

## **Top Ten Awards Roundtable**

**February 6, 2002**

**Dirksen Senate Office Building, Room 628**

**10:00 a.m.-12:00 p.m.**

### **TRANSCRIPT**

**Neil Numark (SEI):** Governor Glendening is, I guess, en route and we would like to begin as Chairman Boehlert has arrived. Let me first of all recognize the awardees for their vision and leadership in helping to move the United States towards a more sustainable energy future, which is still a faraway goal. The Sustainable Energy Top Ten report contains candid interviews with these individuals and aims to communicate their views to the American public as clearly and directly as possible as both an educational tool and a measure towards ultimately achieving better national energy policies. We are now getting the report out to schools and libraries across the nation. There is no better time to get the word out than this very moment, with comprehensive energy legislation to be debated soon on the Senate floor and with four-pollutant legislation about to be marked up in the Senate Environment and Public Works Committee. It is a very big year for energy policy and there is no better group to carry such messages forward to the American public than these ten awardees whom I would like to briefly introduce.

Congressman Sherwood Boehlert of New York, Chairman of the House Science Committee, has been selected for a Sustainable Energy Top Ten Award for his determination to enact higher fuel efficiency standards for SUVs, for pushing for emissions cuts from power plants and for promoting alternative fuel vehicles;

Governor Parris Glendening of Maryland, for his leadership in Maryland and now nationally in advancing smart growth land use policies, for initiating greatly expanded use of mass transit in Maryland and for ordering state-owned facilities to reduce energy consumption significantly and increase the use of renewable energy. I will have a lot more to say about the Chairman and the Governor in just a few moments;

Senator Jeff Bingaman of New Mexico, Chairman of the Senate Energy and Natural Resources Committee...Good morning, Governor Glendening...now I'll continue with introductions of the full panel. Senator Jeff Bingaman of New Mexico, Chairman of the Senate Energy and Natural Resources Committee, for his leadership in moving the country toward a sound energy policy that balances increased production with energy efficiency with emphasis on the deployment of new technologies. Senator Bingaman is chairing a hearing this morning but he is represented today by his committee staff director Bob Simon;

Lord Browne of Madingley, Group Chief Executive of BP, p.l.c., for leading the petroleum industry in acknowledging and confronting global warming, for committing to

reduce BP's own carbon emissions and for pursuing opportunities in renewable energy. Lord Browne is represented today by Howard Chase, Director of U.S. government and international affairs;

Senator Jim Jeffords of Vermont, Chairman of the Senate Environment and Public Works Committee, for introducing the Four-Pollutant Bill, seeking to cut power plant emissions in CO<sub>2</sub> and three other pollutants and for his long-standing leadership on behalf of renewable energy technologies and advanced technology vehicles. Senator Jeffords is represented today by Majority Council on the Environment Committee Mary Katherine Ishee;

Jonathan Lash, President of the World Resources Institute, for his leadership in the sustainable development community and for WRI's influential work in the fields of energy and global climate change. Mr. Lash is represented here today by WRI Senior Associate Jim MacKenzie;

Senator John McCain of Arizona, ranking Republican member of the Senate Commerce, Science and Transportation Committee, for holding a series of hearings during 2000 and 2001, drawing national attention to the climate change problem and for proposing a cap-and-trade system together with Senator Joseph Lieberman to control US emissions of green-house gases. Senator McCain is represented by Jill Peters, his Legislative Assistant;

Jennifer Morgan, Climate Change Campaign director, World Wildlife Fund, for her international leadership on climate change issues as head of the WWF delegation to the Kyoto protocol climate negotiations and for actions to educate the public on the subject. Ms. Morgan is in Japan this week, but we are pleased to welcome Rebecca Eaton, director of WWF's Climate Savers Program, on her behalf;

John Rowe, President and Co-CEO of Exelon Corporation, for promoting the use of renewable energy technologies at Exelon and for committing to explore next-generation nuclear power technologies. Mr. Rowe is represented by Annie Caputo, Manager of Congressional Affairs; and

Dr. Takehisa Yaegashi, Senior Chief Engineer of Toyota Motor Corporation, for his ingenuity and foresight in developing Toyota's hybrid Prius automobile and for his broader work in developing advanced environmental technology at Toyota. Dr. Yaegashi is represented today by Mr. Charles Ing, Director of Government Affairs.

SEI would like to commend all ten awardees and thank them for their hard work and continuing efforts to promote more sustainable energy policies and practices in the United States. Thank you very much.

[Applause]

As I mentioned earlier, SEI's Top Ten Awards report includes our summary of the awardees' messages in several areas. It also provides SEI's recommendations including specific recommendations directed to the general public, corporate America and Washington policy makers. We will not take time to restate those recommendations now.

I would just encourage everyone to read them on pages nine to eleven of the report. Instead I would like to turn the microphone over to Governor Glendening and Chairman Boehlert, who have prepared brief remarks for the roundtable this morning. We will welcome the press and offer an opportunity to ask questions of both the Governor and the Chairman immediately following their remarks. Let me add that the Governor and the Chairman both have commitments they have to run to from here and may be departing early, and I believe one or two of the round-table participants do as well, and others may be dropping in on us later, so there will be a little bit of musical chairs.

Now let me turn to Governor Parris Glendening, Democrat of Maryland, who has emerged as a national leader for preserving open space, protecting natural resources and slowing suburban sprawl, and we're very pleased he could be with us this morning to recognize the importance of smart growth in curbing the nation's energy appetite. The governor is serving in his second term of office and recently also served as chairman of the National Governors Association. Governor Glendening, welcome.

[Applause]

**Governor Parris Glendening:** Thank you very much. I just want to say I am very pleased to be here. I apologize for running a moment or two late. I was meeting with our senators, who are working through the budget, and I am pleased to say they indicated OK, we're not going to do anything to jeopardize smart growth funding, we'll focus on these issues. I am very, very pleased to be here. I just want to say, first of all, that I am honored to receive, not just personally but on behalf of Maryland, the recognition of the Sustainable Energy Institute as one of the Top Ten designations. I am particularly pleased that the focus of the award was for our smart growth, anti-sprawl efforts. I think that those people saw in the evolution of those discussions that it was about controlling sprawl and about land use, but it has emerged over the last several years into a full-blown environmental initiative. Yes, it is about protecting our open space, our forest land, our farmland. That is a key part and I think so much of what the press has focused on, but it is also about recapturing the potential for established walkable, livable communities where infrastructure already exists and directing our investment and reinvestment in those areas.

It's about expanding in a dramatic way mass transit and reducing reliance on automobiles. It's about the policies that we've adopted with our green building and green energy policies, initiatives which will ensure greater energy efficiency, as well as add as little impact on land and natural resources as possible. And it's about reducing the sprawl that comes from dependence on building more and more roads. All of these are kinds of initiatives of smart growth. But let me just also mention part of the reason that we're here today: the spin-off from smart growth issues that I think are so extraordinarily important not only for the environment but for energy policy. The way we do it right now is that

first of all government subsidizes at all levels, billions and billions of dollars, to create more sprawl for us to move further and further outward.

I won't get into it right now but I always think it's interesting, people complain about the cost of mass transit. However, if you think what has happened, we have moved, if you will, so far out as part of official government policy that we literally have to get into a several ton vehicle to drive to get one quart of milk. And it just makes no sense that there is no efficiency at all of energy use. And at the same time the alternatives of many of our policies of helping create new types of communities, that are walkable and where we don't rely on the automobile, are almost impossible.

And so I am pleased that we were able to make these changes. I am also pleased with regard to our executive order for procuring electricity, in which we set a goal of 6% being from clean energy. That goal has already been achieved. I am pleased with the Maryland Greenbuildings Council, which was part of setting those standards, and we are achieving those standards right now. What I look forward to, and this is what I appreciate in the recognition here, is not the day when Maryland is recognized for doing something extraordinary in helping reduce sprawl and making better use of our resources; I look forward to the day when that is the normal way of business practices for governments at all levels, and when there is nothing special about the ways that Maryland does business. I think we can achieve that working together so I appreciate the opportunity to be here. Thank you.

[Applause]

**Neil Numark:** Thank you very much, Governor. Chairman Sherwood Boehlert, at the helm of the House Science Committee, has been a leading voice in the Republican Party on environmental issues and has been particularly active in efforts to cut power plant emissions and to raise automobile fuel efficiency standards. The Chairman represents New York's 23rd Congressional district, perhaps best known for the Baseball Hall of Fame in Cooperstown, a fact that's hard to miss when you see the incredible collection of memorabilia in his office. We hope you have room for our award. Chairman Boehlert.

[Applause]

**Chairman Boehlert:** It's great to be here with Governor Glendening. Let me congratulate the new group. I have to appear in thirteen minutes before the Rules Committee. I have a bill that I've got on the floor tomorrow. I will leave into your hands Dr. John Mimikakis from the Science Committee staff to engage in the dialogue that you are going to engage in.

But as you look through this book by SEI, the interesting thing from my perspective, you've got Republicans and Democrats. You've got the domestic, you've got international flavor, but I can identify with just everything that is said in this book about everybody. I think about John McCain, my old buddy. We came to Congress together in '82. We've been working on these issues for a long time and I'm sure he faces the same

thing I do, when people look at you in a town where they take a poll every nanosecond, and say, “Why do you get so exercised about the environment or sustainable energy policy? That never shows up on our polls.” And I say that is easy to explain, because the American people don’t think we are going to take leave of our senses in this town and do some stupid things. And let someone suggest that we do stupid things and in an instant our faxes are on overdrive, our phones are ringing off the hook and people are saying, “What the hell are you people doing down there?”

So I would suggest that sustainable energy policy for America, that being good stewards of the environment, are high on the priority list of every single thinking American, and therefore they are very high on my priority list because last time I checked, my title is “Representative.” And John McCain and I have a good relationship going across the center of the Capitol. You know he is a free spirit, pretty independent thought. I am never one to mark in lockstep with my leadership, although I’m proud to be a Republican. But we are doing our level best to educate them. When you talk about things like CAFE standards, I was proud to lead the fight in the House. We did not quite make it, but we got a lot of attention from a lot of people, and I knew I won the battle once I saw Billy Tauzin and John Dingell propose a bill to the floor that had a modest increase, I would suggest much too modest an increase in CAFE standards, as an opener. And then I was convinced that I had won the battle when in closing arguments one of my fellow committee chairs said, “If you pass the Boehlert amendment increasing CAFE standards, there will be thousands of dead bodies on our highways.” Unmitigated nonsense. I knew I had won the issue on merit, I was afraid I was going to lose on emotion. And that’s what happened.

But in the final analysis we are moving in the right direction, as we should, and we will increase CAFE standards. I am engaged in a whole wide variety of ways in doing what I think is the responsible thing, the type of thing that has earned for my staff and me, and I stress that, it’s a team effort, this very distinguished award.

Clear example: the Senate will shortly be dealing with agricultural policy for America. Now I would argue that it is an absolute must that we spend a little bit less on the commodity subsidies giving a lot more money to a lot fewer people, the big guys, and we should transfer some of that money to the conservation programs which do so much for the small farmer. That is part of a good public policy for America. I think the Senate will follow that lead. The alternative fuel vehicle bill that I have introduced, we are going to push it, for all the right reasons. And I think we are going to have the same response in the Senate, and we’re going to get there. When we deal with things like global climate change, I don’t know what planet some people live on, but it is very real and we have to deal with it.

The bottom line, what we have done over the years to get the recognition you are honoring us with today is going to continue, because it is a noble cause and it is something that impacts on the lives of every single American, every single day. And I am not going to let up nor should you, and I thank you for this wonderful honor and great support.

[Applause]

**Neil Numark:** I would just like to invite representatives of the media to ask questions of Governor Glendening and Chairman Boehlert. We have just a few moments for Q & A.

**Unidentified Woman:** This question is for Chairman Boehlert. Are you working with Senator Kerry as he develops [inaudible] and if so in what manner?

**Chairman Boehlert:** The question is if I am working with Senator Kerry. I'll work with anybody, including Kerry. I am working on a bi-partisan basis with some of my colleagues, Kerry, McCain, and others in the Senate who, like me, share a common vision for the future and what we think is the responsible thing to do, and I will continue to do that. We are all in this together so you have to understand. And I am continuing to do my level best to help educate the Administration. It won't surprise you that I think the Administration is doing a bang-up job in a whole wide range of areas but there are areas where they are really deficient, in dealing with the environment and addressing in a very aggressive way the need for a comprehensive, sustainable energy policy. It is one of the incompletes on the Administration's report card. So we are working hard to get a better grade in the future.

**Neil Numark:** Further questions?

**Jeff Beattie:** I am Jeff Beattie with the Energy Daily and I wanted to ask a similar question about NSR enforcement. I just wondered, Chairman Boehlert, if you have had a lot of contact with the Administration on their upcoming policy in that area?

**Chairman Boehlert:** On a continuing basis. Incidentally, you probably know, I voted against the energy bill. It just didn't pass my smell test for a lot of reasons. But we are working with the Administration on the new source review. I am urging, in the strongest manner I know how, not to proceed on a unilateral path of making adjustments to new source review, but I am suggesting a parallel path to get -- I would like a four-pollutant bill, but I don't think that is in the cards. I am still going to push for it, but at least the three-pollutant bill that I've introduced and it's been introduced in the Senate, for further reductions in sulfur dioxide, nitrogen dioxide, and even mercury levels for the first time. But if you make any adjustments to new source review then you better make darn sure you have implementation of the three-pollutant bill on a simultaneous path. You don't want to have new source review modifications get ahead of the further reductions required.

Quite frankly, I am not overly sympathetic to the plight of a lot of the people who are crying from the Midwest who are saying, "Wait a minute, we are all doing ordinary maintenance, standard operations of our procedures." That's not so. What they are doing is dramatically increasing productive capability of old plants that were grandfathered with good reason. We said it's not really fair, probably, to require old plants on their last legs to meet these stringent new standards, and we have to recognize the reality of the situation. So we'll let them go ahead with ordinary operations and maintenance money,

and not require this standard, because they're going to be out of business shortly anyway. Well, so much for that. What they're doing is increasing the generation of energy under the old standards and they are destroying my lakes in the Adirondacks. It's not just me; it's people all over the East Coast...

**Governor Glendening:** The Chesapeake Bay.

**Chairman Boehlert:** The Chesapeake Bay, which starts incidentally, with the Susquehanna River that starts in Cooperstown, New York. You think Cooperstown is famous for the Baseball Hall of Fame...it is famous as the headwaters of the Chesapeake Bay.

**Neil Numark:** Further questions?

**Chairman Boehlert:** This will be the last one for me, so I won't be late for my Whip. You know the Whip of the House.

**Marcus King:** Marcus King, from SEI. I had a question for the Governor. Have you been working with other governors or other nationally elected officials to coordinate sustainable growth policies on the national level as well?

**Governor Glendening:** We had been working with the other governors. I just finished my tour of duty as chair of the National Governors Association. And as part of that, we identified the whole issue of smart growth, anti-sprawl as the number one priority for the governors. For the first time ever the Governors Association adopted a ten point policy statement on land use. But most importantly, we had last year twenty-four different states take some type of legislative or significant budgetary action to move dramatically forward and try to deal with the issue of sprawl and land use. I would add by the way, like Congressman Boehlert said, that it really is not a partisan issue.

The thing that I've found most interesting is that some of the most dramatic changes were coming from Democrats and Republicans. Democrat Roy Barnes from Georgia for example had a major new state commission that can override land use and transportation decisions in the Atlanta metropolitan area if they were deemed to add to the traffic congestion or other related land use issues. Governor Levitt, conservative Republican of Utah, had a huge battle but got many of our, almost identical to our Maryland provisions to smart growth adopted in Utah. My ignorance, I didn't even know Utah had a sprawl problem. When you look at some of the things that were going on there, it was very significant.

Even Jesse Ventura has jumped into this in a big way, kind of just in a common sense way. I remember in his first discussion about this, he talked about how he was sitting there as a new governor and his staff told him this one road had to be widened. He said, "Okay, I understand that. What happens with the bridge?" And they said, "Well then, we'll have to widen the bridge." And he said, "What happens on the other side of the bridge?" And they said, "Well, they have to widen that road." He said, "I've got to tell

you, I may not be the finest, smartest person in the world, but I know something's wrong there" and proceeds to start a smart growth transportation policy. So it is being aggressively adopted across the country.

**Neil Numark:** Thank you Governor.

Before we move on to the roundtable discussion, another group that SEI would like to thank are the companies and associations who generously supported the Top Ten Awards project and are participating in today's roundtable:

- ABB represented this morning by Ann Rasmussen;
- American Council for an Energy-Efficient Economy, headed by Steve Nadel. I'm not sure anyone made it for Steve. I know that he was involved in other meetings this morning;
- Congress for the New Urbanism represented by Don Chen;
- The Federation of American Scientists represented its President, Henry Kelly;
- The Nuclear Energy Institute represented by Senior Vice President Angie Howard;
- Pfizer represented by Al Forte, Assistant Director for Energy;
- Renewable Energy Policy Project represented by its executive director George Sterzinger; and
- Stonyfield Farm represented by its Chief Executive Gary Hirshberg. Gary, I don't know if you brought Stonyfield's moo-mobile down from New Hampshire, but I know you have a lot of yogurt waiting for us when we leave at noon today and we thank you for that as well.:

And finally I would like to welcome four additional, roundtable participants:

- Robert Manning, Senior Counselor for Science and Technology at the State Department;
- Miranda Schreurs, Assistant Professor in the Department of Government and Politics at the University of Maryland;
- Alan Miller, Senior Environmental Specialist on Climate Change at the Global Environment Facility; and
- Tom Gladwin, the Max McGraw Professor of Sustainable Enterprise at the University of Michigan Business School.

Moving now to the roundtable discussion. Since its inception, one of the primary missions of the Sustainable Energy Institute has been to improve public understanding of the energy debate and the public health and environmental implications of our decisions about how to produce and use energy. As we speak, the Senate is preparing to debate the most far-reaching energy bill in at least ten years under the leadership of Senator Bingaman. This debate is scheduled for next week on the floor of the Senate and will include provisions on CAFE standards now being worked out by Senator McCain and others in the Commerce Committee. In addition, Senator Jeffords is scheduled to mark up

the four-pollutant bill in his Environment and Public Works Committee next Thursday. So there's a lot going on in the very near term.

So in conjunction with the Top Ten Awards, SEI has assembled this distinguished roundtable of government, industry, academic and environmental leaders to candidly discuss the issues we face in these pending measures. The ground rules for this roundtable are that there really are no ground rules. It's an open dialogue and all involved are invited to jump in at any time. Just be sure to speak into microphones for recording purposes. I propose to begin with a discussion of the climate change issue, and for starters on that point, it would be valuable to hear comments from any of the industry representatives here today on climate change policy as a whole and what measures we should be taking and when, and particularly how it affects your company's bottom line. Would anyone care to begin?

**Gary Hirshberg (Stonyfield Farm):** First of all, to state the obvious, the Governor clearly recognizes that there isn't any element of my region, New England, being untouched by climate change, the ski industry being the most vivid example. Maple syrup: now the center of the maple syrup industry is Quebec, and it used to be, by the way, in your area. It is clearly moving and slipping away. In agriculture, which is my industry, we are witnessing a phenomenal and rapid decline of fertility and so forth, the forest products industry, etc. What are we going to do about it? I think for context, unlike a number of the industry, my industry colleagues here, we at Stonyfield represent the small business sector. We are about a \$100 million company. On the other hand, that's representing about 51% of industrial output in America and all the new jobs in the last eight years have been generated by small business. What are we doing about it?

Within Stonyfield, the comments made earlier about agriculture. By just being organic, there's less embodied energy going into our farms that produce our milk, our fruits, our sugars and so on. We have eighty farms now that we have converted from conventional to organic who wouldn't be in business if they weren't organic. That also has the added benefit of keeping more food in local circulation. The carton of milk analogy was perfect; the average molecule of food in America travels 1500 miles from field to table. The more local agriculture we can keep, the less embodied energy that goes into the food we are consuming. On the manufacturing side, even competing in a commodity area with tremendously low gross margins, again consumers keep us very honest, keep the prices down even with organics. We've nevertheless been able to make moderate investments in manufacturing that has allowed us to reduce energy per unit of output by 26% over the last four or five years. That's a nice number, but to be more simplistic about it, that's about \$750,000 that has gone into my bottom line. Again, your typical small business, that's not just yogurt we're talking about; that's real culture. That is business culture.

With the savings—and this is very simple things like lighting retrofits and waste heat recovery -- bottom line has just been practical, good, sound business practices. And with the savings...

[break in tape]

...building straw bale housing in Inner Mongolia and other global issues. But we've been investing in these things with our savings and still have profits to show for it. So net-net, this is not about philosophy or morals (which, of course, it also is); this is about economic growth, economic security, national security. Our colleagues at Rocky Mountain Institute tell us that if we got 5.3 miles-per-gallon increase in CAFE standards, that we would not need the Persian Gulf for oil. On a very small basis in New Hampshire, we in my little company know this to be true. We know that this is the engine that will drive us in the future.

And Neil, my final point that I make to you is that 51% of Americans and actually 80% of my consumers tell us that statistically, companies that do good for the environment make better products. They make that leap. They understand that companies who see total equality extending to the planet also means that they are going to produce better products. So it builds brand loyalty, it builds revenue, it builds profit. It leaves me to just wonder why the heck we're not all barreling in this direction. It's clearly, clearly our future.

**Neil Numark:** Thanks, Gary. Other comments.

[break in tape]

**Rebecca Eaton (World Wildlife Fund):** ...five or ten year targets to reduce emissions, I can cite a number of them. DuPont, IBM, Johnson and Johnson, Nike. Lafarge is the largest cement manufacturer in the world. Their greenhouse gas emissions are currently almost twice that of Switzerland. To give you a sense of the impacts that companies have, that company has just committed to reducing their emissions by 10%, below 1999 levels, by 2010. These are smart businesses and they are only doing it, not only, but a key element is because it is part of a smart business strategy. It is clearly cost-effective and they do see the writing on the wall. Carbon is increasingly moving towards being valued in world economies, and companies that set themselves up now to systematically eliminate or reduce sources of carbon emissions in their companies are going to be in a position to fare much better competitively than those companies that do not.

**Howard Chase (BP):** Again I would just like to add to those comments and perhaps go from a relatively small business to a relative large one. Again what we say at BP is that what gets measured tends to get managed. I think in this excellent report you see some words from our chief executive John Browne on that subject. The impact of that is very dramatic. As you say BP itself managed to be the first of the major energy companies to set its own internal target, as you said, three or four years ago to reduce from 1990 levels by 10% by 2010. And we're working on an aggressive program of management including internal trading mechanisms. We're now down 5% and I suppose we'll meet the 10% targets within the next three years or so. But I think the important point is one that you've both made, that this has clearly been to the economic benefit of the business, and very powerfully so, because it forces attention on the practical economic measures that each part of the business can take to save carbon molecules, and carbon molecules are

valuable. So again the experience has very much been one related to economic and environmental benefits which I think is the way we would all like to go.

**Neil Numark:** Thank you, Howard.

**Governor Glendening:** Thank you for those comments coming from industry. I would like to make a couple of real quick observations about the overall energy policy and its impact and relation to public policy. First of all, the Congressman made an interesting observation that it is not popular in the polls and so on, and that's quite true. If you ask most people what's bothering them they'll say, "Spikes in gasoline prices." It's rare that this gets here, but if you approach what's actually happening in a citizen's daily life, this is where we are starting to get immense response.

For example, the sprawl issue. If you're spending an hour and a half, two hours a day in your commute, and you're sitting there instead of being at your daughter's soccer game in traffic, you start to get frustration because you don't have good alternatives because of land use patterns. And I've noticed just this week that there were two health reports that came out that the level of skin cancer has more than doubled in the past twenty years, and children's asthma has gone up 70% just in the last decade. And again this is a result of air quality and so these issues are obviously pressing on the public's mind and just haven't yet made completely the connection: OK, this is about the world, national and global energy policy and land use policy. If we start addressing these issues from different perspectives and get away from numbers and bills and budget items, people do understand what the issue is.

The second thing I want to mention is that most policies wherever you are today have been driven obviously by private sector and the non-profit sector, but public policy sets the stage in which decisions are made. For example, sprawl. Governments have worked very hard in the last 15 years to help create sprawl. We've done that with all of our resources, our interstate highway system, our home mortgage system, the way it's set up, it's all designed to help create sprawl. I'm sure no one sat down and said, "Let's do sprawl," but that was what came out of it.

In my watch, what we've tried to do is to say if you want to change policy, in particular the private sector, how do you change it? One way is regulations and then there's always exemptions and other ways that allow trying to get around those regulations. The other way is to change the bottom line, and that's what we ought to be focusing on as much as anything. How do we increase the cost for pollution and how do we decrease the cost for doing the right thing? We're trying to do that with smart growth. For example, we no longer build the roads for the schools or the water or sewer lines for anyone that is going to develop "out there" somewhere. We put them in a designated development area and not only keep existing infrastructure but we give tax credits and other assistance to make that work.

I was pleased when checking our numbers. For example, in our Green Buildings program we've established a policy that the state will only build or lease buildings that we deem

meet standards up to the goal level. We also have arranged a series of tax credits ranging from 20-30% for advancement in green buildings for energy reduction. I am just absolutely convinced that number one, people would like to do the right thing, but when you can say do the right thing and it will positively affect your bottom line in terms of profits, that's the way policy moves in this country. So I'm hoping that the general recognition that we've got a global climate problem of dramatic proportions is starting to impact people in very adverse ways on a day-to-day basis, and therefore we've got to change policy. Part of the way to change policy is to recognize the huge influence, which the government has on individual and corporate decision making.

**Neil Numark:** Governor Glendening spoke of the measures in the state to increase energy efficiency throughout state buildings and also for setting an example for other sectors of the state. And what about at the federal level? What policy instruments are appropriate for improving energy efficiency and for responding to climate change? I thought we'd talk for a minute about the cap and trade system, the multi-pollutant legislation that is out there and other ideas such as carbon taxes, and incentives for switching to carbon free options. Could I ask members of the roundtable to jump in on some of these policy instruments?

**Charles Ing (Toyota):** Thank you very much, Neil. I'm going to throw out a couple of comments and then unfortunately I might have to slip out. First of all, on the issue of waste, if I could just address that, one of the founding principles that Toyota had, was the elimination of waste. So the idea that reducing energy is a new phenomenon, that it's good for your bottom line, is something that Toyota has been practicing for a long time.

In terms of incentives, Governor Glendening in Maryland is a perfect example of where good incentives can come in to play. If I recall properly, a couple of years ago Maryland passed a bill that would forgive the purchaser of a hybrid electric vehicle, I believe the state tax right up front. So that was about a \$1500 boost to the customer right up front to buy a clean more fuel-efficient vehicle. In addition there is a little thing that Maryland has done and Virginia has done, and we're trying to get California to do it, where they have allowed single occupancy hybrid drivers into the HOV lane. That sounds like a little thing, but we have a good example in our office, where one of our staff moved down to Stafford, Virginia, and she leased a Prius, our hybrid electric vehicle, precisely because she could get on the HOV lane to get to work. So it saved her a lot of money in fuel but it also saved her a lot of money in time.

These are things that government can do on the incentive side to send signals to the purchaser that fuel economy is important. Because on the price side clearly government is not going to go in that direction and live to talk about it. We're just not going to go and send consumers bad price signals when it comes to the price of fuel. Of course, in the Senate, and the House has already passed, there is a bill that provide tax incentives for advanced technology vehicles, and we think that will be a terrific boost to get these vehicles out on the market in the volumes that will clean up the air quicker and get people used to this technology, comfortable with this technology, and provide them with the

financial payback, if you will, in the difference between these advanced technology vehicles and conventional engines. Just making a case for incentives here. Thank you.

**Neil Numark:** Al Forte.

**Al Forte (Pfizer):** Talking about contributions to the bottom line, with Pfizer and pharmaceutical companies in general, it is a very high value industry, primarily because of the enormous investment in research and development. Energy in general accounts for less than one percent of our costs for manufacture. However, with respect to energy efficiency, because our colleagues overseas are so much further ahead with respect to climate change and trading, we're starting to get left behind. There seems to be more in place, particularly in the UK. We have a large research facility in Sandwich, England. It is one of the most efficient facilities I have ever seen. There's a tremendous amount of support there for energy efficiency through the system in place for carbon credits and systems in place for co-generation.

We discussed earlier about new source review. New source review should be modified to provide credit for enhanced efficiency. New source review does not recognize, for example, the increase in efficiency from 30 percent for a conventional boiler to 70 percent through co-generation. So I think somehow you need to provide incentives for increased efficiency, which can lead to greater efficiency through distributed generation.

**Neil Numark:** Newspapers are reporting this morning a pending proposal from the Bush Administration addressing climate change. It focuses on carbon intensity. I wonder if anyone, perhaps we could ask Bob, if you have any comments on that and if any others would be interested in offering remarks on it.

**Robert Manning (State Department):** We are moving towards a decision. There are a number of things under way that are being weighed. I'm not going to hazard to guess what the President will adopt, but I do think there is a lot going on. I think if you go back to the President's statement on climate change, he laid out a number of core principles and direction, I think with the emphasis really on -- and you will see this in the Department of Energy's report on technology, and in terms of energy security and emissions technology -- technology over the long term is the only way you're going to get zero emissions, which is how you're going to stabilize greenhouse gas over the long term. And we need to think about it over the long term. Things like tax credits for hybrid cars, which I think will prove to be kind of a transition technology. This Administration has favored fuel cell cars, which I think takes it to another level in terms of transportation dimension of emissions. That's a potential 10- to 20-year timeframe, and there are things, next generation cleaner power fusion is being discussed and so on. You've got to look at sort of a century-long process. Carbon concentrations have been hanging around for quite a while, so you've got to look at it in a much longer-term timeframe.

People are thinking about it. There's also a lot of developing programs, standing programs and developing new ones. The Department of Energy, for example, has something like 200-plus agreements with 46 countries promoting exports with clean

energy, and this is something that's a component to begin international deployment of climate change policy. Just don't forget that over the next twenty years the biggest polluters will be China and India. And that's part of the reason the President has been reluctant to deal with Kyoto. You can't solve this except on a global basis, and the biggest offenders have no commitments under this treaty.

**Neil Numark:** Now how about that? I thought we should focus on the developing country question. Who would care to jump in on that?

**Governor Glendening:** Can I have the mike?

**Neil Numark:** Of course.

**Governor Glendening:** I'm about to have to leave in a few minutes. In great deference to the spirit of bipartisanship, a friend of mine once said, "in the long term we'll all be dead." And I say that only half lightheartedly.

I think that the policies that we have right now are in immediate crisis. I don't think we can defer anything until the long run. I think that quite candidly, we're looking at an impact on public health and the environment, and we do have a crisis. We have a major crisis, immediate crisis, and I think relative to national policy, withdrawal from international efforts to deal with some of these challenges is a terrible policy statement about where we ought to be. Secondly, I think it will take 20, 30, 40 years, which is what the national Administration is currently saying. And all you have to do is look at the health indices and what is happening now and recognize the degree of suffering and death that will occur as a result of this. The world looks to us in terms of leadership. We have had an extraordinary success any time we wanted to mobilize the world for a military intervention, which I support. The President is doing a tremendous job and he's absolutely correct. But if we had a fraction of that commitment of leadership from the United States dealing with the world environmental, world air quality, global warming, energy policy, just a fraction of what we do every time we get into a military confrontation, we could make extraordinary progress. And again, in deference to the spirit of bi-partisanship, I do think it is wrong.

**Neil Numark:** Tom Gladwin.

**Tom Gladwin (University of Michigan):** I just want to relate this to what the leaders of world business were talking about in New York City last week at the World Economic Forum. The dominant theme there all week long was that persistent poverty and income inequality in the developing world represent the greatest threat to human security and business risk and opportunity going forward. What we are learning as scientists is that the likely adverse impacts of climate change are disproportionately likely to fall on the poorest people of the planet, and you can see that in all the chapters of the Intergovernmental Panel on Climate Change report. But issues like increasing freshwater scarcity, issues like the India climate agricultural productivity, disease factors, loss of land due to rising sea levels and so on, they are all piling up on the same part of the world

most intensely. If you put these maps one after another of where these consequences will be, guess where they largely fall? The upper half of Africa, the Middle East, West Asia and South Asia.

That part of the world will experience most intensely the adverse food and water and health consequences of climate change. So if we think we have a global threat now from unhappy people, this is the same part of the world that already has hundreds of millions of unemployed people. We are loading an additional environmental burden there. I wonder if we could get any progress in the United States if we were able to conceptualize climate change as possibly the greatest long run systemic threat to global security, because that is the only thing that seems to move a lot of people in this town.

**Governor Glendening:** I'm going to have to slip out, if I may.... I thank you all.

[Applause.]

[Break in tape.]

**Don Chen (Smart Growth America):** One of the things that caught my eye recently was this study published in Housing Policy Debate, which is a publication of the Fannie Mae Foundation. It is regarded by many as the publication of record in the housing industry and the housing policy world. What this recent study found is that our changing demographics in the U.S., i.e. the baby boomers getting older, is really precipitating a change in consumer preferences when it comes to real estate. What they found is that active home buyers between now and 2010 are going to largely constitute a lot of the baby boom generation folks and they overwhelmingly are preferring more compact development, the kind which Governor Glendening discussed.

One of the findings was that anywhere from a third to over a half of consumers, or active home buyers by 2010, are going to be asking for, looking for those types of developments. It occurred to me that one of the strongest messages in this report is one that we hear, I think throughout the SEI report and others: that government regulations often prevent those type of needs and desires from being met. There is a tremendous amount of market demand for these types of development. There is a tremendous amount of market demand, as you were saying, market interest in products that are developed by companies that are environmentally sound. And yet from a policy standpoint as you were discussing, we are finding that federal, state and local policies often prevent the type of development that people are seeking in the market. I think that whether we are focusing on climate change implications or whether we are focusing on consumer demand and quality of life, the whole variety of issues, we need to really ensure that federal policies, state and local policies, enable the market to respond to what the consumers want. And in particular in this case, it's something that I think will have very beneficial effects, both in terms of energy and all of the related factors that we like to talk about, such as air quality, quality of life and others.

**Gary Hirshberg (Stonyfield Farm):** Neil, can I just jump in here and say quickly, if all of the other countries in the world consume what America consumes, we would need three Earths to support ourselves. So to me, with all due respect to the Governor's attempt to be civil on this, I think the Administration has, I think we, have lost the moral high ground. We have no logical, let alone moral basis for focusing on India or any other country when we are consuming at these rates. And what troubles me, and to the exact point that Don just made, is when you have something as obvious as CAFE standards right in front of us, something we could do now, right now, and take, retake the moral high ground and a leadership position, I have to say that my mind just quickly goes from the sticks of New Hampshire, where once every four years we have something to say about all of this, it goes right to campaign finance reform, which may seem like it's way off the table, but to me it's right center. It's the ten thousand pound gorilla right in the center of the table. I agree with you, Don. Why is policy stifled when you have something so obvious as this? Who is feathering their nest and who is trying to keep the status quo going and who is trying to perpetuate the carbon based economy when clearly that isn't the economy for the future? So forgive the lack of politic, but this is how it looks from outside, way outside the beltway.

**Rebecca Eaton (WWF):** I just want to, of course, support Gary's comments that it's absolutely up to the United States to help lead the solutions to the problem of climate change. We have four percent of the world's population and almost twenty-five percent of the greenhouse gas emissions contribution, so we are a player in this field whether we choose to acknowledge it or not. In terms of talking about solutions, we are talking about adopting solutions on a twenty or thirty year time frame; the reality is whole ecosystems will cease to exist in this next hundred years, and we need to act immediately. We have off-the-shelf technologies to do just that. I work with businesses all the time on ways that they can cost-effectively reduce emissions. Those technologies have been in existence for years, some of them are emerging, but companies can look at combining power systems, micro-turbine technologies, looking at their HVAC systems for opportunities, their building design, looking at energy efficient lighting, CAFE standards outside of a specific company are the obvious one for this company too, to supplement an energy efficient path forward. So we absolutely need to act now. There is no excuse whatsoever for waiting on this issue.

**Neil Numark:** Thanks, Rebecca. Alan Miller.

**Alan Miller (Global Environment Facility):** Even more than Gary, I will try hard to avoid politics because I come from an international organization and we very much appreciate the U.S. contribution. So I will just speak to some of the ways in which developing countries are engaged now and indeed see the shared interest in reducing their greenhouse gas emissions when they are provided with the financial assistance and technology to enable them to do it.

The Global Environment Facility, which I represent, is a mechanism of the Framework Convention on Climate Change. So we are part of the structure, and as part of that agreement -- that is, not the Kyoto Protocol but the Convention -- we provide limited

financial assistance to developing countries for projects, clean energy projects, renewable energy and energy efficiency. And there are several characteristics of these projects that I think are important for this discussion. The first is that everything we do is in the country's interest or they wouldn't take a project strictly for the purpose of reducing greenhouse gas emissions.

So, everything we are doing is contributing to the development goals. We are helping to provide power to rural areas where there is no electricity through small-scale solar systems. We are helping to commercialize wind energy on a competitive basis. These are not handouts. These are not projects that are in any way contrary to country interests. They are very much welcomed and supported by these countries and indeed a number of these countries notably in the case of China have been relatively successful in reducing their greenhouse gas emissions. I was looking to Jim MacKenzie to see if he was going to make any comment about some of the extraordinary record in China in recent years, partly of course because they are restructuring their coal industry, which is not bad. It's a reflection of the fact that there is a lot that can be done consistent with the development of business objectives.

Let me then also close with two examples that illustrate how these things are being accomplished and why they are of broad interest. And indeed, why there is a business and American interest in having these projects continue. In five countries we are working to promote fuel cell buses, and obviously buses as a market are vastly larger in developing countries than in the OECD, i.e. in the United States and Europe. This as we know recently from the Administration's policy is the technology that is now identified as the future in terms of clean engines for the industrialized countries. Yet in fact developing countries -- we are including China, India, Mexico, Brazil and Egypt -- are extremely anxious and indeed have asked for support to introduce that technology. Of course it's because they want cutting edge technology, and the issues have to do with proprietary access to emerging technologies as well as modest levels of financial assistance.

The other example I would give is in China, where we are working to support a renewable energy policy with the energy ministry and utilities sector. And the significant thing about this is that the government of China has prepared to agree with this project to a goal of having ten percent of its new power introduced ten years from now be renewable. Non-large hydro, renewable which is I assume...

[break in tape]

...I think again with respect to the somewhat contentious question about developing country cooperation, there is a lot that is a broad shared interest that will require, however, making available technology to some modest levels of financial assistance.

**Neil Numark:** Thank you, Alan. That's actually an excellent point to segue into a discussion of the new carbon-free or low-carbon technologies, and technologies that have been a way to reduce other emissions. In the pending Senate bill, S. 1766, there are

incentives to increasing the deployment of these technologies, including a renewable portfolio standard. How best to bring these technologies to market? Bob, would you care to jump in on that?

**Bob Simon (Senate Committee on Energy and Natural Resources):** Well, I think there's a lot that could be said. I think I'll make a few points and obviously won't exhaust the topic. Obviously if you want to see the influx of these technologies on the market you have to do a couple of things. You have to have, at the front end, a robust research and development portfolio that you are funding over a period of time to create the underlying knowledge and technology base that people can draw from in terms of either perfecting existing technologies or technologies that are closer to introduction into the market, and moving those things forward. Obviously we need to find ways of creating investment certainty. And there is a variety of ways we're doing it.

One of the earlier participants pointed to the usefulness of tax credits as a way of incentivizing the introduction of new technologies. Clearly that is one mechanism that we have at our disposal. One of the disadvantages historically of using tax credits in that fashion is that most tax incentives are generally enacted only for relatively short periods of time, sort of as cost containment measures. If you have a tax credit to favor some particular technology that involves a large capital investment and the tax credit only is good for two years and then it expires, you haven't really done much, because it is very difficult to get projects put together and have the capital formation process take place in that kind of timeframe. You need more stability. You need a longer time horizon for those kinds of incentives in order for them to be maximally effective.

Clearly in addition to tax incentives, there are regulatory measures. I think the government can send useful signals to the market by the kind of regulations it puts in place. And I guess that also creates a kind of certainty that there actually may be markets out there for improved technologies over yearly incremental perfections of existing technologies. And I think you have to look carefully at the whole issue of whether you have in place regulations that actually act as barriers to the introduction to new technology. Clearly one of the issues that we face in terms of getting to new technologies for electricity production is the fact that there are barriers at the federal and at the state level to inter-connection into the grid; these are barriers of a regulatory nature that operate against intermittent kinds of generation, often renewable generation options of an intermittent character, people will assess penalties against that characteristic that are perhaps in excess of what really makes sense when looking at marketplace.

So I think that there is a variety of things that we need to look at. I think that some people have mentioned the barriers to getting more out of combined heat and power because of New Source Review. I think that's a legitimate question I think that we'll need to take a look at. I don't know if New Source Review issues turn on a lot of other topics besides its implications for providing heat and power and the greater use of it, but I think there's a connection there that we need to take a look at.

So I think that there are a variety of things that can happen in the context of legislation, and obviously we have a very comprehensive bill in the Senate that we'll be picking up in a little over a week. And I'm sure that we will have a very long and interesting debate on the bill and that these topics will certainly come to the floor.

**Neil Numark:** Thanks, Bob. Reactions regarding tax incentives and regulatory measures?

**Jim MacKenzie (World Resources Institute):** There are a number of ways of trying to make things happen in the policy arena. The Congress would argue that keeping the price is right is terribly important and we know as the government expressed that externalities are by no means covered by today's pricing. People don't understand that unfortunately, and they get all upset even though they will say they are in favor of environmental technologies, they are unwilling to pay more than 5 or 10 percent more than what they are paying for conventional technologies. So public education is needed on this issue. As the governor said, you cannot set higher fuel prices by reduced social security or investment tax credits to make an economic wash, but nonetheless provide an incentive to do the right thing.

As he also pointed out, most politicians are unwilling to do this, which brings you to the next two levers: regulation like CAFE, performance standards for appliances, and so forth. They're fine except that CAFE doesn't affect how you drive, and if you drive 75 rather than 50 mph, you're using a third more fuel than you need to. But it does get around the problem of pricing. The other one of course is subsidies. For example, alternative fuels. Subsidies make driving cheaper and therefore encourage more value altogether. There is something the feds can do which I have stated time and again, which makes a lot of sense, which is to use their enormous purchasing power for introducing new technologies. For example, hydrogen powered vehicles. Hard to get into the market because there is no infrastructure for them, but if you have enough of them in the federal fleet -- even the Congressional vehicles could be bought with hydrogen power -- that would get around the problem, much of the problem, of infrastructure.

In terms of China, let me just say one thing. Recently in Peter Jennings' evening program he was talking about China and he asked the environmentalists about coal: "No, no coal here, CO<sub>2</sub>." "What about hydro?" "No, no hydro for China either." "How about nuclear?" "No, no nuclear." And he said what do you do, there's nothing left, which to me is why we have the burden to take the lead. We're the technology innovators and we're also the largest consumers of carbon fuels. There is no question in my mind that China is trying hard, they are working hard, to become as efficient as they can and it's a tough hole when they are growing so fast economically. But I think we should give them credit for what they have done in terms of innovation.

**Henry Kelly (Federation of American Scientists):** I also want to add my voice to the U.S. responsibility to take a position doing the things that do clearly address the problem of climate change, and to say that you don't like the details of the agreement is maybe one thing, but to say that the problem is not very urgent is something else altogether. It's

particularly exasperating because almost all the technologies that we need to pursue to actually make a dent in this colossal problem also lead to stimulating economic growth here. And I'm also convinced that they are precisely the technologies that are essential for developing countries around the world that are aspiring to or approaching U.S. levels of prosperity, and they simply cannot do it by imitating 1970's level U.S. prosperity. If nothing else, two billion people are going to move to the cities over the next thirty or forty years and if they move to the cities and if they [---] it's not going to happen. If you look at the ways that technologies can influence this, I thought the Governor had several very interesting points that I'd like to talk about very briefly, because all of them involve corporate investment and government, both state and local, and moving forward. You mentioned farm policy and trying to move towards conservation. One interesting issue is how to make money in rural areas of the U.S. or worldwide. There is no reason that you can't have a decent program to restore lands, to do conservation planning and also harvest periodically, but it cuts across many different levels of jurisdiction.

In transportation, this is core to U.S. security interests. It is important to fuel. If you're going to do something about this, you need to get hard on the vehicles themselves. I have to say that trying to make a distinction between hybrids and fuel cells has always been puzzling to me because hybrid indicates that it has a fuel cell, and there will almost certainly be a hybrid because almost all that technology will persist. We do need to do something to get those vehicles on the road quickly. It's a disgrace that U.S. fuel economy standards have actually been going down. The average new personal vehicle sold today is actually less efficient than the average new vehicle sold ten years ago. We need to do something about this and I certainly congratulate Maryland for taking a position. In trying to use federal purchasing power, we've spent some time looking at this. Feds don't purchase many personal vehicles, less than one percent of the total sales. States however do, and I am very interested in things we can do with the National Governors Association to try to find ways for states through their own procurement to influence this.

Of course transportation involves urban planning. It involves clever use of telecommunications. I think one of the things we have not spent enough time worrying about is that we're kind of stuck on public transit with nothing between a personal vehicle and a bus or a train. There are lots of intermediate things - dispatchable jitneys and so on. And one of the crises we're going to face here is an elderly population that can't drive. If you can't drive to get that bottle of milk the Governor was talking about, what are you going to do? You have to move to a nursing home. This is an absurd situation and this is going to be a major crisis here. I think that technologies that develop to try to help us solve this problem are also going to be relevant to trying to meet the needs of two billion people in the cities.

And finally, housing. And we're talking about small businesses, housing construction, construction spaces, are consuming 70 percent of the electricity generated in the United States. They probably consume three times too much of it. One of the problems is that the small businesses that do most of the construction have no R&D. They haven't benefited from all of the productivity gains that have been enjoyed by everyone else

throughout the economy, including farming. Farming had very large R&D supported by the public. We ought to be able to have houses that stand up to hurricanes, use a third less energy, and by the way, cost less to build. Everyone else says if we improve quality, we can cut costs. That has not happened for housing. It could, and can, and we've got to do something about it.

[break in tape]

**George Sterzinger (Renewable Energy Policy Project):** ...with the idea that it was all from an incredible and almost invisible set of incentives, propositions that are normally below the surface that brought them to a visible level and sort of served as a way to concentrate. And I think that to some extent the sustainable energy community needs something equivalent. I think that we are somewhat lacking that clear identification of what the public wants and making the case that what is evolving, what we don't want, is the result of these largely sometimes invisible incentives. Being able to focus attention on that to the level that it needs to be done.

And just as a comment, we were talking about tax incentives, and it is sort of remarkable right now, if you were to sit back and say, is federal legislation -- forgetting climate change, but just in terms of advancement of renewable energy in this country -- is it right now moving forwards or backwards. I think the fact that the production tax credit has lapsed is an indication that we're actually moving backwards rather quickly and we don't even here in this forum seem to be able to identify that or raise a real call of alarm in response to it.

It's a shame. I think that the wind industry has been identified as the most successful model, the closest to really being commercially competitive, and yet that industry is in reverse right now. There are layoffs occurring. It's being devastated and if it was equivalent in the fossil fuels industry, there would be alarms raised all the time. We just seem to not be able to capture that public attention or focus on the agenda we need.

**Neil Numark:** Thank you, George. I think we've got about five more minutes and I want to make sure that everybody at the table who has something they want to say gets that opportunity. Miranda?

**Miranda Schreurs (University of Maryland):** I think that one of the really great things about the whole forum here is that some of the real innovators on energy related issues are sitting here around the table or being represented by members of their offices. I think one of the real big challenges for this community is how to take this message to the larger community of politicians and the broader public in terms of thinking about promotion of sustainable energies, thinking about how to address big problems like climate change and basically thinking about quality of life here in the United States.

I've spent a lot of time in other regions of the world, a lot in Europe, a lot in Asia, and I think that getting the sense that the United States is being left behind is very real. There is a remarkable amount of distaste for the international image that the United States is

presenting on global environmental issues, use of natural resources and I think it's a real shame because there really are also a lot of innovators here as those who are sitting around the table represent. But I think one of the big challenges is really going to be to take the smaller initiatives and put them on a larger agenda. Perhaps your point just now was a very good one on how we take this message and present it in a way that links to the interests of the American public that would I think in many ways enjoy a lifestyle in which energy was used in a more sustainable form.

**Neil Numark:** Perhaps a good closing topic is just that question of how the American way of life may be influenced, or perhaps does not have to be impacted, by moving towards a more sustainable energy system. In terms of saving energy and having more efficient technology, can we still continue to drive our cars as much as we want and even have the size of vehicles that consumers seem to prefer today, or is it necessary to make compromises? Do we have to use less air conditioning and heating and drive less? I've heard a lot of different views, including among the awardees in our interviews, on that point. If anyone would like to comment, we can have two or three closing remarks on that point.

**Don Chen (Smart Growth America):** I was in the Czech Republic recently where someone remarked that the influence of America since the fall of the Soviet Union has been importing the American way of life, and that's cars and sprawl and highways and everything that comes with that package. The interesting thing about that is that I do think that the U.S. sets an example not only potentially in terms of being good on sustainable energy, but also in terms of defining what the good life is. And that's something I've seen in developing countries all over the world-- people aspiring to have this American way of life with all its accoutrements. I think that one of the things that we're discovering in the U.S., just beginning to discover, is that the good life maybe isn't what we commonly had associated with all the highways, all the driving and all that.

The one example I'd like to point out is the only example of a region in the U.S. that has managed to reduce its per capita energy consumption in the last decade, and that's Portland, Oregon. This is a place that has in a very determined fashion transformed its urban systems to favor transit, good planning, urban growth boundaries, to protect sensitive habitats, and they've done this very deliberately over the last twenty years. And as a result, during the 80s and 90s they saw an 8% decrease in per capita energy consumption while at the same time they exhibited a 29% increase in population. Just tremendous progress and I'd like to know of any other place in the country that has been able to do that, besides Stonyfield Farm. And the interesting thing is that there's been no compromise in terms of quality of life. In fact the converse has happened. The quality of life in Portland as perceived by citizens, realtors, other industry analysts has skyrocketed and in fact...

**Neil Numark:** The standard of living remains the same or better but perhaps there are some lifestyles changes—the way people commute.

**Don Chen (Smart Growth America):** Yes, I think that quality of life is what everyone talks about in terms of the new economy. That is really the commodity of the new economy. You have talented workers that can live anywhere they want. They are going to live in places that are pleasant to live in. Money Magazine recently voted Portland to be the most livable city in America. I think that we need to find more examples and encourage more examples like that where it's really a win-win situation, and then forward that example to the rest of the world.

**George Sterzinger (Renewable Energy Policy Project):** I have just a really quick example. I lived south of Boston for many years in a little place called Hull, Massachusetts. It served a perfect combination for Hull. It looks good, makes them look smart, saves them money and it's that kind of transformation I think that is the potential there for these kind of technologies across the country.

**Gary Hirshberg (Stonyfield Farm):** I hate to admit it, but I was part of the construction of the old one. I am a pathological optimist. All entrepreneurs are. I love Portland and what they've done there is extraordinary. I am looking forward to spreading that mission, but I think that while we get focused on policy and new technology and very hopeful visions for the future, let's remember that we can live our lives with the most modest changes and make a dent here.

We are now putting up millions of yogurt lids and little cards out all over the place that tell people that if we just keep our tires properly inflated, Americans will save 2 million gallons of gasoline a day just by keeping them inflated. A little tire gauge may be the next wind energy, the next device that you can keep in your glove compartment. I just think that some of this is so practical and common sensical that we just need to be sure that we are keeping that in perspective as well.

**Neil Numark:** Thanks, Gary. Well, I see one more hand raised. Go ahead, Rebecca.

**Rebecca Eaton (WWF):** Just in terms of practical policy and measures, World Wildlife Fund writes and puts out reports and advocates different policies on how to do this frequently. We have a number of our reports outside, including a clean energy report showing how to increase economic growth, and increase employment in our country by raising very practical technologies that are on the shelf.

**Neil Numark:** Unless there are any other pressing comments people need to make, I think we're going to wrap up now. It's twelve noon. Everyone is probably ready for a break, especially a yogurt, courtesy of Gary Hirshberg and Stonyfield Farm. I'd like to close this session by thanking all of you very much for participating in the discussion. It's clearly a very critical time for U.S. energy policy and we hope that the interesting dialogue we had going on here today will help shape the coming debate. Thank you.

[Applause.]