

Mr. Rowe: Thank you, Howard. You are very kind in that introduction. And it is a great pleasure to be on this panel. If Secretary Chu is Isaiah Berlin's fox seeing many things, and if Professor Nordhaus is the hedgehog seeing only one thing, a utility executive by definition is a myopic animal who sees very little clearly, but still must pull things effectively.

Now in a world where many of the things described by Secretary Chu may happen and in a world in which the volatilities described by Bill Nordhaus happen every day, we in the utility industry have to determine how to cope with the challenges Secretary Chu described and to do it effectively and economically.

It is a very good time for this conference that Howard has put together because it is clear that today is the time to deal with some of these challenges decisively. In particular this is the time for decisive climate legislation. President Obama has said so. The Congressional leadership has said so. And the introduction of the Waxman-Markey bill accelerates the debate.

It has been a long time coming. I first testified before Congress on the need for prudential action with respect to carbon as long ago as 1992. And in 2004, The National Commission on Energy Policy, which I co-chair, recommended a cap and trade system. We at Exelon have not been waiting in our efforts to cope with this problem. Last July we announced Exelon 2020, our low-carbon road map for reducing, offsetting, or displacing our entire carbon emissions, more than 15 million tons, by 2020. You can find Exelon 2020 on our website. I didn't bring a lot of copies, because after all, that is more CO₂.

Our plan has three components: to further green our own operations; to help our customers and communities reduce their greenhouse gas emissions through energy efficiency; and to provide more low-carbon electricity in the

marketplace. The single bit of news I bring to you today is that we have completed some major steps toward achieving those goals. As of the end of 2008, we have exceeded our greenhouse gas reduction goals that we made as part of the U.S. EPA Climate Leaders program. In 2005 we committed ourselves to reduce our CO₂ equivalent emissions by 8 percent from 2001 levels. We have actually achieved 35 percent. That is the equivalent of taking 1 million passenger vehicles off the road. The largest part of this was retiring our oldest, least efficient, and most carbon-intensive fossil plants. We have also substantially reduced the leakage of highly potent sulphurhexafluoride, SF₆, the insulating gases used in our circuit breakers. And we are especially proud, particularly because Secretary Chu talked about energy efficiency so much, that our new Chicago headquarters offices, a rehab of a 1970's office building, 10 floors in it, became the largest office space in the world certified as lead platinum, and in doing so we reduced our energy consumption in those offices by 50 percent. We have a goal across our system of reducing our energy consumption by 25 percent and we share the Secretary's view that energy efficiency is again and again the first place to look.

More than that, it is our experience that the curves of technological improvement, which the Secretary discussed, are far more dramatic at the end use of efficiency than they are on the supply side. But now let us come back to Professor Nordhaus' point. We simply have to get the price of carbon in the marketplace.

Every one of us comes to the energy issue or the climate issue with a lot of different motives. Jobs, our affection for different technologies - it may not shock you to know that I have never seen a power plant or a transmission line I didn't like - energy security, and so forth. But while we have many motives, we

have to come together on real policies that endure and real prices that stick in the market.

What fundamentally differentiates the utility role in all of this from the Energy Secretary's role or the economics professor is that we are the ones that have to collect the cost from customers every day. And while our passion for getting these prices into the marketplace is as high, our concern that we get it right the first time, may be even higher. And the reason for that is, when we screw up, we pay for the problem for a very long time. For this reason, as part of Exelon 2020, we developed a supply curve for carbon dioxide equivalent reductions.

What that means is, we calculated amounts of CO₂ that could be reduced by different activities, and then attempted to calculate the cost, and to put them on a curve, starting on the left, with the lowest cost items and proceeding to the right to higher cost items. Now this curve changes every time the economic news changes. It changes especially every time the price of gas changes, a subject that I will come back to. But the shape of the curve is very important. As many of you have heard, energy efficiency is often very cheap. Sometimes, even free. We simply have no way to know how much of it is cheap or how much of it is free. Or to take the California chart the Secretary put up, we don't know how much of that is really reduced consumption and how much of that is consumption that has been moved from California to neighboring states.

What we do know is that efficiency is the first place to look and the best place to look and the fastest place to look for energy efficiency. Those are the yellow bars. The pale blue bars are up rates in our existing nuclear plants. Often getting more capacity out of what we have turns out to be the best thing to do. Then there is one little bar that is my favorite. It is landfill gas. It doesn't

add up to a lot of megawatts, but it always works. It is really cool.

But then we get to the harder choices. Things like the big purple bar, about \$45 pre-subsidies. New nuclear plants. \$45/ton, give or take, in our estimate of last summer. And then wind. \$50-\$60-\$70 a ton of CO₂. And then solar photovoltaics. At that time, out around \$700 a ton. Now the point is, it makes a huge difference. Every \$10 a ton is about a penny a kilowatt hour for electricity. I have heard estimates from the California Air Resource Board that their renewable portfolio standard will cost \$150 per ton. Well, that will certainly bring about efficiency, because it will take the average electricity rate in California from something like 18 cents to north of 30 cents. We have to be very careful with numbers this large. Now of course anyone here might rightly question whether we at Exelon got it right. They might also question whether the numbers we see in Illinois and Pennsylvania or in Texas apply somewhere else. Or whether this curve we developed for ourselves applies more generally. McKinsey has tried to do a more general curve. But there is even a more dramatic reason for question. If you look at my next chart, we have attempted to update our estimates based on changing natural gas prices and the more depressed state of the economy.

If you look at each of these four boxes, one dealing with energy efficiency, one dealing with wind, one with nuclear up rates, and with new nuclear, you see a little bit of the effect of change cost numbers. You see a lot of the effect of changes in natural gas prices. When we did Exelon 2020, our long term forecast for gas was around \$9.00. Today, it is around \$8.00. That is the center set of boxes. But in one of our scenarios, we look at what happens if it is no higher than \$6.00. And that one factor can drive much energy efficiency from economic to relatively uneconomic. Drives wind from \$60 or \$70 to \$80.

Drives new nuclear from \$40 to \$80.

Now my point isn't to criticize any of those technologies. My point is to show that we are trying to develop robust and durable policy in a very volatile set of markets. We must have policy that is clear. We must have policy that puts the cost of carbon into the markets. And we must have a lot of room for markets and their feedback loops to test and retest what is really working economically as we go.

I see four critical components. The first is, as Secretary Chu said and Professor Nordhaus said, and as I said earlier, is to put the price on carbon and carbon dioxide into the market. The Waxman-Markey bill meets that test. But I hope people will pay as much attention to the climate part of that bill as to the stimulus part and the renewable portfolio standards.

Stimulus money is fun to take. We are working with the city of Chicago on a solar project, which we hope to use a piece of it for. We'd love to have some of it for our smarter grid efforts. It is fun. It probably is even fun to give for a while. But we all know we will have to pay it back someday. Renewable portfolio standards are fun because you focus on particular technologies that you like. Again, what is the cost?

Opponents of cap and trade legislation have been scoring points recently by saying it is a hidden tax. Yes, it is a tax. They are right. A carbon tax is a tax, probably the most efficient one. Cap and trade system is an implicit tax. But renewable portfolio standards are taxes, too. And if not used with great subtlety, they impose higher costs on the economy than the other taxes. Exelon has in the past supported Senator Bingaman's proposed renewable portfolio standards. We will continue to support renewable portfolio standards, but we shall argue they should be kept closer to the Bingaman bill than the current

Waxman-Markey proposal because they, too, are taxes. And we want to end up with the most efficient tax that we can.

The second thing we have to deal with in carbon legislation or climate legislation is some sort of cost control system. What you really want to have happen is to make this cost somewhat predictable over a long time so that it gets internalized into decision making. But you would like to do it without the equivalent of another oil price shock on the economy. Most proposals that we have now have a mix of a fixed floor and some sort of cap or lending mechanism to allow cost control. It is very important to have cost control before we put too much stress and undermine the very working of the bill that we need.

The third tenant of good climate legislation is that we have to have a sensible method of allocating allowances. President Obama's initial proposal was that they all be auctioned. The U.S. cap proposals, which underlie much of the Waxman-Markey bill, suggest the granting for limited of periods substantial portions of the allowances. The utilities industry has managed with great anguish to come up with an agreement as to how it would allocate allowances if it gets them for free for a time.

This is basically a position that is backed not only by our industry but by the U.S. cap group and the National Association of Regulatory and Utility Commissioners, and also two labor unions. The point is to phase in the effects while getting the price signals clear. And it is terribly important in this that the allowances that are free go to regulated delivery companies in large part so that you avoid the windfalls that were experienced in Europe.

Now I think the final component that we need to make climate legislation work is to continue our national commitment to competitive markets at wholesale in electricity. The real point I am making, myopic that I am, is that we

cannot know which of these technologies will do what when. There isn't a person in this room smart enough to know what will pay off at what time. We simply have to get this cost into the marketplace and we have to let the marketplace grind out the efficiencies in its sometimes inexorable way.

We are dealing here, not with millions of dollars. We are dealing here, not with billions of dollars. We are dealing over the decade with hundreds of billions and trillions of dollars. And the difference between designing a policy that gets on with it and allows the market to help get it right and in designing policies that are based largely on our own beliefs at the moment is huge.

We have to encourage more efficiency. I would advocate everything on the Secretary's list. We need to encourage more investment in renewables. I submit we also need to encourage the first round of new nuclear plants. But on the whole we have to avoid saying, I have seen the future and it works. People who say that are nearly always wrong. We need to help design a future. We need to plan as best we can. But we deeply need the power of the marketplace to sort it all out. It is time to get on with it. This conference is a wonderful place to celebrate what the Congress and the Administration are trying to do. Let us proceed. (Applause)