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The Future isn't what it used to be

Reasons for the Nuclear Renaissance

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It is a great honour to be here with you all this morning, and to talk to you about what is happening in the United States. And about what really is our true renaissance in nuclear energy. As Hans Blix said, it has always been here, and yet we have somewhat taken it for granted. What I would like to do in the few minutes that we have, is to discuss what I believe is the bright future for nuclear energy both in the United States and around the world.

Let me just give you a few examples from the United States about where we are today. Today we are operating 103 nuclear power plants with unprecedented levels of safety and reliability. We have made dramatic improvements in the operation of these plants. We have, in fact, increased the operational performance of these plants to over 91% capacity factor, and believe that we can get 94 to 95% on an average industry capacity factor over the next several years.

That is the equivalent over the last decade of adding 22 new 1000MW nuclear power plants to the grid without additional capital investment. I think that is a tremendous story. We are generating large-scale electricity at the lowest cost in the United States. Nuclear energy, again this year, is the lowest cost producer of all energy sources. We have the lowest total environmental footprint. We see growing recognition of the environmental benefits of nuclear power. And that translates into new challenges and a positive regulatory climate. We have come up with new processes in which our regulator has oversight of our nuclear power plants and our fuel cycle facilities in ways that provide transparency to the public.

And all these things lead to a growing recognition amongst the public, amongst policy makers and amongst the political leaders of the United States, that in fact nuclear is here again. And nuclear needs to be given fair and equitable treatment as we look forward to maintaining electricity supplies, to supplying the electricity needs of the population of the United States and to using that electricity to fuel economic growth and to enable us to compete in the global economy.

We have seen licence renewals at thirty of our units in the United States, and we expect that all 103 units will proceed to get an additional twenty years of life in the operation of their power plants. We are having serious discussions about building new reactors. We

have several reactor designs that have been progressed, we have new investment into new reactor designs and we have new investment in research and development in designs. We have several companies willing to move forward and to go through the early siting process and to bank some sites to build some of these new reactors. We have growing support among policy makers and the public. We have seen a growth of about 20 percentage points in support for nuclear energy in the last 18 months.

Some 66% of Americans say that we definitely ought to build more nuclear power plants; and that number grows to 76% if you tell them that you are going to build those plants on existing nuclear power plant sites. Over these last six months, when we talked about energy and the energy crisis in the United States, and the growing need for energy, we saw over 500 media reports, both print and radio and TV, that gave nuclear a different treatment than we have ever seen in the past.

The New York Times, the US News and the World Report, Time Magazine, and Newsweek all looked at nuclear through a different set of eyes. We see seven major nuclear bills before the United States Congress. We have never seen that in the history of the US nuclear power programme. And most importantly, we are seeing leadership from the President and the Vice President. Both Mr Bush and Mr Cheney have been looking at nuclear in a different way. And they have made nuclear energy a major part of their national energy policy. In fact, we had Vice President Cheney speak to us in a setting similar to this at our Nuclear Energy Assembly in May. This was the first time in its history that anybody at that level in the United States had ever spoken to our industry.

There is a tremendous renaissance taking place, but in my view this is in reality just a new beginning. We now have a fresh start, a new base upon which to build, and I think that is really where we have to focus our attention. And the key to our success, the key that has enabled us, in fact, to make this renaissance, is our unwavering focus on operational nuclear safety. We need to keep that in mind. Without that as a basis, we would not be talking about the renaissance. We would not be talking about the growth of nuclear energy. Rather, we would be talking about it in the way we have talked about it over the last two decades.

I think that we have a great opportunity before us, and we need to take full advantage of this opportunity. In the United States alone we are looking at a growth in electricity of about 400,000MW over the next twenty years to meet the growth in electricity demand. And that is if we assume a 1.8% growth rate, which is less than that which we have actually experienced in the last decade.

What this means for the United States is that we are going to have to add an additional 50% to our total electricity supply in the US. This is what that 400,000MW of new electricity generation in twenty years really means. That is an almost monumental undertaking. From a standpoint of nuclear energy, we have made the decision to look at this as an opportunity and, in fact, we look forward to what we are calling "Vision 20-20": in fact, to take the nuclear industry and to move it forward to add additional nuclear generating capacity to the United States grid. To add 50,000MW of new nuclear generating capacity in twenty years is an ambitious undertaking. We think that, if we add 50,000MW of new capacity, and we get about 10,000MW more of electricity through improving capacity factors and through plant upgrades, then we will be able to meet the

needs of the US and to maintain our level of emission-free electricity in the United States at about the 30% level.

Without that increase in nuclear, we will see a decline in the total base of emission-free electricity. We see the need to increase and to enhance policy-makers' support for nuclear energy, and that is part of the effort that we have under way in co-operation with the World Nuclear Association and others. And we see an increasing awareness of the need to use nuclear technologies in medicine, food safety, water management, and to use clean fuels like hydrogen. So, in my view, we really are entering into a new era of important opportunity where we will need unprecedented support and co-operation on an international basis.

Now this does not come easy. I think that we are going to have to refocus our attention and to maintain our focus on safety as we move forward. And I know that Dr Pate is here, from WANO, and that the work WANO has done has been instrumental in this activity. But, I think, again as we move forward, we have to realise that we are just now at a new beginning and we have a great opportunity, in fact, to take nuclear power to its next level.

Thank you very much.