CENTER FOR
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U.S. ENGAGEMENT
IN INTERNATIONAL ENERGY FORUMS

FEATURING:
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MR. : Good afternoon. Thank you for coming. We're really pleased this afternoon to have Karen Harbert join us. Actually, we were hosting for Karen one of the first public appearances she made when she took the position as assistant secretary, and she wowed the crowd at that point, so we thought we'd invite her back a couple years later, and had we known the turnout would be this significant, we would have invited you back sooner, or we're going to get you out around town.

With energy being so – it's in the forefront of almost everything that goes on now in terms of domestic policy, international policy, politics, and election-year politics, especially, we thought it would be useful to update you on some of the things that have been going on in terms of U.S. negotiations with international, both bilateral and ministerial, meetings that have occurred, APEC meeting, ministerial IEA ministerial, to just talk about what the U.S. has been doing in those relative fora and what the positions have been, if they haven't been articulated clearly enough.

We also want to spend part of the time, since she is assistant secretary for policy and international, to talk about the domestic political situation and some of the legislation that's on the Hill, and she's agreed to do both and do both on the record. If you can hold your questions until the end, that would be extremely helpful, and without (?) that, your bio is upstairs. Most people know Karen and that's why you're here, actually, so we're pleased to have her back, and Karen, the podium is yours.

KAREN HARBERT: Thank you.

(Applause.)

MS. HARBERT: Frank, thank you for the kind introduction. The irony of this is, is that half of the staff that work for you used to work for me, so either I have bad retention or you have good recruitment, but either way. (Laughter.) I'm glad they're still doing energy policy for the U.S.

Like any good speaker, you've asked me to speak on a subject and I'm going to deviate from it immediately and talk about something else because I think it's important before I go into the litany of the number of international fora in which we have been voicing our strong opinions about what we need to do to enhance the world's energy security. I think we need to take a minute to remember the context in which we find ourselves, what's happening in the energy market, and then for me to tell you the message we've been sending to producers and consumers and then to tell you where we've been doing it and tell you what I see, what's on the horizon and the opportunities and the challenges of delivering these messages and actually getting the action that we want out of it. It's more about action and less about words these days.

So first of all, what are the facts? And this is why I think that the world, the U.S. and other countries have put international energy security at the top of the foreign policy, on top of the economic policy, on top of the national security agenda of most countries, and if you look at the facts, global energy consumption will increase by roughly 50 percent by 2030. Seventy percent of that growth will come from the world's emerging economies, and 30 percent of that growth will come from China alone.

China has about nine million cars on the road today; by 2030, it will have well over 150 million cars. What type of fuel will those cars run on? Who's going to manufacture that steel? What type of pollution will that cause? We need to be concerned about that.

Electricity growth. These are facts you may be acquainted with, but if you put them all together, one bundle, it becomes very, very clear why it's at the top of everybody's agenda. Electricity growth is expected to be particularly steep-rising, 100 percent between now and 2030, yet still, we have close to two billion people that don't have access to electricity, and everybody's aim is to erase that gap that will cause further strains on the energy sector infrastructure.

The amount of investment needed just to meet the demand as we know it today is estimated to be 20 trillion dollars. Where is that money going to come from? Is that money going to be able to be invested? Sixty percent of that money is needed in the power sector, and 40 percent is needed in oil and gas. We can't forget about the electricity investment that's needed. We're so focused on hydrocarbons we forget that they actually generate electricity.

Access to reserves is becoming increasingly limited. Roughly two-thirds of the world's oil and gas reserves are in countries that are providing limited access or now are completely closed to foreign investment. Roughly 50 percent of the world's proven oil reserves are in the hands of national oil companies.

Upstream investment has risen, but not the share that's devoted to exploration. Upstream oil and gas investment has increased by 80 percent between 2000 and 2005, yet the share that's devoted to exploration has fallen from 31 percent to 10 percent. What that means is that there is an emphasis on production in this high-price environment rather than on exploration. That is a trajectory that cannot continue. We need that investment, we need that exploration, and these projects take a very long time, so we need that investment to happen now.

Non-OECD countries pay about 250 billion dollars a year in energy subsidies for their own people. That's an amount that is exactly equal of investment that's needed to meet their energy need, so they're subsidizing things that they actually could be investing in and actually providing for a sustainable energy future for their people. We have to have a change in the way that energy is delivered to the developing country in the long term.

We're also seeing an increased manipulation of natural resources around the world. This means that, in certain ways, they are limiting access for commercialization of resources, they're renegotiating contracts or, in some cases, going to the extreme of expropriating assets. They're renationalizing assets, they're cutting off supply to their neighbors, and they're subsidizing prices to offer cheap petroleum in exchange for loyalty. All of that is bad for their people, and it's bad for the world energy economy.

We also see something that is something that's going to take a long-term commitment to change, which is a shortage of qualified staff in the energy sector. We are not graduating the scientists and the engineers around the world that are needed to carry on the next generation of technological innovation that is needed to actually solve our energy challenges over the long term. We have to solve that. It's not just an American problem; it's a worldwide problem.

We also are seeing, obviously, a shortage of equipment, rigs, drilling equipment. It would be great business to be in. You can't get one to save your lives. But that will constrain the ability of companies to make the investments, the 20 trillion dollars, that are needed. Lack of investment, lack of people, long-term fix, big-time problem.

So that basically leads us to sort of a new paradigm, a new construct of what we need to do and how we need to think about energy security for the future. We certainly believe that there are certain messages and certain principles that all countries, producers or consumers, need to ascribe to, and they are the following, and there are five of them: that the current level of energy insecurity in the world poses an unacceptable risk to our economies and to our security; secondly, that the environmental challenges posed by fossil energy use must be confronted directly, immediately and urgently; that free, open and competitive markets for energy trade and investment are essential to increasing energy security; that innovation, and I will spend a little bit of time on this a little bit later, is critical to solving our energy challenges; and that the international nature of this problem requires coordinated action on a global scale. It does not matter what one country does alone; it matters what we do together.

And that goes to the point about what's actually happening in the market? The market is no longer solely driven by fundamentals. It is an emotional market. It is a psychological market. I like to remember the time when a governor in a state of Nigeria that is an oil-producing state was in the U.K. for a visit and was arrested on certain (?) charges, and immediately, overnight, the price of oil went up $2 because there was speculation in the market that there would be uprisings in the state in Nigeria that would shut off additional supply to the market. Completely a psychological response by the market and by the hedges and by the traders, but that's the type of volatility in which we live, and that makes us focus on different parts of our energy policy to ensure against it, and I'll talk about some of those things in a little bit. But that's the nature of the market. It's very complex and unpredictable.

So if you ascribe to those five principles that I just laid out, we believe that countries have to choose a more responsible path, a more responsible course of action in

the immediate term. We believe that international partners, all of our international partners – producers and consumers; we don't differentiate – have to commit themselves to give major goals, as has the U.S. We strongly believe by leading by example in each of the five goals that I'll lay out, and the messages that we have been taking to our partners around the world are things that we are leading by example and we hope can actually lead to global change.

Now, there are a variety of tools in which to realize these five things that I'll lay out, and you have to use all of them: fiscal policies, regulatory policies, legislation, financial resources, changes in the way we produce and consume energy. So what's the first one that we have to do? (Unintelligible) – diversify the available supply of conventional fuels and we have to expand production. Demand is not going away; it is not decreasing. We have to have additional production, and we have to have a more variety of conventional fuels.

We believe the key drivers for our future energy security are twofold: investment and technology. Energy projects, as I said, are very complex, they're labor-intensive, they're capital-intensive, they take a long time. The investment in these projects needs to happen now. Here at home, we can do things with ANMAR (ph), if we every get authority from our Congress, we can expand production exploration in our outercontinental shelf, we can continue to do things onshore, but that is not sufficient. We still import 60 percent of our energy here in the United States. The world is increasingly dependent on imported energy. We have to have more energy developed abroad.

So this immense investment, as I said, has to happen now, and we need to have certain things for that investment to have a home. There's a lot of capital out there; it is having trouble finding a home. We need stable regulatory frameworks, we need open investment climates, we need adherence to the rule of law, and we need market-based pricing of energy resources or the true cost of energy is being realized by the consumer. So it is not a false price of energy.

Moves to restrict foreign investment and increase the reach of state-run and ill-run, in some cases, industries, are limiting access to capital and to the expertise needed to unlock these resources, so what we need is not neutral stances from governments. We need governments that will actually take a proactive stance and change their policies so that they invite the investment that is needed.

Initiatives, whether they're new or old, that actually control the flow of energy supplies to the market and circumvent the role of the market are actually providing a problem in the market and are contrary to the long-term interests of producers and consumers.

So I've said we need clear business practices, we need stable regulatory environments. Those are basically the ingredients that will make and foment and

facilitate the flow of capital, the significant capital, that is needed to bring the amount of resources, whether they be hydrocarbons or others, an alternative energy to market.

What we are worried about is underinvestment. What happens if this doesn't happen? We are seeing underinvestment in places like Russia and Venezuela. We are seeing reduction in production in those countries. Russia is not going to be able to meet its contracts in natural gas over the long term if it does not turn around its investment curve. Venezuela's production, its state-owned production, is down 50 percent from where it was five years ago. That's not good for the people of Venezuela, certainly, and it's not good for the world energy market. Investment policies have to change. Governments have to think differently over the long term. It's not a political short-term goal. It's an economic long-term challenge.

Secondly, we have to expand the diversity of our energy portfolio. This may seem self-evident, but what's happening around the world doesn't show that it is self-evident. We're not seeing the flow of capital around the world. We are seeing it here in the United States in some places, in (?) alternatives, and we need to expand the growth and penetration of alternative technologies.

There are a lot of technologies we could talk about, but the key is increasing their availability and their cost-competitiveness. There are a lot of alternative technologies that are available. We can produce cellulosic ethanol right now in our laboratories, but it's three times the cost of regular ethanol. Nobody right now is going to build a cellulosic ethanol plant because it's just not cost-competitive, so from the federal side, in a role that the federal government should play, is in a place where the private sector and capital markets can't play, is buying down the costs of these technologies so they actually become cost-competitive, and then we'll be able to be more available to the market place.

And that really is the core of President Bush's two recent proposals, the Advanced Energy Initiative, which seeks to invest in those technologies that we believe will have the most near-term commercial competitiveness, in solar, in wind, in nuclear, in clean coal and others that we think, within a relatively understandable time horizon, will make it to market and will be able to compete and be able to actually have the diversity that we need to achieve in our energy sector. If you're an investment banker in New York, you don't just put all your money in one fund, and certainly as an energy consumer, we shouldn't have all of our energy consumption in one area. We need alternatives. That's good for us, it's good for the market, and it certainly is good for the economy.

The president also proposed his 20 in 10 (?) initiative in his state of the union this past year which seeks to reduce America's consumption of gasoline by 20 percent through a greater reliance on alternative fuels and increased fuel efficiency. Now, many have said, is this a hostile policy against our producers? The answers is no. Demand is going up, it is going up around the world, and we need more energy. We need more hydrocarbons, we need more solar, we need more wind, we need more ethanol, we need more biodiesel – we need more of everything. And it is for the greater good of the

energy security of the world that we will invest in having a broader diverse supply of energy.

To my point earlier about different types of policy instruments, we have really taken advantage of some of the things in the Energy Policy Act of 2005 which we hope will provide an example for other countries around the world. For example, Secretary of Energy Sam Bodman and his counterpart at the Treasury, Hank Paulson, recently awarded a billion dollars in tax incentives for nine new clean coal facilities, and we're going to award another 650 million dollars this year. We're trying to get to that space in the market that the private sector won't go and the federal research dollars have already been exhausted. We know the technology works, but we just can't get it out into the marketplace, so how can we close that gap? And so we're looking at innovative financing that the government can provide on a concessionary basis that will help to continue to close that gap.

Obviously in the power sector, we need an increased use of nuclear and renewable electricity generation. Not only is this good for energy security, but it's good for environmental security, and it's good for addressing the growth of greenhouse gases. I have to tell you that the president feels very strongly, and I think leaders around the world are increasingly of this belief as well, some more than others, that we are in the process of and must have a nuclear renaissance around the world. In order to meet that electricity demand growth that I referenced in the beginning, we're going to have to have new nuclear power. If we're going to do it in an environmentally sustainable away, there is no other option. Fusion is many years down the road. Long-term things are down the road. We need new nuclear power now.

We've invested in those new technologies. We have a new partnership with Russia, France, Japan, China and several other countries to bring nuclear power to the developing world so they will have access to emissions-free technology, and we will take back the spent fuel so that actually it becomes a proliferation-resistant provision of nuclear power, and this is the type of innovation, the type of thinking outside the box that compels us these days in the market in which we find ourselves.

We need nuclear power, and not every country, it's not desirable to have every country produce the type of nuclear power that we need. That is an attraction for people to actually misuse fissile material. We need to find ways around that. We have to look at ways to invest in ETR (?), which will look to the long term – (inaudible) – fusion challenge. So it's collaboration amongst countries that will really prove to be fundamental in the long term.

Third, we have to promote energy efficiency. The next best source of energy is the one we currently waste. I know all the folks that have worked for and with the Department of Energy are laughing at the moment because I say this all the time and we strongly believe it: the next best source of energy is the one we currently waste. We are still lacking in energy efficiency gains in this country. We've made tremendous progress, there's tremendous progress to be made, and there's even more progress to be made in

the industrialized world as they climb up the economic curve. It's in our interest to make sure they do it in an energy-efficient manner and to help them have access to the technologies that will provide them that opportunity at a cost-competitive rate.

One of the meetings that we had recently was when the EU and the U.S. have their summit, and out of it came a communiqué, and we had the same outcome and a communiqué between us and China where we have agreed with the EU and with China to find ways, either within or, should Doha not succeed, and we all are hoping it does, to find ways to reduce or, if appropriate, eliminate tariffs on clean energy goods and services. We are only shooting ourselves in the foot if we are putting additional prices on clean energy goods and services. We need to reduce those so that they are, again, more cost competitive, and that will lead to better energy efficiency around the world.

By leading by example, we here in the United States are certainly – we have a broader way – a broad array of tax incentives, and some of them were recently renewed for production of energy-efficient technologies and energy and power, but also, we have and will be over the next five years publishing 23 new appliance standards which will basically completely transform the whole manufacturing of household appliances and industrial appliances to be far more energy efficient.

We also have a voluntary program, which many of you are familiar with. You go to Home Depot or any place else where you buy your appliances, you see the ENERGY STAR sticker. You know, the ENERGY STAR sticker, while it's a voluntary program, I just think it's important for people to realize, this is – voluntary measures actually have a huge impact. Last year alone, ENERGY STAR appliances that were sold saved 150 billion kilowatt hours of electricity, or if you equate that in dollar terms, 12 billion dollars of savings on electric bills. This was not a government mandate. It was a voluntary program that manufactures and consumers have come together to believe in.

So we can have mandates, we can have voluntary programs, we can have fiscal incentives. You need them all. There's not a one-size-fits-all, and I think nations have to remember that. There's not a cookie cutter approach. We can't decide in Brussels, in St. Petersburg or in Tokyo what is good for the rest of the world. We certainly can't decide it in Washington. We have to allow countries to decide according to their own national circumstances how to achieve national and economic and energy security. But these principles are fundamental.

Next, we have to improve the earth's environment, to reduce pollution, and we have to do it to improve our environmental stewardship and we have to do it in a more expedited manner. Let me just say a word about what the president said here before he went off to the G8. I think he issued an extraordinary opportunity and challenge to the developed and developing world when he said, I would like to convene a meeting of the largest economies, the largest emitters, this fall to find a way to get a post-2012 framework in place, a post-Kyoto framework in place, by the end of next year. That means that we could actually have an agreement amongst 15 or so countries about how to move forward. The 15 or so countries, however it ends up, whatever the composition of

the 15 is, will comprise roughly 90 percent of the world's emissions. If those countries can agree and the accomplishment that that will be for the future will be enormous.

Again, each country has to do it according to its national circumstances. They have different population growths. They have different urban profiles. Some are more rural in nature; some are more urban. All of these trends have to be taken into account. But if each country establishes a program and then is reviewed by those other 15 peers on a yearly basis to see if they are adhering to the programs and the goals they have set out, it will be a very, very powerful step forward in addressing global climate change.

Here in the United States, we don't ever get credit for what we're doing on climate change. The only thing we get credit for is not signing Kyoto, and I'd like to say that we have invested 37 billion dollars in clean energy technology since 2001. That's more than any nation or group of nations has, period, ever. And we're not slacking off; it's only going up. We're going to use technology to crack this code. We're not going to put mandatory arbitrary limits on our economy that will force our jobs somewhere else than here. Bottom line.

The president put out a goal in 2002 to reduce our greenhouse gas emissions intensity by 18 percent by 2012, and I'm happy to say, not only are we on target, but we are ahead of our target. In fact, our greenhouse gas intensity declined by two and a half percent in 2005. So we're very pleased with the progress that we are making.

The final goal is that we have to maintain a global energy supply system, and we have to protect our critical energy infrastructure to insure against this volatile market in which we find ourselves. Delivering energy resources is as important as finding them. Governments have a responsibility in that regard. So does the private sector. But we have a shared responsibility in insuring that.

We, in the United States, have proposed a doubling of our strategic petroleum reserve, and people say, well aren't you talking out of both sides of your mouth? If you're talking alternatives, why are you also expanding your strategic petroleum reserve? Because we are going to be reliant on hydrocarbons for some time, and as demand goes up, the only surefire, immediate access we have to additional supply is our strategic petroleum reserve. We need it, and we want to expand it. And the world has to be prepared to do it as well.

At the International Energy Agency, there are 26 nations that have a strategic petroleum reserve-like mechanism, but counties like India and China, big consumers, are just beginning efforts in this regard, and we need to encourage them to accelerate their effort so that if there is some type of international big supply disruption that these big consuming nations are not left vulnerable. That's not in our interest to see China vulnerable. It's not in our interest to see India vulnerable. It's in our interest to see a smooth energy economy, and that requires everybody to take an appropriate stake in that economy, an appropriate, responsible stake in that economy.

So if you look at those five goals, if we agree on those goals, I think, and we think, and what we have challenged the people around the world that we are talking to, it defines a new coalition of countries and a new paradigm for energy security, an energy security that's defined by secure supply, environmental responsibility and a new technological approach to energy security.

So, to what I was actually asked to talk about, where we've been delivering this message, what types of fora have we actually been talking to and through? I mentioned the IEA. The IEA – the member countries of the IEA that's headquartered in Paris has a ministerial every two years, and our secretary, Sam Bodman, led the delegation in the middle of May, and they talked about – they got together two years ago. It's a much different energy market in which we find ourselves now. We've got high prices, we've got increasingly geopolitical risks. If you look at just Nigeria alone, we've got 750 thousand barrels of oil offline in Nigeria. We are looking at sustainability issues that we did not face two years ago. So a very different energy market for these energy ministers to actually get together and talk about.

But they really came away with three conclusions, and I think you'll find them similar to what I just talked about. Number one, we need to sharpen and strengthen our emergency response mechanisms. We need to be prepared, as consuming nations – this organization represents consuming nations – in case there is a supply disruption, in case another governor in Nigeria or if two governors in Nigeria get arrested, what are we going to do if another 750 thousand barrels is offline from Nigeria?

We need to look and evaluate countries' progress in energy efficiency. We need to evaluate each other. Are you actually living up? Are you being a responsible stakeholder in the international energy market? Pledge and review, peer review. And they stress the need to accelerate the development and deployment of new technologies. Of course, that's something that we strongly believe in. So those three things, those principle outcomes, are outcomes that we have, in the early part of this, actually challenged the world to adopt as principle tenets to pursue for long-term energy security. So I'm glad that these sound familiar.

However, as I said before, there's not a prescription. There's not a cookie cutter approach to this. All nations will do it according to their own terms and their national circumstances, recognizing differing economies, differing populations, et cetera.

We then left Paris and came back through here and then went off to Darwin, Australia, which is truly as far away from here as you can possibly get. (Laughter.) Once you get to Australia, you think, well, I've already flown for 20-some odd hours, I have to be there. Well, no, you have another 15 to go. But in Darwin, Australia, which is truly in the Outback, the ministers met, again, and reached four principle conclusions. And forgive me if they sound a little bit familiar with the ones that I just laid out.

But they believe that we need a diversified mix of energy efficiency measures, we need clean coal generation, nuclear power and renewable energy. We need a balanced

approach to oil security, which includes and is reliant upon fair and transparent investment regimes. We need to improve fuel efficiency in the transport sector, and lastly, we have to increase the use of biofuels to reduce, in this case, the Asia Pacific region's dependence on hydrocarbons over time. And in that regard, the U.S. actually leads the APEC biofuels task force, and it was tasked with looking at, in a far more detailed level, a level of granularity, about the prospects for alternative feed stocks for biofuels in all parts of the Asia Pacific region, and we will do that.

Then we went off to Heiligendamm in Germany for the G8 summit, and the G8 summit had a very lengthy communiqué. I will not go through all the tenets of the communiqué and energy in the environment except for to say a couple of things: it was prominent, it was discussed extensively in all of the lead-up meetings, it was discussed extensively by the leaders, there was a great deal of difference of opinion, and at the end of the day, there was a consensus.

And the consensus is what's remarkable because we came at it fighting about degrees on global climate change, and we came away with saying, we've got to dispense with this argument, we've got to get on with action. And I think that's the important message, is that we are going to continue. Countries are going to differ, but we can either continue to argue about these types of things, or we can commit to a course of action that will address climate change. We have chosen the course of action and are leaving the debate behind, and I think that the countries at the G8 and the other countries that were there, the five and others, have joined that thinking that it is time to put this to bed and to look forward about what we're doing to do about it.

So the G8 statement endorsed the president's proposal. They said we'd like to convene this meeting, find a way forward by the end of 2008 for a new Kyoto framework. We believe in the power of technology, we believe in nations' sovereignty and their ability to actually make the right choices, and we believe that the statement by the G8 that climate change is a global challenge that requires all countries, in some way, to participate is very important.

We have to have China and India at the table if we're ever going to make a meaningful dent in climate change. And while they may be on different trajectories, they cannot be exempt from this new architecture, and we will be working very, very hard, not only between now and the fall, when we have this meeting, but between now and 2008 to find a way to bring them into this tent that does not hamper their economic growth but actually lets them excel, industrialize, but not at the expense of the world's environment.

I want to spend a minute or two on China, and then I just want to tell you the meetings are on the horizon. Since they haven't happened yet, I don't know what will happen, but I could make some – well, I won't, but engagement with China. Two things have happened recently with China. Number one, they have really decided that they need to play a bigger role in the economy. They are playing a bigger role, but they want to have a bigger voice in the economy, and through a new strategic economic dialogue between the U.S. and China, we're saying yes, but with that comes responsibility.

If you want to have that voice at the table, you also have to do things that demonstrate to the world that you are a responsible stakeholder to the economy – the energy part of it, I'll get to in a minute – in that there's currency issues, there's IPR issues, there are all kinds of issues, but the fact that we're actually sitting down and talking to the leadership of China – they brought 15 ministers here – that's an extraordinary – that's an extraordinary airlift operation, to begin with, but to have them all here and more than half of the leadership of China sitting across the table from our cabinet for a solid two days, really getting into details about challenges and how we deal with things, how we are dealing with pension reform, how we are dealing with an aging population, how we are dealing with some of these issues, the challenges that they see, the different approaches that they're taking is extraordinarily healthy.

It shows where we have common purpose; it shows where we don't. It is bringing together two incredibly powerful nations that are seeking to find common strains and common approaches to things, and also an understanding where we don't, and there are things that we will never agree on. But at least if we understand what they're doing, it makes it a safer economy and a safer world.

On energy, we agreed to several things, that if you didn't read the fairly hard-to-read communiqué that came out of it, I don't blame you. I'll summarize it for you, the things that we agreed to this time. These meetings happen every six months, by the way, so in December of this year, everybody will be getting on our own airlift and going back over to China, as we did six months previous, so this is a regularized institutional meeting now, which I think will bear fruit over the long term, which is what it is about. It is not about immediate deliverables. We signed this MOU, that MOU – it's about trying to find, over the long term, ways that we can address our challenges together.

In the area of energy, I mentioned the WTO earlier, and China and the U.S. have agreed to really take an active leadership within the WTO to address the tariff barriers to clean energy goods and services, and I think that's an important breakthrough, that we'll be standing linked at the arm to address that together.

We've also agreed to increase our cooperation on clean coal technology research. We are heavily reliant on coal. We have abundant sources of coal and so does China. China builds one coal fire power plant a week, and that's increasing. It's in our interest to make sure that they're built in a more energy-efficient manner, and they're not right now, necessarily, being built that way because it is too expensive. So we're investing together in a very large project in clean coal technology that will be sited (?) here in the United States. We've also agreed to cooperate and help them build 15 large coal mine methane capture projects, and we're looking at ways to actually help them reduce some cost barriers to clean coal in their country.

We also signed a memorandum of understanding, despite what I just said, on nuclear safety because China has the biggest expansion of nuclear power going on in the world, and it is in our interest to make sure that it's done in a very safe manner. There is

a lot to be learned from our nuclear regulatory commission. We have already pre-certified a number of designs, one of which they have bought, China has bought, and we feel very, very committed to helping them expand their power sector in nuclear power but in a safe manner.

And lastly, the backbone of the Chinese economy is on their industry, and they have an industry that is motivated by profit, not like any other country, and that means cutting costs and not being as energy efficient in using the highest technology that is available. So we are going to be training a corps of people in China to actually go out and do energy efficiency audits at these industries. They're identified a thousand of their most – their biggest industries – and go in and say, here's where you could be saving energy and let's translate that into dollars. Here's how much that particular facility or industry, industrial sleight (?), would actually save. We do it here in the United States, we have completed 200 of those, and we're going to help China actually develop a similar program so they can do it. If it results in profit savings, that's good for them. If it results in environmental savings, that's good for us. So we see it as a win-win.

I'm going off to the West Coast of California in September because we have regular energy dialogues with China. We'll be holding the third such meeting in San Francisco in the middle of September, where we can really get into energy efficiency in far more detail than you can when you have two cabinet ministers and delegations talking to each other and really looking at that as an investment in our collective futures and environmental futures.

So on the horizon, let me tell you a couple of things that are coming up, and then I'll be quiet. Next week, I head off to Nigeria. Nigeria is the United States' fourth-largest energy supplier now, and as I mentioned, they have a tremendous amount of oil offline. We'd like to have much more detailed discussions with Nigeria about some of the problems, talk with some of the companies, and to try and, over the short and medium and long term, find a way back to regularized supply from Nigeria, not just for us but for the global market. The global market is figuring in a price for this offline capacity, so it's in everybody's interest to get that capacity online and the security situation under control.

We'll be heading off to India in October for a ministerial-level meeting on the Asia Pacific partnership, which was – it's a group of six nations, the U.S. being one of them, China, Japan, India, and South Korea – think I got them all – Australia – will be meeting to talk about clean development and climate. How can we actually do the energy security thing in the climate context? We've already had one ministerial at this level, and we have eight working groups on this that are populated by the private sector, not by government bureaucrats that give speeches and sign MOUs, by people that are actually putting their dollars into the ground. What is it that they can tell us we need to do, and where are they willing to invest, and how can we do things to get out of the way or facilitate their investment in these clean energy projects?

We'll be heading off in September to Vienna. The International Atomic Energy Agency has their annual meeting, and on the margins of that, that partnership that I

mentioned to you, the nuclear partnership between Russia and France and ourselves and China and Japan, and there will be more countries invited to supplier nations like Canada, Australia and others. We'll (?) be there so that we can further discuss how we're going to, over the long term, solve the challenges to expanding nuclear power to the developing world in a proliferation-resistant manner.

The UN Secretary General is having a meeting in New York on climate change in September as well, and so that will be populated by ministers of all levels, and that's a very important meeting of a broad set of nations to talk about, in the UN setting, what people are prepared to do as they embark upon the next set of discussions under the UN framework convention, which will take place in December in Bali.

And as I mentioned, the president himself is having – we are having, the administration is having a meeting of the large emitters, large economies here in the fall, so it will happen before Bali but probably after the Secretary General's meeting.

Three more. I'm earning my frequent flier miles. Japan is hosting the G8 next year, and they, too, believe that energy needs to be as fundamental part of the G8 agenda. They're going to host an energy ministers meeting, and they're also going to host what they call a five-party meeting, which is a different set of nations. It's the five largest energy consumers, and those don't necessarily – they aren't represented in the G8, and so we'll be getting the G8 ministers and the largest consuming countries together, and I think that will be very interesting because that will happen right in the midst of the very heated, I'll say it, climate debate. It will happen at a time where there is a tremendous amount of decisions being made about energy policy, and so that will be two very important meetings.

And lastly, then that will flow right into the largest meeting on energy that happens every couple of years, which is the meeting between energy producers and consumers at the International Energy Forum, which is being held in Italy this year. That will be sort of the culmination of the next eight months of meetings. I'm sure there's going to be eight or 10 that are called in the interim that I'm not even aware of yet, but those are the ones that are at least on the radar screen.

So there's lots of opportunity to advance our message. I don't think there's any problem with our message. As I said in the beginning, it's not about words, it's about action, and we are working very hard to make known how we are achieving and the tools that we are putting in effect to actually have demonstrable progress on those five principles, using all the tools that are in our toolbox and bringing the private sector into the discussion, into the table, into the decision-making process very early on because ultimately, the progress of this will be borne on the backs of the private sector, not on the backs of government and government bureaucracies.

So we recognize there's no silver bullet, not either in a technology or a policy. We need all of them. We need all the technologies; we need all the policies. Government can't do it alone; the private sector can't do it alone. We have to do it

together. But it depends upon the world opening their markets, embracing new technologies and new practices to insure a secure and peaceful energy future. I think the basic fundamental question that I'll leave with you regarding the energy challenge is whether these investments will be made to unlock those resources, and beyond that, will we be willing to make the investments necessary to make sure the innovation cycle continues? Will we have the investments and will we have the people to carry forward? Will we be able to actually meet that energy challenge with those advanced technologies? Thank you. (Applause.)

MR. : Nicely done. Karen is one who certainly appreciates the prerogative of the speaker to change around the topics. I had every confidence that you would get back to the issues, and it sounds like you've been busy. Let me just start with a question on the domestic side. The politics of energy legislation so quickly after the 2005 energy bill – (unintelligible) – changing landscape. How has that changed both the focus of what the administration wants to accomplish, and what do you think the prospects are, given the fact that we're getting into a heated presidential election cycle?

MS. HARBERT: I think there's a good news story in this, and the good news story is that everybody has elevated energy to the top of their political agendas, and that's a good thing. That means that people recognize that this is a fundamental challenge that we need to, in a bipartisan manner, get together and find some solutions. The challenge remains is whether we can find the bipartisan solution. In this town, unless you have an energy bill platform or idea, you're not part of the discussion, and so there are a tremendous amount of ideas, a lot of pieces of legislation. On any given bill, there are hundreds of amendments which are being put forward, and there are some very good pieces of legislation. We happen to favor the ones that the administration has put forward, but we certainly find elements of the things that we believe in in a lot of different pieces of legislation.

We also find some out there that are very, very objectionable for a variety of reasons, ones that would hurt our economy, would hurt our energy security, would do demonstrable damage to our manufacturing sector, would hurt our relations with other countries, would actually adversely affect the price environment here in the United States, would jack up prices. And so we have to be very careful that in the rush to do something about energy that we don't do something that actually has an adverse reaction, and so we have been trying to, at every possible point in this discussion, to explain the implications of some of the legislation that's put out.

I'm not a health care specialist, and there's people up on Capitol Hill that are not energy specialists, and that's okay, but those of us that happen to know a little bit about energy appreciate the opportunity to explain to them the implications about some of this legislation that in the short and long term may have, and so I think it will be a long discussion through the fall. I do think we'll see some legislation, but I do think that this administration is fairly adamant about certain pieces of legislation and have made known so and have issued their strong thoughts and thoughts about vetoes on particular pieces of

legislation for which we find very distasteful and quite frankly to be very harmful to our economy, both here and abroad, and to our investors abroad.

MR. : Let me open it up to the floor. We have two simple rules here. The first is that you identify yourself and wait for the microphone, and the second is, to the extent that you can pose a question in the form of a question, that would be extremely helpful. (Laughter.) Let's start in the back. Rob, go ahead.

Q: Rob Bradley from the World Resources Institute. I wanted to touch on the climate policy aspect of what you were discussing, and it's certainly very interesting to hear President Bush's proposal to bring together some of the major emitting economies, including not only the industrialized countries but also countries such as Russia, India, China and so on. Possibly he got the idea in part because he was currently standing in a meeting of the major emitting economies, including all the industrialized countries, China, Russia, India and so on. Given that the G8+5 process doesn't seem to have generated a big piece (?) of movement on that and given that the UNFCCC processes, where those same countries were also present, doesn't seem to have generated a lot of motion, what are your thoughts on how the sort of process that President Bush was getting at is going to somehow break that logjam? What is it that's new that you're thinking you can inject into that discussion?

MS. HARBERT: Happy to. We have a couple of beliefs. Number one is that this is not going to be a U.S.-decided operation and that there has not been a concerted effort with singular purpose with all of these countries and the appropriate officials at the table to have this discussion with the sole goal of finding a post-2012 Kyoto framework under which we can all live and under which we can actually utilize technology and which will not hurt economic growth, and a framework will actually include the industrializing countries, and so I think it is a different construct. It is one that has singular purpose. It is one that has significant momentum.

We have talked to all of the economies. They are all in favor of this, and I don't think you've seen that level of agreement before, and so I think this is a time when we need to capitalize on that agreement, use it to propel significant momentum so that we can get something done and we'll feed into the UN process by the end of 2009. If you remember that these emitting economies represent 90 percent of greenhouse gas emissions, if we can agree on something, then I think that we can actually reach agreement with the rest of the 180 nations represented in the UN-F-triple C.

Q: (Unintelligible) – USINFO. I have a follow up to the previous question, which is more specifically about the Asia Pacific partnership. When it was announced last year, it was perceived by many as a voluntary alternative to Kyoto protocol involving the emitters, in contrast to Kyoto, which didn't involve in any meaningful way India and China, and I wonder, in light of what happened at the G8 recent summit, proposed dialogue between big emitters, how does APP fit in the new or broader (?) strategy now?

MS. HARBERT: You know, I think APP has been a very strong foundation and will provide us some excellent buildings blocks. It is clear that we cannot solve this problem simply by talking government-to-government, that we have to have a way to bring industry and private sector into the discussion. The APP, when it was formed, and it is still, to its core today, is a partnership between government and the private sector in industry, and that is what makes APP so different from any other initiative out there as we sit next to each other at all of these meetings and trying to find common solutions to problems that actually will not actually put businesses out of business, will actually facilitate investments to expand their businesses and clean energy and in sustainable development and in parts of the world in which they previously had been unwilling to invest because of tariff barriers or other regulatory barriers that, when you have the government at the table and they recognize that there is capital that is willing to do this and do it for things that have environmental benefit that they actually are then compelled to do something about it, so I think there are some very strong building blocks.

I don't see as one being thrown out because we're going in another direction. I see them as coexisting because the APP continued to go on because it is a very useful construct to achieve what we're seeing now as we have something like 180 projects in the pipeline to actually get built invested in through the APP. That is something that no one would want to abandon. I mean, over time in any of these things, it would be useful if the government part of this could actually just fade away because there would be no need for the government component of this if the private sector and the flow of capital and these projects would naturally happen. The reason we're there is because it's not happening, and there's reasons it's not happening. We're investing in bringing down the cost of the technologies, but we need the other part of the market to actually cooperate, which is, are we posing unnecessary barriers to that capital? I think that's why we've got the two parties at the table, so that we can have a more rational and real-time conversation about what we need to do.

Q: Do you get a sense that as the players change, as the market changes, as the leverage changes, that the old institutions that maybe we're looking at, coalitions of the interested to go forward on bigger issues to get things going?

MS. HARBERT: The architecture of the energy sector is changing, and there are different players that have certainly a very big role that didn't before, and they're sort of invisible to the market, and that provides the volatility in the market that's hard for us to understand, and I don't want to say I'm putting the whole back of volatility on traders and speculators because I'm not, but they are adding to it with no doubt.

And the other institutions that are out there, the IEA, which was dedicated to a certain issue when it was formed after the Arab oil embargo, is there just for that purpose and has grown over time to accommodate other parts of energy policy, and is that the right architecture? And I think it's a valid question as we move forward and as – we laid out those five principles, and energy security was but one of them. Energy efficiency is another. There's all kinds of things out there that we need to be looking at.

One of the interesting challenges that we have is on the technological challenge. We do a lot of international cooperation, but when you look at it, we don't have the same institutional infrastructure across the table, across the ocean, that we do here. We have 24 national laboratories that are investing in research to actually bring advanced clean energy technologies to market. When you go and talk to the EU, they don't have one. So how do you do that joint research? How do you have that energy cooperation? So we have to find some way to balance the cooperation over the long term to make it a more shared enterprise.

Q: Tommio (ph) Masto (ph) from Tokyo Electrical Company. At the G8 summit, Japanese Prime Minister Mr. Abe proposed some strategy by Japanese government for climate change issue, especially for about 50 percent decrease of CO2 but 2050 and so on. How do you evaluate his proposal?

MS. HARBERT: In the G8 summit declaration that came out, it says that all the countries will give consideration to the proposals put forward by Japan, by Canada and others. Very, very well acquainted with Prime Minister Abe's proposal. We have been very fortunate to have three meetings over the last several months with the minister from Japan in a variety of places here and in other places where we have been to talk in further detail about this proposal. One of the things that we have said and believe is that we don't want to decide the outcome before we have some of the discussions and that we believe having a meeting amongst the major economies and the major emitters where we can look at everybody's thoughts, everybody's proposals on the table will lead to a better consensus over time, so we have tried to say it's not that we're against it and it's not we're for it.

Let's have the discussion and find out where the whole landscape is and where everybody is feeling and find and attain that aspiration goal, and let's work towards it and let's have a system where we actually pledge and review. Let's find a way that we can actually look to the other economies and say, you either are or are not meeting the goal that you've set out to get the world to 50, 40, 60, whatever it might be. So we have – we've reserved the space to have the discussion in the fall amongst these countries so that there is a consensual goal.

MR. : We can start up here on the front, and then we'll swing around to this side.

Q: Hi, my name is Paul Loyce (ph). I'm with the Arlington Institute, and it sounds like there's a real sense of urgency about some kind of global energy policy and the three drivers would be maintaining economic growth, security and climate change, but could you speak about, I guess, the relative importance, if those are really the three big drivers? What I'm getting at is, do people really care about climate change or is it just, are people just talking about it?

MS. HARBERT: Well I have to say that I can't judge. I mean, there's been lots of polls that have been done recently on, at least here in the United States about the

public concern about it, and then you get high level of concern, and then when you talk about how much people are willing to pay for it, and then it's zero. And so we have very conflicting public data, and I think we try not to run government by polling and we have to do what we think is right.

We know a couple of things: the energy security and environmental security over the long term are inextricably intertwined, and so we can't do one solely with complete disregard for the other. We do have to continue to grow our economy, so we have a fundamental need to expand our access to hydrocarbons and alternative sources of energy. At the same time, we have a very strong belief that we have to do more for the environment, so we are looking for that sweet spot, if you will, where we can continue to do both. That's why we are, and you are, because you're the taxpayers, are investing in clean energy technologies so we can make those breakthroughs, that we'll be actually having the ability to have the kinds of energy out there that we don't even realize are available to us today.

So I don't think you should say it's energy security first, environment second, or vice versa, it's that you have to take them both together, and we have to find a way that we can continue to expand, improve, enhance, not just our energy security but the world's energy security while doing it in a way that is environmentally responsible because if we do it one at the expense of the other, the costs are too great over the long term, and I think we are seeing a very big opportunity right now in the industrializing world, the developing world, if you will, as they have a much higher economic growth rate than many places in the world.

If we avail ourselves of all sorts of parts of innovation chain and have advanced technologies take hold so they leapfrog over what us, what our economy went through when we were industrializing, there were no options. There was no clean coal technology. We had coal technology. Well now there is, so why would we want them to use the – while it's cheaper – the dirtier technology that actually is having a negative impact on the environment when there is that technology out there, albeit more expensive? So we're trying to make that technology less expensive and finding those barriers that are making it expensive and not just research and development related. So I think we continue to look for the sweet spot, knowing there's no magic bullet but there are sweet spots.

MR. : This wasn't pre-scripted, but as part of the National Petroleum Council study, we've constructed the same type of triangle, so nice work.

MS. HARBERT: All right!

MR. : Please, go ahead.

Q: (Inaudible) – Embassy of Slovakia. I would like to ask you, what is your take on the authority of peak oil? When do you think it will happen, actually, and what are the

measures you are preparing, main measures, actually, you are preparing to fill that gap, eventual gap?

MS. HARBERT: You know, whatever date, year, decade I picked, I'd be wrong. The National Petroleum Council is undertaking a study to see what we think is really the true nature of supply out there and what we think is the true nature of demand and what does that mean for recommendations for policy makers? I do think there's one thing we know for sure, that hydrocarbons won't be here for eternity, and so it's in our interest to elongate the time that they're here, and that means providing an additional diversity into the market. It does not mean that we decided that we don't want hydrocarbons anymore, that we're going to do something else, that we need a bigger, better, more diverse, more rich, more robust landscape, and that's what our energy policy seeks to do.

It's not one or the other, and I think that even people out there that believe that peak oil is right around the corner have no argument with our energy policy, and people that believe peak oil is very far out have no argument with our pursuit of our energy policy, so you have to be prudent, but I don't think that if you look at the amount of investment that I referenced earlier, 20 trillion dollars, we know that there's significant resources out there and reserves out there that are not being developed right now. I think the risk is not that we're going to find peak oil. The risk is that we're not going to actually invest the dollars to get the resources that we know that are there right now out of the ground. So I think we have to take this in digestible bites. We have to invest in alternatives. We have to get the resources that are out of the ground, and we have to continue to find ways to do it that do not jeopardize, over the long term, our environment.

You want to say a word about the NPC study, if you have to?

MR. : We're coming at it from the same way. I think that the study will be out next Wednesday so I'm not previewing it by any stretch of the imagination, but I think the sense of the group and its 350 people, maybe a thousand, up to a thousand that were involved in this thing, that the resource endowment in the globe is enormous. It's enough to sustain us. It's trillions of barrels of oil equivalent.

There's the same concern, though, that the above-ground issues, and that's everything from access to governance to security to environmental sensitivity, investment, infrastructure, these are the things that may prohibit you from getting there when you need to, and those are the things we need to work on.

Q: Hi, my name is Elliot (sp) Ganzer (ph). I'm a business school student from the University of Navarra in Spain, and I was just wondering, since 2000, if you could give a rough idea of the percentage breakdown of all government investment, be it in subsidies or in direct investment into the various sources of energy, and what would be – (laughter) – the general rationale behind that? I mean, just ballpark figures.

MS. HARBERT: Oh, sure. (Laughter.) Let me get out my pocket card. Well, a couple of things. And actually, without punting, I will tell you that OMB does pull this

together, and if you looked on the OMB website, they actually calculate all the different parts across the government –

Q: It was more just the rationale behind it as well.

MS. HARBERT: The rationale. Okay. Let me just give you a couple of figures that might help put it in context. At the Department of Energy, on an annual basis, we spend 24 billion dollars. Half of that, roughly, is in non-proliferation matters, and the other 12 is roughly in science, basic science. Keep in mind that the Department of Energy, the U.S. government – forget that it's our department – the United States government is the largest funder of science, research science, in the world. So you've got that part – I mean, in the world, by hundreds and hundreds and hundreds – by billions of dollars, let me just put it that way. And then the other part of it is into the energy security and the research and development of other technologies. So we have it split. We have a split mission. And so I'll take the half of it off the table because I don't really think that that's your concern.

What we are looking for is a balanced approach to short-term meeting (?) for a long term, and that means that we're looking, in the short term, at those technologies we this are going to be nearest to market, and if they're nearest to market, then they might just need either a technological push or, you go to the other side of the curve, you actually might need that loan guarantee, that tax incentive that actually buys down the cost of the capital getting out into the market. So you make that judgment in the short term: is it a technological risk that we're buying down? If it is, then we need to put some money into RND (?). If it is something else, there's a capital market misunderstanding about it, then we actually need to buy that down. That pushes us into the other side of the equation, and a fiscal incentive, as I said, whether it's a tax incentive, production tax credit, a loan guarantee, something that will make it more cost competitive or whether it be competitive for capital. Two very different issues there.

Then you get higher up the curve, which is a medium term, and that is where we're bringing in joint research with the private sector. We think there's something that really has true market potential. We believe we would benefit from joint research with the private sector so it will accelerate its uptake into the market, so they're sitting with us in the laboratory. We're with DuPont or we're with the University of Navarra in Spain. We're doing this research so that it will actually be taken out into the market. And there's things that are long term, and that's cost-shared. That's not free. We're not paying for DuPont to be sitting with us; DuPont is paying its own dime to be sitting there. So it's a cost split between us and the private sector, and so that's the medium term side of things.

And over the long term, it's things where we believe that there is a significant opportunity, but we have no idea whether it will work or not, and that's solely on the federal dime. And those are things that might be hydrogen, fusion, longer-term things. There maybe be private sector involvement in there, but it's normally on a grant basis or a cooperative agreement basis where we are subsidizing, if you will, their research

because there is no, in the medium term, long term, short term, profit motivation for this investment to be made by the private sector. So you're looking at, you never want to – we're not smarter than the private sector. The backbone of this country is built on innovation and entrepreneurs, and so we're very, very careful of that space. We want to take up the space where there's either not the appetite, the risk or the capability, and that goes on a sliding scale, depending on the horizon of the technology, and the closer it is to market, it's also taking advantage of our other policy instruments, whether they be fiscal, loan guarantees, regulatory, et cetera. I hope that helps.

Q: Good afternoon. My name is Chinadu (ph). I want to ask you, what changes have you noticed with countries that partners (?) with you in terms of investments in – (unintelligible) – technologies for clean energy?

MS. HARBERT: Well, that's a really good question. We have a belief that we are accelerating the innovation chain here and abroad when we do that. How you quantify that is very, very difficult. If you look at ethanol as an example, we cooperate with a lot of countries, but it ended up being because we cracked the code here and we had a regulatory demand, a mandate, of the amount of ethanol or alternative energy – (unintelligible) – fuel that had to be introduced into our system that really propelled the United States to produce significantly more ethanol in the last couple of years. We are now posed to actually surpass the mandate that we were given in 2005.

That's a really interesting question. In the area of nuclear, I think there has been tremendous benefit for all of the countries involved in joint research. Over the long term, there are going to be big research projects that no country, including the United States, even with our big economy, are going to be able to afford to do by themselves. Clean coal capture and storage sequestration, big, big ticket things that have broad application, it's incumbent upon all of us to do the research together and share the results, and that's something that we're doing in the coal project that I mentioned, and there will be others like that in the future, but we, at this point in time, it doesn't make sense for one country to own a certain technology, and we've got to actually find ways to do this together and for other countries to, respecting their certain limits in intellectual property rights that we have to respect, that there's nothing to say that we can't achieve great strides together.

So I think if you look at countries, for example, Afghanistan, we did a tremendous amount of joint work with Afghanistan on finding land use, water reservoirs, things for agriculture that had never been cultivated there before, using very basic technology that we had developed here many, many years ago in deciding where to cite some of our infrastructure that they had never utilized before, geo-spatial technology, very basic things. We've worked a lot in Africa about ways to actually better suit their transmission network so they can achieve more efficiencies and broader access to populations and rural populations. We've done a lot of work, jointly, on rural solar applications. It doesn't have such of an application here, but it does in the developing world, so I think there has been. I think, ultimately, it's not a judgment on what has – it's whether the businesses that actually end up owning this technology are investing in some of these countries, and I think that's the benchmark over time that we'll be judged against.

Q: Jim Landers with the Dallas Morning News. I wanted to ask you about the dialogue with producing countries about allowing investment in the state-owned oil and gas sector. I don't know of anything that we've been able to realize yet in terms of prying anybody open or as opposed to slowing things from closing down.

MS. HARBERT: You know, as I said, it is a very, very big challenge to get to these resources, and the resources, the reserves that are available today that are unexplored are geologically very, very challenging. They're very expensive to explore, and they need an incredible, not only amount of capital, but a lot of expertise. And while there are some very good state-owned oil companies, many, many oil companies do not possess that capital, but more importantly, the expertise to explore these reserves and get the return out of those reserves that is needed these days because you can ruin reserves and reservoirs very easily because they are so geologically challenging, and so you need to be very careful and use the most advanced technology, and most of that advanced technology is resonant in international oil companies, and so over the long term, it will be a very big challenge if some of these very, very difficult oil and gas reservoirs and reserves are kept off-limits to those with the capital and the expertise.

We continue to try and explain that it's not an issue of sovereignty, it is not an issue of exploiting one's sovereignty, it's an issue of actually getting the reserves out of the ground so that the revenue can actually be shared between the people. It's either you get nothing or you get something, and certainly I think something is better than nothing. And whether it would be in Russia or Venezuela or any of the other producing countries, there are very challenging fields in those countries, and if they are not developed, the economy that really pays the price is not the consuming country's; it's the country in which the reservoir actually is resident because the people there don't have the benefit of the revenue and they can't use it for development or whatever might be the government and the people's priority. So it's an economic challenge to producing countries that elect not to, because of lack of access to capital or expertise, develop these reserves. It may hold patriotic appeal, but it certainly does not hold any economic benefit.

Q: Could you get a little more specific? Friends of the United States like Mexico, Saudi Arabia –

MS. HARBERT: All of these countries are – (unintelligible) – going to make their own decisions. They're going to make their own decision, and it is not us to actually try and make them for them. We are not going to do that. Saudi Arabia has made a significant investment in additional capacity in their country and now new refining capacity and will be expanding their ability to deliver oil by close to 30 percent over the next 10 or so years. There are other countries that are not. They do not possess the type of capital or expertise necessary.

As I said, you notice what's happening in Venezuela with the state-owned oil company, production down 50 percent. That certainly is not of benefit to the Venezuelan people and the Venezuelan economy, and the social spending in Venezuela, on a –

(unintelligible) – basis, was up 80 percent. The spending and investment in the hydrocarbons infrastructure, the state-owned hydrocarbons infrastructure, was down – (unintelligible) – basis 80 percent. That is not a sustainable path when you have social spending up and the actually source for that spending, the investment in sustaining that infrastructure, going down.

So those are cases – that's a case for worry. Certainly in Russia, which has tremendous reserves, we certainly want to see some of those large fields that are very, very challenging being brought to light and are hopeful that international companies will be allowed to participate in a very equitable and fair manner.

MR. : Two quick ones. In the corner in the back over here, and then we'll come over to your side.

Q: Thanks. This is Avery (sp) Cohen (sp) with the United Nations Foundation, and I have a question for you about the challenge of energy independence in the industrializing world and what, if any, are the main barriers to achieving energy independence in net importing nations and then also how that squares with the problem you were just talking about, about the challenge of developing world nations kind of closing off their borders to international trade and economic globalization? Thanks.

MS. HARBERT: No, and thank you for that question because I should have addressed something earlier that I did not. I think one of the things that we need to, one thing we need to dispel here is that the notion of energy independence, complete independence. There is an integrated global energy economy, and whether it be on hydrocarbons or others, it is like the global economy. It is an integrated economy. And while we are seeking to become less dependent on foreign sources of energy, it is clear that nations around the world do not own reserves in their own countries to be able to sustain their economies for over the long term.

There is going to be energy trade forever, and so whatever source of the energy might be, we are never going to be energy independent. We are going to continue to find ways to be less dependent. We are going to find ways to have alternatives. We are going to find ways to be less vulnerable. We're going to find ways to become more secure. We're going to become less vulnerable for price fluctuations. But it is something that will continue to be an integrated global economy.

And what does that mean for the industrialized world versus the industrializing world? For the industrializing world, it poses an opportunity and that they have the advantage of having technology out there that wasn't there before that will help them leapfrog into a much more advanced energy economy than before. It poses a challenge for them as well because it takes a great deal of money and investment. If you look where the demand is coming from in the developing world, a great deal of the demand, obviously, is happy (?) the developing world, a great deal of the investment, and that is where they're going to have to make the most adjustments in their policies to attract that investment.

In the industrialized world, our challenges are, in terms of diversification, having those additional options, and if you get those additional options that require concomitant infrastructure investments, and are those infrastructure investments going to happen? And are we going to be able to conquer NIMBYism, or as somebody told me the other day, BANANA, build absolutely nothing anywhere near me? (Laughter.) You know, we have a great need and desire in this country to have more liquefied natural gas, yet it's extremely difficult to get people to agree and communities to accept an LNG terminal. People want to see more use of wind in this country, but don't build it in my backyard. We need to be able to turn on the lights, but nobody wants to see where it comes from. So we have to be able to build the infrastructure necessary to deliver the energy that is required, and that is something that the industrialized world and particularly the United States will continue to grapple with.

Q: John (sp) Turpin (ph) from the Federation of Electric Power Companies of Japan. One of the bright spots of the Bush-Putin meeting in Maine was their joint statement about nuclear energy cooperation. Does that signal a nearing of a civilian nuclear cooperation agreement between the U.S. and Russia?

MS. HARBERT: You know, we have a very mutually beneficial relationship with Russia in all aspects on the nuclear arena. They have been a very strong partner in nonproliferation efforts, not only joint work but certainly things around the world, and we value that relationship tremendously, and it certainly was highlighted in the discussions in Kennebunkport and in subsequent discussions between Secretary Rice and her counterpart here in Washington that immediately followed the meetings up in Maine, and we are on a path to have greater civilian nuclear cooperation with Russia. It certainly is a very complex negotiation. These things take time. I like to remember that we have a civilian nuclear agreement with Japan, and this is a country that possesses no nuclear weapons, and it took us five years to negotiate that agreement.

So this isn't something that one takes lightly. It's a very complicated, complex process that one wants to do very thoroughly, and we will do that, but it is certainly a great desire for us to increase our collaboration, both bilaterally and multilaterally. As I said, some of the initiatives that we are pursuing very aggressively have Russia as a partner but include other nations. They include France, they include Japan, they include China because we want this to be something that is available to all and that there is not a greater partner than the other. This really is seen as a partnership as we're moving forward to make nuclear power more broadly available.

We have been trying to reach a similar agreement with India for a little over a year now, and we have reached – out Congress gave us the equivalent to go ahead, and we're hoping that we reach, that the Indian Parliament reaches the same conclusion so that we can proceed. So we are proceeding on a number of fronts to expand nuclear power, and Japan is a very important partner in that. They have a very strong presence here in the United States, and we hope that they avail themselves of their expertise here. We can see some new nuclear power plants built here in the United States.

Q: (Off mike.) Your trip to Nigeria next week, can you indicate what level you might be meeting officials, top level? And also, you speak about discussing the normalization of supplier, which is obviously very difficult. Are there any concrete examples of the ways in which the U.S. might be trying to assist, whether it be on the security front in the delta (?) or in terms of trying to find a political solution?

MS. HARBERT: Well, first, this is an overture to a new administration in Nigeria. They have yet to get all of their officials in place, which is completely understandable, and we wanted to make the effort to get there very early on to establish a relationship with the officials there at whatever level. It remains to be seen over the next couple of days if more people continue to be named or not.

We certainly have plans to meet with very senior people while we're there. I won't name names quite yet, but we're very happy with the level of meetings we're getting and we're very happy with the discussions we'll be having with the companies that are truly on the frontlines of some of the challenging terrain, literally, in Nigeria and the security situation in Nigeria and to get their recommendations on what might be done, recommendations that we can either pass on to the Nigerian government or ones that we need to bring back here and discuss amongst ourselves, but it is the beginning of a new administration, the beginning of a new relationship, and a recognition that this is not in their interest to see it sustained over the long term with the amount of oil that is offline there, as I mentioned earlier, it could really bring significant revenue that would help them address some of the concerns that the rebels have, which is social concerns, and so it's a catch-22.

They need the revenue to meet some of the demands, but they can't meet the revenue because they can't get the oil out of the ground because of the insurgency. I don't have any concrete deliverables to come out of it except for what we hope to be the beginnings of a far more robust discussion with the leadership in both the private sector and the public sector in Nigeria.

MR. : Karen, thank you. As always, your remarks are thoughtful, insightful, comprehensive, and you've managed to retain your sense of humor. Will all of you please join me in thanking Karen Harbert? (Applause.) This will be available on the webcast and we're going to try to put together a transcript as well, so for those of you that took good notes, good for you. The rest of you, we'll probably have it up – (laughter) – for you tomorrow. Thank you.

(END)