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DOES THE CLEAN AIR ACT REQUIRE THE EPA TO COMBAT
GLOBAL WARMING?

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P R O C E E D I N G S

MR. TAYLOR: Good afternoon. We will get started. I am Stuart Taylor, the moderator. Our subject is "Does the Clean Air Act Require the EPA to Combat Global Warming?" and more particularly, does the Supreme Court which heard arguments in the case have a role to play here. Before the arguments, I had some hope that like King Cnut ordering the sea to go back, the Supreme Court would simply order that global warming stop and see what happens, but they have a modest view of their own abilities and powers, and so I think they are not going to do that.

We will talk among other things about what they should do, and we have a terrific panel of experts on really every aspect of this problem which obviously has huge dimensions. Are we going to see catastrophes? And then it goes down to very fine issues of administrative law, very fine economic issues, carbon trading, trends in the Third World. Is industry going to feel compelled to do something about this, and even if they are not legally required to do that, will market forces require us to do something about it? We have people who are going to cover the whole range of those things today, and I will introduce them one at a time. I think you have in your packets everybody's name and some details about them, so I will just introduce them in the order in which they are going to speak. The format will be 5-minute opening statements followed by several rounds of questions from me, and then the last 30, 40 or 45 minutes we will have questions from the floor.

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With that I invite David Sandalow of Brookings who is going to give us maybe the generalist overview of the subject, and then we will proceed on down the line. Thank you.

MR. SANDALOW: Thanks, Stuart. I am a longtime admirer of your writing, Stuart. This is the first time we have appeared together, so I am looking forward to the dialogue.

Stuart asked me to talk about the scientific, economic, and political background on global warming and to do it in 5 minutes. I have had some challenging assignments before, and this may rank near the top.

Let me use the 5 minutes I have right now just to make three basic points and stipulate that in doing so I am leaving out lots of subtleties, lots of other facts which are highly relevant to the background on global warming, and you can all beat me up later for having failed to say these things.

Point number one, the scientific consensus on the seriousness of this threat is overwhelming. Last year, 11 National Academies of Science, including the U.S. National Academy, put out a statement saying that global warming is happening, that likely most of it is attributable to human causes, and in doing so those academics cited the InterGovernmental Panel on Climate Change that body that has pulled together peer reviewed science three times over the course of the past 15 years and is about to release its next report within the next 6 months looking very carefully at the science of global warming.

In some sense, if you step back from the back and forth of the debate, it is no surprise that big things are happening on the planet. We have on Earth trillions of tons of carbon which are fossilized and lie beneath the surface principally in coal and oil deposits and we have over the course of the past 200 years slowly been taking that carbon out of the Earth, combusting it and putting it into the atmosphere where it stays for about 100 years as carbon dioxide. That carbon dioxide is a recognized, beyond controversy greenhouse gas and so we are slowly taking stores of carbon from the Earth and putting them up into the atmosphere.

The impacts include more severe and frequent storms. Ironically perhaps global warming is predicted to increase both floods and droughts because the hydrologic cycle increases in intensity. It includes more severe hurricanes. It is worth saying a word about that. The models and the scientists predict that global warming will increase the severity of hurricanes but not the frequency of hurricanes necessarily. In fact, over the past 30 years we have seen pretty good data that the severity of hurricanes is increasing. Globally we have had about the same number of hurricanes each year over the past 30 years, but the number of Category 4 and 5 hurricanes has doubled during that period. So average hurricanes are becoming more intense, consistent with global warming models.

Very severe impacts are predicted for unmanaged ecosystems, in particular, forests. If you are an animal and the climate moves, you have a chance of shifting. If you are a tree, you have a harder time doing that. Trees that have

long lifetimes, 100-year lifecycles to maturity, will be in climate zones inappropriate for them by the time they reach maturity under current global warming scenarios. So point number one is scientific consensus on the seriousness of this threat is overwhelming.

Point number two, solving this problem is going to be much easier than many people think. In some ways, I think what has become seen as almost the seminal work in this area, the seminal most accessible work, is a paper done by two Princeton professors, Robert Socolow and Stephen Pacala. They identified what can be thought of as 15 different technologies for solving this problem only half of which need to be adopted and take reasonable steps to address this issue. Those steps include at the beginning of anybody's list, energy conservation and energy efficiency. I heard one entrepreneur say in the past couple of months that if the average business knew as little about its phone bills as it knows about its energy bills, corporate managers would be fired. In fact, we have not typically optimized our energy usage either in corporate settings or in home settings, and that is true notwithstanding the rise in energy prices over the past year, as there are all kinds of savings available from energy efficiency.

Coal use is a critical part of this problem. There are technologies out there right now called IGCC, integrated gasification combined cycle, which combined with sequestration technologies where this where carbon dioxide gives us a way to get a handle on coal combustion consistent with the global warming

problem, and we can talk more about that later. It is more expensive today, but the price can come down.

Vehicle technologies are advancing very rapidly. Hybrid technologies are penetrating the market very quickly, and according to one report which I commend to all of you from firm called AllianceBernstein up in New York, are going to dominate this market over the course of the next quarter century. And preserving forests and finding new ways to avoid deforestation is a critical part of the solution to this problem. So solving this problem is going to be a lot easier than many people think and the predictions of doom I think are overstated dramatically.

My final point, federal legislation is coming; the only question is how and when. In part I say this because of the recent elections. One of the most dramatic changes in committee chairmanships in the Congress was the change at Senate Environment and Public Works Committee from Jim Inhofe to Barbara Boxer. Senator Inhofe did call global warming the biggest hoax ever perpetrated on mankind; Senator Barbara Boxer of California is a leading advocate of action on global warming. Speaker Pelosi has been very outspoken on this issue. But maybe even more fundamentally, I believe federal legislation is coming because of where the Republican Party is on this issue. Right now we have the Republican governors in the nation's two largest states, New York and California, having taken aggressive steps on this issue.

We have who most people I think believe to be the leading candidate for the Republican nomination, the President of the United States, John McCain, is one of the leaders in the Congress on this issue. The outgoing Republican Chairman of the Senate Foreign Relations Committee, Richard Lugar who I believe has an ADA rating of around 20 percent, no liberal by anybody's measure, is very outspoken about the need to take on this issue.

So one way to think about this is if we have either a Democrat or John McCain as president starting in 2009, we will have a president ready to sign legislation on this issue and I think the odds in Vegas on either a Democrat or John McCain being president are not bad, and I think this is happening.

The business community is I think both actually a leading and lagging indicator on this. The world's biggest by two different measures have both taken aggressive steps on this. General Electric, which I believe is the largest company in the world in terms of market capitalization, has announced major initiatives in this area. Jeffrey Immelt, the CEO, sees his company making lots of money by the move toward clean energy over the course of the next several decades. And Wal-Mart, which I believe has the greatest revenues of any company in the world, is taking very aggressive steps to save energy and cut costs. As a result of doing that, they have had Al Gore down in Arkansas to talk to all of the Wal-Mart employees around the country. So I think this is happening and I believe federal legislation is coming, a lot of the business community knows this, and the only question is how and when.

So that is my 5-minute summary of global warming. If you want to know more, "An Inconvenient Truth" is out on DVD, go rent an "An Inconvenient Truth," take a look and I would be happy to answer any questions.

MR. TAYLOR: Thank you. Next we will hear David Doniger who is Policy Director of the National Resources Defense Council Center who was involved in briefing the case to the Supreme Court that was argued last week. He was also in the Clinton Administration and played a key role in their efforts in this area and will explain some of that background and anything else he has time to do.

MR. DONIGER: Thank you very much, Stuart. I thought that I would just focus on the case, and I want to say at the outset that the goals of the NRDC's Climate Center are to get new legislation that would put the U.S. on a track to solve this problem, as part of the larger effort to get an international agreement in place that the U.S. would be part of that would coordinate world efforts to solve this problem. So the litigation is a piece of this, it is one track in a multi-track strategy that we are following at NRDC which includes advocacy at the state level and the federal level and to some extent at the international level, a variety of techniques, litigation being only one of them, but litigation is what I am here to talk about.

Where did this case come from? For the origins of this, actually you can blame Tom DeLay because in the late-1990s the Clinton Administration was putting together a proposal for electricity deregulation and there was a

discussion within the administration about what the role of emissions control provisions should be in an electricity deregulation bill. The EPA wrote a memo, and I helped write this memo when I was there. An objection had come from some that having a carbon element to the electricity plan would be to greatly expand the scope of the Clean Air Act, and my memo said, no, that is really not so because the Clean Air Act already covers carbon dioxide and we would only be in the course of this legislative proposal trying to create a cap in trade structure for Clean Air Act regulation of carbon and that it would be difficult to do that under the existing Clean Air Act, but that the Clean Air Act did cover global warming.

Somebody leaked this memo to the "Energy Daily." If it had gone inside the EPA the fingers might have pointed toward us, but I can tell you it was not us. Next thing you know, Carol Browner is up at an appropriations hearing and Tom DeLay is pounding on the podium saying "I want a legal opinion." So he got one, and the legal opinion from EPA's General Counsel was that we in fact had the authority under the Clean Air Act because carbon dioxide fits the definition of an air pollutant because the Clean Air Act's list of effects to worry about includes explicitly climate, and that is about all you need.

So about a year later a group of environmentalists, I was still in the administration, the Clinton Administration was still in authority, and small environmental groups brought a petition to regulate the emissions from motor vehicles citing the legal opinion. The Clinton Administration did not do much with this petition. We published the notice requesting comment, and then

something quite surprising happened at the end of 2000 which you all remember, and we ran out of time.

So this lingered, and in 2003, the Bush Administration issued a ruling that the Clean Air Act does not authorize the regulation of carbon dioxide, and even if it did, they would not do so. A large coalition of states and environmentalists brought suit and worked together to bring the case which culminated in last week's argument.

The arguments I have summarized already. We say that the Clean Air Act covers this, carbon dioxide and the other global warming pollutants, and covers global climate change, and the main argument in our brief is about a page long and everything else is commentary. The argument last week, you never really how it went, but it seemed to go in a way that gives us hope. There is a standing question, but it looked to me that there were a maximum of 4 votes for a very restricted view of the standing of states and environmentalists to complain in courts about the impacts of global warming. And on the question of the authority, it looked like there was hardly anyone who was speaking up for the government's point of view, among the Justices that is.

There is a tricky question which we can spend more time on of what the limits of the discretion that an agency has to dispose of a petition to use its authority, and our contention is that the reasons that the government gave are not among the legal reasons they are allowed to give. Their fundamental reason was we do not like the law, we prefer a "different policy approach" and, therefore,

we will not invoke the law. There may we, said, some latitude under administrative law doctrines having to do with agencies having some flexibility to control their docket when they have limited resources, but the government did not invoke those kinds of doctrines. So we are asking the Supreme Court to send this case back with clarification that the Clean Air Act does authorize the regulation of CO2 and other greenhouse gases, and then to ask the EPA to make a decision based on permissible grounds whether it wants to do so. We can talk more in latter parts of this discussion about the way the Clean Air Act and other modern environmental laws treat matters which have scientific uncertainty attached to them, but we think this falls on the side where if they do confront the question according to the legal factors, they will conclude that there is a danger and there is a need to regulate.

Would motor vehicle regulations solve this problem, even would motor vehicle and power plant regulation solve this problem? They would be a big first step and a big part of any solution, but we do think we need broader legislation. And I think either way that this case comes out, that it will boost legislate prospects. Most obviously if we win, there will be a number of industries who think that it might be better to deal with this in Congress than to leave it to the black box or the EPA in the next administration. And even if we lose, if the discussion in this case has helped move public discourse toward the conclusion that the Congress that we need to deal with this.

In reference to the passing of the baton on the Environment Committee from Inhofe to Boxer, I have commented that the Little Ice Age is coming to an end and maybe we will see some motion in the policy debate in Washington now. Thank you.

MR. TAYLOR: Thank you, David. The next speaker will be Gregg Easterbrook also of Brookings who I think has written a lot of interesting things over the years about this.

MR. EASTERBROOK: Thanks, Stuart. Global warming is definitely not the greatest hoax in the history of man, that is Britney Spears, and that is nothing that Congress can do about Britney Spears.

(Laughter)

MR. EASTERBROOK: I have changed my views a lot. I was skeptical 15 years ago out of the fear of global warming, but just to whether it had been scientifically proven. I think 15 years ago a reasonable person could have looked at the science and said there is a lot of uncertainty here, nobody really knows what is going on and, in fact, that is exactly pretty much word for word what the reasonable people at the National Academy of Sciences said 15 years ago. And I at that time if I would have had to bet would have bet on the notion that the biosphere is so huge and the human presence in it is still so small that eventually it would be shown that it would take centuries for human action to alter climate, and over the course of centuries we would be getting off fossil fuels anyway, so it just was not an urgent concern, and that is just not what the last 15

years of science as shown. The last 15 years has shown that climate changed by artificial actions is a much more urgent prospect than anybody had previous guessed. So I have switched sides and come down to the front of the church on this one.

As regards to the Supreme Court case, though, the whole thing makes me shake my head. I hope the Supreme Court does not step into this mess. What we need is clear congressional action. The best-case analysis of the Massachusetts case before the Court is that the Supreme Court will make a very strained attempt to read into a statute that was intended for another purpose entirely, authority that its authors never meant. Reasonable people can disagree about this that maybe they meant to award authority over climate change, but the past experience with attempting to read into legislation authority that is not crystal clearly there and having to analyze individual words or even individual commas, and there is an individual word debate in the Clean Air Act here, the very best you get is shaky judicial rulings that then get held up in 10, 20, 30 years of subsequent litigation in the courts.

Massachusetts is the appellant here, and if the Supreme Court takes the side of the State of Massachusetts in this case, what it is going to do is it is going to remand this back to Massachusetts, it is going to impose a 27-part test that involves phases of the moon and the entrails of bats and all kinds of incredibly complicated stuff. There are 11 Circuits in the United States, and all 11 Circuits will immediately disagree on this. The EPA will spend years studying

it and we will just get legalism piled on top of legalism. What we need is clear action from Congress.

I will briefly sidetrack into one aspect of this legalism. It may sound absurd, but it is important in the Supreme Court part of this debate, whether carbon dioxide is an air pollutant. If it is an air pollutant, the case for the EPA having authority already under existing language is much more clear than if it is not an air pollutant. Well, you would say of course greenhouse gases are an air pollutant. Are they really? Artificially generated carbon dioxide is a very tiny part of the natural carbon dioxide cycle. It is almost 100 to 1 natural emissions to artificial emissions. So if you hang your case for greenhouse gas control on the Supreme Court saying that a naturally generated compound that is necessary for the substance of life is a pollutant, that is just such a law for all kinds of trouble down the road and that is why we need clear legislation.

And finally I would say we need clear legislation also because if we try to do this through the courts, it will not only take decades and our descendants will still be arguing about the judicial decisions, but what we will get are systems that are imposed solely on the things that the Clean Air Act enables the EPA to regulate which is mainly industry, power plants, and motor vehicles. Global warming is a global problem and we need a global solution. The resources that would be spent in the United States should be shifted to China and India which is where the global rising emissions are. In terms of efficient production of energy, the United States and Western Europe are already pretty high, we can

improve, but we are already doing pretty well. Bang for the buck in reducing greenhouse gases, if that is your goal, is in China and India, not the United States and the European Union. So we want Congress to act with a clear global solution that gives U.S. corporations financial incentives to cut emissions in China and India because that is where the global improvement will be. If you want this just to be some therapeutic exercise in we hate industry, then you want some sort of complicated top-down regulation here. If you want it to be a global solution to a global problem, you want U.S. resources shifted overseas to China and India. There is no way the Supreme Court or any court can order that, Congress can, so that is why Congress has to act. Thanks.

MR. TAYLOR: Thank you very much, Gregg. Next, Mark Moller will speak. He is a Senior Fellow in Constitutional Studies at the Cato Institute and wrote a Friend of the Court brief in the Supreme Court case with a different view than we have heard.

MR. MOLLER: I would add that Jonathan Adler was the principal author of our brief, so I do not want to take credit away from him. He did a great job on Cato's *amicus* brief.

This is a case where it is easy to lose the forest for the trees, so I would like to start by directing your eye to the forest and away from the trees. The tree watchers will tell you that this is kind of a lawyerly case about components of the Court's standing doctrine and the Court's interpretation of rules governing agency discretion not to act. But behind these debates there is a much

larger question, and it is not a question about global warming, it is a question about separation of powers, and this background separation-of-powers question drives I think much of the debate between the two sides in this case, although it does so silently and in ways that are not squarely acknowledged by either side.

Take for example the "standing" debate. Standing is the term for a set of rules that are derived from Article III of the Constitution that govern when plaintiffs can get into court. The standing doctrine requires that plaintiffs have to show, one, an injury in fact, a concrete and particularized injury. Two, they have to show that the agency action in the case has cause in a way that is fairly traceable to the action to the plaintiff's injury. And third, they have to show that the injury is redressable by a favorable court ruling.

The debate over standing in this case centers on how courts should apply the redressibility requirement and the causation requirements to environmental harm, so that they are the produce of a complex array of many different possible causes. The EPA's argument is in essence that where there are multiple contributing causes to a complex environmental injury and it is impossible to identify the significance of each cause, plaintiffs cannot meet their burden of proving that the injury is either fairly traceable to the agency's nonaction, or that the court is likely to redress their injury when what they are basically asking for is the EPA to address one isolated cause of the problem rather than the problem as a whole.

The approach is not as perverse as it seems at first glance once one focuses on the separation-of-powers principles behind the modern standing doctrine, and also on the theory of democratic legitimacy that underpins the standing doctrine. Those who advocate a higher burden for showing standing like Justice Scalia see policy choices about how to deal with particularly complex regulatory problems particularly those involving decisions about the wide scale distribution of resources as something that is presumptively committed to the democratic process rather than to federal courts and that federal courts lack the democratic pedigree that can legitimate these kinds of contentious distributive decisions.

But standing serves another function as well. It helps limit the ability of dedicated ideological public interest groups to affect the order and timing of judicial consideration of difficult contentious issues, the ability to select cases, to define and develop favorable facts, and to affect the sequence in which cases are considered by courts, all powers of the ideological interest group, is essentially the ability to influence decision on the merits where the order that courts consider cases often makes a difference in the ultimate sort of outcome of judicial decision making over a sequence of cases, and so standing limits the ability of ideological groups to influence regulatory priority setting through the courts. So if you accept this argument for standing, the EPA's position is much less perverse than it seems at first glance. It essentially gives control over gate keeping with respect to judicial intervention into the policy debate and leaves it to

Congress and the democratically accountable agencies rather than with ideological litigants and courts.

A similar separation-of-powers debate stands behind the debate over how to interpret the Clean Air Act in this case. One of the key arguments that the EPA makes on this point is that Congress' 30-year history of rejecting proposals to grant EPA power over global warming should not counsel against construing the Clean Air Act to include this power absent a clear statement from Congress. This is what is called the "Brown & Williamson argument," and it is named after a decision in 2000, *FDA v. Brown & Williamson*, in which the Court used a similar argument based on post-passage legislative history to reject the FDA's bid to regulate tobacco under the Food, Drug and Cosmetics Act.

Here again the debate over the merits of this argument is colored by background positions on separation of powers. The states in this case argued that *Brown & Williamson* should be interpreted very narrowly. Essentially, they argue the Court's job here is to interpret what the words enacted by Congress in the Clean Air Act mean, no more, no less, and a later Congress' inaction or silence vis-à-vis global warming after passage of the Clean Air Act is not much evidence one way or the other about what the Congress that passed the Clean Air Act meant. Accordingly, they say the use of legislative inaction in *Brown & Williamson* should be treated as a special, very narrow exception to plain meaning interpretation, an exception that just does not apply to this case.

But one counterargument which we make in our brief is that this is not simply a run-of-the-mill case about how to interpret a statute, that it is a case of a different order because it implicates the balance of power between Congress and the President. Global warming is a problem with extraordinarily significant and far-reaching consequences, we can all agree about that, and it is a problem on which the Congress that passed the Clean Air Act simply did not focus on and did not deliberate about. Since the Clean Air Act's passage, however, Congress has focused on global warming, and when it has, it has repeatedly and consistently refused to delegate broad regulatory power over the problem to the President and his agencies.

In this set of circumstances where granting a petition would create a split on a politically high-profile and important issue between the President and Congress where it is clear that the agency position does not reflect any political preference that is enactable by Congress and the President requiring further action from Congress helps protect against Executive Branch aggrandizement by preventing Congress from inadvertent or accidental delegations of its authority over hotly contested issues. This is an argument for *Brown & Williamson* that connects the case to the nondelegation doctrine, and it also helps tie *Massachusetts v. EPA* to ongoing debates over the proper scope of executive power in other areas such as national security. And I think there is really a parallel between the arguments based on the Clean Air Act made by states and their friends in this case, and the arguments based on a statute like the

authorization of military force in other areas in favor of NSA surveillance and military tribunals. Both are I think within the range of definitional possibilities of the Act, but both are a bit of a stretch, and both are argued based on strong policy commitments that create real separation-of-powers problems.

MR. TAYLOR: Thank you, Mark. The last opening statement will be from Rob Reynolds, a partner at Alston & Bird who will talk about the commercial implications of all this.

MR. REYNOLDS: Good afternoon. I am Bob Reynolds. I started life as technology lawyer, and then losing interest in that became an outsourcing lawyer, and most recently I guess have become a carbon lawyer which is probably the most accurate description of what I do that I have run into yet.

Our client case at Alston & Bird mirrors the article that David referenced a little while ago about two Princeton professors, and that is, a good part of that renewable sector that is dealing in one of the 15 answers to climate change, and our mission, among other things in that practice is to help them understand as near as we can the rules of the chess game as I think David calls it carbon management these days and what is that about.

That client base in the commercial sector has taken a great deal of interest in the *Massachusetts v. EPA* case and we have spent a lot of time with them trying to help them understand what that might mean both for that part of our client base that is engaged in renewable power, others that are engaged in

renewable fuels, and even that part of the client base that is engaged predominantly in carbon mitigation strategies, projects, and technologies.

Near as we can tell, the answer that we have provided is that the case matters and it matters a lot, but not necessarily for the reasons that they might first have anticipated as they consider the case. It is not the regulatory output that we are focused on with the cases decided in favor of the plaintiffs, and it is not the absence of regulatory output of the cases decided against the plaintiffs but, rather, what we are principally focused on because we take a 50,000-foot perspective of what are the drivers in the renewables sector right now that we are really focused on the standing question which captures our attention as a potential predicate to one of the drives in the renewables sector right now, and that is to what extent is litigation going to be or not going to be a robust policy driver in the renewables sector. If the plaintiffs win on the standing question, there are several cases out there that will not gain a new life or retain life and there are others in their way. If the standing question is decided against the plaintiffs, we think that some of the current cases and some of the cases that people may be scratching their heads over now may not seem so compelling.

In that context, we live with clients that are in a world where the pace of carbon management and climate change activity is increasing dramatically. The present case of course is one of the most visible areas and may have a lot to say about carbon management regulation and, further, as I indicated, it may be a bellwether for predicting results in some of the other litigations that

are out there. And yet it is only a bellwether of only one of the drivers in this sector and the commercial world here is concerned with other factors as well in the chess game that folks have made reference to, whether it is the increasing concern with energy independence where Thomas Friedman has had such an active role even as recently as column in The Times on Friday, or the growing number of legislative and regulatory packages at the state and local level, and even growing commercial concern with the business impact of climate change, because as many of my fellow panelists have said today, there seems to be little doubt in the scientific or for that matter business communities that we are experiencing a real life climate change where the science seems at least that clear if not more clear. That being the case, there are a lot of folks in the commercial sector who are concerned about what does that mean to their business and how do they operate in that context. As well as the price of oil which causes them to scratch their heads about other decisions they might make.

In the last few months alone we have seen a dramatic manifestation of those drivers at work in the commercial sector. Bolder, Colorado, has recently passed a greenhouse gas tax on electric power from traditional sources, and there have been several billion dollar's worth of renewable funds that have been set up just in the last few months alone. We have a European Carbon Trading Market where the numbers are off the charts. From a standing start, the European Carbon Trading Market is now sized in the several billions of dollars. In 2005, the three biggest IPOs that were brought to market

were solar energy IPOs. Meanwhile, wind power is being built in this country at an unprecedented rate, ethanol has become a brand new business for at least some of the farmers in the world, and the number of cars in China has reached 17 million at this point. Even more interesting perhaps, the number of cars that they are projected to operate in 40 years is 1.1 billion. Yale recently established an executive program for teaching Fortune 1000 board members about climate change, that is, both the risks and the opportunities that are available in climate change or presented by climate change. You can bet that America's board rooms are going to be full of discussions about climate change in the next 18 months not just because of the Yale program, but because there is growing visibility in this sector. Some of the biggest companies in the world are imposing carbon filters on their sourcing activities, fancy procurement talk for saying that before Costco will buy, they are going to examine the carbon footprint of their supplies—not picking on Costco, that is just an example.

The climate change position meanwhile is becoming a strategic consideration for many American companies perhaps illustrated no more forcefully than the lineup of plaintiffs and defendants in the immediate case that we are talking about here where you have energy companies and utility companies on both sides of this argument. And without commenting on the validity of either side, you can certainly see an interesting juxtaposition of climate change interest in the nature of the energy portfolios of those companies.

Continuing the trend from IPO capital raising in 2005, in the third quarter of this

year, 14 companies raised \$110 million in venture capital in the alternative energy and conservation industries, and that is nearly triple the investment from a year ago.

The point is this at least to us as we try and work with our Princeton pie graph group of clients here and help them negotiate the rules of this chess game, whatever your politics and whatever your perspective, climate considerations have increasing momentum in the United States and certainly abroad, climate change has become very much a commercial concern and cuts across a great many corporate functions all with a vested interest in appropriate results. For example, it has hit the CFO's office an evaluation of whether they are going to make SEC reports on their climate change programs, it has hit the industrial engineering offices on what is the nature of our projects. As David talked about, GE's "Eco-Imagination" program has a lot of people thinking hard about how do they prosper as a result of climate change, and at least for my money, the more interested we get in the markets to addressing what is a real life issue then the better.

The trend in this country certainly seems to be toward a rapid increase in regulation and legislation. There is a book out there from Brookings on the table that talks about how much of this regulation has been done with a lot less visibility than the federal side at the state level with RPS requirements, with the Northeastern states and their RGGI program, with California in their recent greenhouse gas programs, with Oregon and Washington possibly following suite

rapidly, or the Western Governor's Association that covers 20 states give or take with a very strong commitment in resolutions recently passed into dealing with climate change. So we tell our clients the regulation not only is coming, but it is here, it is here in the state form and that leads us to believe that we are likely to see something rapidly from the federal Congress for all the reasons that my fellow panelists talked about here. It is an issue of abiding concern to both parties on both sides of the aisle as witnessed by my colleagues at my law firm, Senator Daschle and Senator Dole, both teaming up to work on this issue together. They would naturally have done that in any event, but it is one of common passion for both senators.

In my view, the outcome of the Massachusetts case is hard to predict, and in its practical impact is even harder. A verdict against the plaintiffs seems to me to be unlikely to have much impact on the trend toward greater regulation of climate change and carbon management and we seem to be in a place in our country at the moment where those regulations are coming whether they come out of the EPA or otherwise. A verdict in favor of the plaintiffs may drive even more attention to climate change issues, but my thought is it may drive at least in America's boardrooms that attention as much because of the standing for other plaintiffs to bring similar cases or to continue with similar cases as it does to the regulatory context.

As a last note, my observation is that markets thrive on the predictable and they have little appetite for the uncertain, and to me, whichever

way the case comes out, that would point towards a rapid effort to as soon as possible relive as much of that anxiety about the uncertainty of what the new regulatory regime might be as is possible to get accomplished. Thanks very much.

MR. TAYLOR: Thanks, Bob. We are now going to do a couple of rounds or more than a couple of rounds of questions. The first round beginning with the panelists is I am inviting fairly detailed answers without interruption, and then in subsequent rounds we will go to 1-minute answers. In this round I invite each panelist to respond in any way that he sees fit to what he has heard from other panelists, and I will throw out a particular question to each as well.

David Sandalow comes first. The specific question I would ask you, David, is what is the significance of this Supreme Court case, the impact of it? Can the Supreme Court save the snows of Kilimanjaro? Can the EPA save them? Can Congress save them?

MR. SANDALOW: One framing comment, Stuart, that I think is very important in light of some of what we have heard: this is not the *Roe v. Wade* of global warming. Nobody is asking this Court to infer new rights from general constitutional language. Nobody is asking this Court to *sua sponte* articulate a regulatory scheme to address this issue. This case is a very narrow litigation involving a specific set of statutory provisions already enacted by Congress and so it is fully possible to believe that the courts should not solve the global warming as I do and believe that the Supreme Court should grant the relief that is

being sought here. The relief that is being sought here is for the EPA to implement Congress' will already articulated in the Clean Air Act and the question at issue is only whether or not the EPA has correctly implemented what Congress has already told it to do. My view and the view of the plaintiffs here is that Congress enacted a statute in the Clean Air Act which identified a series of pollutants for regulation but went beyond that to say that if additional pollutants are identified over time that require regulation, the administrator needs to make determinations about that and decide whether to regulate, and what is at issue here is really how to implement that provision.

Let me just make a few comments about your specific question on the long-term implications of this case. Obviously it depends largely on how the case is decided. I think it may be that this ends up being either a very significant case on standing law or administrative law, and I am not sure whether it is going to be significant in terms of global warming and saving the snows of Kilimanjaro. I think if the Supreme Court denies standing of the petitions here this will end up being a very significant case in terms of standing in particular for states that are before the Court as well as environmental group plaintiffs.

We had a case in the 1990s, *Lujan v. Defenders of Wildlife* that is one benchmark in terms of denial of standing, and this could end up being perhaps certainly the most significant since then in terms of denying standing. It is potentially significant for administrative law issues, too. The Court has never

looked at the issue as I understand it of statutory factors and how they are applied in this setting.

In terms of global warming, my belief is that this issue is being propelled forward by larger factors in this case at this point. We have heard about some of them already here. The business community is mobilizing on this issue. There is a bipartisan consensus. I think whatever happens in this case, we are going to have federal legislation on global warming within a 5-year period. It is possible if it is sent back to the agency that that will accelerate that process a little bit, but I think that by and large the global warming issue is being propelled forward by larger factors.

MR. TAYLOR: Thank you. David Doniger, the same question to some extent. I would love to hear you respond particularly to Mark Moller on the separation-of-powers issues and also whether we should infer from what David Sandalow says, that this case does not matter much from the standpoint of global warming and that it is really about what Congress does in terms of practical impact as opposed to what ought to happen.

MR. DONIGER: David said much of what I was going to say. Let me put it this way. This case was begun at a time when you could not detect a heartbeat in the Congress on global warming, maybe a minor one in the Senate, and you could not detect any prospect of a heartbeat from the cold-hearted administration on this. During the life of this case, the politics of global warming have changed because the reality of global warming has been intruding to such an

extent that it has had to change the politics and as I said in my opening, our goal is legislation, and in fact, that is only part of our goal. Our goal is legislation that would allow the United States to be a productive player in the global system that deals effectively with global warming.

We have very little time left to get this right, and I see the case as, as I said, sort of helping propel forward the political debate to the extent that the discussion about the case leads people like Gregg to say we ought to have legislation, and it leads other people who were not perhaps there already to say really we ought to have legislation, and that is a productive consequence of the case win or lose.

Then more narrowly, I want to see us win this case as a fallback against the possibility that the congress process stalls. It is very important that the next administration, if not this one, have the authority that we think is there to at least take steps on power plants and vehicles, the two biggest sources, and get the ball rolling.

Will all of this save the snows of Kilimanjaro? I don't know that anything can save the snows of Kilimanjaro at this point. We have let this go on too long. But would it save the snows on top of Greenland? That might be more important, and if we let this go on and we get past the tipping point where Greenland is committed to melting, then literally America is going to be changed, and talk about bringing Americans closer together, the people of Florida will have to huddle closer together as their coastline shrinks and massive damage will occur

up and down the East Coast and the Gulf of Mexico coast just focusing on sea level rise.

So we have a lot to do and this is one element of propelling that congressional debate forward, and I look forward to the opening of the next Congress and the hearings that will be held almost right away starting in the Environment Committee. I suspect also there will be hearings on the House side in the Government Reform and Energy and Commerce Committees at least, maybe the Science Committee, too, and it is going to be a very fruitful time of trying to put legislation together, legislation which is not just the old-style stuff with sticks, sticks, sticks, we are going to be thinking about how to put the carrots and the sticks together that bring along the auto industry, the electric utility industry, the agriculture interests, and make a package that is bipartisan enough and regionally supported enough that it can get enacted.

MR. TAYLOR: Thank you, David. Gregg, there is some thought about that getting on top of this problem is going to be ruinously expensive and difficult. A recent column by Robert Samuelson comes to mind in which he suggested that if it's not, or is that right, or can you see a happier solution to all this than ruinous public spending?

MR. EASTERBROOK: To a certain extent, global warming as an issue is a contest to see who can be most pessimistic about the science and about the effect on the economy and so on, and since there are lots of unknowns, you cannot be sure. It is possible that greenhouse gas controls will be injurious to the

economy, but my guess is it is going to be a lot cheaper than people think as David Sandalow said and that the controls are going to work a lot faster than people think. The reason is that this is the history of similar issues. Forget the legalities, from an engineering basis, global warming is an air pollution problem and all previous air pollution problems have been solved faster than expected and at a lower price than expected. Smog controls turned out to be much cheaper than anybody predicted. When the enabling legislation we are talking about here, the original Clean Air Act, was passed in 1970, as David Doniger well know, it said that tailpipe controls on cars had to reduce emissions by 90 percent and all the automakers that this would either put them out of business or that it would double or triple the real-dollar price of cars, but today and make or model of car you buy emits a little less than 2 percent as much pollution as a 1970 cars and the cost of the technology that accomplishes this is basically negligible.

L.A. has great smog reduction statistics, most of our cities have great smog reduction statistics, and the technology that has been invented to do this is spreading around the world. Mexico City is starting to reduce its smog levels which you would have sworn was a physical impossibility as recently as 20 years ago. The story on acid rain control is the same. Acid rain reduction has happened much faster than people expected and it has cost a lot less.

I think what we do not know is how this will happen with greenhouse gases, greenhouse gases are a global issue so they are greater in scope, but there is a fighting chance that what has happened in the past will be

repeated with this one, right now nobody can make money by eliminating greenhouse gases to the incentive to invent the technology that will do so is pretty slight. Once you can make money by cutting greenhouse gases there will be an outpouring of engineering breakthroughs and entrepreneurial success. I cannot promise this will happen, but I think that there is a good fighting chance that 20 or 30 years from now we will say why are we still worried about these greenhouse gas controls, look how much more cheaper and more effective than expected they turned out to be. But the reason nothing has happened yet is that nothing is going to happen until the ball is kicked, and the ball has not yet been kicked.

MR. TAYLOR: Thanks. Mark, to the extent that your argument was let's now have judicial overextension of power into this area, separation of powers, let's suppose hypothetically that during the next Congress an ambitious piece of legislation that could be costly is on its way to passage to try and do something that caps emissions. How do you think you will feel about that?

MR. MOLLER: I am not coming to you today with any precommitments about global warming policy. I do not have an opinion on the science, I take at face value the claim that the great preponderance of evidence suggests that global warming is a problem and that perhaps we should do something about it and I have found some of Gregg's writings and proposals to be at least plausible solutions. My interest here is not from a policy standpoint, but from a legal standpoint and concern about the rule of law.

My argument about separation of powers and judicial intervention is not an argument that this is going to be a *Roe v. Wade* of environmental law, that the Court is going to come in and make up a bunch of standards and tell the EPA how to regulate. I do not think that is true. I think what is going on here and what has been acknowledged by at least a couple of the panelists is that public interest groups are using the litigation forum to affect regulatory priority setting by the EPA. They want to move this problem up the chain and place it front and center and prevent the EPA from saying perhaps there are some other problems here, that we have a mandate to address a lot of different issues under the Clean Air Act, we are not sure we are going to get a net big payoff given the costs of addressing this problem, we would rather focus our resources for now on another problem. I think the hope perhaps unstated by my friends on the other side is that when you return it to the EPA there will be a good argument to make that they cannot make that judgment under the terms of the Clean Air Act.

What happens if Congress comes back and does as everybody says they expect Congress to do, to come back and address the global warming problem in a more comprehensive and perhaps more rational manner that would be addressed the Clean Air Act which is sort of a poor fit for dealing with this problem? Does that mean that under my standing theory that plaintiffs could not bring challenges under that statute? Not necessarily. Under Justice Kennedy's concurrence in *Lujan*, he argues that Congress has the ability to, one, not only define injuries that are cognizable by courts, but to define chains of causation and

to define classes of plaintiffs who can bring claims based on those chains of causation, and when it does, Congress deserves some deference. So if Congress wants to pass a framework for dealing with global warming and makes those sorts of definitional judgments, I would agree that it is probably entitled to some deference. This is an issue, by the way, that is being dealt with in another case this term, the partial birth abortion cases where the Court is being asked to decide what level of deference the Court owes to some of Congress' fact-finding, and I think everybody at least agrees that in complex regulatory problems when Congress is making predictive judgments of fact about the future, it is entitled to some deference. That is the *Turner Broadcasting I* and *II* cases and I think those are cases that will allow Congress to sort of define and modulate standing if it believes that there is a role for courts in nudging the EPA to make the right priority decisions.

MR. TAYLOR: A question about what we can expect the private sector to do as long as there is not a heavy regulatory constraint, I think in Economics 101 some of us learned that on matters like pollution it is an externality, the private sector has no incentive to do anything about it because it is everybody's problem and why should I spend my money to not solve it. Is there any reason to think that this is a different game, this carbon emissions game, than the traditional analysis that the only way to solve an environmental problem is regulatory?

MR. REYNOLDS: I think that is a great question. I guess I would start with global nationals who will be looking for consistency across their infrastructure and that infrastructure is already highly regulated in the Kyoto countries. But returning just to the domestics, there is a great deal of state regulation on the books and likely more to come from what we see, and if anything, what we are hearing is the financial markets and to some degree the business community crying out for some consistency and for reconciliation of the gaps. If you are going to have greenhouse gas legislation in the Northeast and in California, it would be helpful to trade credits across those systems and between those systems and the Kyoto systems, for example.

The insurance companies have been a major player in causing the business community to pay particular attention not just at the operational level but at the corporate governance level as well with Swissray and AIG and a few of the others taking high-profile positions about their concerns about climate change just from a risk-management perspective and the ability to associate those concerns causatively back to their client base.

So my sense, Stuart, would be that most of the business folks would say there is a lot of regulation already on the books, if they had their preference at this point it would be to reconcile that regulation. Certainly the financial markets are there. Morgan Stanley dropped a \$1 billion fund, Goldman a \$3 billion fund and bought their own wind energy company. So you have a lot of business momentum headed in this direction perhaps supported as well by a

host of different state regulatory and executive packages that are causing the business community to get there somehow, some way.

MR. TAYLOR: At this point after will be a couple of more rounds of questions from me, I will solicit shorter 1-minute answers, and also I am encouraging panelists at this point to jump in and way wait a minute, I disagree with that or whatever, but I will ask them in the same order at least for starters.

David, let's suppose, and I think the betting money is, that there will be some kind of 5-4 victory for the plaintiffs in this case, that Justice Kennedy will find a way to keep his fingers in this pie. What happens then? It goes back to the EPA, what are they supposed to do? And is there anything to the chain of horrors that one hears that next thing you know, if they find that it is a problem, then they will be obliged to spend \$100 billion to impose gigantic regulatory burdens because the Clean Air Act, the Supreme Court has said by 9-0 requires you to try and solve these kinds of problems, health and welfare problems, without regard to cost, no cost-benefit analysis? Is this an engine that could spin out of control? I encourage both of you answer that.

MR. SANDALOW: Let me start, and since David Doniger is the world's leading expert on these provisions, I will only start and let David take it over from here, or one of the world's leading experts.

There was an exchange at the end of the oral argument that was essentially on this topic and Justice Scalia asked counsel for the State of Massachusetts, "Is all you are asking us to do here is to remand it to the agency so

they can apply the correct statutory factors?" After a little back and forth and some help from Justice Breyer, counsel for the State of Massachusetts said, "Yes, that the only relief that is being sought here is that." So I think what will happen if we end up with the 5-4 decision you just suggested, Stuart, is it will be remanded to the agency for determination of these questions. I think the Bush EPA is likely to run out the clock, somebody could tell me if they think differently, but there is no statutory deadline here even to commence this rule-making action, let alone to complete it. Given what their priority predilections are, they would probably run out the clock and it would then roll forward into the next presidency where there would in all likelihood be a more aggressive effort to take this up. I would predict that most likely the rule making would commence and it would be yet another factor pushing Congress toward the comprehensive solution that I think almost everybody on this panel has suggested is the right answer. That is how I think it plays out. Let's see if David agrees.

MR. DONIGER: Just to add a couple of points, because I do agree with that. Section 202(a) of the Clean Air Act, this is one of the bases we have of distinguishing the *Brown & Williamson* case because it does not call as the Food and Drug Act would have called for a ban on tobacco if it is applied. Section 202 does not call for a ban on auto emissions if it applies, it calls for the implementation of technologically and economically feasible emission controls and EPA has used that authority to set emissions standards that push technology somewhat and have a phase-in period for other pollutants many times before, it is

a very familiar task and it does not lead to rack and ruin. It also does not lead to the solution of global warming because it is a modest amount of emissions reduction that one would get from that.

The second thing that would happen is there is a case currently pending in the D.C. Circuit over power plants where the agency gave exactly the same rationale, actually only half of the rationale, that it originally gave in this case. It said we are not regulating CO2 from power plants because we do not have the authority. They forgot to give the second part of the rationale which was, and if we had the authority, we would not do it anyway.

MR. SANDALOW: They forgot?

MR. DONIGER: You would not believe this, but there was a kind of bureaucratic error if you look at it from the political point of view and only half of the decision was produced which means it is even more vulnerable than this one.

If we were to win that second case, then the same thing would occur with respect to new plants, and to an extent with respect to existing power plants there would be an examination of what pollution controls, what measures can be taken to retrofit for the existing ones and redesign for the news ones that would reduce CO2 emissions to the extent technically and economically feasible, and you have some progress. Maybe you could even get a performance standard based on carbon storage imposed on new power plants. These are not economy-

destroying propositions, but like I said, they are also not global-warming-stopping propositions. They are helpful, but they are not the whole answer.

So I think we roll forward into a more general legislative debate, and I guess I would add in response to Gregg's initial comments that I do think there is room in the design of domestic legislation for provisions that credit appropriate action taken in other countries like China and India, but I do not think that is the only place where carbon needs to be controlled. The United States is 25 percent of the world's greenhouse gas emissions and we have the technical and economic capacity to cut that very dramatically, and in committing to do so we would give the Chinese the sense that they finally really mean it over there, meaning over here, and it is worth taking seriously what these people are saying about what the technical possibilities are and what the financing possibilities are because it has all been a lot of hot air up to this point from the Chinese point of view.

MR. TAYLOR: Thank you. A three-part question just popped into my head, and that would give you 20 seconds per part unless I extend it a little bit. Why don't I throw this question all the way down the line and in the same order? The first part is particularly with reference to your opening remarks, Gregg, what we are hearing is what the Supreme Court is being asked to do seems kind of modest, maybe it is not going to solve anything, but it does not sound like it is going to impose ruinous burdens either. Does that make you any less convinced that they should stay out?

The second part is whether your view is that the EPA has no power as one side is arguing in this case even if they want to do something about this without new legislation.

The third part is Al Gore has said that we have less than 10 years. Leading scientists have said we have less than 10 years before we cross a point of no return. I am not quite sure what that is.

SPEAKER: It is basically whether Greenland becomes irrevocably committed the ice there to melting. That is the benchmark that Jim Hansen is using.

MR. TAYLOR: The question there is it sounds as though we are fiddling while Greenland melts. Shouldn't we be moving a little harder and faster on this and not saying it will not cost too much, shouldn't this be an emergency type of mobilization of resources?

MR. EASTERBROOK: Let me give you a 16-part reply. On the first question, if it is only a modest action by the Court, what difference does it make? It may not make any difference especially if it involves standing and administrative law and issues that I confess I do not care about.

MR. TAYLOR: That was a terrible thing to say, Gregg, but go ahead.

MR. EASTERBROOK: In general on substantive issues of policies, courts should defer to legislatures. This is an issue for the legislature to decide, and the Supreme Court should not be sticking its nose into this and it

should clearly say we want to defer to the legislature on this, legislature, this is your ball. The second question was?

MR. TAYLOR: Discretion. You made it clear that you do not think the Supreme Court should order the EPA to regulate this. What if the EPA decided it wanted to, we have an opinion in the next presidency, because we now have an opinion that says we do not have the power to do it. Do you agree with that?

MR. EASTERBROOK: The EPA could try because the only reason we have this case is that the language of the Clean Air Act is ambiguous on this point. The EPA either under Bush or the next president could say now we think we do have the power so now we are going to do something about it. What would be the result? There would be a lot of litigation over whether the EPA was right. And that again gets back to my theme of this Congress has to decide this clearly.

The timing I think is an important issue to understand. Some people have argued that we have X number of years, the former vice president may said, that it has to be done in 5 years or 10 years or 12-1/2 years, people have been making these arguments since global warming became a concern in the early 1980s. Jim Hansen, who you just quoted, said in 1989 that we had only 10 years to act or the world was lost, so obviously the world is already lost.

This is the day that I write my football column and I have football analogies on my mind, global warming is the Super Bowl of environment

problems, but it is also the last great environment problem that the world will face because all the others have positive indicators right now; actually, fish do have positive indicators in places where there are ocean rights, but let's skip fish.

It has taken more than a century to make this a problem; it will take at least a generation and maybe a couple of generations to solve the problem. All the conjecture about the future is just conjecture. We do not know exactly what is going to happen and when it is going to happen. There is likely to be harm from global warming, but do not even know that. There could be benefits from global warming. It is all conjectural. What we need to do is get started now on the entrepreneurial and engineering solutions that will solve this, but to think that we have to do something in 5 years or 10 years, there is far too much uncertainty to know what the time scale is. It would make more sense to make rational, intelligent early decisions than it to rush into some headlong, nutty decision.

And finally I will say that when you think about the depth of this issue, if global warming theory is right, and it looks like it is right, the world is absolutely certain to warm through the next century. Maybe global warming theory is wrong, but then we are all wasting our breath. If it is right and that warming is already set in motion, the armies of the world could not stop it. And even if we are successful in inventing the technology that gradually over the period of a few decades, maybe 50 years reverses the trend of emission lines, greenhouse gases will continue to accumulate in the atmosphere and the climate is

going to change. If we believe that global warming theory is correct, we should be working on adaptation to a warmer world right now because a warmer world has already been cast in stone and cannot be changed even if reforms go really well.

MR. TAYLOR: Mark, you don't have to take all three of those, but why don't you respond to anything you want to disagree with? And also how do you respond to the sense of urgency that one gets from Al Gore and others, and a lot of scientists?

MR. MOLLER: My concern here is that hot cases with a great sense of urgency can create bad law, and it may very well be the case that the end game of this particular case is going to be a bit of a whimper, it is going to be sent back to the EPA and the Supreme Court is probably going to decide that it has discretion to delay making an endangerment finding based on weighing the tradeoffs of dealing with this problem as opposed to other environmental problems under the Clean Air Act and, furthermore, will probably give a great amount of discretion to the EPA's judgment. So in the end it is going to create a multi-factored test that gives the agency an enormous amount of discretion not to do anything, but it has to check back with the Court sort of on a regular basis.

But my fear here is that because, one, everybody feels like this is an enormous problem, it is an urgent problem, it is a hot problem, and the results are not going to make the fall, that we are going to bend and twist doctrines of standing, doctrines of statutory interpretation that serve important functions

beyond this case, standing, regulating the effect of ideological groups on judicial decision making, and statutory interpretation protecting the rule of law, again, a value that comes into play not only in environmental cases, but in the debate over the president's executive power in other areas involving national security, privacy and the like. Those are my concerns, and I will turn it over to you.

MR. TAYLOR: The same basic urgency question but with particular reference in your case to whether people at GE, for example, who you mentioned and the business leaders who are now very concerned about this, whether it is all just about market opportunities or whether there are thinking we are citizens of the world and we had better do something about this?

MR. REYNOLDS: Marsh Insurance, for example, just posted a report in which they talk about climate change at some length to outline a risk framework for thinking about what the business impact of climate change is. They outlined both threats and opportunities, and if you follow that framework which to me is fairly realistic, you would find a motivation to avoid risk and to take advantage of opportunity if possible. Avoiding the risk in this context with specific reference to the Massachusetts case, the relevance of the Massachusetts case to that framework will depend on how they end up resolving that case. If they allow standing, that is going to enhance the assessment of risk, it is going to enhance the significance of the risk, because once you say that this group of plaintiffs has got standing to bring their claim, it lets other cases go forward in addition to this case. It also deals with another one of the thorny problems of

these litigations whether you are talking about a clean air case on the one hand or the nuisance cases on the other, and that is, is there sufficient causation between the emission on the one hand and the injury or the damage sustained on the other. If the answer to that question is yes, you have a compelling tort claim that can stand in court and that is going to significantly enhance the risk assessment for the business community.

So far as opportunities go, thank the stars that the business community is beginning to recognize and identify opportunities that deal with climate change, whether it is development of new products or new projects or pursuing things in developing countries that would not have been pursued otherwise because of, for example, Kyoto type carbon financing. That to me brings the world a great boon, a great benefit that would not have existed but for carbon financing. If it also has the impact of serving global warming mitigation goals, all the better. So I don't know if it is goodness of the heart, although my sense is that a great percentage of the business community are people just like all of us and all things being equal feel better when they feel like when they are doing good, and if they can do good and do well at the same time, better yet.

SPEAKER: I have heard the CEO of GE answer exactly the question you just asked about this company, and since this is not a courtroom and I guess hearsay is maybe admissible, what I heard him say was something like I am the CEO of a publicly traded company and I don't get to have hobbies. I might think that protecting the environment is a good thing, but that is what we

are doing here. I am doing this because we are going to make lots of money doing it.

MR. DONIGER: I wanted to respond to a couple of Mark's points. NRDC does not have a position on the security cases, but I personally share what I think is the same concern that I have heard from Cato and from some other of our friends on the right the concern about the willingness of the administration to just argue inherent power and make it up and say we are Superman and we can do what we want here.

I actually think that when you apply those concepts to global warming to the Clean Air Act, that they are doing that again, because from my point of view, we have a clear law and they are using their inherent powers to assert that it does not exist. It is the same exercise of disrespect for law as we see in the security cases. I have actually used that analogy myself in saying how odd it is that they act like 97-pound weaklings when it comes to global warming, but that they are really trying to say the law is whatever I say it is and that is not the rule of law.

On the standing issue and the comments about the nuisance cases, you do not need standing to stop the nuisance cases because the doctrine of the federal common law of nuisance is that it inherently self-destructs when regulatory authority exists and is exercised. So if the Clean Air Act or a new congressional statute occupies the field, then the nuisance cause of action goes away, not on standing grounds, but on the substance of the nuisance law. If the

Clean Air Act is held to have the authority but EPA does not use it, we are going to maintain that the nuisance cause of action persists, but once the federal authority is used, the nuisance will go away.

That also maybe should help build private-sector support for getting a congressional solution because it would help make the nuisance exposure go away, but you do not need to make new standing doctrine that would be restricting our ability to come into court on the basis of the kinds of harms that we have shown in order to protect the separation of powers or to protect against chaos in the economic system. The legal doctrines involved in this case are much narrower than that. And I predict, and this is a prediction one should not make, we are going to end up with a ruling that we have standing, and you might even see from one of the four conservative Justices a concurrence in which he says that we want to emphasize that no new standing law has been made, but on the application of the facts to existing standing law, these guys have standing.

MR. TAYLOR: Why don't I skip over Gregg just for a moment in case you want to respond to that and while I'm at it let me throw in a little twist. Justice Scalia I think is always talking about the plain meaning of statutes and let's not be consulting legislative history and doing a lot of Lucy Goosey things, that if the law says carbon dioxide is a pollutant, it is a pollutant. Doesn't that argument in this case cut against your position, Mark?

MR. MOLLER: On the textualist statutory interpretation argument that the respondents, the EPA and the folks who have intervened on the side of the

EPA, their argument is twofold. One, their argument is that they have a reasonable definitional argument about what air pollution means under the Clean Air Act and they argue that the plain meaning of air pollution is a contaminant and that CO₂ is not a contaminant, something that dirties the air, sort of like particulate matter, many of the substances that are identified within the text of the Act as polluting substances, and instead it is a naturally occurring substance like water vapor and oxygen, it is necessary to life, and so it is not dirty and contaminating in the way that these other substances are and so there is a poor fit between the plain meaning of air pollutant and what CO₂ actually is.

The second textual argument, and this is a little arcana about statutory interpretation. There is a debate that Justice Scalia is a textualist and he argues that you look at the plain meaning of the words and also the meaning that is sort of the community that deals with this Act understands those words to mean when you are interpreting the statute. After the Clean Air Act was passed in the 1970s, 1980s, and 1990s, most commentators argue the arguments treated pollutant under the Act as equivalent to local particulate matter that varies from region to region like soot or smog or that sort of thing.

The third textual argument, and I think this is the strongest argument, quite frankly, I think the other two are a little shaky, is that if you accept the definition of air pollution that CO₂ is an air pollutant agent under the Act, it creates a sort of regulatory absurdity because Title I of the Clean Air Act which sets up the national ambient air quality standards is keyed to the same

definition and this framework which is the heart of the Clean Air Act in many ways is designed to deal with pollutants that are ground level pollutants that vary from region to region and that individual regions and cities can control, and CO₂ is a different kind of pollutant, it is something that goes up into the troposphere and distributes evenly around the globe and so applying the NAAQS system to this kind of substance just does not make any sense. In fact, when the Clean Air Act has reached out and dealt with this kind of high atmosphere as it does in Title VI which deals with stratospheric ozone, it is set up in an entirely regulatory system. So in order to read the air pollutant definition in the way that the petitioners would want to, you would have to strike out Title I as it applies to CO₂ under the absurdity canon and ask the EPA to rewrite the statute or ask the Court to rewrite the statute. And when you get into that kind of reworking of the statute just to make the definition you are arguing for make sense, that is when I think Justice Scalia and textualists like that might argue that there is a problem.

I will admit that in oral argument Justice Scalia said at one point, "Obviously CO₂ is a pollutant," so I am not sure Justice Scalia agrees with me on this, but I think there is a very reasonable textualist argument to make that the Clean Air Act, and much more reasonable than the other side, that it simply does not cover this kind of substance.

MR. TAYLOR: I have a question for you that does not touch the Clean Air Act, I promise. The premise I think of the whole discussion that we need to do something about carbon emissions is that human-generated emissions

are not just a contributing factor, but a big contributing factor in the global warming problem. Does the science tell us whether global warming is just going to keep going no matter what we do? If we cut carbon emissions to zero, will that be a guarantee that global warming would stop?

SPEAKER: Nobody can guarantee anything because there is so much conjecture involved. If somehow all society-caused greenhouse gas emissions ended tomorrow morning, current understanding of the issue would still predict that the world would continue to warm for a while in part because of changes in the temperature and the oceans and the debt to be paid for previous accumulation, but that is all conjecture. The climate is very poorly understood. The ability to predict what climate swings will be like in the next few decades is very weak. As a matter of logic, if we keep putting greenhouse gases in the air we would expect the world to continue to warm. Obviously there is a natural greenhouse effect that is much more potent than the artificial one, the artificial one is a very small component, but the fear is that the climate is in some sort of equilibrium state and that by adding relatively small greenhouse gases to the atmosphere we will disrupt the equilibrium and then there will be some rapid change that we really will not like. That might happen. Also nothing might happen. The world could cool. It is all conjecture. But there are good, solid, reasonable reasons to worry at this point.

The trouble on a practical basis is given the rates of greenhouse gas accumulation going on in the present, the rate of increase in China and India

especially but also developing nations, the fact that greenhouse gases need to increase in developing nations at least in the short-term for them to achieve the affluence that we enjoy in the West, we are locked into at least several more decades of rising greenhouse gas emissions. The challenge is to reduce the rate of rise in the short-term, to discover the technology that eventually solves the problem over the next half-century, maybe century, and to manage the climate change issues that we will inevitably cause because unless greenhouse gas theory is totally wrong, we are going to change the climate and we had better be able to manage it and live with whatever we change it to.

MR. TAYLOR: Bob, the same question but with a particular emphasis on what about India and China? Are we just doomed to watch them pump 10 times as much carbon into the air as we are taking out from our own contribution?

MR. REYNOLDS: My sense is not. I think one of my fellow panelists put their finger at least on part of the solution earlier in this discussion, and that is to the extent that we can create economic incentives in the West that result in tighter management of carbon emissions in China and India, all the better, whether that is from a Kyoto-style project for which you get credit in the West for reducing emissions in China and India. The Chinese are at least purported to be thinking about carbon sequestration as part of their new energy projects, to be at least thinking about IGCC potentially. So I guess I would say perhaps not, especially if we can create the right economic incentives that

recognize that the West has an economic head start on those regions and that to some extent perhaps, footing the bill might not be the right word, but share with those regions part of the responsibility for developing their economies but at the same time helping to manage carbon emissions.

MR. TAYLOR: I think I would like to invite questions from the floor, but before I do, do either of you have anything to add to what you have just heard? Let's see if we have any questions from the floor.

MR. ORTIZ: My name is Jim Ortiz, and I am with the Department of Interior, and again thank you very much for this session. I really appreciate it.

Mine is a nonlegal as well as a generalist question. My concern is in terms of the business community, how do you see the use of environment management systems such as the ISO 14001 standards in reducing carbon emissions?

MR. TAYLOR: Does anybody want to tackle that?

SPEAKER: The only ISO I know about is the speed rating on films.

MR. TAYLOR: Could you define that a little more? I'm not sure I got it either.

MR. ORTIZ: For example, like the ISO 14001 standards basically are set on environmental management systems, and essentially what it is is it is policies and procedures more or less that are codified to help an organization reduce its environmental commitment through a process of continuous

improvement. Essentially, many of the businesses have subscribed to these standards, but I would like to know maybe a little bit more in terms of what you may be thinking of these, and in fact if you are, and the fact that really how you may see these going into actually helping to reduce global carbon emissions.

SPEAKER: I will give a second but less flippant answer. As you say, it is a procedure and it does not have any standards or any targets associated with it. So a company that subscribes to this ISO procedure is not taking on a carbon target, and so it is another aspect of voluntary action which has some virtue, but as others have pointed out, until there is some market signal that comes from legislation probably, then there is not a real motivation and the problem I see is that no serious environmental problem has ever been solved by purely voluntary action because there are not enough volunteers. Many companies may subscribe to ISO 14001, but I am not aware of any carbon reductions or any substantial carbon reductions that you can associate with it compared to business as usual.

It may be a good internal management procedural system to have in place when a mandate comes down because it may facilitate the communication and response to the mandate within a company, so I do not mean to pooh-pooh it.

QUESTION: (Off mike) — the business community in my mind already recognizes that, A, global warming is real, and, B, there is going to be legislation to deal with it. There are assumptions that are being made in the

business community already based upon that, i.e., you have companies like the former Synergy that was predominantly a coal-powered utility, Duke Energy, predominantly a nuclear-powered utility. Why? Because they think the future is more likely to be nuclear, they are going to bet that way because of the global warming problem. You can quote Jim Rogers, their CEO on that. It is very real.

And you have another utility, TXU, that is kind of saying we think this is coming, we think carbon cap and trade is coming, we are going to build as many coal-powered utility plants as we can so that when cap and trade comes, we are going to be allocated a big allocation of carbon and then we can stop building them and sell it or put in emission controls and sell all that excess and make a bunch of money. So people are making decisions on this already.

It strikes me that because of the impact of somebody like TXU's actions it might behoove us to have someone political, someone in Congress or whoever, to say if we are going to have a cap and trade we are going to date it as of 2004 or whatever, yesterday, so that all this stuff you are building is going to count and you are going to lose credits for building more carbon emission plants.

I have not heard anything like that coming out of Congress, out of the administration, or out of any of the proposals that have come.

SPEAKER: Watch this space. Good idea.

(Laughter)

QUESTION: I think it has to be that. I have not heard a lot of discussion some of the weaknesses.

SPEAKER: Watch this space.

QUESTION: The European approach, I have not heard you talk about that, but there have been some problems with the cap and trade system in Europe not working well enough. And personally, I would like to see us move toward some kind of an auctioning of those rights to that the government collects some revenue at the same time.

SPEAKER: On TXU I would say that any corporate official who bets he is going to get an allocation on a grandfathering basis for plants that are not out of their diapers yet is betting the company and making a financially stupid bet, and I believe that there are a number of people in the financial community who have observed this, and there will be more.

SPEAKER: I would add that there is another way TXU and companies like it could get hurt by this which is if these emission allocations are auctioned and not just grandfathered in which case they could face big financial penalties for the position they are embarking on now.

MR. TAYLOR: One related question as you mentioned that we have not talked much about how they do it in Europe, and I have been thinking where do we go from here on Kyoto and international agreements since this ultimately is a worldwide problem. Could you speak to that just for a moment?

SPEAKER: This is going to be one of the very interesting issues over the course of the next couple of years in how this goes forward. The Kyoto Protocol is time limited in a way that I think is now widely understood in the

public dialogue. Its limits expire in 2012 and all these capital markets that are right now gearing up for carbon trading are looking at what is going to be happening after 2012. The Europeans have gone forward on a unilateral basis to create this market and are starting to wonder whether there is going to be a global system around them.

I think there are three options. One of them is that there will be an agreement of some type of global nature going forward, but the timelines get pretty tight. If you assume the Bush Administration is not going to do anything about this, and I think that is a fair assumption, it is going to take a year or two once the new president is going to negotiate something like this and it starts to get pretty tight.

A second option is that you might have more of a bottom-up approach where, for example, the Europeans and the Canadians and the Japanese or others agree to do this without a big global system. One of the more interesting approaches which actually raises some constitutional law issues is whether U.S. states might be able to participate in the European system, and there have been proposals of that nature out there. Could California and the Northeast states which have already decided to go forward with this enter into pacts with the Europeans? And a third option of course is that it does not forward and it collapses.

SPEAKER: There is one other option and that is a little bit more like the trade system where you end up with while there is the pursuit of the

global agreement, there is also the construction of regional agreements. I thought for a long time that the global warming world system might end up being a set of parallel systems connected by worm holes, a parallel universe that is connected by worm holes through which emissions credits flow and nothing else does. But it could work, and you could see, for example, a group of 20 big emitters including China and India and several other developing countries and the big industrial participants negotiating an agreement in a parallel track to the U.N. FCCC system, so there are a lot of opportunities.

They all take time, they are all complicated. Sometimes they can be implemented before treaties are ratified. For example, if we had a domestic system under domestic law which had a trading component to it, there would be no reason why it could not interface with Kyoto or with other regional systems without the need of a treaty that actually sets out the terms of that relationship. It would just be provided by statute and implemented by the executive and it would not raise any constitutional issues at all.

So I think there are plenty of ways, we just need the will and we need to get it together more quickly than we are now.

MR. TAYLOR: Sir?

MR. EMORY: My name is Tom Emory, and among other things I am a retired Michigan Assistant Attorney General who spent from the middle 1970s to the early 1990s dealing in environmental law, litigating sometimes with private environmental groups on my side, sometimes opposed. I want to get back

to the legal case. I recognize that we only have a limited time before Greenland turns green, I guess, but my concern is why NRDC has spent the time and what I presume is the money, and I assume you rely on private contributors, on this case when both of you at this end who seem to be advocates on the side of prevailing of the case, nearly every answer you have given is you have suggested it is really up to Congress to do something about it.

What my concern is is whether this is kind of a cynical attempt to put this issue in the hands of the judiciary as opposed to the democratic branches, Congress, or the executive, acting pursuant to congressional mandates under its implementation authority.

Just as a second point, somebody raised the federal common law of nuisance. I was involved personally in the case of the *States of Illinois and Michigan v. Milwaukee* and proceeded under the Federal Water Pollution Control Act which had been amended and the Supreme Court ended up saying the federal common law of nuisance was pushed aside because Congress occupied this areas. It seems to me that Congress under the Clean Air Act which is exceedingly comprehensive as I recall it would negate federal common law of nuisance claims in that area. So I would be interested in your response to those two issues.

MR. DONIGER: The last point, the structure of the Clean Water Act and the Clean Air Act are different in that the Clean Water Act regulates every source, every source needs a permit. Under the Clean Air Act, sources do not need permits until the pollutants are regulated. So the structure of the Clean

Air Act, at least in our view, is that it does not displace the common law until there is a regime under it for carbon emissions that applies to the sources you are talking about. So if there is a carbon standard for power plants actually put in place under the Clean Air Act, we would agree that it displaces the nuisance case under federal common law against the five big power companies.

I think the theory of the *Massachusetts v. EPA* case is, remember, it was started at a time when the chances of getting action in Congress were much more a glimmer in the eye than they might be now. We started it because it looked like forcing the agency to carry out the Clean Air Act was one of the better games in town in terms of actually getting action to curb emissions as well as the secondary consequence of stimulating Congress to legislate.

Now there is a great deal more concern about global warming I think in part due to our advocacy. Hurricane Katrina and Al Gore have played a bigger role in waking America up perhaps than NRDC has, but we have helped, and the circumstances are ripe for legislation in the next 2 or 3 years, but that does not mean I am going to stop working on this case. We want to win this case for the backup plan for the minimum in case the legislative effort should fail.

SPEAKER: If I might clarify with a quick metaphor. I think this case is a train moving forward on a track that ultimately could have results. What I meant to be saying earlier is I think there is a bigger train moving forward faster on another track which may overtake it and have even by way of results, so it is not irrelevant by any means.

MS. GENTRY: Caroline Gentry with "Air Daily." This is for anybody, could you talk about the implications for state-level litigation if there is a favorable decision for *Massachusetts*, and I am thinking maybe the automakers' lawsuit against the California car standards as well as potential litigation of RGGI.

MR. TAYLOR: Mark, do you want to tackle that?

MR. MOLLER: I have not followed those cases.

MR. TAYLOR: Who knows the answer to this question?

SPEAKER: I think I do. The nuisance cases I have already spoken to. In terms of the California automobile emissions case, one of the automakers' contentions, and they have a number of preemption claims, but one of them is that the California authority to regulate carbon dioxide is limited to the federal authority, and the federal does not have any authority. So if the *Massachusetts* should rule that the EPA does, then that would confirm that California does also. There are other claims that I will not go into, but that would be an important step forward in California's effort to prevail over the automakers' litigation.

There is a foreign policy argument that has been made in that California litigation which is similar to a bit small time issue in the *Massachusetts* case where the administration is arguing that it would weaken the pursuit of agreements to limit the emissions of other countries if the administrator gave up the bargaining chip by regulating domestically unilaterally. There is one small

problem with that theory, and that is the administration is not pursuing a strategy of reaching agreements to limit the emissions of other countries, it is only pursuing a strategy of doing business deals with other countries that are seen as in the mutual economic self-interest. So they lack the predicate for that.

But if the Supreme Court were to rule, and I am not sure they will get to this, that the argument for the foreign policy argument is inherently illogical and irrational, that would clear the obstacle that the car makers are some others are threatening to attack the state-level stuff as inconsistent with federal foreign policy which I find laughable but which has survived a motion to dismiss in the California case. Actually I have to go back to my office and finish a brief in a motion for summary judgment on the foreign policy claim to try to get that out of the California auto case.

MR. TAYLOR: I thought it was nice of the Bush Administration to save that bargaining chip argument for the next Democratic administration.

SPEAKER: Very thoughtful. Very thoughtful.

QUESTION: A question for either of the two Davids or both. Isn't it possible that the whole strategy though of taking this matter to the Supreme Court could actually work the other way around in terms of the pressure it places on Congress to act because if the Court decides in favor of plaintiffs, Congress could say now this is going to be handled by the EPA and the courts eventually and we don't have to bother with it or it is not our responsibility.

SPEAKER: I think quite unlikely because in that event, what would eventually result are rule makings under two discrete provisions of the Clean Air Act, one involving mobile sources and the other involving new performance standards for power plants and there is nobody out there in the debate who thinks that those provisions alone can provide a comprehensive solution to the problem. And there are lots of voices, actually including an *amicus* brief filed by colleagues here at Brookings in this case that argued that only regulating those sources would create perverse results. Everybody in the debate thinks that if those are going forward that we ought to have a comprehensive solution instead.

SPEAKER: Also a paper that I have written which is not in the packet, it is outside now in "Science" magazine in which I and a couple of colleagues argue that you had an opportunity in a cap and trade proposal to give some of the industries that currently are reluctant to go along with the program by means of the allowance allocation system some capital that they can use to solve the retooling problem. For example, in the auto industry, no one would question that they are in bad shape right now, I think we might have different stories about how they got there, but the solution is that they need to retool to make more efficient, less emitting cars and through a cap and trade program you might be able to get some capital into their hands to do that as part of the quid pro quo for accepting emissions standards. Whereas if it is done under the Clean Air Act it

will just be the stick and that is going to turn the auto industry if it is facing a stick into an advocate of a congressional program that has both carrots and sticks.

MR. BAUMBERG: Kevin Baumberg (?) with the U.S. Small Business Administration, and these views are my personal views. As a former astronomer who had Planetary Atmospherics from Carl Sagan many years ago, so I have been following global warming for a long time, I pulled an article of Christopher Mauken (?) from the *Sunday Telegraph* I guess about 2 weeks ago and it touches on Greenland and Kilimanjaro and I was wondering if you could talk about the science a little bit.

There is warming period that has been talked about and apparently there was — the U.N. in their assessment in 1996 that talked about the warming period around 1,000 to 1,400 and it is about a 3 degree increase over what it is today. There are two paragraphs on which I would like comments, "Scores of scientific papers show that the medieval warming period was real — and up to 3 degrees Centigrade warmer than now. Then there were no glaciers in the tropical Andes, today they are there. There were Viking farms in Greenland, and now they are under permafrost. There was little ice at the North Pole. A Chinese naval squadron sailed right around the Arctic in 1421 and found none. The Antarctic which holds 90 percent of the world's ice and nearly 160,000 glaciers has cooled and gained ice amassed in the past 30 years, reversing a 6,000-year melting trend. Data from 6,000 bore holes worldwide showed global temperatures that were higher than the Middle Ages than now," and here is

Kilimanjaro. "And the snows of Kilimanjaro are vanishing not because the summit temperature is rising, it isn't, but because postcolonial deforestation has dried the air. Al Gore, please note."

I know people here are not really that familiar with the other side of global warming, and among the speakers I thought maybe somebody could take a stab.

SPEAKER: Let me just make one comment. I am not going to engage in the specifics of this, but there as a process issue, I think there have in the IPCC process which is a fascinating institution because for most scientific problems that society debates, we do not have an institution like that and we do not have a coordinated set of institutions like the Academies of Sciences to sort of sort out, organize, challenge back and forth, test, and then reduce into some coherent summary and consensus what we know and what we do not know.

We ought to take note of the fact that the IPCC three times running, and we all know in advance four times running, and the next report is going to be even more definitive, is sorting all this out. Most rational policymakers look at it and say that is a fair process, that is a refereed process, that is a process by which not only do you take advantage of normal peer review in the scientific literature, but super peer review that comes from this large-scale process. We sort it out, and it is the best institutional format for giving advice on a problem like this that we have ever had. The only other problem we have that is

somewhat like it is the ozone layer International Science Assessment process, and these things should be the touchstones for policy.

There is a small group of people, very small and very fringy, who still look around the edges for the conspiracy theory, first of all, of how the IPCC shuts out the truth. And second, even if they don't do that, they just pick the little fringy stuff and say maybe it is just all not going to happen.

I put my best on the IPCC, and I started my career working on issues where I did not have an institution like that to rely on where we were working on toxic chemical issues and the mainstream was saying something different from what some people who were described as fringy might want to say. It was much harder to sort out what the truth was about the risks associated with carcinogens, for example, than it is to sort out what the truth is on the risks associated with greenhouse gases. We ought to take the scientific consensus document and process what is generated seriously and stop thinking that there is a big conspiracy out there to create some kind of global master plan.

SPEAKER: I would note that there is an alternative view of these things which I am not competent to assess, but there was an *amicus* brief filed by a number of climatologists including Pat Michaels with the UVA.

SPEAKER: Who is one of those guys.

SPEAKER: And also at Cato. It is interesting; his argument is that the reigning common wisdom among climatologists is that they are making projections about the rate of warming increases that is much higher than the

observed increase in the past warrants. That is basically the argument, and if you factor in a rate of increase that is consistent with what we have observed, you do come up with global warming that is manmade, but it is much lower and much less and not even catastrophic.

SPEAKER: But my point is, Pat Michaels has access to the IPCC and the data the he looks at is data shared in common with all these other scientists and they look at it and the bulk of them, the vast, vast, vast bulk of them, look at that and say, Pat, you are wrong.

SPEAKER: We can have a long discussion.

SPEAKER: At this point, Pat Michaels has decided to proceed mostly in the peer reviewed pages of *The Washington Times*, and I do not think that is the way to conduct a science debate.

SPEAKER: Pat is not here and he cannot defend himself. I have looked at his publishing record and he has published a very long list of peer reviewed —

SPEAKER: That is right, but that is not where he conducts the debate.

SPEAKER: Furthermore, I think that one of the problems here with the science, and one of the problems I think for the Court is that climatologists really hate each other on each side. You hear the Pat Michaels side say that your side is sort of disingenuous and politicized and the other side says the Pat Michaels side are crazy people and they are disingenuous. I think it is

hard for lay people like me and Justices on the Supreme Court who are not familiar with the science to really make an assessment of these things. That is another reason why I think we should reticent about injecting the Supreme Court into these kinds of debates.

SPEAKER: That is why we do not want them to decide the science.

MR. TAYLOR: I think we are out of time and I would like to thank all of our panelists including Gregg who had to leave early for a wonderful discussion and advise everyone, I do not mean to express to strong an opinion here, that if you want to see the snows of Kilimanjaro, get moving.

(Applause)

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