards (NAAQS) program, the program the Courts have termed the "cornerstone" of Title I of the CAA. One of the prerequisites for the establishment of air quality criteria and NAAQS in Sections 108 and 109 of the CAA is similar to the regulatory trigger language the court construed in Massachusetts.

Yet it is hard to imagine how NAAQS regulation would work for a GHG. The establishment of a NAAQS triggers a process whereby attainment and nonattainment areas are designated, States are required to submit implementation plans to attain or maintain the NAAQS, and severe sanctions are mandated for non-compliance. Yet, given the nature of globally-circulating GHGs, where a ton of GHG emitted in, for instance, Maryland has the same impact on GHG concentrations over Maryland as a ton emitted in China, there is nothing Maryland could do about attaining or maintaining a GHG NAAQS. Maryland could literally cease emitting any GHGs tomorrow and it would have no discernable impact on GHG concentrations over the State.

Similarly, GHG emissions are not a pollutant transport issue, such as ozone, where groups of States can combine to reduce emissions for the purpose of regional attainment. Given the nature of the issue, not even the most draconian multi-state emission reductions could ensure attainment or maintenance of a GHG NAAQS.

I do not conclude that, if EPA makes an endangerment finding for motor vehicles under Title II, it has authority to establish a GHG NAAQS since the trigger language in Section 108 is not identical to the Section 202 trigger language construed in Massachusetts. Nevertheless, given the similarities, it is not a stretch to imagine a petition alleging that EPA not only has authority to establish a NAAQS, it must establish a NAAQSs. That issue would be a difficult one for the agency and the courts to resolve.

Perhaps a more likely initial battleground for EPA CAA regulation, assuming an endangerment finding is made, is the NSPS program under Section 111. Yet this program too is likely to create regulatory difficulties. A first issue might be whether Section 111 authorizes EPA to create a market-based cap and trade program, or whether EPA's authority is limited to imposing more inefficient command-and-control technology requirements on individual sources. In the Clean Air Mercury Rule, now being litigated before the U.S. Court of Appeals for the D.C. Circuit, EPA interpreted Section 111 as allowing it to implement a cap and trade program to control mercury emissions from coal- and oil-fired utility units. However, a group of environmental parties has filed a brief challenging EPA's authority to utilize a cap and trade program under Section 111, claiming that a cap and trade program does not meet the definition of a "standard of performance" under that section. Thus, the ability to utilize cap and trade under Section 111 is, at least for the moment, uncertain. Section 111 creates additional regulatory difficulties for controlling GHG emissions. A "standard of performance" is defined under Section 111(a)(1) as "a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated." This standard has come to be known as "best demonstrated technology" or BDT. As can be seen, under BDT, both the availability of technology and the cost of technology are factors the Administrator must consider in setting a standard of performance. It is true that the standard can be set to be "technology forcing." On the other hand, the standard cannot be based on results achieved short-term at a small-scale "pilot" plant. EPA must show that the standard is "achievable" in the real world, that ¶ 5 is, it "must be 'adequately demonstrated' that there will be 'available technology.'" Portland Cement Ass'n v. Ruckelshaus, 486 F.2d 375, 391 (D.C. Cir. 1973), cert. denied, 417 U.S. 921 (1974), quoting the statutory text. It is EPA's burden to make this demonstration; it cannot be passed off to industry. National Lime Ass'n v. EPA, 627 F.2d 416, 432 (D.C. Cir. 1980). These standards will be difficult to apply to the nation's coal-fired electric generation fleet. While I do not offer myself up as an expert on carbon control technologies, cost-effective technologies do not appear to exist today for controlling carbon emissions from coal-based electric generating plants on a large-scale basis. Certainly many promising technologies are in development, and both the Department

of Energy and the Electric Power Research Institute expect these technologies will become cost-effective at some point after 2020. But for purposes of developing standards of performance for coal-based generation today, new source performance standards are likely to prove controversial. For instance, carbon-scrubbing at a pulverized coal plant may consume a very large percentage of that unit's total electric power.

This is likely to be problematic given the requirement in determining standards of performance for considering the energy requirements of the control technology. Controlling emissions from coal-based generation through the NSPS program is also likely to prove difficult because of the need not only to capture carbon dioxide but to store it safely indefinitely. Again, the results of initial testing are promising and, in the not too distant future, sufficient testing is expected to be accomplished to demonstrate the ability to store large quantities of carbon dioxide underground over the long-term. In the meantime, however, given the lack of large-scale storage data, and the very difficult liability issues presented by underground storage, an attempt to establish a standard of performance for carbon capture and storage may be difficult to justify.

Other possibilities for application of the NSPS program to control carbon emissions from the electric power sector might be requirements for the use of IGCC technology or even fuel switching to natural gas. Even under Section 111(h), there are significant legal issues as to whether such requirements would be valid. Section 111(h) provides that, if EPA determines that it not feasible to prescribe a standard of performance, EPA may prescribe "a design, equipment, work practice, or operational standard, or combination thereof, which reflects the best technological system of continuous emission reductions which (taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated." Use of this section to, for instance, set a standard for carbon emissions from a coal plant that would require switching to natural gas would be unprecedented. EPA has regulated sulfur dioxide and nitrogen oxide emissions from coal plants for many years, but has never determined that gas plant emissions should set the standard for emissions from coal such that coal would have to be replaced by gas. It is hard to imagine EPA attempting to utilize Section 111 to, in essence, order that coal plants convert to gas technology. The economic impacts of such decisions could be staggering. The fact that new source performance standards must be technology- and cost-based creates further difficulties in utilizing Section 111 to implement a cap and trade program for GHG emissions, even assuming a cap and trade program represents a valid standard of performance. In CAMR, for instance, EPA was constrained in choosing the two-phase mercury caps by the Section 111 requirement that a standard of performance be achievable. EPA's methodology for calculating the cap thus involved essentially determining the mercury emission reductions achievable at individual units, summing those reductions up nationwide, and setting ¶ 7 the cap on that basis. A GHG cap would have to be set on the same basis, that is, based on a determination of what is achievable nationwide based on technology and cost considerations. EPA could not simply choose a cap based solely on its views of desirable emission reductions. Finally, the U.S. Court of Appeals for the D.C. Circuit, has stated that the Best Demonstrated Technology standard is a very broad standard indeed. According to the Court, "[t]he language of section 111 . . . gives EPA authority . . . to weigh cost, energy, and environmental impacts in the broadest sense at the national and regional levels and over time as opposed to simply at the plant level in the immediate present." Sierra Club v. Costle, 657 F.2d 298, 330 (D.C. Cir. 1981). The Court stated that "'section 111 of the Clean Air Act, properly construed, requires the functional equivalent of a NEPA impact statement.'" Id. at 331, quoting Portland Cement, 486 F.2d at 384. Moreover, in 1980, in a case involving the limestone industry, the Court noted the "rigorous standard of review under section 111" applied by reviewing courts. National Lime, 627 F.2d at 429. The Court stated that the "sheer massiveness of impact of the urgent regulations," considered in that and other cases had "prompted the courts to require the agencies to develop a more complete record and a more clearly articulated review for arbitrariness and caprice" than had been applied in previous cases. Id. at 451 n.126.

If massiveness of regulatory impact was a concern in a limestone industry case, that concern would be magnified many times in promulgating GHG standards of performance. A plethora of issues would be relevant in setting GHG standards, with EPA weighing the cost, energy and, and environmental impacts of GHG regulation "in the broadest sense at the national and regional levels and over time" as if it were preparing an Environmental Impact Statement. A large number of parties would be interested given the overweening importance of the issues.

Thus, an EPA rulemaking to establish NSPS for utility units would be highly complex, controversial and time-consuming. Quick results, to say the least, cannot reasonably be expected. In conclusion, back when the issue that ultimately led to the Massachusetts decision first began, then EPA General Counsel Jonathan Z. Cannon wrote an April 10, 1998 memorandum to then Administrator Carol M. Browner examining potential regulation of GHGs under various provisions of the CAA. He concluded that "[n]one of these provisions easily lends itself to market-based national or regional emissions cap-and-trade programs." It is also true that attempting to utilize Section 111 to control the nation's GHG emissions, either through command or control or cap and trade, would be complicated and controversial. In the aftermath of the Massachusetts decision, EPA may undertake proceedings to determine whether a sound basis exists to make an "endangerment" finding and, if so, to then determine what kind of regulations it may intend to propose under which specific CAA program. But the ability of EPA to utilize the CAA to create an ambitious regulatory regime is likely to prove very difficult indeed.

RESPONSES BY PETER GLASER TO ADDITIONAL QUESTIONS FROM SENATOR INHOFE

Question 1. Would it be your opinion that EPA could order fuel switching as a way to lower CO_2 emissions? In other words, could EPA require utilities to switch from coal to gas or nuclear or renewables?

Response. This question presupposes that EPA determines that greenhouses gases (GHGs)may reasonably be anticipated to endanger public health or welfare and that EPA further determines there is an appropriate regulatory mechanism, for instance the New Source Performance Standards (NSPS) program under Section 111 of the Clean Air Act, to regulate utility GHG emissions. If EPA made those determinations and decided to regulate utility GHG emissions under Section 111, it would be my opinion that EPA could not mandate fuel switching.Under Section 111, the EPA Administrator lists categories of stationary sources which, in his/her judgment, cause or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare. EPA has previously listed the category of electric utility steam generating units. EPA has established standards of performance for particulate matter, nitrogen oxide, sulfur dioxide, and mercury for this source category. EPA has never set these standards at a level that coal-fired generation could not meet and that would, in effect, require fuel-switching. Instead, EPA has either set different standards depending on the type of fuel burned or set a standard for all fuel types based on the ability of coal-fired units to meet the standard. I do not believe it would be within the contemplation of Section 111 to set standards that would essentially require a complete redesign of the facility, for instance, from a coal-fired facility to a gas- fired, nuclear or renewable facility.Moreover, even if one were to assume for the sake of argument that EPA could require fuel switching under Section 111, EPA is unlikely reasonably to conclude that such a result is justified. As stated in my written comments to the Committee, Section 111 requires consideration of costs, and the cost of fuel switching is likely to be very high.

Question 2. Mr. Glaser, Carol Browner stated in 1997 that despite scientific uncertainties,enough was known to take action against global warming. She also said she hadthe authority to act under the Clean Air Act. Given these two facts, can you think of any reason why she would have chosen not to regulate CO2?

Response. I can't. Indeed, given those two statements, under the view of those whoadvocate quick EPA GHG regulation, Ms. Browner was in violation of the law by not regulating. As I understand the view of advocates of quick EPA GHG regulation, the Massachusetts decision mandates GHG regulation if EPA determines that GHGs may reasonably be anticipated to endanger public health or welfare. In this regard, in 2003, when the original regulatory petition that ultimately led to the Massachusetts decision was still pending before EPA, the attorneys general of Massachusetts, Connecticut and Maine tried to circumvent the regulatory process by seeking to compel EPA to regulate GHGs through judicial intervention. In Massachusetts et al. V. Horinko, No. 3:03-CV-984 (D. Conn. June 4, 2003), these attorneys general sought an injunction compelling EPA to regulate on the theory that (1) EPA had authority to do so and (2) EPA (in their view) had already determined that GHGs endangered public health or welfare. The suit was voluntarily dismissed after EPA denied the rulemaking petition and various states and environmental interest groups sought review of that denial in the U.S. Court of Appeals and ultimately the Supreme Court. However, under the view of the law expressed in that lawsuit, if enough was known in 1997 to justify an endangerment finding, then EPA was required at that time to regulate.

Question 3. I'm going to list provisions of the Act that are potentially relevant to CO_2. For Title 1, there are Sections 108 & 109, 110, 111, 112, 129, 165, 172 & 173.For Title 2, there are Sections 202, 209, 211,213 and 231. And for Titles 5 & 6, there arc Sections 506, 612 and 615. Were you surprised how long the list of relevant provisions are? How long and how complicated would EPA proceedings likely be to promulgate CO2 regulations?

Response. I'm not surprised because I have seen this list before. However, it does serve tounderscore how complicated a rulemaking proceeding could be. In terms of timing, I note that EPA recently announced that it would respond to the Massachusetts mandate by the end of next year. As EPA stated, that is a highly expeditious schedule. EPA, of course, cannot know at this time, whether it will issue substantive regulations, because it must first consider the endangerment issue and there arc other complicating issues as well.

The Massachusetts remand will be directed to potential new motor vehicle regulation. Without intending to minimize the complexities of such potential regulation, any kind of economy-wide GHG regulation would be many orders of magnitude more complex. For instance, just a potential NSPS regulation for coal-fired electric generation would be immensely difficult. As stated in my testimony, the U.S. Court of Appeals for the D.C. Circuit, stated that "Nile language of section 111 . gives EPA authority. . . to weigh cost, energy, and environmental impacts in the broadest sense at the national and regional levels and over time as opposed to simply at the plant level in the immediate present." Sierra Club v. Castle, 657 F.2d 298, 330 (D.C. Cir. 1981). The Court stated that "section 111 of the Clean Air Act, properly construed, requires the functional equivalent of a NEPA impact statement." Id. at 331, quoting Portland Cement Ass'n v. Ruckelshaus, 486 F.2d 375, 384 (D.C. Cir. 1973), cert. denied, 417 U.S. 921 (1974). The Sierra Club v. Costle case reviewed EPA's 1979 NSPS for utility unit sulfur dioxide emissions. As a review of that decision indicates, the process of setting those NSFS and the issues involved were highly complicated and controversial. Setting an NSPS for GHGs would likely be far more complicated and controversial.

As a comparison, EPA's recent Clean Air Mercury Rule and Clean Air Interstate Rule each took about 16 months from the time the notice of proposed rulemaking was published in the Federal Register to the time the final rule was issued. The actual regulatory process, however, was much longer, because it took many months to develop the proposed rules, which in both cases consisted of extensive regulatory language and extensive regulatory preamble language explaining the proposal. In both cases, EPA granted petitions for reconsideration after the rule was finalized, entailing many more months of regulatory consideration. Thus, these two relatively targeted rulemaking affecting a single industry each took more than two years—and both arc now being litigated in court. Again, GHG regulation would be a far more complicated undertaking.

Question 4. Could you comment further on the cost and technology factors that EPA wouldhave to consider if it proposed to adopt a new source performance standard under section 111, as well as the use of this provision to regulate carbon through a new source performance standard?

Response. A "standard of performance" is defined under Section 111(a)(1) as "a standard foremissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated." This is commonly referred to as Best Demonstrated Technology, or BDT. As can be seen, under BDT, both the availability of technology and the cost of technology are factors the Administrator must consider in setting a standard of performance. While the standard can be set to be "technology forcing," the standard cannot be based on results achieved short-term at a small-scale "pilot" plant. EPA must show that the standard is "achievable" in the real world, that is, it "must be 'adequately demonstrated' that there will be 'available technology." Portland Cement Ass 'n v. Ruckelshaus, 486 F.2d 375, 391 (D.C. Cir. 1973), cert. denied, 417 U.S. 921 (1974), quoting the statutory text. It is EPA's burden to make this demonstration; it cannot he passed off to industry. National Lime Ass'n v. EPA, 627 F.2d 416, 432 (D.C. Cir. 1980). In the previous question, I addressed how broad this cost/technology analysis will be.

As applied to carbon, there would be both cost and technology issues. With respect to coal-based electric generation, there do not appear to be cost-effective technologies available today for controlling carbon emissions on a large-scale basis. Many promising technologies are in development. However, both the Department of Energy and the Electric Power Research Institute expect these technologies will become cost-effective at some point after 2020. Thus, for purposes of developing standards of per-

formance for coal-based generation today, new source performance standards are likely to prove controversial. For instance, carbon-scrubbing at a pulverized coal plant may consume a very large percentage of that unit's total electric power. This is likely to be problematic given the requirement in determining standards of performance for considering the energy requirements of the control technology.

Controlling emissions from coal-based generation through the NSPS program is also likely to prove difficult because of the need not only to capture carbon dioxide but to store it safely indefinitely. Again, the results of initial testing are promising and, in the not too distant future, sufficient testing is expected to be accomplished to demonstrate the ability to store large quantities of carbon dioxide underground over the long-term. In the meantime, however, given the lack of large-scale storage data, and the very difficult liability issues presented by underground storage, an attempt to establish a standard of performance for carbon capture and storage may be difficult to justify.

Question 5. Explain to me the consequences of a State failing to comply with ambient air quality standards.

Response. Under Section 179 of the Clean Air Act, a State that does not submit an acceptablestate implementation plan containing measures that will lead to attainment of National ambient air quality standards is subject to the loss of federal highway funding. In addition, under Section 110(c)(1) of then Clean Air Act, EPA has authority to implement a federal implementation plan if the state does not submit a timely, acceptable SIP. In essence, such an action federalizes control over air quality administration in the affected state for the affected action.

Senator BOXER. Sir, how do you know at best an uncertain conclusion? How do you make that determination? Certainly Mr. Johnson didn't say that. He said he was going at it, he took it seriously, he is going to start with the waiver, he is looking at all the approaches.

How do you know there will be an uncertain conclusion?

Mr. GLASER. All I am saying, Senator, is that given the broad variety of evidence——

Senator BOXER. And how complex it is.

Mr. GLASER. —that must be weighed, it is a very difficult question. First of all, we have a two part question.

Senator BOXER. How do you know that at best, what will happen? How do you know that? Are you in discussions with them now as to what they can do about what the Clinton Administration and all their memos said they could do? We have laid it out here what they could already do today, without any complexity.

Look, if you are standing waiting to cross the street and all of a sudden you look up, and you are on the edge of a sidewalk and a truck is coming at you full speed, you jump out of the way. You don't discuss, well, if I do it at a certain angle, it is complex, you don't wait to see what the other people who are in the way are doing. You jump out of the way.

Now, we know this is coming at us. And we can sit here and legalize our way into no action. That is exactly what I sense from you, is that you are working at a pace here that, your opinion is that nothing good could come out of this. I just reject that.

I guess I have two questions, I am going to give the gavel over to Senator Carper. I have two questions for you, Mr. Doniger, and thank you for your testimony. It was very encouraging. And thank you for your work.

The Administration seems to think that we need to develop technology first and then require its use. That is what we heard from the former legal counsel and that is what we keep hearing over and over again, along with complexity, China, we don't have the technology.

But won't regulation speed technological progress? Because if we have the legislation, or had the regulation, there will be certainty, there will be longevity. We won't have to have business communities saying, oh, my God, like certain tax breaks, will they only be here for 5 years. So wouldn't you agree, and I don't mean to put words in your mouth, but I just think, from what I heard you say, that if we sit around waiting for technology, that truck is going to hit us.

Mr. DONIGER. Madam Chairman, the beauty of the acid rain program and the CFC program is that by setting out clear targets, and quantitative reductions and deadlines, the signal was there. The investment was targeted by companies. They knew what they had to do. We got a lot of things done that had been near commercialization, that had been only on the drawing board, and some things that nobody had ever thought off.

So you send those signals on global warming, the same thing will happen. You will liberate that American spirit and we will have a lot of successful cost reduction and innovation.

But just under the Clean Air Act itself, EPA has the power to go beyond what it has already demonstrated. I quote one sentence from a case with a great name, Lignite Energy Council v. EPA. The court said with respect to Section 111 that it looks toward what may be fairly projected for the regulatory future, rather than the State-of-the-art at present.

So even Administrator Johnson has the authority to look at carbon caps from storage technology at IGCC and look at the experience that has been had in the different industries where that has been applied, put it all together and say, power companies can do this within a certain timeframe in the future. And he can set a standard predicated on those improvements.

Senator BOXER. Right. Right. Exactly.

So in closing my remarks, and then as I say, I am handing the gavel over to Senator Carper, Mr. Glaser has I think put it forward very clearly from his perspective. I know he has represented a lot of power companies in his private business. But he is here as an individual. And basically, the message I get from him is, complex, very difficult, the best we can hope for is nothing.

And I don't, I reject that on its face. Because let me tell you, Mr. Glaser, if you were in charge during the Clean Air Act, we would never have it, if you were sitting here. If you were in charge during the Safe Drinking Water Act, we wouldn't have it. If you were in charge during Superfund, we wouldn't have it. We wouldn't have the Endanger Species Act because it was all complex, difficult and the technologies, et cetera, weren't there.

The fact is when there is a harm coming to society, we need to act without special interest motivation. Our motivation has to be the health and safety of the people. And of course, we consider all the other ramifications. We want to move on this in a wise fashion. But I just I just reject this negative thinking that you bring to the table here.

I guess finally, I would say, Mr. Doniger, how does the scientific evidence available on global warming compare in amount and quality to the evidence EPA used in the past to make endangerment findings?

Mr. DONIGER. It is overwhelming. And as I think Administrators Browner and Reilly said, it is much more than they had for some of the key decisions they took in the past. It is much more than we knew about CFCs. It is more than we knew about lead. It is more than we knew about particles.

It is beyond, you know, the EPA is allowed to act at an early stage. The handwriting is starting to show up on the wall but not everything is really written. We are way beyond that.

So the evidence on global warming is, I hate to use this phrase, because it was so, it has gotten such a bad rap on another subject, but it is a slam-dunk.

Senator BOXER. Yes, it has gotten a bad rap.

So what I am going to do as I get ready for our next hearing, I want to say to my good staff and also the minority staff, what I want to do, I want to look at, because I think that question, I say to my staff, is a very important question. The evidence used in the past to make endangerment findings in a whole host of other areas was much less than the evidence we have now. I think that is important as this case moves forward in the courts, we are going to go back, et cetera, that, we are going to be on top of this and we are going to make the case, at least the people who care about this issue, are going to make the case. If you look at history as precedent, which we always are told we should do, especially in legal proceedings, the evidence is overwhelming.

I just want to thank both of you. I am going to hand over the gavel to you, Senator. I don't think you actually need the gavel itself.

Senator CARPER. I am going to decline the gavel, Madam Chair. These guys look like they are probably ready for lunch, and I think our caucus is waiting for us to join them.

So gentlemen, thank you for being here and for your responses today.

Senator BOXER. Thank you, and we do stand adjourned. Thank you for your gracious patience.

[Whereupon, at 1 p.m., the committee was adjourned.]

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