THE BROOKINGS INSTITUTION

PEW CENTER ON GLOBAL CLIMATE CHANGE

"U.S. CLIMATE POLICY:

TOWARD A SENSIBLE CENTER"

Friday, June 25, 2004

1775 Massachusetts Avenue, N.W.
Washington, D.C.

(TRANSCRIPT PREPARED FROM A TAPE RECORDING.)

C O N T E N T S

AGENDA ITEM

P R O C E E D I N G S

MR. TALBOTT: Good morning. We're going to get started in just a few minutes. I'd like to encourage people in the hallway to take their seats. Our first speaker, Jim Connaughton, is on his way and should be here just in a couple of minutes. So hopefully everybody can come in from the hall and take their seats. Thanks very much.

[Pause.]

MR. TALBOTT: Good morning. If I could encourage people in the hallway and standing in the back to take their seats, our first speaker is here.

Good morning. If I could encourage everyone in the hallway to come in so we can get started.

MS. CLAUSSEN: Good morning. Before I introduce our speaker this morning, I thought I would say one or two things about yesterday, because in a sense, the session this morning sort of follows on yesterday's session about U.S. national policy.

I think we had a lively and entertaining session yesterday. I think for the most part, the speakers that spoke talked of a mandatory program and a cap and trade program. We had some very good discussion, I thought, of technology and the importance of that both from Secretary Abraham and from Mike Morris. I think we heard some differences in the policy discussion, but they were relatively small. And so, Jim, I don't want to set you up totally, but just a little teeny bit.

In your remarks, if you could say something about if we did go into a mandatory system at some point, whenever, if you have any thoughts on what that might look like or what kind of direction that might take and/or some thoughts about when you think the time might be ripe for something like that, that would be great. If you don't want to, that's fine. But there was a lot of discussion about those kinds of questions yesterday, and so it might be interesting to get your perspective.

And so, with that, let me introduce Jim Connaughton, who is the Chairman of the White House Council on Environmental Quality. He was a lawyer with the law firm of Sidley, Austin, Brown & Wood before. I've often wondered what would make someone leave a presumably good law practice and go and work at CEQ, but Jim has done it for three and a half years, and he is still smiling, so I guess there's something in it.

I think it's really important for us to hear sort of administration policy on this issue, and there is no better person than Jim to give us that.

MR. CONNAUGHTON: Thank you, Eileen. Good morning, everybody. I understand that several folks who are here today flew back from Bonn so they could come here--not me, of course, but all the speakers yesterday. So I'm glad to see that the Pew Center and Brookings are as big a draw as the large international meetings.

I was very much looking forward to this day and a half of activities, and I particularly appreciated the title given this conference, "Toward a Sensible Center." The underlying theme of my remarks this morning is actually going to focus on that, which is actually I think we have arrived at the sensible center in our discussions both domestically and internationally. And certainly from the remarks that I looked at from yesterday and I think what you will see during the course of the morning is a fairly dramatic common ground across a wide range of activities and thoughts and approaches in terms of action, in terms of forward progress on the subject of climate change that leaves, I think, a lot of the rhetorical flourishes that tend to dominate much of people's attention, leaves that sort of the wayside. So that's what I'm going to focus on.

I'm actually pleased to go ahead of Wayne Gilchrest, a Congressman that I have worked with extensively over the last couple of years, and who is among the more thoughtful Members of Congress that I've dealt with on these highly technical issues that

involve very complex policy solutions. He gives a lot of thought to them, and certainly as do Senator McCain and Senator Lieberman, they really do dig in and do their homework. So I feel privileged to be part of that conversation.

In my travels around the world and my work domestically--and this, again, is the overarching view--I think where we are in the discussion on climate change is on a remarkable 80, 85 percent common ground. When I talk to my counterparts, whether it's in Australia--and Australia is not going forward under the protocol, as the United States is not--or whether it's with Canada and the U.K., when we sit down and dialogue as to the suite of domestic measures that are being employed to make meaningful and real progress in reducing the growth of greenhouse gases, that suite of measures looks a heck of a lot alike. The only thing that I take away of difference is in many respects the U.S. remains--in most respects, the U.S. remains the leader on each of the major areas of action. There are a few innovations occurring in other parts of the world that we can look closely at and we can learn some lessons from as well, and I will take some questions on that.

But when I look at the common ground, when I look at the common cause, and I look at the common understanding, it exists. It's in this room as well. And so that's where we need to go. I was tasked with domestic policy, but I'm going to bleed into international a little bit toward the end. But it's actually building on that common ground. It's growing the understanding, continued understanding of the issue, and that's by advancing the science. It's growing the inspiration toward the longer-term solutions, and that's the transformational technology that Secretary Abraham talked about yesterday. And it's building the architecture, our capacity to think about, to analyze, to have the data we need to make smart economic decisions to further promote productivity and efficiency and reduce greenhouse gases, as well as the information networks among and between sectors by which more sensible capital reinvestment occur that is, in fact, the answer to reducing and eliminating greenhouse gases in many areas.

And so we are well underway, so I will highlight, I will talk about a few key areas. One is how we are advancing the science and what we are looking at and what matters from an immediate policy perspective; two, I won't spend a lot of time on the transformational technologies, but I will highlight a few that Secretary Abraham did not mention because he had a very sort of energy technology focus; and then, three, I will get into a range of these sensible mitigation measures nearer term and how we are constructing a domestic constituency around that, and then also how that is expanding out into the network among those most in need of taking action collectively. And so that is where I am going to take us this morning.

In the back, when you leave, I've got a little--I always have a fun CEQ packet, and there will be a few charts in there, and I am going to speak to a couple of them. But you don't need them because my points are fairly simple.

Advancing the science, I need to begin there. There's a lot of talk about what the Bush administration does or does not "think" about the science. And I'm always amazed at the different reflections as to what my boss, the President, has to think about the climate on science change. The best place to go to see what the President thinks about climate change is to the two speeches he gave about the science of climate change which were largely guided by the work that we got from the National Academy of Sciences. What we think about climate change science is no further or no less than what the National Academy had to tell us, and it told us a lot of interesting and useful things.

I'm not going to give you a paraphrase of what we think about climate change because I've found in the area of climate change science, one of the most challenging and most controversial aspects of it is attempts to summarize. So I will leave

the President's words, and I invite you all to read his words, because that is what he think about climate science. And I will leave you to the National Academy--and all of you, many of you were students of that very good piece of work and guidance in terms of a sense of what we are working from in setting our policies.

I would note, though, the National Academy gave us a clear direction that we have taken a major stride, and that was to finally come forward with a major strategy on how we are going to deploy over $20 billion of U.S. taxpayer money, complemented by almost an equal share from every other countries of the world combined. The U.S. still funds about half of all climate science under the Bush administration. And we went through a very challenging and very open process of developing the ten-year strategy. It was a process led by and completed by the scientists, and we received a lot of good commentary, some harsh criticism along the way, but we ended up with a product around which everyone can orient themselves. We have for the first time in the world a comprehensive ten-year strategy that will help to deploy not just our funding, but also help deploy the funding of the rest of the world in a much more targeted way and in a way that produces science outputs that are of higher--of increasingly higher relevance to us as policymakers.

So, again, most of you are in the club and pay attention to that. It's a fabulous document from which we can now work and orient ourselves. It will sustain a lot of the efforts, but it's placing renewed emphasis on still some areas of high interest to us as well in terms of some of the gaps that have been identified in understanding and some of the areas especially in terms of other greenhouse gases or constituents that could affect forcing, on which we actually may have some pretty cost-effective ways of dealing with them, if, in fact, the science, you know, continues to bear out, issues such as methane or black soot, if it continues to bear out that they do have a substantial contributing effect. We know there are things we can do there, too, and make some real progress. So we have to calibrate the science to action in terms of knowing what we're delivering.

On the technology side, there's not a single person--I don't imagine I'd catch any different view here in this room, certainly don't catch it internationally. Technology is a major component and good practices are another component. I actually put that in under technology in the modern age. I mean, that's how we're going to slow the growth of greenhouse gases. That's how we'll do it in the United States. That's how we'll do it in China. That's how we'll do it in India.

Now, to pay for technology requires money, and so much of our activity has to be oriented around the kind of growth in capital--in sort of economic infrastructure that fosters capital stock turnover, so getting rid of our old stock in the U.S. and getting investments in higher-yield, more efficient stock when it's brand new in places like India and China. It's a very simple--I mean, at the end of the day, there's nothing complex about it. It's very simple. You need new stuff, and new stuff tends to be more efficient and it tends to utilize fewer resources these days. It tends to intersect and interact better across sectors, and so we really--we actually need more tax experts and finance experts and, you know, economic experts working on these issues both here and abroad, because unless you have the wherewithal, you don't get the reductions.

Now, the other approach, which we reject, is an approach of just shut things down. That's the anti-economic growth path, and that's not one that most people in the sensible center support. You know, shutting down jobs, shutting down enterprise is not--you know, it is not a winning or long-term sustainable strategy, although it could deliver short-term gains, as we saw with the economic slump that occurred a couple years ago.

No one take credit for that, I was glad. Neither the Bush administration nor anyone on either side of the ideological spectrum took credit for the reduction, the absolute reduction in greenhouse gases that the U.S. enjoyed two years ago. We shouldn't take credit for that. That's not the kind of--that's not the basis on which we should praise progress. However, what we can take credit for is when we're reducing greenhouse gases in the context of growth, and we should be applauding that.

So where do we begin in terms of understanding where we go with technology? I'm going to begin with Eileen. It is Eileen who, in her wise words, said climate change is too big a challenge for any one solution. It is going to take a wide-ranging portfolio of technologies, from energy efficiency technologies in hydrogen to carbon sequestration, renewable fuels, coal-bed methane, biofuels, nanotechnology, and biotechnology. Developing these technologies and getting them to market is going to take a lot of hard work. We cannot just snap our fingers and make it happen. Eileen Claussen, our esteemed host today--and we are pleased that she gave such a solid endorsement of the Bush administration thinking on the very same subject.

We recognized this back in 2001. It actually followed from a number of conversations we had with Pew and a whole host of other people contributing to our Cabinet process. And you needed an orienting concept. Everyone talks about targets and timetables and all these things. You needed an orienting concept. We came up with ours. It's the one in which we thought we could build not just a domestic audience and constituency for action, but it's also one upon which we are fairly well assured we can build an international one, especially with the key developing countries who are going to rely on fossil for their future. And that is to come up with an intensity.

We've picked an intensity as our metric of choice for recognizing real gains in improvement, and the President, as many of you know, set a goal for 2012 of improving the greenhouse gas intensity of our economy by 18 percent. That prevents the emission of over 500 million tons of carbon over that time, and, again, all of you know that climate is largely an issue of the accumulation of greenhouse gases in the environment. And if we can get more people oriented toward reducing the accumulation rather than a select few, which was the Kyoto construct, we can make sustainable gains in reducing those accumulations.

It also then spreads the progress--you know, by focusing on intensity, it spreads the progress and recognizes the investments that are more productive and efficient. You don't get credit by reducing your population very much. You get a little bit. You don't get credit by shutting down enterprise and moving it to other countries. You know, it softens the credit scale. And it also happens to be, if you're talking to a China or an India, that's the thing they want to talk about. They want to talk about economic growth, and they want to talk about being an increasingly efficient and productive place for people to invest. Investors like to go to productive and efficient places. And so if you align the self-interest of countries who are developing in terms of economic growth and quality of life for their people with your greenhouse gas interest, you can actually make great strides. If you cut against them, you can just bring things to a crashing halt.

That's why we're focused on intensity. It is not an original concept. It was much in discussion in the early '90s. It was renewed as a discussion in the mid-'90s--I'm sorry in the late '80s. It was renewed as a discussion in the late '90s. But it was overtaken by the sort of absolute reduction approach of Kyoto. I think that was an unfortunate development. I think we need to get past that.

Now, on technology, Secretary Abraham went on at length about the energy-focused ones--the hydrogen fuel piece. I would note, one of my charts as we look

at the technology piece, as we stand here today, if you look at the direct and indirect emissions attributable to our four major sectors--this is Energy Information Administration. I keep hearing manufacturers need to do more, is what I hear all the time. Manufacturers have to do more. Now, they represent one of the largest shares. But it is a fact as we stand here today that the attributed greenhouse gas emissions to our industrial sector are at or below their 1990 levels. Yes?

MR. : Could you just explain [Inaudible]?

MR. CONNAUGHTON: It's the percentage change, U.S. carbon dioxide emissions percentage change by sector. And I've got the residential sector, the commercial sector, the industrial sector, and transportation. And they're in the packets. But it's a simple equation I want to give to you.

Our manufacturers are as productive or more productive, more efficient than ever before, and they're getting better all the time. But their attributed greenhouse gases are at or below where they were in 1990. Where we've seen the rise is residential, people in their bigger--more people in bigger and larger homes; commercial, more people in America in bigger and larger office buildings doing more and more service work that's part of our expanding economy; and in transportation, more people owning more vehicles, traveling more miles, with an integrated economy that ships goods from California to Maine within an 18-hour period of time very cost-effectively.

And so when you're talking about people, more people in bigger and expanding homes and more people doing more services and more people moving goods by wheel and by plane, that requires a fairly comprehensive and sort of tailored set of solutions and choices, but, again, nearly all of which turn on innovation and advancement in technology. People will not move into smaller homes. I cannot come up with a legislative proposal to get someone to move into a smaller house and to turn off all of their computers and stop buying them. But what you can do is work to bring forward the products that deliver those amenities in a way that uses a lot less energy and, therefore, produces a lot fewer greenhouse gases, and, by the way, fewer pollutants to boot. You get the near-term benefits of pollution reduction as well as the longer-term benefits of greenhouse gas reduction. Which is why, in addition to all the technology pieces on energy that Secretary Abraham talked to you about, we have a host of other things going on. One is sound tax policy. Very few in this group I think have really focused on the fact that the new rules on expensing, which is, you know, fixing the depreciation schedules for the purchase of large capital goods, the new rules on dividends, which actually allow for the formation of more capital toward the purchase of large capital goods, is going to have an enormous benefit in terms of pollution reduction and reducing greenhouse gases.

We are already seeing in the current boom major investments in turnover of equipment that's often 30 and 40 years old for equipment that is much more productive and efficient. And it is U.S. technology providers largely who are providing those goods and services. So it also has the benefit of fostering further U.S. job growth. But it's tax policy that is making the difference there, and it's macro tax policy, not micro tax policy, that is going to make the big difference there.

Now, at the micro policy basis, economic policy basis, we're still waiting for Congress to unleash over $4 billion in tax incentives that are targeted at the very technologies that can help jump-start some of these transformations, whether it's hybrid vehicles or increased solar, geothermal, and wind power. I think Secretary Abraham mentioned to you that the U.S. has more installed capacity in all of those than much of the rest of the developed world combined. We can do a lot more in that area, and we should do a lot more in that area.

At the same time, we know that there's technologies available to us to substantially cut not just the pollution from coal, but the greenhouse gases from coal. And that's a big deal because coal is cheap, it's reliable, and it's here in the United States of America. And I think you heard from West Virginia yesterday and you heard from some of the coal-based users, they want to be part of the solution, and they are working hard to be part of the solution, not to be the problem.

It is incumbent on us in the United States to bring forward those technologies and develop policies that will attract new clean-coal technologies, because if we don't get it right here, it won't be gotten right--pardon my English--in places like China, Poland, India, and other places that are going to grow their economies on coal. So we need a strategy that creates a massive increased capitalization for new clean coal.

Now, even the current generation of clean-coal technology produces electricity more efficiently from coal, even before you get to some of the sequestration approaches. Things like gasification, they're showing, you know, 10 to 40 percent efficiency improvements from the same amount of coal. That alone reduces or offsets the growth of greenhouse gases.

We need an air pollution strategy, which we've got, that will spur what will amount to about a $50 billion market for advanced coal technology to be retrofitted on current plants and to be installed new with newly built plants.

Now, you only get that investment if there's a certain and clear path for coal. If there's not a certain and clear path for goal, the investment shifts to things like natural gas and other sources, which affect energy security and other issues. So we need to strike that balance, that sensible center.

Also, we talked about--Eileen asked about mandatory programs, but we still have a mandatory program that has a significant effect currently on checking the growth of greenhouse gas emissions, and that's our fuel economy--our CAFE system. We, the Bush administration, moved forward with the first increase in over a decade targeted at the most consequential vehicles, the SUVs and the large trucks. We are impeded with the current design of CAFE because of the way it was constructed, well intentioned, but it has led to some unintended consequences. We are impeded with its current design.

We can do more incrementally in terms of fuel economy with the current CAFE system. It is our view that we can further increase fuel economy while saving lives and keeping jobs in America with the reform of the CAFE system. But all three are important. You've got to want to save lives. If you have an approach that produces more deaths, that is not a winning strategy in terms of fuel economy. If you've got an approach that drives jobs out of America, that's not a winning strategy either because you're affecting our ability to grow our economy, to keep people employed, and purchasing the very new technologies that we need that turnover in. We care about jobs and keeping them here.

That is one of a series of mandatory programs that are currently in place that actually we do employ, including energy efficiency standards and other programs. They exist today in America. They'll continue to exist, and as it turns out, we have more mandatory programs on the books today that either keep greenhouse gas emissions in check and are reducing them than many other countries around the world in the developed world. And it continues to amaze me when we receive criticism as Americans when, in fact, we still are sustaining some of the more innovative programs.

The other thing overlooked: diesel. By pushing for tighter standards for diesel, the technology, the automakers have been struggling, but they are now on the brink of perfecting up the technology that will deliver clean diesel. These are diesel passenger vehicles and trucks and what have you that have the same pollution--very good pollution

profile of our gasoline-powered vehicles. We're talking about 99-percent cuts in pollution from diesel--pollution from diesel, which means we can continue to have a market for diesel. And those of you who track diesel, again, you're talking about 10- to 30-percent improvements in fuel economy just by shifting to a diesel fleet. And to create the opportunity for diesel rather than eliminate that as a technology is also something that we're about.

Just in the last year, we've had these breakthroughs on hybrids and diesel and hydrogen all in the same year. That's a good, winning strategy because you have a portfolio of competitive technologies. That's what economies are built on. And all of them are lower polluting and lower greenhouse gas emitting, and that's a very positive development.

Now, the farm bill. Overlooked in our strategies is the farm bill, $40 billion over the next ten years that is going to mobilize our farming and agricultural community. A plank of those programs is dedicated to carbon sequestration. There's now a massive incentive that will go to farmers and ranchers coupled with the infrastructure that we're building on reporting and quantifying reductions from that activity that's going to bring our farmers into a very active mode, applying for incentives to do sequestration, at the same time then understanding how they're doing and rewarding those who are doing the best when it comes to sequestration. That didn't exist two years ago, let alone ten years ago. But we are now coupling real incentives with real measurement and reporting regimes that will engage our agricultural community in a very affirmative and proactive way. You will not regulate them into reducing greenhouse gases, but you can incentivize them and give them the tools they need to manage better. And that is unfolding, and we're very excited about that.

And then every title of the energy bill except the climate title has an action-oriented component to it, whether it's bringing forward--allowing us to add some nuclear capacity, especially to existing facilities. The ethanol piece has net greenhouse gas benefits. I could go on. But each title of the energy bill that's not labeled climate has action that will go toward reducing climate change, even the provisions on transmission. A more dynamic and open transmission system actually nets greater efficiencies. It delivers more electrons to the source with less output. That's why we need to rehabilitate our transmission infrastructure.

Then, finally, on climate vision and climate leaders, you heard about that. We, the Bush administration, got the major emitting sectors to make specific commitments. Now, people can talk about whether the commitment was good enough or went too far or--you know. The point is they're taking specific commitments, and as sectors, they are mobilizing their own information channels to work toward this efficiency and productivity in reducing greenhouse gases in a way they hadn't done it before. That's building the fundamental infrastructure constituency for success. It also means they'll be looking each other's shoulders to see who's doing it in a way that's making a buck. And the way American industry works and the way globally successful industry works is, if you can do it in a way that makes a buck, people will do it if it makes a buck. And that's information exchange. That's how markets work. If it's a cost, if it's a net cost to an organization and their shareholders, they tend not to invest in that kind of activity. And so bringing them in a constructive way toward an organized and common target, it is my expectation that every one of these sectors will exceed their targets, because that's what they tend to do, have been taking a target. We know that from the EPA's 3350 program. But working together as a sector with some leaders within their sectors, we think that's a very positive step forward, and they'll be leaders worldwide.

Finally, on the domestic side with funding, Secretary Abraham went on at fairly large length on the energy-related components. I just want to highlight in addition we have the farm bill money that gets overlooked, and that is a massive investment. We have the $200 million going right now toward foreign aid programs that are deploying advanced energy technologies in the growing and developing world. And then these tax incentives, before you even get to the tax package, the targeted tax incentives is a $700 million increase for greenhouse gas reductions through these energy tax incentives. And that's before you account for the huge benefits of the tax reforms that have gone through.

I will conclude on the international piece, which is focused on--and, again, you'll see this chart in your packages. It's our view that the real opportunities in the near term for reducing greenhouse gases--this is the near term internationally--are with those countries who rely on fossil fuels. And what we really need is a constructive engagement with those countries, and it's the countries that have like portfolios that will be able to come together on common strategies because they're all oriented around making the same kinds of economic choices, you know, to enhance the quality of life for their citizens.

I always say, when China emerged on the stage with respect to climate change, the first time they emerged publicly on the stage is when UNEP, the United Nations Environment Program, applauded them for substantially improving their greenhouse gas intensity. That was the first time you saw a press release out of China because they want to be--you know, they're citizens of the world. They are a big player in the world stage. And to have acknowledgment for improving their efficiency and productivity and reducing greenhouse gases is important to them. But growth is important to them, too.

Now, when you look at this chart, you will see huge opportunities for substantial reduction in the growth of greenhouse gases if we can organize the fossil fuel-using countries of the world around common strategies and shared technologies and capacities. So that's the take-away point there.

We have started that architecture through over 14 bilateral partnerships with most of these countries, in addition to some of the broader multilateral ones, as Spence Abraham talked about yesterday. That architecture is underway. The conversation is two years underway already. We're not waiting for it. The Kyoto process is going along and this process is going along as part of our shared commitments under the Framework Convention on Climate Change. That's a common platform from which we all can act, and I can't tell you--I can't underemphasize the enthusiasm for these discussions that we're getting on a bilateral basis. And I cannot underestimate the action that is flowing from these conversations, which is not currently flowing out of the Kyoto discussions. I only contrast them; they're all moving together. So please don't take that as a disparagement. I just want to highlight that we need all these pieces moving in concert, and that's how we'll make progress.

So, in conclusion, I think as we stay focused on the sensible center, as we stay focused on the portfolio of action, as we get away from the rhetorical demonization that continues to captivate some of the front pages and some of our--even I've seen speeches recently where some of the remarks on all sides, I mean, it's just been wrong. We need to stay focused on the sensible center and focused on action, lots of--it's hundreds of actions, it's hundreds of thousands of individual actions, and reward those who are doing it best and most efficiently because that will spur greater action.

So that's where I'll conclude, and I'll take questions for a few minutes.

[Applause.]

MR. CARTER: Hi, Jim. Tom Carter with the Portland (?) Association.

How are you? I have a question about the climate vision program. I know that the participating industries have been farmed out to various agencies, in our case two different departments. But my question is: How engaged has the White House remained in the program since the rollout last year?

MR. CONNAUGHTON: We have remained regularly engaged. The President set forth, as you know, in 2002, a very comprehensive strategy directing each of the departments to take on certain tasks. We have regular follow-up meetings that I conduct across the suite of programs--the technology programs, the science programs, the Climate Vision Partnership.

You know, to throw out one example, methane is an area I mentioned earlier. In the United States, we've actually reduced our absolute methane emissions. You know, we're focusing on these other partnerships, too, not just the climate--you know, the climate vision was built on some of those successful partnerships.

We're finding some sectors are ahead of others in making progress. All sectors are moving forward. My benchmark is forward progress and expanding the base of participation, and that is occurring. And so I see all that as a very positive development. Again, we stay very closely attuned, and if you pay attention, we get reports, you know, written reports from different Secretaries on their progress to the President. And then that gets worked back through the Cabinet process. We circulate that back out to all the members of the President's Cabinet review group. So it's been very active. There's not a week goes by when we're not having a meeting on one issue or another related to the President's plan.

QUESTIONER: Mr. Connaughton, you observed, I think very accurately, that probably the most important thing going on now or one of the most important things going on now is the technology choices that are being made in India and China and the other fast developing countries well endowed with coal. Dr. David Montgomery, who is a quite well known energy economist, has recently published a paper suggesting that one of the ways that those countries might dramatically improve the energy efficiency of the technologies in which they're investing is through eliminating some of the barriers to foreign direct investment that blocks more modern technology from being employed.

You referred to the U.S. Government's program to encourage more benign technological choices. I wonder if you've looked at the issue of barriers to foreign direct investment as an impediment and what more generally the U.S. strategy--what you believe the U.S. strategy should be for encouraging those more efficient technologies to be employed rather than less desirable ones.

MR. CONNAUGHTON: I've got two of three components. Thank you for the question because it is fundamental that we get more foreign direct investment in these other countries. And you are correct, there are some fundamental barriers to doing that.

It is our hope at the diplomatic level--it's not our hope, actually. It is our current realization that with these bilateral conversations we're able to identify in a setting that is policy relevant and high enough to effect policy some very targeted opportunities to remove barriers. So that's focused on energy and pollution and greenhouse gases.

At the broader level, as you know, our broader trade agenda and our broader development agenda is very much oriented toward opening up these markets for--and reducing--providing the surety. You need to address corruption, you need a good system of private property rights, and you need a stable economic system where people invest for 30-year and 50-year horizons rather than currently in many of these countries where it's cut-and-run investment. You go in, you take what you can, and you get out because there's no certainty.

So, again, our macro policy related to our development agenda, and countries like those who are qualified for the Millennium Challenge Account, that whole process is going to create a very intense competition in the developing world for countries that do get their act together on anticorruption measures, rule of law, do get their act together on stable economic institutions where investment can occur over the long term. And I am very confident that those MCA countries, or the ones in between developed and developing, I'm very confident that they're going to create that kind of competitive pressure, which will then open up some of these other markets.

The third component in countries like China and India is we should focus on their needs, and their immediate need in this area is for cleaner energy, i.e., lower criteria pollutants, because their people are living in choking smog and their people are inhaling particulates and getting huge, huge health impacts, much like we experienced, you know, in many of our industrial areas around the turn of the century and shortly thereafter.

If we can work with them on their immediate need, which is choking pollution, we can develop the policies and help them to construct the policies that will also then bring forward these very technologies that produce massive efficiency gains as well. And until we work with them and focusing on their immediate need, they will not talk to us about greenhouse gases. That is not their immediate need. That's why the winning strategy is that common ground. Let's work with them on air pollution, and the greenhouse benefits will follow, in my view--not just my view, in my experience. That is where we are having the most proactive and constructive gains, not just at the diplomatic level, but in terms of getting technology partnerships going. And that's what we need to focus on. It's what happened in America. I mean, that's how--our energy is going up and our air pollution is going down dramatically. With that is increasingly efficient energy output. That's a winning strategy for the near term as we work for the transformational technologies in the long term.

Right here in front.

QUESTIONER: Peter Frumhoff (ph), Union of Concerned Scientists. Given the administration's current opposition to establishing a cap-and-trade approach to regulating greenhouse gas emissions at a federal level, can you give me your and the administration's perspective on the nascent efforts to do so at the state and regional level in the United States, particularly the regional greenhouse gas initiative in the Northeast, and whether you're in any discussions with governors of those states about that process.

MR. CONNAUGHTON: The President called for--and it's been reflected by other thoughtful people like Eileen--a comprehensive nationwide set of activities. There are things we can and should do at the federal level, there are things that states can do at the state level, and there are things, by the way, that localities are doing in terms of building codes and other things at the local level. We are a strong endorser of actions and policies at all levels of government.

We also have a fairly high level of confidence that at the state level, states will not choose policy measures and design them in a way that will hurt their economies. And as I see some of these proposals being revised through state processes, that seems to be bearing out.

And so the extent states come up with state-relevant experiments that can produce meaningful outcomes without hurting their economies, that's a good thing that we could all learn from, and we certainly encourage and support that.

I won't speak to any specific initiatives because they're all--I mean, there are hundreds of them. It's very enriching to see. Some would appear to me to be problematic in their initial proposal from this economic perspective of doing it in a way that grows

economies. But they're still early on in their policy development process, so I would expect them to be adjusted over time.

One thing we cannot do, whether it's at the federal level or the state level, we cannot design solutions that merely shift not just the greenhouse gases but merely shift the pollution someplace else. That's not a sensible outcome from an environmental perspective. That is why Kyoto wouldn't work even if you wanted it to work in America, because the net outcome would really be to move the emitting jobs to countries that don't have requirements, most of which are less efficient and less productive than we are, which means all that happens is greenhouse gases go up. You know, the goods and services still occur. The jobs are still there, but they're in places that don't have a commitment, and we're increasing the pollution load and the greenhouse gas load. That is not a sensible outcome, which is why we need these common-ground strategies.

The same occurs at the state level. It's not a winning strategy for a state to merely have a policy that forces the emitting sectors someplace else. I just would--if any state person asked me, I would not recommend that strategy because you haven't solved the fundamentals of this transfer and this reinvestment in capital as the solution rather than just shifting the burden someplace else.

Two more questions. In the back, sitting down, yes, you, ma'am?

QUESTIONER: Ann Canby, Surface Transportation Policy Project. A lot of the discussion over the last day and a half in the transportation arena has been on technology, and I'm wondering if you see any role for incentives to encourage a more balanced use of our transportation system, i.e., better transit, better pedestrian, and also the integration of land use and transportation to help reduce demand as a part of this solution.

MR. CONNAUGHTON: I think, at least the limited amount of data I've seen, we are headed on that path as a result of good old-fashioned macroeconomic activity in and the market forces. We need to stay focused on things like subsidies that do not make sense. We need to stay focused on policies that are creating the wrong incentives. There are some policies that create barriers to some of the outcomes you're talking about.

I will always remain cautious about micromanaging a particular suite--again, three years ago, nobody was talking diesel. And, in fact, people were vilifying diesel. And yet, you know, the manufacturers toiled away and are coming up with a technology solution to eliminate the pollution from diesel. Diesel is a huge opportunity for us that, if we got into a micromanagement mode saying, well, we don't want diesel because of this, even though it delivers, you know, pollution, because it delivers a greenhouse gas benefit and improved fuel economy, I want to stay away--government is not very good about picking winners and losers among those competitive sources. But what government can do and should continue to do is remove the barriers that can impede some of these better approaches. And you are certainly right when you're talking about consolidation and better integration of goods and services, that's what biotechnology is about, increased yields from less land, more consortia working together using more--you know, the platforms for rail. I mean, rail is a very efficient mode of transport. But that requires a different infrastructure. And we've got lots of issues. You know, people want to see more natural gas and less coal. I see that from a lot of folks. But getting the gas pipeline built creates its own set of environmental issues and it's own challenges. So there's not a single solution to this. We have to keep pushing for just--let the market keep driving us toward greater efficiency and productivity and rewarding that behavior.

One more question. Right here in front.

QUESTIONER: Laura (?) , I'm a counselor at the French Embassy. I'm particularly grateful to your presentation and the file you gave us with some charts. It is

very important to get the facts straight. I'm going to ask some questions about the charts.

First, there is a chart comparing the emissions in 1970 and 2002. So I'd like to check if it's not a typo because there is CO, which is carbon monoxide and not carbon dioxide. And also to check one of the figures, because at some--

MR. CONNAUGHTON: Are you referring to this chart?

QUESTIONER: I'm referring to the chart that was circulated. That's coming from your service, I understand.

MR. CONNAUGHTON: Yes, sure.

QUESTIONER: I'd like to have the answer, but maybe you can't give it just now. Again, on data, there is another chart that says, "Path to long-term stabilization," and I'd like to check if you're talking only on intensity, because you don't have a figure of absolute emissions here. So I'd be very grateful either from you or from whatever specialists in this room to see where we can get the best and available data as regarding absolute emission from the U.S. in the past decades, because, you know, let's get the facts straight.

Again, on the following chart, which is UN carbon dioxide emissions, percent change by sector and GDP, I assume that is, again, a percentage change and an intensity change. But we don't have the absolute figures, so it would be very helpful for us.

Thank you.

MR. CONNAUGHTON: Yes, I'm happy to provide--one of my folks is in the back. We can get together. I'm happy to provide you--I've got charts, all the charts you could want.

On your immediate question, CO should be CO2--oh, I'm sorry. I take it back. I'm sorry. These are the pollutants. I'm sorry. Thank you.

These are criteria pollutants in America, so these are the air pollutants that have immediate health consequences, okay? And we have cut our pollution in half in America while our economy has about increased by 2.5 times. And I highlight that from the pollution side because we know we can--what we did in America is where we're heading on greenhouse gases. And what happened in France, too, by the way. You had increased industrialization, and you had pollution increasing with economic growth. Okay? There then came a period in our histories--it was about a few decades ago--when we began to slow the growth in pollution. It was still going up as our economies went up, but we began to slow the growth in pollution. We then stabilized. There was a time--actually, I need to get it. I don't have the date in America--when all of a sudden we stopped increasing air pollution. In fact, Brian, you've got to get me that date. We stopped increasing air pollution, and now in France, in America, in Germany, and a few other countries, we are now enjoying economic growth with decreasing air pollution. Again, these are the criteria pollutants that affect people's health as you breathe them.

We are going to follow the same path when it comes to greenhouse gases. It's a question of the time line. But we will follow the same path. I believe it's inevitable. And so what we have to do is we can orient our activities around slowing the growth in places where it's going to grow. That's where you get the investment that's the winning constructive strategy.

You're headed toward stopping the growth, and if the science justifies accelerating that time line--and that's why we have to keep investing in the science--then we've got to work toward measures to reduce the growth. All right? But it's calibrating our actions. If we are only focused on a handful of countries, developed countries, we will not put ourselves on the architecture or the diplomatic path toward a longer-term conversation and longer-term progress to keep everyone on that same curve and trajectory. And that's

what this one is about. We've been through this transition many times in the developed world. We'll go through it again on many other issues. But I put that out there as a cause for great optimism, not pessimism, about progress.

So thank you all very much.

[Applause.]

MS. CLAUSSEN: I'm sorry. I'm still reeling from being quoted.

We're going to have a slight change in the program in part because Congressman Gilchrest is having a vote and will be here later. But I actually think the change is quite beneficial.

Stephen Timms, the Minister of Energy for the United Kingdom, is here and so he will come before Congressman Gilchrest. And I think it's important for us to sort of see another national effort in dealing with this issue, and it's quite a different one.

I actually think the U.K. program is the best program in the world on a national basis. And I say that because I think it has a long-term focus, but it has short- and medium-term steps along the way. I think it is being implemented with great vigor, even though the challenges are great. And I think it is really focused on this issue in a way that is highly beneficial and, in fact, in many ways should be something that I think we all think about here in the U.S.

So with that introduction, Stephen Timms, who has been a Member of Parliament since 1994 and is the Minister of Energy and is really charged with implementation of the energy plan, I think will give us a good view of that. Steve?

[Applause.]

MR. TIMMS: Thank you very much, Eileen, for that welcome. I'm delighted to be here. Thank you for the opportunity of speaking to you. I'm very pleased to see such a wide cross-section of opinion formers and leaders here today, and I've been following with very great interest the deepening debate on this important issue in the U.S., including in Congress. And I pay tribute to the leadership that's been shown by many who are here.

The science of climate change I think is pretty clear. There is a worldwide consensus. The U.S. National Academy of Sciences, the Intergovernmental Panel on Climate Change, have underlined that over 370 parts per million concentration of atmospheric CO2 is higher than seen for over 400,000 years and is going to go up further on every scenario in the years ahead.

The facts are pointing unrelentingly in one direction, and that is that climate change is not tomorrow's problem, it is with us today. But the impacts will increase in their scale and in their magnitude if we don't take serious and urgent action now. The emissions trends are still sharply upwards. The Intergovernmental Panel, which is the world's leading scientific authority, projects that global emissions could double by 2025. Temperature is predicted to go up by another up to 6 degrees Celsius this century, between two and ten times as much warming as there was over the last century.

It's a global problem. It requires global action. Every country has a responsibility to act, but developed countries who have the best capacity to act and who carry the biggest responsibility for the problem have the duty to take the lead.

The window for stabilizing CO2 concentrations at a level that may now be consistent with keeping global warming to another 2 degrees Celsius is very limited. The window is very limited because global CO2 emissions may well have to peak and to start to decline in the next couple of decades if we're going to achieve that.

But even just a 2-degree average global temperature increase could be terribly damaging, could mean 4 degrees in parts of the developing world. In Africa, just a

1-degree increase is likely to lead to GDP losses of 4 percent.

So the scale of the impact we're looking at is very big indeed, and that's why Tony Blair has announced that climate change is going to be one of his two key priorities, alongside Africa, for the U.K. presidency of the G-8 next year.

In the U.K., we have been able to show decoupling of greenhouse gas emissions from economic growth. Between 1990 and 2002, a 12-year period, our emissions fell by nearly 15 percent. The economy grew by over 30 percent. We're committed to deliver, go beyond our Kyoto target, and we're looking at our program at the moment to make sure we achieve that. But we also recognize the need to show international leadership and to send clear signals to markets about the future to promote greater certainty.

Climate change policy and energy policy are two sides of the same coin. We can't discuss the shift we need to a low-carbon economy without also considering energy security and the impact on international competitiveness, and high oil prices have highlighted those pressures.

So last year, we published the program that Eileen very kindly referred to, our Energy White Paper, the first comprehensive statement of U.K. long-term energy policy for over 20 years. It signed up some pretty bold ambitions, particularly on the environmental front. But I think in the U.K. more and more there is a sense that these are things we simply have to achieve.

The White Paper set four new goals for our energy policy: number one, putting ourselves on track to cut U.K. carbon dioxide emissions by 60 percent by 2050; number two, to maintain the reliability of our energy supplies; number three, to promote competitive energy markets; number four, to make sure that every home is adequately and affordably heated.

And we'll achieve those long-term targets through policies in four main areas, and I want to just say a little about each of them: energy efficiency, transport, renewables, emissions trading.

Energy efficiency, first of all, the safest, the most cost-effective way to deliver the changes that we need, and that's why we put it at the heart of our strategy. The White Paper projected some 10 million tons of carbon dioxide a year, about half of the total savings in our climate change program, would come from energy efficiency initiatives. That requires a step change compared with what we've been achieving up to now. Our Energy Efficiency Action Plan, which was published just April, a couple of months ago, fulfills the commitment set out in how we're going to deliver that, and it included a variety of measures, a new aim, first of all, to reduce household carbon emissions by just over four million tons--that's around 10 percent--by 2010.

The principal lever for that will be doubling the level of our energy efficiency commitment, which is a legal obligation on electricity and gas suppliers to carry out energy-saving measures in households to put in the investments that are needed, and by making also the most efficient boilers mandatory in homes from next year. We've introduced new fiscal incentives as well to promote energy efficiency in people's homes.

Secondly, we're going to tighten the targets under our climate change agreements. Those are voluntary agreements with 44 energy-intensive industry sectors which, in return, get a discount on their payments under the industrial climate change levy. We're looking to extend those agreements to other sectors as well.

We've undertaken to show government leadership in a number of key areas, the most important being a commitment for central government to use only the 25 percent most energy efficient buildings for its own purposes. And we're placing a much stronger

emphasis on communicating the reality of climate change to the public and explaining to people how energy use by individuals, by businesses, and the public sector can make a real difference in achieving the goals that we've set.

Secondly, transport, transport emissions, a big, big challenge. But we're not shying away from taking action. Voluntary agreements with European Union car manufacturers are driving down emissions from new cars, leading to significant carbon savings by 2010. Average new car CO2 emissions have fallen by about 10 percent over the past ten years. More efficient, less polluting vehicles also contribute, of course, to better air quality. And there's a really big competitive opportunity here to break into new and expanding markets which can only continue to expand as consumers in the future become increasingly concerned and informed about the economic benefits of more efficient, cleaner vehicles.

Through our ultra-low-carbon car challenge, five U.K.-based consortia are developing efficient family-sized cars capable of mass production, supporting that is a framework of fiscal and grant incentives, including the reformed CO2-linked company car tax scheme, which saved an estimated 200,000 tons of carbon just last year.

We're also considering how to start moving away from fossil fuels altogether to biofuels and in the longer term to hydrogen. We published recently an assessment of alternative fuels which concluded that biofuels and renewable hydrogen -- [tape ends].

-- mutually exclusive. Both of them could yield big transport carbon savings by 2050. The prospects for the hydrogen economy I think at the moment remain somewhat uncertain, but we could in the U.K. produce enough renewable hydrogen for road transport, although that would be at the expense of renewable energy resource for other sectors.

And we reckoned as well that if the road transport fleet were fueled entirely with biofuels in 2050, then in the U.K. we could produce--grow about a third of the necessary biomass within the U.K. The rest would need to be imported.

More immediately, we're looking at how best to support the take-up of biofuels, the development of the U.K. biofuels industry, we're consulting about biofuels at the moment and looking at the possibility of introducing a biofuels obligation, making the requirement that a proportion of vehicle fuel was produced from bio sources.

We're looking as well at emissions from aviation. The Energy White Paper argued that aviation ought to be encouraged to take account of its contribution to global warming. An Aviation White Paper, produced at the end of last year, said we should work for the inclusion of aviation in the European Union emissions trading scheme by 2008, or as soon as possible after that, and we'll continue as well to work through ICAO, the International Civil Aviation Organization, and other international bodies to deal with emissions from intercontinental aviation, too.

Third, on renewables, renewable energy will make a very important contribution to our carbon reduction targets, but it's important to recognize that renewable energy will contribute not just to the first of our White Paper goals on reducing carbon dioxide emissions, but to the other three as well. And, in particular, it will make an important contribution to the security of U.K. electricity supplies. That's important because within a few years the U.K. will no longer be self-sufficient in energy. We've enjoyed self-sufficiency in oil and gas for the past three decades thank to the North Sea. But that is coming to an end. Over the next decade, we'll be making a very significant transition to being net importers of oil and gas. We need to manage that transition successfully, and the renewable generation of electricity will make an important

contribution.

We've set out as our first goal obtaining 10 percent of our electricity from renewable sources by 2010. We'd like to double that again by 2020. Our main lever for that is the renewable obligation. Now, that obligation requires all licensed electricity suppliers to supply a specified and a growing proportion of their electricity sales from renewable sources. The obligation was set at 3 percent when it was introduced in 2002. It went up to 4.3 percent last year, 4.9 percent this year. it will go up to 10.4 percent in 2010, and then in one-percentage-point steps up to 15.4 percent in 2015.

The way it works is that suppliers receive one renewable obligation certificate, or ROC, for every megawatt hour of electricity they generate from renewable sources. They can satisfy their legal obligation either by presenting ROCs obtained through their own generation or that they've purchased from others, or they can use a buyout facility, paying a fixed price for that part of their obligation that's not met through ROCs. The buyout fund is then recycled to those suppliers who have presented ROCs, so providing an additional source of funding for renewables investment.

The obligation is winning some very welcome praise as a flexible, market-oriented incentive mechanism, and it's our claim that our market-led solution is working. Centrica, the U.K. energy company, they're planning to invest three-quarters of a billion pounds in renewables. The success we've seen on the part of RWE Energy, another big supplier, in attracting 400 million pounds of City of London investment into their wind energy portfolio, those are encouraging signs of the confidence on the part of investors that we need.

Wind energy is the form of renewable energy with by far the best immediate prospects for expansion in the U.K. It will play a very big part in the expansion we're aiming for. That's onshore wind and offshore wind as well. There are at the moment wind generation projects in the U.K. amounting to more than 2,000 megawatts in capacity which have received consent and can go ahead, compared with total U.K. wind capacity of less than 1,000 megawatts today. So we are on the brink of what for us is a huge expansion. The British Wind Energy Association estimates that some 400 megawatts of wind capacity will be built in the U.K. this year and more again next year.

The U.K.'s first big offshore wind farm is at North Hoyle, off the coast of North Wales at Rhyl. It's 60 megawatts capacity. It started generation electricity into the grid last autumn. A few weeks ago, I took the boat out from the small east coast port of Great Yarmouth to the second big offshore wind farm at Scroby Sands, again with a 60-megawatt capacity, generating its first electricity this month.

Consents were approved last year for eight offshore wind projects, and I'm pushing developers for construction to begin as soon as possible with a good number likely to be built through 2005.

There are much bigger offshore wind projects on the horizon. The Round Two offshore program, which leases were awarded for at the end of last year, will represent one of the biggest expansions of renewable energy anywhere. We hope that as many as half those projects can be delivered by 2010, providing between them well over a quarter of our 10-percent target. Some of them will extend beyond U.K. territorial waters, and the energy bill, which has completed its committee stage in the House of Commons this week, includes a legislative framework for renewable installations outside the 12-mile limit, which we're going to need to take advantage of with the Round Two program.

There are some very important new industrial opportunities we want to realize in renewables. We published an analysis recently showing there are already more than 8,000 people working in the renewable sector in the U.K., and that figure is expected

to rise very sharply.

The German Chancellor, Gerhard Schroeder, speaking at the Bonn conference on renewable energy earlier this month, made the point that 120,000 people work in the renewable energy sector in Germany. We're determined to make the most of the potential for huge growth for the U.K. economy.

At the Bonn conference, I met the minister representing the Chinese Government, who told me that by 2020, his government expects to have renewable energy capacity equivalent to half the U.K.'s current total electricity generating capacity of all kinds. And I must say I was very impressed by his knowledge of the U.K. energy industry, as well as by the scale of his ambition.

There's a very, very large worldwide opportunity here that our firms need to be able to take advantage of.

Wind, of course, isn't the only technology with promise for a big impact. We want to bring forward a diverse range of renewable technologies. Our recently published Renewables Innovation Review has given us clear advice for the future. We want to make sure we can deliver its recommendations as soon as our future funding is confirmed, and we have a three-year spending review announcement being made next week.

In the longer term, we expect biomass, solar, geothermal, wave and tidal energy to make a significant impact, and wave and tidal devices I think offer a particularly interesting opportunity for us in the U.K. for the future, and I hope we'll soon see some good progress improving the very technologies which are being developed at the moment, and in reducing their costs. The opening this summer of the European Marine Energy Center--it's a beautiful location on the coast of the Orkney mainland off of Scotland--demonstrates how we're looking further ahead to a larger and more diverse renewable energy sector in the longer term. And the idea is that a number of different technologies will be put through their paces at that test center in the Orkneys for a period of several months, benchmarked over the course of the next year or so.

Alongside domestic policy initiatives, international cooperation is key. We need to collaborate to bring together security, foreign policy, energy policy perspectives to meet the challenges of energy security and sustainable development and to strengthen our trading relationships. We've collaborated with the big and the very welcome U.S. initiatives of the International Partnership on the Hydrogen Economy, the Carbon Sequestration Leadership Forum. We're working together on science. We'll hold a hydrogen conference in London later this year.

We're collaborating as well on the Renewable Energy and Energy Efficiency Partnership launched by Tony Blair at the Johannesburg summit, the World Summit on Sustainable Development. That partnership--REEEP, for short--aims to break down the barriers that are holding up the take-up of renewable energy and energy efficiency technologies around the world. We very warmly welcome the U.S. Government's full participation in the partnership announced just a couple of months ago, and that partnership, therefore, now includes among its members the world's biggest economy alongside small nongovernment organizations in Africa. It is a truly global partnership that's hosted events in Europe, America, China, Africa, and is very clearly focused on removing the barriers that we're facing today.

Technology is critically important, but on its own it isn't enough. We need to use existing technologies. We need as well to stimulate innovation in new technologies for deployment in the longer term. We need to be sending the right signals to markets now--strong, unambiguous signals that give investors the long-term confidence that

investment in low-carbon technologies will pay off.

And that's why we're moving forward aggressively with an emissions trading scheme in the U.K. and in Europe. The European Union scheme will cover all 25 EU member states. It will go live on the 1st of January next year. The first phase will run from 2005 to 2007. It will cover several thousand large industrial installations in all 25 European countries, accounting between them for nearly half of total European carbon dioxide emissions. It allows companies to undertake emission reduction projects overseas to help deliver their targets.

We expect the emissions trading market to be worth between $7 and $10 billion a year by 2010. It is a huge new market. It can only get bigger in the future. And the second phase of the European Union scheme from 2008 to 2012 is likely to be expanded to cover more installations and all six greenhouse gases. And for us in the U.K., the European Union scheme is key to helping us to meet our domestic goal of a 20-percent reduction in carbon dioxide emissions on 1990 levels by 2010.

Emissions trading I think is an excellent example of where we can make real progress through transatlantic cooperation. The U.S. led the field with the idea. Initially, Europe was skeptical. We've learned fast in the meantime. We've embraced the idea. And I know there was a mention earlier of several Northeastern States joining to create their own carbon market. I hope very much that it will be technically compatible with what the European Union is doing because that way it could be the first step to a worldwide emissions trading market. We'd be very pleased to exchange experiences to set out how the European Union scheme works.

A single global trading market I think does hold out great attractions, reducing the costs of compliance, reducing the complexity for companies, and, of course, leading U.S. multinationals will be involved through their European operations in the EU scheme from next January. And we need all of us to work together to ensure we deliver it successfully.

I want just to say a word about the economics. There will, of course, be a price to be paid for the transition that we need to make to a low-carbon economy. But at the heart of our White Paper is the conviction that it will be an affordable cost, that achieving the big reduction of carbon dioxide emissions we're aiming for is entirely consistent with our aim for continuing economic growth and prosperity. That conviction was underpinned in our work on the White Paper by a great deal of economic and technical analysis, demonstrating that what we wanted to achieve was indeed affordable, given in particular the long-term time horizon that we've set for delivering the change that we need. And it was underpinned as well by the certain knowledge that the price of failure would be a great deal higher.

Modeling the costs of climate change is notoriously difficult, so we took a lot of trouble over our work, and our analysis indicated that the cost of achieving this 60-percent reduction in carbon emissions by 2050 was going to be of the order of half a percent to 2 percent of total GDP in 2050. So it would be equivalent to holding back economic growth by around six months over a 50-year period. That's the kind of price tag that we're talking about.

If we're to stabilize concentrations of greenhouse gases in the atmosphere at 550 parts per million, that's consistent with the 60-percent target that we've set. We projected the estimated impact on gross domestic product being a loss of around 1 percent in 2020, arriving to 1.5 percent in 2050.

It looks to us as though most of the modeling attempts, looking at the costs to the U.S. of greenhouse gas abatement, seem to be based on assumptions that necessarily

imply high costs. And there are alternative and, in our view, more realistic assumptions that can suggest overall net benefits rather than net costs. And, in addition, we need to consider the co-benefits of reducing emissions. Using cleaner fuels can improve local air quality, improve public health, and those benefits at least help to offset the costs of reducing emissions, whatever they ultimately turn out to be.

But it's increasingly apparent that the cost of not acting is going to be extremely high. The severe floods in Europe two years ago killed over 30 people, flooded some of Europe's most historic cities. According to the insurer Munich Re, the economic cost was over $20 billion.

Last year, the European heat wave caused over 20,000 early deaths, cost over $13 billion. The scale of the impacts are enormous, and we need to take the steps now that are needed to address them.

Tackling climate change will take leadership, will take dynamism, and commitment. I'm excited that there are so many actors already demonstrating those qualities and blazing the trail that others will need to follow in the years ahead, not just national governments but cities, states, some of the world's leading companies who want to lead the way and take advantage of the business opportunities that will be created.

I was speaking yesterday to Dupont, who were telling me about their objective that 10 percent of their electricity should come from renewable sources by 2010.

There are huge opportunities here. Through energy conservation measures, IBM has been able to reduce its emissions already by over 60 percent. BP set up an internal emissions trading scheme. It cost them $20 million to set it up. In the first two years, it yielded energy efficiency savings of $650 million, reduced their emissions by 20 percent.

There is in addition the opportunity for innovation and creating new markets, whole new markets for low-carbon technologies that are going to open up. The key for businesses is going to be first mover advantage. Last November, investors managing between them funds amounting to over $1 trillion gathered at the UN in New York for the Institutional Investor Summit on Climate Change and to examine the financial implications of climate change. And what's great is to see the mainstream investment community now seriously engaging with the strategic and financial implications of responding to climate change. That's a development that I warmly welcome.

I spoke yesterday to a seminar on Wall Street of investors about renewable energy. They were expecting 150 people there. There were well over 300 that turned up. I think that the message of the scale of the opportunity we're looking at here is starting to register with those who need to take that to heart.

The Prime Minister, Tony Blair, made the point in April that climate change is the biggest and most urgent environmental challenge facing the world. He pledged to make, as I've said, climate change one of the U.K.'s two key priorities for the G-8 presidency next year.

There aren't quick or easy answers, but the evidence now means we can't delay action further because the costs of doing that would be far greater. We need to find ways to work together more closely, to show leadership, to help the developing world to meet the challenge of growing sustainably, as well as the developed world. We need to find a way of moving beyond Kyoto. It's critically important that we address the issue of climate change now and that we're able to do it together.

Thank you very much.

[Applause.]

MR. TIMMS: I'm happy to take some questions. The gentleman here?

QUESTIONER: My name is Peter [inaudible]. I run the [inaudible]

program for Environmental Defense. I want to compliment you first of all, Mr. Timms, on a really lucid, clear, balanced, and, I thought, very thoughtful rundown of one nation's attempt to address this problem.

Sitting here for the past hour and a quarter, I cannot help but be struck by the contrast between the presentations by senior officials of two countries on how they are approaching the climate change issue.

One of the statements that really surprised me by Mr. Connaughton--and I guess in the spirit of frankness, I should say a statement I found stupefying--was that he saw a high degree of consensus on the international level in climate change, and he portrayed the United States as near the center of that consensus.

Could I get you to comment on that perception of where we are at the international level of climate change?

MR. TIMMS: Well, I think in terms of the science, that's probably true. I mean, I think there is a consensus. At one stage, it looked maybe as there would be a different view being taken about the science in the U.S., with the view that's being taken elsewhere. I think since we've had the statements by the U.S. National Academy of Sciences, I think in scientific terms there is a consensus worldwide.

Where there's a difference, I think, is about what we should be doing in response, and it's certainly our view, as I've been setting out, that governments do need to address this challenge aggressively and to find ways not just of limiting the growth of emissions, but actually halting the growth of emissions and bringing them down. And it's our view that that is going to become increasingly evident right around the world that we just have to do that.

And so we think that the right thing to do is to set an ambitious goal with a long-term time horizon, say this is what we want to do over the next 50 years so that all of the actors in the economy can plan how they can deliver the changes that they need to, to bring them about in a well-planned and orderly way. And in a policy sense, that's a different view we've taken in the U.K. and Europe elsewhere from the view that's being taken in the U.S. But in our view, that's the direction that science, where there is a consensus, is pointing unequivocally to.

The gentleman there?

QUESTIONER: [inaudible] the long-term visionary strategy and the practical aspects you have here. Also, Prime Minister Blair back in 2000 was able to get the G-8 to put forward a Renewable Energy Task Force and then helped to recruit some very strong leadership to that. They came forward with a very positive kind of program. And I wondered whether there might be, since your government is probably one of the few with particularly warm relations with the U.S. Government at the moment, whether there might be a possibility of trying to get the U.S. to move somewhat significantly for some implementation, particularly, let's say, in Afghanistan and Pakistan, where there's a huge unserved rural population lacking electricity, et cetera. That might be a very practical implementation of the G-8 task force report that was at least nominally endorsed by the various heads of government in Genoa.

MR. TIMMS: Well, I guess that's really the role that we see the REEEP--Renewable Energy and Energy Efficiency Partnership--playing, and I've mentioned--and we've been very heartened by the fact that the U.S. has become a full partner with REEEP. And I do expect that that initiative will have quite a big impact in parts of the developing world. We're already seeing examples of quite small amounts of products funding being applied in India and China, leading to quite big private sector investments in renewable energy, and I'm absolutely sure--you're right about Pakistan and

other parts of the world where we could see the same going forward. So, yes, I do think there is a very good prospect for the U.K., the U.S., and others working together in that partnership.

The other point I'd make, I guess, is that we are seeing great technology being developed in the U.S., and that's going to be very, very important for us bringing about our objectives over the next 50 years, and we will carry on, we are going to carry on working with the U.S. Government so that we can participate in the very impressive and ambitious technology efforts that are going forward in this country.

The lady in the fourth row, yes?

QUESTIONER: Hi. I'm Leslie Carruthers (ph) from the Environmental Law Institute. I wondered if you could comment briefly on the extent to which the Conservative Party, as well as the Labour Party, is behind this agenda, and also what the state of public opinion is in your country on this issue.

Thanks.

MR. TIMMS: Well, that's a very interesting question. I've had the opportunity to reflect on the first part of your question as we've been taking the energy bill through the House of Commons over the last few weeks. And as I mentioned, it concluded its committee stage in the House of Commons on Tuesday just before I left.

I mean, I think in terms of the general aspirations that we've set out, there's pretty much a consensus that that is a good thing. The Conservative Party as well expresses support for our objectives on renewable energy. The idea of having 10 percent of our electricity from renewable sources by 2010 I think is generally accepted as a good thing.

Where the difficulty sometimes arises is when one turns that into actual policy changes now, which sometimes are more controversial, and we've certainly run into controversies about wind power, where there are local campaigns, people--you know, wind turbines, after all, need to be in windy places. They sometimes tend to be rather attractive, isolated mountain areas. And, you know, there's quite often local campaigns against particular wind turbine proposals. And we have seen the Conservative Party [inaudible] expressing sympathy for those anti-wind sentiments. But the kind of generality of should we have 10 percent of our electricity from renewable sources by 2010, really there's a consensus about that.

In terms of public opinion, all of our surveys--and we do survey public opinion quite carefully--show overwhelming public support for moving in the direction that we've set out. Again, sometimes turning that overwhelming general support into support for a particular proposal in a specific area can be more of a challenge. But what's interesting on the opinion work we've done on wind power is that the people who support it most strongly of all are the people who live closest to existing wind farms. So, that is, once people have got them there, they've actually become very attached to them, but the prospect of building one is sometimes a bit scary.

Thank you very much indeed.

[Applause.]

MS. CLAUSSEN: Well, thank you very much.

We're going to take maybe a five-minute break right now because Congressman Gilchrest should be here in about five minutes.

[Recess.]

MR. : Okay. We're going to get started again, so I'd like to ask everybody to return to the room and take their seats. This is the 30-second warning, so please come back into the room and take your seats. We're starting up again.

[Pause.]

MR. : If everyone could find seats, please, we're going to start in just a minute.

[Pause.]

MR. DIRINGER: We'd like to begin, please.

Hi, my name's Elliot Diringer. I'm Director of International Strategies at the Pew Center. Most of our discussion yesterday and today has focused on how the United States can and should act here at home to address the risks of global climate change, and we just had a very compelling presentation from Stephen Timms on the how the U.K. is attacking this issue on the homefront.

We'd now like to turn to another question, and that is how countries can work together to meet what is, after all, a quintessentially global challenge. In my few minutes up here, I'd like to tell you where I think the international climate effort stands today, and I'd like to offer you some thoughts on how it can be broadened and strengthened in the years ahead.

Earlier this month I was in Brussels where I spoke at a conference sponsored by the European Commission, and my topic was "Looking Beyond Kyoto." That's how I'd like to frame my remarks today as well. But when I looked back at what I had said in Brussels, I realized that for this audience I probably have to put forward a different set of arguments, and that's because here in Washington, before we can really look beyond Kyoto, I think we first have to come to terms with Kyoto.

What do I mean by that? I think it's safe to say that there is virtually no change the United States will ever be a party to the Kyoto Protocol. Kyoto is a dead issue here in Washington. Yet Kyoto continues to haunt the climate change debate here in the United States. It seems that any meaningful proposal to limit or reduce U.S. emissions is in variably greeted by the refrain, "Oh, that's just Kyoto through the back door."

I for one think it's time that we lay that argument to rest. I think it's time we exorcise Kyoto from our debate, time we get past it, and time we move on.

But coming to terms with Kyoto also means recognizing that outside the United States it is not dead. Vladimir Putin's reaffirmation last month of Russia's intent to ratify the treaty suggests that its entry into force is now more likely than not. I think that is a good thing. The protocol's entry into force would at the very least mean that Europe and the other industrialized countries that have ratified it deliver on the commitments they made in Kyoto. And in so doing, they would demonstrate that this is a challenge that can be met.

Kyoto's entry into force also would set in motion the diplomatic machinery that could lead us to a new stage in the international climate effort. Under Kyoto, negotiations are to begin next year toward a new round of commitments. In Europe and elsewhere, there is growing recognition that these talks will go nowhere if the goal is simply extending Kyoto. There is growing recognition that if the international effort is to move forward and if it is to engage the United States and the major developing countries, we will need something other than the Kyoto Protocol.

What is it we need? In broad terms, I think we need strategies that can engage all the world's major emitters in a long-term effort that fairly and effectively mobilizes the technology and resources we need to steadily and substantially reduce global greenhouse gas emissions.

Over the past year, we at the Pew Center have engaged in wide-ranging discussions with experts, policymakers, and stakeholders from around the world on how this might be done. And while we're not yet prepared to offer specific prescriptions, I'd like

to share with you some of the broad points that have emerged from these discussions. These and other points, by the way, are elaborated in our Beyond Kyoto report, which you'll find on the table outside.

The first point is that the basic challenge we face is building political will. In material terms, of course, the challenge is technological, as Eileen and others said yesterday, nothing less than a global technological revolution. This revolution has to be carried out in the marketplace because only markets can mobilize the resources and ingenuity that are needed. But the markets won't do this on their own. The direction, the imperative, must come from governments, and that requires political will.

When and how it materializes depends on a host of factors: public awareness, media attention, elections, even the weather. But it depends as well on our resourcefulness in creating common approaches.

For the United States, Kyoto did not help generate political will. Quite the opposite. So we have to ask ourselves what types of international arrangements can best capture and motivate political will and achieve the broadest possible participation.

A second and related point is that there is no getting around national interest. Climate change is often described as a common challenge that can be met only through collective action. But the political reality is that nations will engage in collective action only if they perceive it to be in their national interest. This is in part a matter of recognizes the climate is not simply an environmental issue but fundamentally one of economics and development. We need to address competitiveness concerns, and for developing countries, we need approaches that help advance not undermine core priorities like economic growth and poverty reduction.

Also, we must recognize that a multilateral approach cannot succeed solely by trying to remold countries' behavior from the top down. It must at the same time recognize and reflect national circumstances from the bottom up.

This leads to a third point. We need a more flexible architecture, one that can accommodate a broader range of national strategies. We need what might be described as a more variable geometry. The Kyoto Protocol provides a certain degree of flexibility, but it employs only one form of mitigation commitment--fixed targets and timetables. Other approaches are needed. We need different strategies for developed and for developing countries and possibly within those groupings as well.

A fourth point is that in considering alternative approaches, we should think about targeting action, not only emissions. The climate effort so far has sought to drive mitigation by mandating specific environmental outcomes, in other words, through fixed emission targets. An alternative or complementary approach might instead frame goals or commitments in terms of the kinds of actions that are required.

For instance, rather than trying to negotiate a long-term concentration target, an exercise that would likely be fruitless and potentially even counterproductive, why not instead agree on the types of actions needed to move economies toward the goal of climate stabilization? For instance, replacing gasoline with hydrogen or achieving zero net emissions from the power sector by 2050.

A fifth and final point is that we must consider the right forum and the right quorum for future international efforts. There are strong rationales for a global approach, from an environmental perspective, from an economic perspective, and from an equity perspective. But the reality at the moment is more one of fragmentation.

One possibility, at least for the near term, is a series of parallel regimes which could be undertaken within any number of regional or multilateral forums. It's also possible to envision a different grouping of countries within the existing global framework,

perhaps transcending the present division between developed and developing countries. An agreement among just 12 parties, counting Europe as one party, would capture nearly 80 percent of global CO2 emissions.

In the long run, some type of global approach may not only be preferred but necessary. The question is whether at this stage something less than global approach might better deliver the political will that is needed.

So what does all this imply for the United States and the role it can or should play in advancing the international climate effort? At the end of the day, the United States must be not only a full partner but a leader in the international effort. That will only be possible, though, once we have our own house in order.

In Kyoto, we made the mistake of promising what we could not deliver. We cannot afford to make that mistake again. The United States will be in a position to take on a binding international commitment only once we have achieved a national consensus on just how we are prepared to address this issue at home. That must be our first order of business.

In the meantime, we should signal to the international community our willingness to explore workable approaches so that, in time, and together, we can move beyond Kyoto and build a truly effective framework for action.

I thank you very much for listening, and now I'd like to turn it over to my partner in organizing this conference, Nigel Purvis. Thank you.

[Applause.]

MR. PURVIS: Thank you very much, Elliot, and thank you for all your hard work in making today and yesterday possible. I'd also like to take this opportunity to thank Josh Busby and Mike Cummings at Brookings and Pew, who really did the lion's share of the work to make it possible for us to be here together.

My goal is similar to Elliot's. I come here neither to praise Kyoto nor to bury it. I want to leave it aside. I want to take it as a given that the U.S. is not going to participate and at this point take it as a given that it is going to enter into force once Russia moves forward.

I'd like to say that until the United States adopts mandatory standards or a cap-and-trade system or some other more rigorous domestic approach than we have adopted to date, the case is that we'll probably have little to offer the international community beyond the types of programs that the Bush administration has put forward. And I favor those programs. I'm glad we're investing in hydrogen. I'm glad that we are working with other countries bilaterally and multilaterally to develop the science and the technology that we're going to need.

But until we have mandatory programs, the United States will not be in a position to present an alternative to Kyoto or some other grander way to lead the international community on climate change. I think that's the bad news.

The good news, though, is that once we act, I'm very confident that U.S. leadership will be able to spur international action in both developed and developing countries if we do it right. And I'd like to then premise my remarks on U.S. action. Once we act, what kind of climate foreign policy should the United States be pursuing?

What I'm going to say is a little bit controversial in that the conclusion that I come up with is that a Kyoto model for the United States is probably not the best way to go forward. I worked for four years trying to pursue the Kyoto negotiations, and while I support the entry into force of the Kyoto Protocol, I also think that Kyoto is not right for the United States and we need to find alternative ways of showing U.S. leadership that's based on our own domestic action.

The question was asked yesterday: Why should the U.S. act? Isn't that a sort of unilateral disarmament? Don't we need to, as Mike Morris said, get China and others to take on similar commitments? After all, that was one of the requirements of the Senate's climate resolution in 1997 prior to Kyoto. And I'd like to present a few reasons why counterintuitively the U.S. actually needs to act first in order to create the right environment and to address competitiveness concerns rather than trying to pull a package deal together simultaneously that deals with our concerns and those of China and India as well.

If one is a neoconservative--or perhaps one of the people who we call neoconservatives might prefer the label "realist"--one would probably agree with the proposition that international pressure and international action should not drive U.S. policy. Instead, we need to get our act together here first, and once we've figured out what we want the international regime to look like, we need to build out from our own domestic system; and once the U.S. acts, others will follow.

If you are not a neoconservative but you are instead a pragmatist, you probably would agree with me that our history shows that when it comes to international environmental treaties, the U.S. tends to be most successful in moving forward once we have a domestic blueprint, something that we can build on. The Montreal Protocol is an example, as Ambassador Benedict would confirm, of an area where we got our act together at home and built a consensus with our own industry, and then exported that with the help of other countries and built a broader international system. So for pragmatic reasons, acting here is a very useful step.

If one is an idealist, one might see that it's the responsibility of the United States to act. It's our role in the world. It's the right thing to do for the environment, and given our historic responsibility to the problem of climate change, it's what we need to do.

So the premise of my speech is that we need to begin our foreign policy by having a domestic policy. And once we do -- [tape ends].

-- policy into a comprehensive global approach. Will that approach look like Kyoto? Could a new renegotiated Kyoto or Kyoto-style approach work for the U.S.? My answer is probably not. It would be very difficult for the U.S. to fit comfortably in such an approach. The UN is a slow and inefficient place in which to negotiate important economic agreements. It has a very poor dynamic vis-a-vis the United States. The EU tends to view itself as--tends to view its priorities as trying to push the U.S. to do more than the U.S. is probably willing to do, and in trying to do that, often reaches out to developing countries to make an alliance with them that is against the U.S., and in doing so inhibits our ability to push those developing countries to do more themselves.

Developing countries negotiate as a bloc even though their interests are enormously diverse. Some developing countries are major petroleum producers. Others run the risk of having their entire nations flooded by rising sea levels. And yet they negotiate as a group, and this complicates UN negotiations.

The UN itself is a place where both the Secretariat and many developing countries are hostile to market-oriented approaches. It's a place where there is weak international governance and where enforcement and compliance mechanisms in environmental agreements tend not to be very strong.

In addition, we have our own domestic concerns about the UN. The Congress tends to be very skeptical of major international agreements within the UN. It tends to be very cautious about approving new international treaties. In fact, constitutionally, the two-thirds requirement for advice and consent in the Senate is a very high bar, arguably too high a bar. One can only reach that conclusion just by looking at the

Law of the Sea Convention, which is a treaty that, unlike any likely future climate change agreement, is endorsed by the American Petroleum Institute and the environmental community. And yet the Law of the Sea Agreement has been sitting before the U.S. Senate for decades. Even with major revisions that the international community agreed to at the U.S. request, the U.S. has not moved forward with that agreement, which also enjoys the Pentagon's support.

So what would it take to actually get two-thirds of the Senate to endorse an agreement that had very significant economic implications where there would likely be significant business opposition, even if a moderate sector of the business community did endorse it. I think the standard is just too hard, the constitutional standard, and it's unlikely that the Senate would approve a new Kyoto-style climate agreement.

If I'm right about that, what are the implications? What do we need to do instead? If a Kyoto-type approach might not work for the U.S., what could we do, how can we show U.S. leadership? Well, I think we need to adopt a pragmatic step-by-step approach, one that perhaps builds on the approach that's taken by the United States and other countries in the area of trade. When it comes to trade agreements, we work multilaterally. We work in the WTO. In the climate context, the analogy would be under the Framework Convention. We should continue to work multilaterally.

But in trade, we also work regionally and bilaterally. We pursue progress wherever it is possible, with any grouping of countries. Rather than insisting on a purely global agreement, we should be open to parallel and diverse tracks.

In addition, the trade law is largely built on national interest and incentives. We negotiate with other countries in a way that is what economists call parieto(?) superior. They win, we win. And yet the dynamic on climate change negotiations has tended to be about sharing burden, and we need to find a way to reinvent the climate discussions so that they're built on progress and incentives rather than on burden sharing.

We also need to find a way that is responsive to U.S. interests and where the U.S. can drive the process. Robert Zoellick has been very skillful in pushing through bilateral trade agreements, the Clinton administration as well, whether it's with Jordan or Singapore or the Central American countries. We've been able to make progress even as progress at the global level has proved difficult, as the Cancun discussions in the WTO showed. If we adopted this model of a more pragmatic step-by-step approach, I think we would find that we had more success.

Okay. So that's how we would approach it, but what exactly would we do? And what would be the political narrative that a future President or a second Bush administration would use to explain this approach to the American people? Let me go over it in broad brush and then kind of hone in on a few of the specific concrete steps that I think would be necessary.

In my view, the United States should say that the U.S. will lead without preconditions, that we will set an example, that we will enact long-term, market-oriented, domestic regulation. We will set affordable national climate targets at home. We will work with other nations to leverage our action into strong and more affordable international action now. And I'll describe shortly how we would do that.

But for political reasons, I imagine that it would be necessary to accompany that statement with the following additional statement: We should stipulate that even further U.S. action, a strengthening of our domestic regulation down the road will depend on leadership by other major emitters, including developing countries such as China and India; that other developed countries need to prove to us that they are taking on the same kinds of obligations that we are enacting, once we enact domestic regulation, and the

developing countries should be seen as being on the road towards the same kinds of steps that we have taken, that their action needs to be equitable. International action by the poorest nations, of course, should be unambiguously contributing to their economic growth. We cannot make climate change an obstacle to poverty alleviation.

So if that's the narrative, if that's how we describe U.S. policy and our international climate foreign policy, what would it mean in its specifics? What would be the specific policies that we would adopt in order to give life to that narrative? Let me suggest five concrete steps.

Step one, we need to enact a mandatory domestic climate change cap-and-trade program. I've noted that we've had two kinds of speakers at this conference: those who support cap and trade and support enacting it now domestically, and those who support cap and trade but don't support domestic regulation. But there's universal support for cap and trade as the approach that the United States should take if we take domestic regulation.

So I think that the question, as has been said, is not whether but when, and once we make that decision, I'm confident that we will adopt a cap-and-trade style approach similar to the proposal that Senators McCain and Lieberman are advocating. So if we adopt this approach, that's step one.

Then step two, we need to make sure that our cap-and-trade program links in and provides credits for investment in developing countries and developed countries by U.S. firms. The reason for doing this is self-interest. We can reduce our own costs of meeting any given goal that we adopt by allowing our companies to get the benefit of low-cost emission reduction opportunities abroad.

Step three, we need to link our cap-and-trade systems with those that are adopted by other countries and regions. We need to make them compatible. We need to set the rules for the trading of emission reduction credits that are certified in other systems with those that are developed here in the United States. The reason for doing this is also economically rational. Companies that are able to reduce emissions here in the United States at low cost will find that they have a new economic value that they can sell to others where the marginal cost of emission reduction is higher and the overall cost of the climate effort can be reduced.

Step four, we need to allow developing countries that prove that they're able to reduce emissions to sell those emission reduction credits into the system. They need to be able to participate. Now, I understand that developing countries are not likely to adopt national targets in the Kyoto-style approach. But I believe that if we allow countries that can prove that they actually have reduced emissions to get economic benefit from those reductions, it will create strong incentives for the right kinds of actions in developing countries. So instead of asking China and India for a national target, for a promise, a commitment to the international community that they will reduce emissions, we give them an option. We allow them to sell emission reduction credits to our companies and participate in our system once they have proven that they actually have reduced those emissions.

Step five, for political reasons, as I've said, I think we'll need to condition stronger U.S. action--that means a ratcheting down of the U.S. cap--on a review of action at the international level and some conclusion that the Congress and the President would make together about the adequacy of that action as a basis for tightening U.S. regulation.

So why would developing countries go along with this approach? Well, the first point I would make is that we wouldn't ask them to. We would just do it. We would just adopt our cap and trade. We would just open up and give credit, give regulatory relief

to companies that invest internationally in emission reduction projects.

We would just give countries opportunities to sell into our markets, and it would be their choice as to whether they chose to do so. In my experience diplomatically working with China and India and other developing countries, they're very eager to take advantage of proven economic opportunities. If we show them that there is an economic opportunity, I'm confident that they will follow.

In addition, I think that they would find it a refreshing approach. We wouldn't be asking for commitments. Instead, we would be working with them to create value in their own economies.

Well, when should the U.S. cap become more stringent? If we're going to condition a tightening of the U.S. cap on international action, what would be the standard? Well, for developed nations we should ask them to take comparable action. We could establish any of a number of different metrics for determining what is comparable. They could match U.S. improvements in carbon intensity. We could look to see whether the economic costs of their programs and of their emissions reductions are the same as ours. There are a variety of different approaches, and I leave it to further discussions to determine what the right standard should be.

For developing nations, we should ask that they take equitable action. We notice that China has already outperformed the United States in terms of improvements in its carbon intensity. The rate of decarbonization in the Chinese economy is far greater than that here in the United States. I would think by any equitable measure, China is doing its share. Now, whether that trend will continue I know is a topic that is very open for debate. I don't claim to have a crystal ball. But if we judge past performance, we should be able to determine whether countries are doing their share.

Why should this be enough for the business community? We heard from Michael Morris yesterday that he's extremely concerned and other members of the business community are concerned about the competitiveness effects of a possible U.S. mandatory approach or cap and trade. Well, I would argue that it's largely within our own control, at least initially, for controlling the extent to which there would be real competitive distortions. If we set the U.S. cap at an affordable level, if we choose the right target, if we include the right kinds of mechanisms to control economic uncertainty, there should be ways of satisfying the concerns of those who are particularly concerned about the competitiveness distortions.

In addition, if we open up our trading system to developing countries and allow them opportunities to sell into a U.S. domestic trading system, that will create an incentive for developing countries to reduce their own emissions, and this will, in effect, raise the price of carbon in those countries, minimizing the competitiveness distortions. If the market works--and I believe that to a large degree it can--then business leaders in China and India will realize that there's an economic cost, an opportunity cost for them if they allow emissions to rise. And they'll make the same kinds of business decisions that our companies will make here.

In pursuing this pragmatic approach, this approach that is largely driven by U.S. policy, which countries should we work with? How should we proceed? Well, I would argue, as Elliot said, that there are only really a relatively small handful of countries that really matter. The G-8 by far are our largest trading partners. We should begin there. But there's no need to stop with the G-8 because most G-8 countries are also members of the OECD. And most of the OECD countries have already or are willing to adopt national emissions targets and to engage in emissions trading. So by working with the OECD, we can capture the 30 largest industrialized nations who are our largest trading partners and

where our businesses would have some of the most significant competitiveness concerns.

But we also need to work with major emitters in the developing world, both because they're a big part of the environmental problem and because their companies are increasingly economic competitors. China, India, and Brazil in particular are important.

If we worked with these countries--this would be 33 countries rather than 180 under the UN Framework Convention--we would capture the 15 largest emitters, over 80 percent of global emissions, 75 percent of U.S. trade, 13 out of 15 of the top U.S. trading partners, leaving aside Singapore and Taiwan. And I would argue that that would go a long way towards addressing the competitiveness concerns in the U.S.

Let me wrap up by providing benefits, a summary of the benefits of this approach. If we start at home, we can set modest goals. We can work incrementally rather than seeking a big bang in the Kyoto style. We can deploy our action in phases. The approach would be less complex and more within U.S. control. If we lack a global consensus, it wouldn't stop progress. We could find progress among willing participants in smaller blocs.

It would avoid overreliance on the UN which has political baggage both in itself as a negotiating body and here in the U.S.

We could guarantee cost-effective approaches because the rules would largely be written in the United States as part of our domestic regulation. We could focus on the countries matter, and there are only just a handful of them.

We could address competitiveness concerns of U.S. industry by dealing with our largest trading partners, and we could improve the negotiating dynamics by negotiating directly with the European Union and with developing countries where the complications of trying to attract the support of other groups would not be present.

I think this provides a great reason for optimism. If we act at home, there are ways forward internationally. If we act, we can leverage that action into international leadership. And there's every reason to believe that we can be successful.

Thank you.

[Applause.]

MS. CLAUSSEN: I just want to tell you how we're going to do the rest of the day here. Both Jim Wolfensohn and Congressman Gilchrest are here, so we're going to go with Jim Wolfensohn, the President of the World Bank, first, whom Strobe will introduce. And then Congressman Gilchrest will end the program as soon as we've been through Q&A with Wolfensohn.

MR. TALBOTT: Good morning, everybody. It's a special honor and pleasure for me to have a chance to welcome Jim Wolfensohn back to premises that he knows very well. Jim is not just a frequent guest here at Brookings, but he is in a very real sense a proprietor of this place, which is to say, my boss. He is a loyal and long-serving member of our Board of Trustees, and I might add on a personal note that he has been especially helpful to me over the two years that I have been here.

I think everybody knows that Jim came to the presidency of the World Bank after what could be called a Renaissance career, not just as a financier but as a cellist and as an Olympic fencer, which I think is actually pretty good training for the time that he's had in Washington, although I think fencing foils are a little too genteel an instrument. The weapon of choice here in Washington is more the stiletto and the poleax. But in any event, Jim has done very well in all of the frays.

In his eight years at the World Bank, he has intensified and made much more effective the focus of that institution on the reduction of poverty, on the promotion of good governance, on the promotion of civil society, and on making sure that issues of

gender and culture and youth are all very much on the economic as well as the social agenda. He has also been a real leader in the battles against corruption and HIV/AIDS.

As for the issue of this conference, Jim has done a great deal to make sure that the Bank, governments, other international financial institutions are acting on the recognition that economic development must be environmentally sustainable and that climate change, unless it is addressed, is going to have a disproportionate impact on poorer and developing nations.

He has been a strong supporter of the goals of the Kyoto Protocol and also of the Carbon Fund. He has been a spokesman in articles that have appeared recently, as far-flung as China and France, and in speeches that he has given, including to the United Nations General Assembly, for the proposition that world leaders need to give much more priority to meeting the challenge of climate change.

So, Jim, help us out on an issue where you've already helped the world.

[Applause.]

MR. WOLFENSOHN: Well, thank you very much indeed, Strobe, for that introduction. The difference between fencing and Washington is that in fencing your opponent is in front of you.

[Laughter.]

MR. WOLFENSOHN: And there are rules, which don't seem to apply in this city. But thank you for the introduction and also for the leadership that you have shown in this institution.

I am not his boss. I am an emeritus trustee. I'm finding that I'm getting so old in relation both to Brookings and to the environment. I was with Maurice Strong in Stockholm at the beginning of the environmental international activities when we first started to talk about emissions and climate change, and so I come here in front of you as an almost antediluvian representative, but one who has the privilege of representing an institution where we take this issue very, very seriously, and where I'm delighted to have the chance to remind you of the issues that relate to development.

All of you I think know that the Bank is concerned with the five billion people in the world out of six that are in developing countries that have roughly 20 percent of the wealth compared to the 80 percent of the rich countries. You're aware that in the next 25 years, as the world grows from six billion to eight billion, and in 25 years' time we'll have seven billion out of eight billion in developing countries; roughly 50 million only will be added to the rich world. And 50 years hence, it will be eight billion out of nine. So at least we have a growing market in the work of the Bank, but also some growing problems and also, of course, growing opportunities.

During that time, just to give you the economic base, it is likely, as we project, that instead of six to seven trillion dollars a year of income in a global income stream of $34 or $35 trillion, roughly 20 percent of the share of global GDP by 2050 will be 40 percent. And on sort of 3-percent growth figures averaged up to 2050, we will at that stage have a $150 trillion global economy. And you'll have $60 trillion in the developing world, up eight times, if you like, from what it is today.

And the reason I'm giving you these statistics is that as you get economic activity, so you get use of energy; and as you get economic activity related to proliferation of people, and a new issue which is that you'll have in that same period of the next 25 years when you have growth of two billion, two billion more people moving into cities and towns, where you will have tremendous additional pressure on both the environment and on energy needs, that is the environment in which we are looking at the question of climate change and sustainable development. It is not static, and the growth is all in terms of

people in the developing world. And so you need to have that in the back of your minds as you listen to what I'm trying to assert now, which is that the issue of climate change has a disproportionate effect on those people who are vulnerable and who are in the developing countries that we represent.

I think it's not necessary for me to tell you how much of the GHGs have come from the rich world. It is most of them. I don't need to give you the background of Kyoto or the debates that have taken place because I understand that that was more than adequately covered yesterday, and you know about it, anyway.

But from the point of view of the developing countries, these are countries which are marginal where a substantial portion of the poor are in rural areas, and where issues like deforestation, like changing weather patterns that cause for less than optimum usage of land, and indeed degradation of land, where air pollution has a significant impact on people, and where also the biodiversity is really significantly affected, not just for the developing countries but for the world itself, that we necessarily are quite concerned about the impact of climate change on these vulnerable people.

I think you also know that there are many parts of the world in which the actual level of the countries themselves are being challenged. For those of you that have been in the Maldives or in Bangladesh, you will know that the issue of climate change in those countries is not just a question of increase or decrease of standard of living; it is a question of whether you have somewhere to live at all.

My son, who is a film maker, has just come back from Alaska, tells me that he's just seen in Eskimo village in Alaska that, as they are also affected by it, some of those villages are already sustaining the same sort of thing in our own country as our citizens are being moved because of climate change.

So we have the issue in the developing countries of physical existence in some of the countries, in the low-lying and in the island states, but we have more particularly the issue of economic activity and distortions of economic activity brought about by changes in weather patterns and brought about by changes in water flows and brought about by the immediate impact that this has on the whole economic environment in which people live.

This is dramatic in many of the countries, and for those of you that have traveled and have seen the degradation in land and the acute difficulty that this faces people with in terms of land use, you will understand that for us the question of climate change is not a theoretical question. It's one that is of immediate and huge impact in terms of the developing world.

I participated in a Security Council meeting on some aspects of this, and as you know, some people have said that this is as big an issue for the developing world as are some of the more physical threats, be they terror or wars. And I actually believe this. It's very hard to put a number on it, what a two- or three-degree variation or a three-degree variation would lead to in terms of loss of GDP. About the only statistic that Bob Watson can give me--and they're usually pretty wild statistics that Bob Watson does give me. But he tells me that it should be between 2 and 9 percent of GDP. Well, that's a pretty good range. But even a 2-percent variation in GDP per annum in countries of the type that we're talking about is huge. And in some countries, there is no doubt that the impact of climate change is quite, quite dramatic.

What is it that we can do about it? Well, it's clear that the wealthy countries, again, as I think you discussed yesterday, can do quite a lot in terms of conservation and in terms of better policy and in terms of research. Funnily enough, after four or five aborted attempts to meet, I met this morning one on one with Spencer Abraham by accident. And

I'm quite happy now, if you like, to make Spencer's speech to you that he gave to you yesterday, because I got it this morning.

[Laughter.]

MR. WOLFENSOHN: About what it is that we should do in terms of massive research and quantum change, in addition to work on renewables and work on better policies. And so why don't you take it that I understand what he said and I'll just make it again.

But how we can do that and how quickly we can do that is, of course, a big issue. We would love to have a hydrogen solution. We would love to have a fusion solution. We would love to have atomic energy that is safe. But I think at the moment what we're looking at in terms of developing countries which are endowed significantly with coal and, to some degree, with oil and gas is that, looking forward in the countries in which we're operating, for the foreseeable future the issue that's going to be facing us is the issue of hydrocarbons. We'd love to have gas. We all know that that would be better. And in the recent report of extractive industries that Mr. Salim gave, he is recommending that the Bank should get out of coal and oil and that we should put our efforts into renewables. And I have over the last months paid a lot of attention to the renewables issues. And we've had reports on everything from solar to wind to geothermal to tidal. And I've been out to see these things.

But the bottom line is that currently that's 2 percent of global energy supply--2 percent. And if we could take it to 3 or to 4 or to 5--and 5 is already beyond the range that anybody has projected over the next 15 to 20 years--that would be a great thing to do. And we propose to get into doing that. But the issue for us does not seem that renewables is the immediate answer at any rate. And to that extent, I think what Spencer Abraham said is right. There is a need for technology.

But I think what we are looking for in the countries in which we're operating and are proposing in the rich world is that all the science and technologies should proceed at as tough a pace and as vigorous a pace as is possible to bring about a breakthrough, because clearly a breakthrough would be wonderful; but that in the meantime, what we need to do is to try and modify policies, try and save as much energy usage as we possibly can, and try and clean up the act in terms of carbon.

We have one other problem, which is this, which is somewhere around a couple billion people, 300 million either way, don't have any energy at the present time at all. And so poor people themselves constitute an issue in terms of deforestation. Because if you have no energy, you go out and cut down the nearest tree, and that is bad for the environment. It's also bad economically because it's wasting the time of people. And then the women are also burning biomass, and we estimate that a couple of million of them are killing each other themselves every year because of disease that comes from inhalation of the noxious fumes and things that go along with the burning of biomass in a small space.

So we are dealing not just with the theory, we're dealing with the actuality of poverty, which itself is a degrader of the environment and in a curious way, unfortunately, impacts forestry and impacts the environment in which we live. And so for us, getting electricity or getting some form of power to a poor community is in itself an advantage even if it is brought by coal-fired plants.

Now, this leads, of course, to the question of cleaning up and the advances that we can make on the use of coal and oil in the generation of electricity. And there the need to clean up the plants and the work that I think many are doing, including the Department of Energy in this country, to try and get clean coal is a parallel activity that we hope must continue as we move forward in terms of our efforts in developing countries.

But the notion that any report or any admonition by rich countries to poor countries that they should not use the coal reserves that they have is sheer fantasy. It's not going to happen. It might be wonderful and it might be a great thing in terms of the environment, but our clients say to us, look, you rich guys created this problem. You are profligate in the use of your energy. You too burn these fuels, and now you're telling us, as we move, as I remind you, from $7 trillion to $50 trillion in terms of economic activity, that we can't do that, and that we are the ones that have to solve the problem, while you have no policy, while you're profligate, and while you're not spending your money adequately on trying to clean up the act of how we generate electricity; and we would love to have hydrogen and we would love to have fusion and we would love to have all these great things that we're talking about, but don't put it on us. And we'd also love to have renewables, and we will use renewables, but there is a cost factor. And we're more than happy to try and deal with it, but please, please, please, if we're going to use renewables, bring down the cost and bring it to a point that it can be attractive to us, because, remember, we're poor, we're not rich. And that is what we face every day when we go out and try and do the work that we're doing.

So I was anxious to come when I was asked because I think the issue of developing country confrontation with the question of climate change is, first of all, very real. And this is the group that is most vulnerable, particularly to changes in temperature and water supply. It leads to the unfortunate result that the arid and semiarid areas typically get worse and, therefore, affect the production of agricultural products. It leads to questions of distortions in the developing countries which are vulnerable and where the poorest people find that their economic activity is most influenced, and where we face the huge challenge of bringing clean water to the one and a half to two billion people that don't have clean water, sanitation to the two billion or so that don't have sanitation, where it leads us to try and deal with waterborne diseases which are affected by climate change, and where the developing countries are saying to us, For God's sake, help us, but we're not the cause of this problem. We are contributing to it, but we need a better partnership and a better policy with the rich countries.

This is where we're at in the debate, and speaking on behalf of the five billion, it's not such an arrogant or distorted request to be making. So they're looking for research, they're looking for better policies, and they're looking for partnership. And they're doing it from a point of view that reflects their vulnerability. But what they're not looking for are lectures on don't use coal and don't use oil and don't use your natural resources. And they react rather badly to these sorts of suggestions.

So in the middle of all this, we're trying to weave a path which allows for the best use of renewables, which allows for appropriate partnerships on the extraction of minerals and oil and coal. We are looking to try and find the best ways to use renewables at some moderate cost. But the bottom line for us is that this is a huge question in the issue of development. I think it is less felt than it should be in most sectors of the community, though I'm sure in this room you understand it. It is a real crisis for developing countries. The issue of climate change affects them more than it does us. It is more than an inconvenience on holidays or on change of climate. It is a question of existence. And I'm very grateful that this group and Pew are anxious to keep our attention focused on this subject because there is no way that we can reach the Millennial Goals for poverty or for development without addressing the question of climate change and the environment.

This is not a fringe issue for us. This is a central and, frankly, less understood issue than it should be. And for those reasons, I'm very glad to have been invited here to remind you of things that you probably already know, but it makes me feel

better to tell you.

So thank you very much.

[Applause.]

MR. WOLFENSOHN: There's a very strange-looking fellow in the front row there. Peter?

QUESTIONER: How are you?

MR. WOLFENSOHN: Good.

QUESTIONER: There's no reason you should know, Jim, but I'm now working for Environmental Defense in New York.

MR. WOLFENSOHN: Oh, fantastic.

QUESTIONER: And I'm afraid I want to put to you one of those terrible "I would have thought" questions.

MR. WOLFENSOHN: Please.

QUESTIONER: I watched from some distance the Bank struggling with the Salim issues, and I hear in your own words the alternatives, simplifying a little, invest in renewables versus invest in hydrocarbons. And what I would have thought is that there is a clearer long-term path, since you head one of the few institutions in the world that can think in terms of decades, which is a tremendous advantage in these issues because climate is an issue of decades, and we do have a window with some latitude, which will someday seem very precious to us.

I would have thought it would have been possible to define the road forward as not renewables versus fossils, but as--and since the Bank must invest in energy, since energy is so much part of economic development, one way or another you must be in the energy business. I would have thought the way to define the way forward is that the Bank will invest in energy where that is decoupled from carbon. We've done it with SO2. We have decoupled the generation of energy and the growth of economies from the growth in emissions of SO2. We did it a while go in many parts of the world. We decoupled the production of gasoline from lead in gasoline. And by defining it that way, it makes it more likely that the developing world will not have to go through the long industrial winter, or summer, if you wish, that the North went through. It will certainly take you through the path of clean coal, and it will in some cases take you through a path which may be more expensive coal.

But I would have thought that would be a defensible, long-term. strategic economic goal and would sort out some of the nearer-term agonizing issues.

MR. WOLFENSOHN: Well, long term, I would agree with that as a statement of policy when you give me an answer to economic clean coal. The reason--first of all, we have just come out with a draft answer, actually, to the Salim report, which has a lot that's very good in it. And I remind you that the Salim report deals not only with the issue of emissions, it deals also with the question of how energy companies should operate in developing countries in terms of affecting the rights of people, in terms of ensuring that affected peoples get some share of the income, issues of transparency, all of which we have, I think, now have gotten considerable agreement on. So before I get to the question of emissions, there is a whole series of stuff that we have agreed on with the Salim report.

What Salim asked was for us to pull out completely of the coal and oil business, and we're not very much in them, anyway. But the reason that we believe we should stay in is that we frankly think that when we're in, we get better developments that are more equitable and much more favorable to the environment than when we're not. And that's very clear because we insist on environmental impact statements, we insist on dealing with the questions of every aspect of environment, as well as now human rights and

the rights of indigenous people and local communities. And for that reason alone, I am anxious to stay in because if we pull out, we cannot influence the major companies in terms of the way in which they do their job in extraction.

I have just recently have been in the Niger delta, where if you put a question of "I would have hoped," I would have hoped that the Niger delta might have been a better form of development in terms of the environment, in terms of the people. So what we're trying to do is to deal with that issue.

Now, what we're certainly not doing is promoting the use of power plants that put out emissions. Within the framework of existing technology, we'll always opt for the cleanest technology. And we seek to insist on the cleaner technology. In fact, we've closed down quite a lot of plants and we've closed down quite a lot of mines in India because of the emissions and because of the environmental impact.

But although it's a long-term goal to only act in those cases where there are no emissions, it is not currently either technically or economically possible. And so while not promoting the use of coal for poor emission standards, quite the contrary, the use of coal only where you can use the maximum of current technology. We're sort of waiting for technology to catch up with us. And at the same time, we're putting--have agreed to put everything that we can, both ourselves and in bringing together some sort of global communion, on the question of renewables.

That's where we're at at the moment, but there is a 30-day comment period and an e-mail address, and we'd love to get your views, Peter. And I'll send you a copy of the report. And, frankly, if you think we've got it wrong, I'd welcome your comments. But we're trying at the moment to meet a short-term reality within the framework of a long-term objective, which is the one that you enunciated.

MR. TALBOTT: One more, Jim?

MR. WOLFENSOHN: Yes. Why don't you pick it. The lady at the back I think was first.

MR. TALBOTT: Just one second to get a microphone.

QUESTIONER: Hi. Carla (?) University, New York. I was wondering if you could give us an idea of to what extent the monetization of environmental benefits around carbon, such as, for example, reinvestment of GHG credits or CDM projects, could impact the overall internal rate of returns of these projects of renewables and make it more appealing.

MR. WOLFENSOHN: Well, we started, as you know, one of the first Carbon Funds, and it's moving very well. And I think in that context, we have been pretty constructive in terms of dealing with the question of carbon emissions and trying to get the benefits at the same time to flow to developing countries. We will continue to do that. I now see that there are others who are inventing the same thing, and I think--my hope is that there will be many, many people who deal with the question.

There's no doubt that it can add to the economics in developing countries and it could also allow the rich countries and people in it to salve their conscience a bit by trading in carbon certificates. So our hope is that there will be a win-win in both the rich countries and in the developing countries. And we have been really thrilled by the reaction to the Carbon Fund that we started. We were sort of a voice in the wilderness three years ago, but now I have to say we are being well supported, and a number of commercial institutions are now setting up to trade in carbon certificates and other forms of carbon financing, which has an ultimate benefit for developing countries.

Thank you all very much.

[Applause.]

MS. CLAUSSEN: It is a great pleasure for me now to introduce Congressman Wayne Gilchrest. He's a Republican from the Chesapeake Bay area of Maryland and has represented that area for the past 15 years. He's the co-chair of the House Climate Caucus, with Representative John Olver from Massachusetts. And I think you all know that with Congressman Olver, Congressman Gilchrest introduced the House companion to the Lieberman-McCain bill. And it's a great pleasure to welcome you here to talk about the bill and what's going on in the House and how we can actually get something done.

[Applause.]

MR. GILCHREST: Eileen, thank you very much, and I want to thank the organizers of this seminar for putting it together to let some of us come here and listen, learn, and express our opinions on the issue, and also to give you some sense of, since I'm in the House of Representatives, how we function over there, that mass of 435 separate entities, organisms, moving in different directions and how we work. To give you a sense of that, think about a compass that has 360 degrees on it. Well, the House has 435, and they're all moving in different directions for different reasons.

But what I'd like do, first of all, I hope--I don't know if you need a five-minute break right now. I don't know how long you've been sitting. Are you okay for another few minutes?

To prepare for these kinds of things, the staff always gives you some information. So the information I've gotten is eight questions that they'd like me to talk about, and I guess that came from the institute. So for the sake of time, I'm just going to go right through those questions.

The first one is: Please explain the peculiar landscape of the House of Representatives?

[Laughter.]

MR. GILCHREST: And I think that's a great question because it is a peculiar landscape and there are 435 people in it. Have you ever tried to sit down and get agreement from ten people on very complicated topics? It's tough. The Senate has a hundred people, and it's pretty tough for them to get together. But with 435 people all representing vastly different areas of the country--urban, suburban, rural, pristine areas, very polluted areas, very wealthy areas, very poor areas--they are to some extent a reflection of that community. And so many of these members come with a certain frame of reference about what their role or goal is.

Now, many come because they have a political career, and that's pretty much what they want to do. They like being a Member of Congress, and they raise a lot of money, and they stay there. You find that in other institutions as well.

Some want to help the unemployed in poverty, in Manhattan or Brooklyn or Chicago or Miami or Watts in California; some because they want to ensure that their chemical industries that they represent produce enough fertilizer to put on farm fields. Some come because they have a vision for the future. But you mix all these people together.

If you talk about any one of a number of issues, you have widely dispersed opinions. Fundamentally, though, the U.S. House is an amazingly wonderful human institution where you exchange information. You have by the rule of the House a sense of tolerance for somebody else's opinion, and then you resolve the issue by voting. But it's that wide dispersal of goals that people have, that frame of reference that they come into the political system with, is both good and a problem.

If you discuss the issue of climate change, it is on almost nobody's radar

screen. They come with zero frame of reference, a vacuum of information or knowledge about the basic fundamentals of what drives the climate, the environment, and the geology of the planet. It is virtually nonexistent.

And so when you're discussing an issue like climate change, it involves all of those things--environment, geology, and how the weather system works based on the interaction of the ecosystems and the evolution of those ecosystems, and you say that, you know, within a hundred years we could have no more Manhattan Island or no longer will people live on the Eastern Shore of Maryland, Delaware, and Virginia because it's at sea level. It's challenging. So that's the peculiar landscape: a lot of different opinions, no frame of reference to those kinds of complicated environmental issues.

The difference in the dynamic between the House and the Senate is the number of people. It's simply working with 100 people versus 435 people. That's a significant difference, not to mention the fact that they need a lot more money for their campaigns than we do, so they spend a lot more time on the telephone. And if you're going to raise $10 million, you don't do it like that -- [snaps fingers]. So when you factor in how much time you have for deliberating on issues such as the highway bill or the Space Station or Iraq or banking reform or all those other issues out there, including Medicare, how much time do you have left over for climate change versus how much time do you have left over for raising funds for your next political campaign? And I hope you're all taking this in the very optimistic sense in which I intended.

[Laughter.].

MR. GILCHREST: It says: Why is the climate change issue so important to me? I don't know exactly. I honestly don't know except I have a natural, I think, genetic predisposition to love the prodigious bounty of creation. It could be from a religious sense, although I'm a pretty moderate Methodist. I drink wine. I'm pro-choice. And I think it's okay for gays to have a union. So that's my perspective on creation. But also, the future is depending on us making a pretty important decision. And when I see the overwhelming evidence and human impact as having effect on the climate, then I think we have the responsibility to offer future generations our best shot at this. So to avoid hunger, drought, disease, flooding, I think we owe it to those future generations not to pass up an opportunity to correct a mistake before it gets out of hand. So that's my goal over the length of time that I'll remain in politics, and maybe outside of politics.

The other thing is I'm interested in this because I think human beings, like many people have written, are now a geologic force. We are geologic force. We are changing the physical parameters of the planet, and we're changing the very ecology of Earth itself because of our numbers and our technology and our advances. And so for us to move away from that and understand that human infrastructure, if it doesn't become compatible with nature's infrastructure in a relatively short period of time, I think there will be some pretty severe and dire consequences for future generations in the not too distant future, that they'll have to correct the mistakes that we're making.

The degree to which you think this sensible center can come about to have a better understanding of these issues. Here's where I am optimistic. I'm optimistic because I think you can't avoid credible information, the majority of people. And so it's important for myself, John Olver, John McCain, Senator Lieberman, and a number of other people in the House and the Senate to have--and to some extent we have--to create a strategy to get the information that we are beginning to become knowledgeable about to each individual Member of Congress. And we've started to do that, whether it's a pitch to the Rules Committee about an amendment, whether it's speaking on the House floor during what's called special orders, whether it's meeting with members, talking about it, or we have a

meeting with the Speaker toward the end of July in which we are going to bring in some very specific scientific experts dealing with the scientific understanding of this and the economic ramifications of not doing anything and the economic possibilities of doing something. And I think this holds some real possibilities for the Republican leadership, for the leadership of the House, to begin taking this issue seriously.

I am optimistic about that because when the Republicans took over as the majority in 1995, there was some real movement to eviscerate the Clean Water Act and the Endangered Species Act and a number of other environmental provisions. So some of us got together, not having ever met too many scientists, but I'd read some interesting books from people like E.O. Wilson about biological diversity. We asked them--a friend of Newt Gingrich's was Terry Maple, head of the Atlanta Zoo, and E.O. Wilson had come in and talked to Newt. Newt is fairly bright. In fact, he's brilliant. He has a very high IQ. And so--not that you--I don't think you have to have a high IQ to understand some of the complexities of environmental issues. And I probably shouldn't even have made that comment. But we knew Newt was smart. So we got E.O. Wilson and Terry Maple into a room with Newt talking about the Endangered Species Act and a whole range of other environmental issues. And Newt simply said he's not going to let a bad ESA bill hit the House floor. And it didn't. So we didn't eviscerate NEPA or ESA or a number of other things.

Now, there were some complications after Newt got elected, and I'll just throw those out to show you how peculiar we are. We became the majority in 1995, and those people who Newt helped get elected came to Washington and decided that Newt Gingrich was not conservative enough. And so for several years, they held a number of underground coups to kick Newt out of being Speaker. Newt survived all those very difficult, very challenging, very hurtful times, and decided that he was tired of it so he resigned. And we are now still working with the ramifications of that. So we continue to be a very peculiar institution.

I'm optimistic that Congress can move in a direction of understanding what the ramifications of climate change will be in the near future, and we can begin making small steps to provide legislation that will move us in the right direction. But the House of Representatives cannot fill the vacuum of leadership for this nation. We are too diverse. We will make that attempt. We'll try to do it. And a visit to London next week, I'm going and a number of staffers are going. We hope to hook in with a lot of -- [tape ends].

T6B -- connection with the European Union to bring that information back to the House and to the Senate and show what the rest of the world is actually doing. Some of our problems--you think we're in an age of communication. Some of our problem is that we're overdosed with information and we just can't read or hear or listen enough because there's just so much information out there, so many problems that need to be resolved that very few members actually focus on things like climate change or problems with our oceans' ecosystem or forested wetlands and the services they provide.

So we intend to come back and continue one inch, step by step, making other members aware of the problems of these issues, develop policy, which I think we're going to do. But it's also important for this nation to become a leader in the world with other nations to move us in the direction of finding alternatives to fossil fuel for our energy needs.

So I'll stop at that point. I hope I haven't confused you. Sometimes when I talk, I begin to confuse myself.

[Laughter.]

MR. GILCHREST: So we'll work to provide a united front from the House

of Representatives and the executive branch as relentlessly as we possibly can.

I'll stop and see if anybody has any questions.

[Applause.]

MR. GILCHREST: Yes, sir?

QUESTIONER: Congressman, [inaudible]. I want to applaud your leadership of Congress. I also--I'm sorry. In your constituency, back in October of '96, you played a key role in a very god meeting on the Chesapeake Bay locations of climate change, you gathered all sorts of leaders from around the Bay and citizen activists there in Washington College. You also happen to be in a rather unique position. Arguably, the Chesapeake Bay is really the canary in the mine shaft as far as climate change in the United States. I mean, within 100 miles of the U.S. Congress, you have Smith Island, the rapidly disappearing [inaudible] Island, FDR's retreat, et cetera. There's a film that Steve Leatherman did, "Vanishing Lands," and I gather there's a new film that's about to come out. I wonder if there's a way that you could get some of the Members of Congress on a weekend trip to go to the Chesapeake Bay and actually see that this isn't something theoretical, it's actually happening and it's happening within a hundred miles of Washington, D.C.

MR. GILCHREST: That's an excellent idea. We've taken--I've made some attempts and actually succeeded on a number of occasions to bring people over to the Chesapeake Bay, the Eastern Shore, to talk about its beauty, its bounty, its sense of place in history, even before John Smith came, an area where we don't talk economic growth, we talk about the vitality and the dynamic economy that we have that we've been able to preserve for 300 years, 400 years, with agriculture, with fishing, with forestry, and we've done that increasingly so in recent years in a very compatible sense with nature services.

I will bring them--I will make attempts to bring them over more and more in the near future to express those kinds of things and the potential damage that can be done as a result of climate change, not to mention the fact our sensitivity to an environment based on concentrated animal feeding operations and the loss of wetlands. So we have this--you know, you just renewed my spirit to bring those guys over there, because all these environmental issues can be discussed on one canoe trip.

[Laughter.]

MR. GILCHREST: So if you want to come along, Edie Thompson is right here, and we ought to get something like that on the schedule. We'll probably also have to let them shoot some geese while they're over there.

[Laughter.]

MR. GILCHREST: Yes, sir?

QUESTIONER: Congressman, thank you. Gary Mitchell from the Mitchell Report. I want to ask you a question that is sort of is about both the Climate Stewardship Act itself and the 800-pound gorilla.

MR. GILCHREST: The 800-pound gorilla?

QUESTIONER: Yeah, I'll get there in a minute.

MR. GILCHREST: Okay.

QUESTIONER: The President has a record of moving from opposition to support on some fairly substantial issues ranging from homeland security to the 9/11 Commission to internationalizing certain activities in Iraq. The reasons vary but the pattern is there.

My question is: What factors, political or scientific, do you think might move the President from roadblock to supporter of this legislation?

MR. GILCHREST: That's a good question. It's a question that we've been

wondering about and attempting to achieve for some time. But I think you're absolutely correct. I think the President can move from one position to another position based on being pragmatic about the political landscape and with good information.

I think the pressures of climate change when you deal with the fossil fuel industrial complex, which incorporates a lot more than just oil companies, from automobile companies to tire companies to road contractors, and you name it. That's a little bit more complex. But I think the relentless discussion of this issue with information in a variety of ways would begin to move the executive branch and I think move the Congress.

I would hope that if we work hard enough that within two to three years the United States will be a key player in climate change issues around the world, and I hope linked in with what Great Britain is trying to do.

I've talked to a number of people in the administration. Whenever I get an opportunity--I don't want you to--I'd like to pass along the idea that you think I talk to the President once a week. I don't. I'm lucky if I get up there for a bill-signing ceremony, and then I'm lucky if I get a handshake that lasts half a second, although I found out that if you don't let go of the handshake, you can say something to him.

[Laughter.]

MR. GILCHREST: We were up there for a small environmental bill about a year and a half ago, and I had a book, a beautiful little book, paperback, about the history of water, the hydrologic cycle in the United States over the last 500 years. It was written by Alice Outwater. I think she lives in Vermont. In fact, I called her up after I read the book to compliment her on it and things like that.

Anyway, it's an understanding about the hydrologic cycle, how it works and how we have interrupted it and changed it and fragmented it and so on. So I brought the book into the White House because I wanted to give it to the President. Of course, the staff got real nervous about it. They wanted me to give them the book. They were going to give it to the President. It's not protocol to do that at a bill-signing ceremony. I wouldn't give them the book. So rather than get in a wrestling match, they let me have it. And they were very nervous.

We had the signing ceremony. The President comes over, he shakes all our hands, thank you, thank you, thank you, and I didn't let go of it. And I said, "Mr. President," and then he says, "Thank you."

[Laughter.]

MR. GILCHREST: You know, I'm not saying--and I have a lot of respect for George Bush, and this is sort of an amusing story. I'm not taking any dignity away from the office of the Presidency. I said, "Mr. President, I want to thank you for signing this bill and for helping restore the prodigious bounty of God's creation. And I would like to give you this book because I think it's a wonderful little piece of information about part of that creation."

That's about--and I've done that; each time that I've met the President, I would say something. I can't say that I have meetings with the President, but we've met with the Vice President, and I have talked to the Vice President about the problem of air deposition. One-third of the problem of the Chesapeake Bay is from the burning of fossil fuel, and it's a significant problem. I've talked to Dr. Marburger on a number of occasions, especially about the issue of climate change and the Kyoto agreement.

So we are out there, you know, with this movement to try to change the direction that the U.S. has in its policy, not toward what they're doing now, because they are trying to do things--you heard from Jim this morning about the kind of movement that

we see in this administration, and to some extent, it's good, it's significant. But we've got to stand in the bully pulpit and say there's a problem with climate change. And the only uncertainty that's left is we're not sure how it's going to play out. Are we going to be freezing cold in the Northeast and in northern Europe in the next 10, 50 years? Or are we going to have problems with increasing disease, drought, flooding, and so on? But we're going to fix this problem.

So I will--I forgot the original question.

[Laughter.]

MR. GILCHREST: Yes, sir, Dr. Epstein?

QUESTIONER: Thank you, Congressman Gilchrest, and for your leadership. We had a talk yesterday by James Woolsey who talked about the international security issues and tied terrorism to climate change through the Middle East and our dependence on oil. We had another assault last summer on 8/14 on our grid and the security of our electricity grid. I wonder if that attack, as it were, that fault in our ability to respond to excess demand from the heat wave, whether that's been incorporated into the thinking about climate change and whether as we move towards solutions--we have not talked in this session about adaptation and mitigation, but perhaps the best adaptation is distributed generation and how we feed into the grid but separate ourselves from dependence on that grid. So I wonder if the security issues are being tied to problems of climate change.

MR. GILCHREST: I think the security issues are being tied to a whole array of things. When we shifted from the Cold War to what we thought was going to be a thousand years of peace and prosperity, and we had--my son described it, oddly enough, ten years ago when he was in high school--or how many years ago that was. I remember when he was 16 and I was a Member of Congress, and a fairly new Member of Congress, we sat on the sofa in the living room, and for no particular reason, he said, "The world seems like a tractor-trailer driving 80 miles an hour down a road that's unfamiliar to the driver, at night, and the person sitting next to the driver is arguing with him, so the driver's not paying attention to the road, and a mile ahead is a cliff with a thousand-foot drop-off."

That was his sense of the direction. It wasn't very optimistic.

[Laughter.]

MR. GILCHREST: Unless they stopped arguing and started talking. We need to begin to set those kinds of priorities about a vision for the future as far as fossil fuel is concerned, our security, and how our advanced civilization works. And as it continues to become more advanced, people continue to depend more on technology, we increasingly become more vulnerable.

So we have had those early discussions. I would like to say that they are high on people's minds, that relieving ourselves of the burden of having to rely on fossil fuel is a huge step in the direction of national security for the United States. Taking people more independently off the grid so that they can provide for their communities and their homes is pretty vital. And the thing is we're at the early stages, I think of having the technology right now to do that. And it's going to take this government to say this is the direction we're going to move in and resolve those issues.

Yes, sir?

QUESTIONER: My name is Charles [inaudible]. I've really enjoyed this conference, very informative, and I'm in tune with your talk.

My question is a rhetorical one. The theme of this entire conference is "Toward a Sensible Center" of climate policy. Is nature going to cooperate and wait until we get to our center?

MR. GILCHREST: I think as a Member of Congress I have the authority and the ability to answer that question.

[Laughter.]

MR. GILCHREST: Is nature going to cooperate and wait until we fix the problem? Well, if nature doesn't cooperate, I guess the conveyor belt in the North Atlantic we'll be able to go to London at Christmastime and be guaranteed a White Christmas.

QUESTIONER: On a sled.

MR. GILCHREST: Pardon?

QUESTIONER: On a sled.

MR. GILCHREST: On a sled, right.

I don't know if nature is going to cooperate. I think that depends on your own personal conviction, philosophy, or religious leaning. I think--so I don't have an answer to that question. I don't have an answer to the origin of creation. I don't have an answer to the ultimate source of knowledge.

I only know that each of us that has a stake in--everybody has a stake in this, but each of us that has a position where we can make a policy change that is within the parameters of being sane and reasonable have to work really hard to do all of this as fast as we can.

QUESTIONER: Would you like to see the present administration move a little faster on these issues? I get a sense of very great caution and deliberation, and I feel like it's not soon enough.

MR. GILCHREST: I would like to see the administration stand up and say the issue of climate change is important, the evidence is overwhelming, and this country is going to move in the direction to become energy independent and find an array of alternatives to existing technologies.

[Applause.]

MS. CLAUSSEN: I just want to say thank you to everyone who has been here for the last day and a half. I think we've had a really good day and a half, heard some very stimulating discussion, had some wonderful people come and talk to us. I continue to think we're on our way toward a sensible center, and I hope every one of you goes out and works some more on that because we could use all the help we can get.

Let me just turn it over to Nigel from the Brookings Institution.

MR. PURVIS: I'd like to thank Eileen and Elliot and Mike for their tremendous help in pulling this conference together. I'd very much like to thank David Sandalow for his leadership here at Brookings in launching our environmental work and to our colleagues Warwick McKibben and Pete Wilcox and others who have done ground-breaking work on climate change economics here at Brookings.

Thank you most of all to you for your time and for your excellent questions. We hope to see you back here at the next Brookings event. We're trying to be as active as we can on this issue and other environmental challenges, so thank you very much.

[Applause.]

[Whereupon, the proceedings were concluded.]