PIPELINE POLITICS: ACHIEVING ENERGY SECURITY IN THE OSCE REGION

HEARING

BEFORE THE

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JUNE 25, 2007

COMMISSIONERS

WITNESSES

APPENDICES

PIPELINE POLITICS: ACHIEVING ENERGY SECURITY IN THE OSCE REGION

June 25, 2007

COMMISSION ON SECURITY AND COOPERATION IN EUROPE
WASHINGTON, DC

The hearing was held at 2:58 p.m. in room 419 Dirksen Senate Office Building, Washington, DC, Hon. Alcee L. Hastings, presiding.

Commissioners present: Hon. Alcee L. Hastings, Chairman, Commission on Security and Cooperation in Europe; Hon. Benjamin L. Cardin, Co-Chairman, Commission on Security and Cooperation in Europe; and Hon. G.K. Butterfield, Commissioner, Commission on Security and Cooperation in Europe.

Witnesses present: Greg Manuel, Special Adviser to the Secretary and International Energy Coordinator, Department of State; Al Hegburg, Deputy Assistant Secretary of Energy for International Energy Policy; Matthew Bryza, Deputy Assistant Secretary of State for European and Eurasian Affairs; Ambassador Steven R. Mann, Principal Deputy Assistant Secretary of State for South and Central Asian Affairs; H.E. Yashar Aliyev, Ambassador of the Republic of Azerbaijan to the United States; H.E. Mikhail Khvostov, Ambassador of the Republic of Belarus to the United States; Keith Smith, Senior Advisor, Center for Strategic and International Studies; and Pierre Noël, Research Associate, University of Cambridge.

HON. ALCEE L. HASTINGS, CHAIRMAN, COMMISSION ON SECURITY AND COOPERATION IN EUROPE

Mr. HASTINGS. Ladies and gentleman, good afternoon. I want to warmly welcome you to this hearing of the Commission on Security and Cooperation in Europe.

I expect that Senator Cardin and others of my colleagues may come along, but in the interest of time I certainly do not want to—oh, there he is, as I speak.

Today's hearing is the first of three hearings the commission plans to hold on the topic of energy security, an issue that spans the security, economic and the environmental and human dimensions of the Helsinki process.

This hearing series is designed to give the Commission a comprehensive picture of this complex issue and highlight areas where the Commission, the U.S. Government and the OSCE can take effective action.

Today's hearing will focus on conflict prevention and the security of supply and transit of oil and gas. The supply and transit of energy is often a source of insecurity and conflict for OSCE participating States. The recent challenges faced when Russia shut off gas supplies to transit and consumer countries highlighted the potential for political and economic conflict.

The second hearing in the series is going to focus on the development of democracy and civil society in countries with abundant energy resources. This problem is often referred to as “the resource curse.” In an economic sense, energy resources are a blessing, as they provide countries with needed income. But these resources can also lead to unintended consequences such as stunted economic and political development.

It’s remarkable that only two of the world’s top 10 oil exporters are established liberal democracies. You’re going to have to come back to the other hearings to find out who those two are. [Laughter.]

The third hearing will address the nexus of energy security and environmental security, focusing on the diversification of energy supply and sustainable technologies. The quest for diversification of energy supplies and greater energy security gives consumer countries an opportunity to address the environmental challenges of energy supplies by adopting new technologies that not only decrease dependence on foreign sources but also help address environmental concerns.

But today, we are going to take a geostrategic look at energy supply and transit. Specifically, we hope to address questions such as: What are the factors in ensuring reliable and predictable supply and transit of oil and natural gas? What is the United States doing to ensure our own energy security? And what role does the United States have to play in Eurasian energy security?

To answer these complex questions, we are pleased to have an excellent slate of witnesses. In addition to our exceptional and unusually large panel of U.S. Government witnesses, I’m quite pleased to welcome two distinguished Ambassadors from the OSCE participating States of Azerbaijan and Belarus. Both countries represent different aspects of the issue of energy security, and we are pleased to hear their experiences and insights on how they view energy security given their geographic and political positions in the world.

Clearly, during today’s hearing, we’re going to hear a lot about Russia. In today’s newspaper, I read of the “South Stream” that is being developed by Gazprom and others. So my notes have not even caught up with what the events of the day are.

And notice, when I talk of them as a supplier of oil and natural gas with no affront meant, I didn’t say reliable supplier. The jury is still out on that decision. Just in the past week, President Putin stated that Russia has a major stake in forming an infrastructure of trust in the global and regional economies, including in the energy sector.

That would be a welcome development, although many would say that there is already plenty of evidence to convict at this point based on Russia’s actions in the recent past.

I want to state for the record that we did invite the Russian Ambassador to join us here today so that we could hear the Russian view on these issues, but he declined.

That said, I'm very pleased with the assembled witnesses here today and I'll be interested to hear from our panelists on the prospects for improving the energy security situation, where they think Russia is going and actions the United States can take to foster a more secure energy environment.

Before I introduce the first panel, I'd like to hear from my distinguished friend and colleague for any opening comments he may make, Senator Cardin my co-chair. Thank you, sir. You have the floor.

HON. BENJAMIN L. CARDIN, CO-CHAIRMAN, COMMISSION ON SECURITY AND COOPERATION IN EUROPE

Mr. CARDIN. Mr. Chairman, thank you very much for holding this hearing. I think this subject is extremely important and one in which the Helsinki Commission and the OSCE can take a major leadership role.

I regret I will not be able to stay for much longer. We have the immigration bill that's on the floor this week and there's a little bit of interest from our constituents on that issue.

But let me just underscore this particular hearing in a couple ways. First, I did chair, as the chairman knows, the second committee, the OSCE Parliamentary Assembly, and I must tell you energy was one of our top issues and we are concerned about it from a security point of view. It is a challenge for the OSCE states.

One of my major concerns is that for the United States to exercise leadership in this area, we need to start with our own energy policies. And this last week, the U.S. Senate passed an energy bill that I think moves us in the right direction. I would have liked to have seen some additional provisions that we were unable to get, but it's a strong bill and it speaks to the United States moving toward energy independence.

Now, we're all going to be dependent on the region, there's no question about it, but the United States uses too much energy and has not made the type of investment in alternative fuels that it needs to if it's going to be able to be a major player in the international community dealing with the subject of this hearing.

So I've introduced legislation that calls upon our Nation to become energy independent. We were able to put a person on the moon. You've heard this analogy made by many of us. Why not make an Apollo-type commitment towards energy independence?

And my legislation requires us to be 90 percent self-sufficient by the next decade. I think that can be achieved. But it starts with conservation and must have a large ingredient for alternative renewable energy sources and we need to continue our commitment to research.

Now, why do we need to do this? Well, today's hearing is concerning security and that's a major issue. A lot of the energy that's consumed by OSCE states, the United States, in particular, has its roots in countries that don't necessarily agree with our foreign policy objectives, and that's putting it mildly.

So that when we fill up our tanks with gas here, we are supplying resources to countries who, quite frankly, disagree with our way of life and that's something that we need to make sure we avoid in the future.

So there's strong security reasons why OSCE should be concerned about its energy sources and the dependency among different states for energy. It's also very important for economic reasons.

I just came back from the eastern shore of Maryland, filled up my tank with gasoline and two of my constituents took the opportunity to complain to me about the cost of gasoline. Now, we might argue whether it's a fair price or not, but I can tell you the unpredictability of energy costs in America is affecting our economy and, I dare say, affects the entire OSCE's economic growth by the fact that it's unpredictable.

Investors do not like to make decisions based upon unpredictability. We've lost some plants in Maryland because of energy costs and the unpredictability of energy costs.

And the last point I want to make, which I think the United States must exercise leadership, is on the environmental front. Global climate change is real. So as we look at the security issues concerning energy, we also need to be mindful to get away from the carbon-based energy sources so that we address the global climate change.

I come from the State of Maryland. We're a coastal State. Sea level change has a dramatic impact on my State. Global climate change has an impact on the entire OSCE and our entire world.

So, Mr. Chairman, I'm glad that this hearing is taking place. I think it is of the utmost priority and I assure you the fact that I am unable to stay for the witnesses is not my lack of my interest and my staff will inform me and we intend to followup with the people that are at the witness table.

I thank our governmental witnesses for being here. I particularly thank our two Ambassadors and our private sector experts for sharing their wisdom with this Commission.

Mr. HASTINGS. Thank you very much, Senator.

We've also been joined by one of the newer members of the Helsinki Commission, my good friend from North Carolina, G.K. Butterfield.

Congressman Butterfield, if you have any opening comment, we'll take it at this time.

HON. G.K. BUTTERFIELD, COMMISSIONER, COMMISSION ON SECURITY AND COOPERATION IN EUROPE

Mr. BUTTERFIELD. Thank you very much, Mr. Chairman. Let me thank you for convening this hearing today and I apologize for being late. I've been multitasking, as we all do from time to time.

But thank you, witnesses, for coming forward today to give us your testimony. I'm going to try to stay for a while and then I'm going to have to be at another event at 4:15 this afternoon, but thank you all very much.

I am a new member of this Commission, Mr. Chairman, and so I'm in a learning mode right now and I'm eager to hear what the witnesses have to say. I'm also looking forward to our upcoming trip that we will be taking to Ukraine.

But, Mr. Chairman, looking at the issue of energy, it doesn't take very long to realize that one of the greatest vulnerabilities of America is our dependence on foreign oil. We talk about it all the time.

I'm on the Energy and Commerce Committee and we're working very hard right now to get out an energy independence bill by the Fourth of July and I must say that we are right on target to do that.

For all of our military strength and economic power, our country would come to nearly a halt without foreign oil. That is very sad, but it is certainly true.

Today, oil alone fuels 96 percent of our transportation needs and it's an indispensable part of the manufacture of millions of goods and products in this country and despite America's extreme dependence on oil, our country only has 3 percent of the world's oil reserves.

After Hurricane Katrina, we saw how the loss of just a fraction of refining capacity for even a few days can create enormous economic unease and cause prices to soar. It was a strong display of our vulnerability and it showed just how devastating any long-term interruption could be for America.

America is not alone in its concern about how best to address our future energy needs. Energy security has become a priority for the European Union and its 27 member states, and they're certainly to be applauded for that.

Together, the United States and Europe produce about 23 percent of the world's energy, but they consume almost 40 percent of the world's supply. Barring any significant policy changes, dependence on foreign sources of energy is expected to rise even further in the future for both America and Europe.

Mr. Chairman, I'm encouraged that the United States and the European communities continue to broaden the energy dialogue on the joint promotion of collective energy security and energy efficiency and alternative energy sources and this can only enhance our collective strength and security.

And so I'm looking forward to this hearing more from the perspective of our panelists today and I thank each of you for your participation.

I yield back.

Mr. HASTINGS. Thank you very much, Congressman Butterfield.

From the State Department, we have our first testimony, Mr. Greg Manuel, who is the Special Adviser to the Secretary and International Energy Coordinator charged with providing strategic oversight, developing new policy approaches and initiatives and fully integrating energy issues into the decisionmaking process at senior levels of the State Department.

We also have two additional department witnesses that may not provide testimony, but have graciously agreed to be available for questions and answers.

We have Ambassador Steve Mann, who I know, Principal Deputy Assistant Secretary for South and Central Asian Affairs, who is responsible for the full range of foreign policy issues in the region, including management of region-wide energy issues.

From 2001 to 2005, he was the senior U.S. official responsible for Caspian energy issues and was heavily involved in our realizing the Baku-Tbilisi-Ceyhan oil pipeline and in the successful launch of the Caspian Pipeline Consortium line.

From 1998 to 2001, he served as the U.S. Ambassador to Turkmenistan.

Next to Ambassador Mann is Mr. Matt Bryza, Deputy Assistant Secretary of State for European and Eurasian Affairs, where he's responsible for policy oversight and management of relations with countries in the Caucasus, and southern Europe. Mr. Bryza coordinates U.S. energy policy in the region surrounding the Black and Caspian Seas.

And, from the Department of Energy, I'm pleased to introduce Mr. Hegburg, Deputy Assistant Secretary for International Energy Policy. His policy and management responsibilities cover international energy issues in the Middle East, Russia and Caspian, and Africa, as well as functional areas, such as energy security and markets.

Finally, since we have a very full witness list today, I'd like to ask each of our witnesses to please abbreviate your remarks as best you can. Your full statements will be accepted into the record and are made a part of these proceedings.

And, ladies and gentlemen, I believe those of you in the audience will learn that the witnesses' more extensive biographies and their full statements will be available for handouts at the table outside.

So with that, Mr. Manuel, please proceed with your statement.

GREG MANUEL, SPECIAL ADVISER TO THE SECRETARY AND INTERNATIONAL ENERGY COORDINATOR, DEPARTMENT OF STATE

Mr. MANUEL. Thank you very much.

Chairman Hastings, Co-Chairman Cardin, thank you for this opportunity to discuss U.S. policy and energy security in Europe and Eurasia. Just from the opening remarks today, I think you'll hear a number of issues discussed in these opening remarks that touch not only on this session, but some concerns and interests that were expressed both earlier, but, also, certainly the subject of future hearings that you have scheduled.

I'm here today, as already acknowledged, with two of my colleagues, Matt Bryza, the Deputy Assistant Secretary for the Bureau of European Affairs, and Steve Mann, who's Principal Deputy Assistant Secretary for the Bureau of South and Central Asian Affairs, both of whom represent our front line on European-Eurasian oil and gas issues.

I'm also joined by Al Hegburg, an old acquaintance and colleague, with the Department of Energy.

Our interests in the regions, in the European-Eurasian region, encompassing Europe, Russia, the South Caucasus, and Central Asia, are far-reaching, anchored by our five-pronged global energy strategy, which is to diversify the supply of conventional fuels and expand production, to diversify our energy portfolio by expanding the use of alternative and renewable energy, to promote increased energy efficiency and conservation measures, to advance environmental stewardship and to protect critical infrastructure and promote market stability.

We have adopted a comprehensive strategy tailored to Europe and Eurasia, with the following objectives: that the United States and our Euro-Atlantic allies maintain reliable access to diversified supplies of energy, including oil, natural gas, renewable and alternative fuels, and nuclear power; that hydrocarbon producers and Azerbaijan in Central Asia realize the benefits from multiple export routes to European and global markets; that European energy markets function efficiently; that we decrease the potential for energy to be used as a political or commercial weapon; that Eurasian energy producers manage hydrocarbon wealth wisely to avoid corruption and economic instability; and, that the Euro-Atlantic community develops commercially viable technologies to reduce carbon emissions without slowing economic growth.

These objectives, of course, are interrelated. By increasing diversity of sources of supply and transit routes, we can bolster market efficiency through competition and reduce vulnerability to energy supply disruptions.

Relying on market-based policies to manage energy revenue streams transparently can limit the corruption and economic distortions that undermine economic growth and stability. And by increasing diversity of types of energy, we also reduce the danger of politically or commercially motivated energy cutoffs, while reducing our dependence on hydrocarbons, which, in turn, reduces carbon emissions and pollution, benefiting the environment.

To advance our international energy strategy, we are pursuing a broad range of mechanisms, including enhanced trade and transparency, intensified technology development, new regional energy partnerships, bolstered energy dialogues, and novel public-private sector partnerships, which I will speak to a little bit later.

While we explore these issues in greater depth in the discussion ahead, I want to highlight a few key areas of important activity on each side of the conventional and alternative energy divide.

On conventional energy, we have begun to see dividends resulting from over a decade of intense diplomatic engagement by the United States and Azerbaijan, Georgia and Turkey. Both the Baku-Tbilisi-Ceyhan, VTC, and South Caucasus pipelines are providing, for the first time, real, not theoretical, alternative pipeline routes.

As the South Caucasus gas pipeline comes fully on-stream in coming weeks, it will link Azerbaijan's giant Shah Deniz gas field in the Caspian Sea with Turkey's gas grid. Development of the Shah Deniz field has the potential to make Azerbaijan self-sufficient in natural gas and will provide Georgia and Turkey with an invaluable alternative supplier.

Looking forward to 2020, we are working to create a ring of natural gas infrastructure extending from the Caspian Sea, around the Black Sea, and into Europe. This will occur through the expansion of the SCGP and to a larger southern corridor, comprising two emerging projects, the Turkey-Greece-Italy and the Nabucco pipelines.

The southern corridor will complement Gazprom's existing pipeline infrastructure, as well as new supplies of liquid natural gas from Norway and perhaps Russia and other countries.

Finally, we see an inclusion of Kazakhstan, Turkmenistan, and Iraq as important future suppliers of gas into the Nabucco pipeline.

Our cooperation with the EU to realize the southern corridor of natural gas infrastructure is accelerating. During the recent US-EU Summit, which was on April 30, the United States and the European Commission pledged to seek diversification of energy types, sources and supply routes, with a particular focus on the Caspian region.

We're also working to help our European allies unify their energy policies to elicit more equitable and market-based energy deals with Russia and resist divide-and-conquer tactics.

We continue to oppose oil and gas pipelines that run to, from or through Iran. By standing together, EU member states can transform into negotiating a reality out of the theory that Russia is as dependent on revenue streams from Europe as Europe is dependent on Russian natural gas flows.

We're also working with our European partners to diversify sources of gas supply in northern Europe. As Russia and Germany strive to develop the massive "Nord Stream" pipeline to transport Russian and Central Asian natural gas under the Baltic Sea to Germany, Nordic, and Baltic countries are striving to increase regional competition.

Norway is entering a new phase of large-scale natural gas production. It already serves as a key alternative supplier of natural gas to northern Europe. Oslo, Copenhagen, and Warsaw may be moving closer to agreement on a project to link Norway's gas fields with Denmark's gas pipelines into the Baltic Sea, with an extension to Poland.

We are supporting this initiative, as well as efforts by Poland, Estonia, Latvia, and Lithuania to develop commercially viable ventures involving regional liquid natural gas terminals, natural gas storage, and thermal power generation that could reduce their dependence on Russian gas as the "Nord Stream" pipeline develops.

On alternative energy and efficiency, over the last 2 years, the United States and EU have greatly intensified cooperation aimed at accelerating the development and deployment of alternative energy and efficiency technologies.

Beginning with the 2006 U.S.-EU Summit declaration, the United States and EU, for the first time, outlined a systematized approach to cooperation on biofuels, carbon capture and sequestration, energy efficiency, methane capture, and support of legislation to stimulate the growth of alternative energy across the Atlantic.

On biofuels, we are taking concrete steps to cooperate on research and development of cellulosic or second generation bioethanol and looking at biodiesel, as well. We're discussing regulatory and policy tools to promote biofuels development, exchanging analysis of potential economic and environmental impacts of biofuels, and comparing respective resources estimates of potential biofuels source biomass.

On efficiency, we have renewed the U.S.-EU Energy Star agreement, covering office equipment, and are exploring extensions of this agreement to other products, such as consumer electronics.

We are examining the development of international lighting efficiency standards and joint efforts to improve efficiencies of buildings and housing. We are cooperating to promote efficiency in key developing countries, most specifically, by securing EU cooperation in the development of a trilateral U.S.-EU-Ukraine energy efficiency action plan. Enhancing efficiency of electricity and gas markets in Ukraine will have an immediate benefit, providing more potential Ukrainian energy exports to the EU.

We have recently joined jointly-held workshops on carbon capture and storage and are preparing a report on possible areas of trans-Atlantic cooperation on environmental, economic and regulatory coordination in the development of this promising new technology.

In addition, we have dramatically increased our direct engagement with the private sector to draw upon firms' dynamism, creativity and adaptability in meeting these technology challenges. The State Department and Germany's foreign ministry in March convened the U.S.-EU Energy Technology CEO Forum, which drew together 20 senior trans-Atlantic private sector leaders to generate key recommendations on speeding trans-Atlantic cooperation in the development and deployment of advanced clean energy technologies.

The recommendations, covering biofuels, energy production, energy efficiency and energy research, provided a set of seven distinct initiatives that are being pursued by the United States, EU, and German Governments.

In conclusion, there is no silver bullet or quick fix to increase energy security in Europe and Eurasia. The EU and the United States both recognize the vital importance of diversification of supplies of hydrocarbons upon which both the United States and Europe will depend on for many decades.

It will take a multifaceted, long-term effort between the United States and the EU with producer and consumer countries to increase supply diversification, develop alternative energy sources, and encourage Russia to bring more of its oil and gas resources to world markets within a free and competitive market framework.

To meet the long-term energy and climate challenges that Europe and the United States both face, we are working with Europe to help produce energy demand and diversify energy sources. We are dramatically accelerating the deepening cooperation with the EU to develop and deploy advanced clean energy technologies, such as biofuels, renewables, clean coal and nuclear power, that will be critical to meeting our joint energy security needs in the future.

We are collectively joining forces with our private sectors and forging new partnerships to best leverage our comparative advantages. Our collective energy challenges have undoubtedly invigorated and focused many of our key European and Eurasian relationships.

Energy has grown to be a veritable critical center of gravity, exposing our joint interests and vulnerabilities in the region. While our intensified efforts have already begun to yield promising results, we continue to look for opportunities to bolster our work in the region.

We are honored to be here before you today. Thank you, again, Mr. Chairman and members of the Commission, for giving us this opportunity here this afternoon.

Thank you.

Mr. HASTINGS. Thank you very much, Mr. Manuel.

And I'll turn now to Mr. Al Hegburg, the Deputy Assistant Secretary of the Office of Policy and International Affairs for the U.S. Department of Energy.

Mr. Hegburg, let me also ask you to pass on to Secretary Bodman my thanks for your appearance. One of the missing links in the Helsinki process has been a focus on the energy aspects and the Department of Energy and Commerce has a significant role to play in that regard and I had indicated during my tenure that I wanted to highlight it.

So I thank you and I thank Secretary Bodman especially.

Please proceed, sir.

AL HEGBURG, DEPUTY ASSISTANT SECRETARY OF ENERGY FOR INTERNATIONAL ENERGY POLICY

Mr. HEGBURG. As the Secretary said, we are the nerd agency and I'm clearly not the nerd, because I don't even know how to push the button.

Thank you very much for the invitation to be with you today and for your kind words, which I will certainly pass on to the Secretary.

I would just like to say a couple of words about how we look at this period of transition that we are in from the marketplace that we're in now to the marketplace that we hope we'll be in the future, particularly as alternative fuels penetrate the market and greater efficiency shows up in the marketplace, and a variety of other things.

But I think I'd just like to say a couple of things about we have to keep in mind that we live in a hydrocarbon economy and will for some period of time, and there are sort of two ways to go about dealing with that.

One is to try to adjust that economy very quickly and the other is to try to influence it to change. I think it's important to try to influence it to change, because I think it will be longstanding change that we will get as opposed to abrupt and disruptive change.

Over the next 25 years, there is an estimate that just to sustain the hydrocarbon economy we have in oil and gas, the investment required will be on the order of $8 trillion, and that means that oil and gas worldwide will require over $300 billion a year in investment, and that's across the board, refining, production, transportation infrastructure and all those things.

All the things Greg mentioned in his testimony about pipelines, increased production in the Caspian is part of that estimate and that is an expensive place to do business. And those investments are likely to be made in the short term, but there are some things that sort of have an influence on the way in which that investment is made and the degree of penetration in the marketplace that oil and gas will show.

First, there are, I think four issues on the table that we have to deal with when looking forward on the oil and gas supply-demand balance and those are climate change, which is obviously a significant one and has a significant impact on the way in which this investment takes place.

One is energy security, obviously, which everyone has referred to here. But the other two, which are ones I would like to mention in passing, are the question of governance and the question of the erosion of globalization.

If you go back and look over the past 30 years, the energy economy in the United States has become fully integrated into the world. As everyone knows, we import a great deal of oil. We are an attractive investment environment for foreign investors who have actually invested in our refineries, our production and all those kinds of things.

We have gained efficiency in the marketplace, largely as a result of the removal of price regulation on oil and price controls on natural gas. And the industry and people in general have responded by investing. In other words, that marketplace was competitive, it was international, it was global, and it was generally open.

We are seeing now some changes which suggest that globalization is eroding. We see a fair amount of resource nationalism in the world and that's not just in the way of extracting additional rents out of producers and investors, but also actually turning the country around to pursue a kind of energy nationalism that is counter to their interest. Venezuela is, of course, a very important example here.

As that country decided to essentially nationalize the industry, the industry and investing industry started to accelerate the repatriation of their capital and withheld investment.

And one thing that happens in the oil and gas sector is you have to continually reinvest to maintain production, because it is a declining asset. It continues to decline from the first day of production. So there's a constant need for reinvestment.

And so Venezuela, as you've seen over the past year or so, has eroded in terms of both the share owned by the state and now the shares in heavy oil owned by the investors. And that is a serious potential problem. It is a problem that we see elsewhere.

We may even see it in Russia, which has serious problems with sustaining oil production and gas production and is in the process of changing the nature of the investors' relationship to the state, and I think that's something we need to pay a fair amount of attention to, because it raises political questions, it raises investment questions, it raises commitment to the international economy that we all share and hope will benefit us all.

I would just like to say briefly something about natural gas, because that is relevant obviously to the Caspian, to pipelines and to future production. Russian gas production, as controlled by Gazprom, is in decline and it's in decline for several reasons, partly because they have not invested in new developments.

As the super giant fields decline, their share of production is going down. That means the question of their meeting their contractual obligations to the countries of Europe is in question, unless they can find alternative supplies.

And there are some alternative supplies out there for them. One is the independent gas producers in Russia are increasing production and although they're quite a bit smaller than Gazprom, they are making up some. The government has decided to increase prices in the domestic market, which has been essentially a free good for most of the Russian economy. And so the industrial sector will receive—gas prices will go up to the industrial sector.

There will be shifts away from natural gas in the power sector, which is a quite large user of gas, to natural gas to coal and nuclear. And, of course, they will have to rely on increased deliveries from the countries of Central Asia, particularly Turkmenistan, and that is actually, I think, the core issue for Russian gas supplies is to what the net level of production in Turkmenistan will be to supply the Russian market, and if all that gas will go to Russia or some of that gas will go west, as has been mentioned, through some of the pipelines.

Those I want to sort of put on the table as concerns, because I think it relates to the question of how we relate to Russia, but also how Russia relates to the world energy economy, and that's something that I think deserves our attention, your attention and others.

I think I'd just like to say, in closing, one thing about energy economies. We tend to look at energy compartmentalized, but the energy economy in this country is really quite impressive in a lot of different ways and it can be even better, and it should have several characteristics and we have what we call—these are not the 10 Commandments nor the 95 theses of Martin Luther, but there's some things that you would hope that the energy economy could be.

The first is innovative, and this is a very innovative economy. And we talk about technology, but the idea is to be innovative in a way that that technology comes to the marketplace as quickly as possible.

It has to be clean. It has to be inexpensive. It has to be available. It has to meet the questions, as you've referred to, of people saying how much it costs to fill up their gas tank. That is clearly a concern.

And I think we can do that. We can go through the transition and reach those kinds of goals. It's not going to be easy and it's going to require a fair amount of work, but I think it's important and I hope we can discuss that and what the role of the Caspian is in meeting those goals.

Thank you very much.

Mr. HASTINGS. Thank you very much.

Mr. Mann and Mr. Bryza, I recognize that you were not asked to offer comments, but I would permit you, in light of the fact that you've been so kind as to come, if you care to take a minute or 2, I have no hesitancy if you wish to add something, if either of you would.

Mr. Bryza?

MATTHEW BRYZA, DEPUTY ASSISTANT SECRETARY OF STATE FOR EUROPEAN AND EURASIAN AFFAIRS

Mr. BRYZA. Thank you very much, Mr. Chairman, very much for this opportunity maybe to clarify or even simplify the incredibly complex picture of our energy security policy, and just a couple of pictures I'll show you that have to do with what you mentioned at the beginning, how we deal with Russia as a potential energy partner and as the major single supplier of natural gas, its most important of commodities, to Europe.

Today, Gazprom is the largest single supplier of gas to Europe and it provides anywhere between 25, 30, 35 percent of the gas consumed in Europe. It provides that gas through a network of pipelines you see on this map here.

For those of you behind, you'll see in the copy of the testimony this map that shows a whole bunch of red lines. These red lines are an enormous infrastructure system that Gazprom uses to move gas from Siberia and from Central Asia to European markets.

Gazprom is, by law, a monopoly, passed by the Russian Duma, and Gazprom behaves as a monopoly. It's not evil to be a monopoly. It's a good business to be in if you can be a monopolist. But our country, however, has decided, our government has decided we are not in favor of energy or any other monopolies and, as we know, the first major antitrust case in our country's history was the breakup of Standard Oil.

Well, Gazprom is a monopoly and it functions relatively well based on this enormous network of pipelines, which allows it to do what? This network allows Gazprom to buy gas in Central Asia for around \$100 per 1,000 cubic meters. This is very important, because as Al was suggesting, the gas production in Russia's own fields is declining.

So Gazprom's looking for the easy way out. It absorbs the gas in Central Asia through that pipeline that runs diagonally from Ashgabat, Turkmenistan up toward the European part of Russia, \$100 per 1,000 cubic meters, sells it in Europe for nearly three times that cost.

That's a problem for our Euro-Atlantic community, because such a differential in price between \$100 and close to \$300 underscores an inefficiency in the market and we believe our national security is best served when markets function efficiently.

But this difference in price also generates an enormous amount of rents that are distributed often non-transparently in a way that undermines the rule of law, undermines our broader goals at energy sector reform, which then gets at what both Greg and what Al were talking about in terms of wanting to see the resources and the revenue streams managed wisely so we see the advance of market economies and democracy.

The way to deal with this is not by simply talking, but it's by changing the facts on the ground through the increase of competition and we're trying to do that, first and foremost, by expanding the delivery options for gas from Central Asia and from Azerbaijan especially to Europe.

On this map, you'll see a very small yellow line at the bottom, on the lower right. That's the Baku-Tbilisi-Erzerum gas pipeline, or the SCGP South Caucasus gas pipeline that Mr. Manuel discussed.

It's becoming functional now, gas is moving into it, and it'll be fully functional shortly. That alone, that pipeline won't create the full degree of competition we seek.

As Greg suggested in his testimony, we hope to see a ring of gas infrastructure extending back to the Caspian Sea and around the Black Sea. That's on the second graph I'll show you here in a second.

What this shows is a ring of infrastructure in which that yellow line from Azerbaijan has expanded in two more lines. There's the Turkey-Greece-Italy pipeline that Mr. Manuel talked about and then Nabucco pipeline extending from Turkey all the way to Austria.

That, combined with liquid natural gas shipments from Norway, what you see at the top of the graph, the blue line, and maybe liquid natural gas from Russia and from other locations, coupled with increased deliveries of gas from North Africa begin to provide Europe with some genuine diversity in gas supply.

The idea is once our allies in Europe have the ability to choose their suppliers of gas rather than relying overwhelmingly on one supplier, we'll see a more mutually beneficial relationship between Europe and Russia and Gazprom as the Europeans can negotiate more equitable terms.

Finally, there's a question as to whether or not this whole project can be realized. Is there enough gas, as was often asked, in the Caspian region?

Often, observers say, "Well, there's not enough gas in Azerbaijan to begin these pipelines." And the last graph I'll show you—here it comes—demonstrates that, indeed, in Azerbaijan, there's an enormous quantity of gas that will be available, we hope, in coming years, sufficient to fill the Turkey-Greece-Italy pipeline and hopefully the first phase of that Nabucco pipeline that goes from Turkey to Bulgaria, Romania, Hungary, and Austria.

This last graph is an optimistic version, granted, upside, unrisked projections, but based on data provided by the international companies operating in Azerbaijan. And what it shows you, if you simplify it, and each colored slice is another gas field that's either being produced in Azerbaijan or will soon be.

What it shows you is that by the period 2015 to 2016, there will be a dramatic, we hope, a dramatic increase in gas production in Azerbaijan, getting the production up to a level such that there'll be enough left over after gas is consumed in Azerbaijan and Georgia and in Turkey to provide for those two pipelines I've been talking about.

We're doing a lot of other things I won't go into in the northern part of Europe, around the Baltic Sea. All of these efforts are aimed at helping our European allies pool their strategic vision and their negotiating ability so that over time, they're able to negotiate more mutually beneficial relationships with Gazprom, so that relationship really does work in two directions.

Thank you very much.

Mr. HASTINGS. Thank you very much.

Ambassador Mann, do you have a contribution?

AMBASSADOR STEVEN R. MANN, PRINCIPAL DEPUTY ASSISTANT SECRETARY OF STATE FOR SOUTH AND CENTRAL ASIAN AFFAIRS

Amb. MANN. Well, thank you, Mr. Chairman.

I think my starting point for this is a feeling that I know all of my colleagues share of gratitude to you, Mr. Chairman, for holding these hearings, for giving us this opportunity to talk about an issue that is so important and for your personal involvement in this issue, which I know is by no means new.

I handle the Central Asian part of these issues and for Central Asia, it's an important economic question and as with a number of other nations in the region, it's a question of supporting the independence and the sovereignty of these countries, when you get down to the base issues there.

So we have achieved a lot as a government, as an interagency team, and my colleagues have pointed out the challenges that we have in the future.

And just one final note, Mr. Chairman. You have a full table here of representatives of the executive branch. I think this shows the strength and the depth that we have because there are the four of us up here, but behind us, also, is a team of tremendous professionals in our departments, in the Department of Commerce, the Trade and Development Agency, Export-Import Bank, and in the intelligence community, who have been at the heart of the successes that we've had as a government.

So, anyway, thank you, again, Mr. Chairman, and to the Commission.

Mr. HASTINGS. It's clear to me that we have an ongoing significant number of issues and the questions are so numerous.

And I'm, in light of the other witnesses, much more prone to be brief, which is not my custom and practice, but you all have been very clear.

Mr. Hegburg, I was interested in something that you said specifically and it's so obvious, and yet people don't think about it, that you have to have continuing investment, I believe you spoke of, in order to maintain the efforts that a country or a company wishes to put out, which caused me, when you spoke of our market, meaning the United States, and the fact that significant investors from around the world have come to play in that house, I'm curious about the refining aspect of it.

You did use the term that they've invested in our refineries, but some of us have a continuing concern that there has been no real development of new refineries in the United States for a substantial period of time.

What are the implications of that?

Mr. HEGBURG. Thank you, Chairman.

I'm defining—let me just make—I don't have the numbers in front of me, but it is clear we have not invested in new refining {refineries} and, at the same time, our refining capacity in the United States has increased by something on the order of 6 million barrels a day.

Don't hold me to that number, but I think that's what I recollect. And that is because when refiners invest, they invest in what are called their legacy assets. They invest in the existing equipment that they have, because it's the cheapest place to invest.

They have the land, they have the personnel, they have the electric supply, they have all those kinds of things.

They have less of a permitting requirement. They have a permitting requirement, obviously, to add capacity, but it is cheaper to add a coker or a distillation facility or something else to that refinery than it is to go out and build an entirely new refinery on a greenfield investment.

So, yes, we have shut down refineries, but at the same time, we've increased refining capacity in the United States substantially.

Mr. HASTINGS. All right. I thank you.

And I do have a concern with reference to regional and multilateral organizations. A lot of us talk about GUAM, the Georgia, Ukraine, Azerbaijan, and Moldova, and their recent summit in Baku and the continuing question considering that Kazakhstan and Turkmenistan didn't attend, how do we propose to be able to help them to achieve their objective?

And perhaps even more important and significant is something that is beyond the sphere of OSCE and that is that the International Energy Agency was established quite some time ago, in '73 or '74 or thereabouts, and it had as an objective the crisis that existed at that time and the key energy demand centers in the world were all members of the Organization of Economic Cooperation and Development.

Today, China, India, Brazil, just to mention some big ones, are not involved in that multilateral structure.

And I guess if I have a question, it is in what multilateral framework should the United States and the EU be working to achieve energy security goals? And I think there were two questions there. I'll lay them open to anyone who would answer and then I'll ask Congressman Butterfield to put a question or two.

Mr. BRYZA. Thank you, Mr. Chairman. I'll answer the first one, if that's OK, on GUAM, as the person responsible for our relations with some of those countries.

GUAM is emerging as an organization that will play, hopefully, a useful role, a concrete role. It's been developing step-by-step its mechanisms to be able to be really active and make a concrete contribution.

But it is not the main forum in which we together are working with the countries you mentioned to advance this vision that I described through the maps, a vision of gas supply diversification and oil diversification.

A lot of this work has been done by the United States, frankly, taking the lead, in cooperation with those very countries during the course of a decade, including those years we talked about when Ambassador Mann was our envoy to the Caspian region.

Years before that, I was the deputy to our envoys when we began with Richard Morningstar and then there was John Wolf and Beth Jones, Ambassador Mann's predecessors, and we developed a pattern of cooperation that follows the path of the Baku-Tbilisi-Ceyhan oil pipeline and the South Caucasus gas pipeline, a pattern of cooperation that reflects a vision of those countries to bring in Turkey as a positive strategic player in the region and as the gateway for those countries to European and indeed global energy markets, and we used the infrastructure projects of these two pipelines to forge that cooperation.

We're trying to build on that decade of success in a new phase now that involves that sort of increase in production of gas in Azerbaijan and then involves us reaching across the Caspian Sea, as Ambassador Mann can describe, through diplomacy, hopefully with the countries of Azerbaijan and Georgia and Turkey taking the lead in building up, step by step, concrete cooperation with both Turkmenistan and Kazakhstan at the pace at which Turkmenistan and Kazakhstan are comfortable in integrating their infrastructure into this vision that I've tried to describe to you.

Mr. HASTINGS. Mr. Hegburg and Mr. Manuel? We'll start with Mr. Hegburg.

Mr. HEGBURG. Just on the IEA and the OECD. In June, the OECD decided to invite certain countries to open discussions with the OECD about membership. Those included Chile, Estonia, Israel, Russia, and Slovenia.

It also decided to strengthen cooperation with Brazil, China, India, Indonesia, and South Africa. Now, that's material to—I guess I'd make two points.

That's material to the IEA, because you can't be in the IEA unless you're a member of the OECD. So in the first group, that's on the road to joining the OECD.

In terms of China, India, Brazil, and South Africa, all of which are significant players in the world oil and biofuel market, for example, there's been ongoing conversations with those countries for the last several years, or some of them. And I'm not part of these negotiations or discussions, but some of the issues around IEA membership relate to energy policy, as well as the strategic stock requirements.

It's important to keep in mind, you asked about which regional organizations should we belong to, it strikes me that the IEA is the best. It is expansive. It can move and incorporate new members.

It has two elements that I think are central to energy markets. One is an energy policy function, which it takes very seriously and which, in fact, investigates the countries every year. In fact, the U.S. investigation is going on right now. They're here talking to people about our energy policy.

And the other is not just the stockholding requirement, but the collaborative nature of cooperation during an oil supply disruption of some sort. And it was used during the hurricanes, Katrina and Rita, in which our partners in Europe did make available gasoline that came through arbitrage to the east coast.

And the mechanism was both bilaterally with the countries in Europe that had surplus gasoline, but also involved the IEA secretariat in Paris. So it has worked to the U.S. benefit on several occasions and I think has stood the test of time.

Mr. HASTINGS. Mr. Manuel?

Mr. MANUEL. Mr. Chairman, I just wanted to very briefly touch on two questions. One was on the IEA, the other was on investment issues related to the domestic market.

On the IEA, I had the chance to speak to Mr. Tanaka, who will be the incoming head of the IEA, I believe the first of September, and we had exactly this discussion. We've been working very closely with the IEA over the last year to bring China into the IEA as closely as we could.

A lot of my colleagues have already mentioned a number of the restrictions. The good news it that China and India both have been part of the working groups, of which there are five, and have been invited as observers now for just over 6 months and have been integrated in an unofficial sense.

The challenge is that because of the charter of the IEA being strictly linked to the OECD and the fact that the voting rights in the IEA are tied to the oil consumption of 1974, that if you were to bring in a China or India, the real question would be, well, are we going to then normalize energy or oil consumption based on 2005 or whatever metric.

If you were to do that, China would have the second most votes on the IEA, just to give a sense of the challenges that are ongoing now behind closed doors. But to your point, this is a very important issue, integrating them into the world community and having the IEA be sort of the centerpiece to make that happen has been a real interest of ours and something we've been pushing for some time.

On investments, my background in the private sector is as an investment banker and a venture capitalist and entrepreneur and it is remarkable to see, outside of the conventional sort of energy picture, how quickly investment is moving towards alternative energy.

And I wanted to paint just a little bit of the other side of the picture for you, that 16 percent, for example, 16 percent of venture capital investments last quarter were in the energy technology sector, which is roughly triple that of where it was just 2 years ago.

The VC industry is a great lead indicator of where things are going and my own sense from my previous relationships in the private sector is that you are going to be seeing fundamental shift changes in energy technology and the sorts of substitution opportunities that they create vice the conventional energy sector, which we're already seeing in Brazil and we are beginning to see here in the United States.

Thank you very much.

Mr. HASTINGS. That certainly is good news, because it would be hard to hold this kind of hearing without talking about the alternative energy needs that we have.

But perhaps we'll have some light shed by Congressman Butterfield, since he serves on that committee that's cranking out—did you say before the Fourth of July recess?

I work here, but I don't know these things. I'm on other committees. I do know that the Senate has been very actively involved and I know that the House is developing its energy package.

Mr. BUTTERFIELD. Well, Mr. Chairman, you have been around this place much longer than I have and you know it changes by the day. But right now the plan is to separate energy independence from climate change and hopefully by the Fourth of July we will have some legislation on the floor that deals with energy independence.

It will not have some of the more controversial provisions that you've read about, that will take place on a later date, but we are going to roll out some very cutting edge, innovative ideas for consideration.

But let's talk about Europe for a minute, Mr. Manuel, if we can. And I'm also new to this Commission and so much I need to learn about our friends in Europe. And let's be very basic in this conversation.

Let me ask you, is there a comprehensive energy policy that all of the European countries have signed onto it or is that still work in progress?

Mr. MANUEL. Yes, there is. It's a package that was put together just a few months ago and adopted and the various degrees of adoption, of course, are still subject to a number of countries' domestic legislative bodies and, of course, just taking the impetus beyond just the notional interest in moving in this direction.

But, yes, there are several goals, everything from renewable standards to efficiency gains that the Europeans have——

Mr. BUTTERFIELD. But I get the impression that not all of the European countries are on the same page. I know they're striving for commonality, but I get the impression that they're not there yet.

Mr. HASTINGS. And as a segue to that, what do you make if Italy, for example, with [inaudible] making their move with Russia? How does that factor?

Mr. MANUEL. I think Matt Bryza would like to take the Italian question. But on the European, we're working very closely with the Europeans in ways, frankly, that we never have done before, beyond just the...

Mr. BUTTERFIELD. Is that productive or counterproductive?

Mr. MANUEL. It's very productive. I myself have been assisting at countless working groups on various aspects of alternative energy that we've been pushing. So I'm much more focused on the non-conventional aspects of what we're pushing ahead with the Europeans.

The very good news is that the sources, the political commitment and I think the tangible and concrete results sort of down the road are being formulated today. The amount of research and development efforts around biofuels and energy efficiency programs that we're looking to put together, new ways that we're coordinating and working with our private sectors, which I mentioned happened in March with Secretary Rice and Foreign Minister Steinmeier.

All of these efforts are novel. All of these efforts are more coordinated than ever before and really yielding, beginning to yield some very formative changes in how the trans-Atlantic relationship is helping to solve our more global energy challenges.

Mr. BUTTERFIELD. Are there some things that this commission can do or even the Congress can do to encourage European countries to formulate better energy policy?

Mr. MANUEL. There are a whole lot, standards and codes, having our regulators, for example, meet with their regulators and everything from distributed energy integration into the grid, something I had a conference call on this morning, huge concerns between where the IEEE is going and the IEC, which is the European standard body, the sort of focus and commitment that Congress can bring to these issues could be very helpful and I'm more than happy to talk at length with you about a number of different areas that I think we could——

Mr. BUTTERFIELD. And, finally, let me ask you, is it conceivable, in your mind, that the European countries and the United States could develop a consensus on how to approach China and the challenges that the China factor presents?

Mr. MANUEL. I'm not sure that we'll say the Europeans have developed a consensus on anything. There is a growing consensus, let's say, a growing consensus on a number of issues, climate change, China. Even Russia, we've made a lot of advances in terms of moving political opinion and leaders' opinions on what one might do.

But, no, I think that there's still a number of areas of opportunity along those lines.

Mr. BUTTERFIELD. Thank you. Thank all of you very much. I yield back.

Mr. HASTINGS. Thank you very much, Mr. Butterfield.

Gentlemen, because I have the other panelists, I do have a substantial number of questions and as I did in a recent hearing, if you would permit, I will send to you in writing a few questions and if you would be so kind as to answer them, then I would incorporate them into this hearing, but, in addition there, to put the questions and the answers on the Helsinki website so that the discussion can continue in that fashion.

I'm deeply appreciative to all of you and I hope you will participate with us in our continuing efforts in this regard.

Thank you so very much.

And I'd invite our next panel up now, our two Ambassadors, Ambassador of the Republic of Azerbaijan, Yashar Aliyev, and my friend, the Ambassador of Belarus, Mikhail Khvostov.

As they come forward, to lay bona fides on the table, occasionally, ladies and gentlemen, those of you that are in the audience think that we operate inside the beltway in a vacuum. In fact, we do not.

Long before I became chairman of the Helsinki Commission, both these Ambassadors and I have had opportunities to have meetings and I also have the distinction in both their countries, with their assistance and the assistance of Mr. Aliyev's predecessor, to have been the lead observer to elections in both their countries.

So unrelated to just this issue, I get to know them and have gotten to know them in a variety of ways and I've been to both their countries and was treated more than admirably by the officials that had responsibility in attending and expediting.

But I'd take this opportunity to thank both of them for their assistance as we've moved about.

Gentlemen, I hope you won't mind that I will avoid reading your comprehensive biographies and say, as I said earlier to the audience, that they are available at the table outside. But I'm much more interested in getting to them and our panel that comes after them.

So I don't know which of you cares to go first. I don't know what—"A" comes before "B," at least in the United States' language.

So, Ambassador Aliyev, if you would go forward, please.

H.E. YASHAR ALIYEV, AMBASSADOR OF THE REPUBLIC OF AZERBAIJAN TO THE UNITED STATES

Amb. ALIYEV. Thank you, distinguished Mr. Chairman, distinguished members of the Commission. Just allow me to thank you for inviting me to participate in today's hearings.

I will summarize my testimony and request to include its full text in the record of the hearing.

Mr. HASTINGS. Without objection.

Amb. ALIYEV. Implementing its energy strategy, Azerbaijan has always received the strong political support from the United States. Without U.S. assistance, it would have been impossible to complete several pipeline mega projects in the region.

Today, as the Baku-Tbilisi-Ceyhan oil pipeline and the Baku-Tbilisi-Erzerum gas pipeline have become a reality, they now represent key elements of the oil and gas transportation system in the region.

In addition to its role as a large energy producer, Azerbaijan is also becoming an important transit hub for multimodal transportation of vast hydrocarbon resources of Central Asia to world markets, in particular, the European ones, through the east-west energy corridor.

Evidence of this emerging role is the June 2006 agreement between Azerbaijan and Kazakhstan on transportation of Kazakh oil to international markets via Baku-Tbilisi-Ceyhan pipeline.

Diversification of transportation routes, as well as of energy suppliers and markets, are key factors for ensuring the reliable and predictable supply and transit of oil and gas to European consumers.

Existence of multiple transportation routes from a number of suppliers would also reduce a possibility of tensions on our energy supply. As the international community has witnessed in several cases over the last few years, supply chain disruptions can cause energy insecurity in European countries.

Having signed, in November 2006, memorandum of understanding with the European Union on strategic partnership in the field of energy, my country has proved its ability to be a reliable partner in ensuring predictability and transparency in energy supply and in enhancing the European energy security, both as a supplier and a transit country.

Along with that, Kazakhstan and Turkmenistan can become important elements in ensuring the European energy security with Azerbaijan as a transitional hub for delivering the Central Asian hydrocarbons to the European markets via BTC and BTE pipelines.

Meanwhile, if they would opt for other routes of transportation, Azerbaijan is in a position to fill Baku-Tbilisi-Ceyhan and Baku-Tbilisi-Erzerum pipelines with its resources.

Azerbaijan and the United States productively cooperate in many areas. My country is a staunch ally of the United States in the global war on terror. The economic cooperation between the two countries has been recently elevated to the level of partnership. The first meeting of the bilateral economic partnership commission in February this year was followed by the energy dialogue last March, when our countries signed memorandum of understanding on energy security.

This particular memorandum, as well as the one signed between Azerbaijan and the European Union, represents an important contribution in ensuring energy security in Europe.

In order to manage oil revenues, maintain macroeconomic stability and finance implementation of strategically important social and infrastructure projects in the country, my government has established the state oil fund.

In 2003, my country has joined the extractive industries transparency initiative proposed by the United Kingdom. The state oil fund is the responsible organ for implementation of this particular initiative.

Democratization is another crucial task for my government in pursuing economic development. Being one of the most dynamical developing economies, with increasing inflow of petrol dollars, Azerbaijan is determined to steadily diversify its economy and pursue with reforms to strengthen its democracy, ensure protection of human rights, fight corruption, to further independence of court system, and ensure transparency and efficiency of state governance.

Azerbaijan is the most [inaudible] of its economy and is promoting democracy and the rule of law in the country, as well as on the regional level.

The second summit of GUAM Organization for Democracy and Economic Development, which was successfully held in Baku just a week ago, is another manifestation of the above-mentioned commitments of my country, which assumed 1-year chairmanship in the organization.

The energy security matter is of profound importance in bilateral relations between Azerbaijan and United States of America. So, therefore, I would like to appeal to members of this committee and for you, Mr. Chairman, to the members of the U.S. Congress to repeal section 907 of Freedom Support Act of 1992 that restricts U.S. assistance to Azerbaijan.

It does not comply with the spirit and level of bilateral relations between our countries and it is for that reason, annually waived by the president of the United States since 2002.

I thank you, Mr. Chairman.

Mr. HASTINGS. Thank you very much, Ambassador.

Mr. Ambassador, you may proceed, Ambassador Khvostov.

H.E. MIKHAIL KHVOSTOV, AMBASSADOR OF THE REPUBLIC OF BELARUS TO THE UNITED STATES

Amb. KHVOSTOV. Thank you, Mr. Chairman.

Mr. Chairman, Mr. Butterfield, members of the staff, thank you for the invitation to speak on the issue so important for us, which is the energy security.

It's important that we recognize today's problems of global energy security and those of tomorrow. It's more important that we act now to address them. Energy security is no longer a matter solely of national sovereignty. Today, security is an indispensable issue, even in general discussions about foreign policy.

Energy security requires that we recognize our energy dependence. Individually, we are powerless to affect the global debate on energy security.

Why the United States is indispensable for us in this wide discussion on energy is because without it, we will suffer a political power cut. There is a general desire to make energy cooperation mutual advantages and equal, but still the interests do not always coincide.

What to do? The answer, in my view, is to develop a model of energy security cooperation and implement mechanisms of mutual interests, which may be long-term energy supply, uninterrupted supply, acceptable terms and conditions, equality and mutual benefits, strong dialogue and cooperation, and, of course, mutual approach.

We should strengthen the dialogue and cooperation to meet the challenges and our dependence on oil and gas needs to be balanced by stable and reliable supply, which includes the sole role of transit countries, and I count Belarus in this group of reliable partners.

The significance of transit countries becomes more and more considerable. Clear bilateral regional and international rules could improve predictability for transit and supply of energy, deepen interdependence and stability.

This approach does not deny the right of a producer to benefit from its oil and gas reserves, as well as the right to consume or to benefit from the supply.

Belarus lies on the gas transit route from Russia to Europe and is the second largest transit country for Russian gas by volume after Ukraine. Russia is the leading gas exporter to Europe and is the second important source of crude oil.

And the transit country should benefit from the benefits of producer and consumer, with a clear regulatory framework for transit which will help us to avoid much more expensive alternatives of building long, roundabout pipelines.

Events of the beginning of 2007 remind us that supply in the OSCE region is not as secure as it should be. We in Belarus are not oversensitive regarding the sensation of energy trade to market prices, but I have to recognize that we are sensitive regarding the bilateral agreements we have with Russia, including those with preferential arrangements and terms, subsequent to the bilateral treaty on the union state.

We understand that pacts must be respected. Belarus is among the countries most dependent on external energy sources. Eighty percent of Belarus' energy comes from Russia. Energy cooperation between Belarus and Russia is closed and, also, Gazprom's business strategy remains a matter of concern to my government.

The sufficient and affordable availability of energy is a precondition for Belarus competitiveness and economic growth. The government is convinced that our energy dependence cannot be forever increased and our first thing is to reduce dependency by increasing share of carbon-free energy sources and gradual introduction of energy efficiency.

By 2010, we expect to invest in energy efficiency $5 billion U.S. Belarus is in the same situation as most of the OSCE countries that are large energy importers, all of which have to face the increasing prices of oil and gas in the coming years.

A key issue for Belarus' energy security is its dependency on a single supplier. In the near future, Belarus can import oil from different sources. We have two refineries and we can afford transport expansions.

Energy security and sustainable growth are critical for the OEC region. Belarus will remain a country actively involved in energy security in the region, primarily in the European Union. As a reliable transit country, Belarus is important for both sides of the east-west corridor.

The European Union is trying to set up a common energy policy today for member-states. We agree with the EU position that mutual energy relationships between states must be predictable, transparent and reliable, but my view is the OSCE countries and not the European Union have to come together as a special ad hoc "'Committee of the Whole" for energy producing, transiting and consuming countries to generate binding decisions on energy security, and the OSCE framework is relevant.

The only matter which matters is our collective determination. The OSCE cannot be transformed across into a regional OPEC. Yet, energy is an issue of importance to the development of the OSCE members and the role of the OSCE is in enhancing dialogue energy security and generating binding decisions.

And the OSCE can be a platform not only for political dialogue conversation, but also for addressing energy security issues, which, in the last instance, may be of a political nature.

Thank you very much.

Mr. HASTINGS. Thank you very much, Ambassador Khvostov.

I'll start my questions with you and, as I said to the previous panel, I'll just have a couple of questions, and I do want to have the full array of panelists to have an opportunity to participate and there are two more waiting to testify.

But, Ambassador Khvostov, what has been the impact of the January Russia increase in energy prices on the Belarusian economy?

I could go into great detail, but I'd just share with you my personal observation when I learned that the energy supply had been temporarily shut off by Russia. It highlighted the fact for me what you say in your testimony, and that is that Belarus is in the same position as a large number of OSCE countries by having a single supplier.

And at the same time, I personally did not do very much comprehensive study regarding what affect that had on your economy and if you could elucidate for me your thoughts on that, I'd appreciate it.

Amb. KHVOSTOV. Well, it's a very good question, Mr. Chairman. Of course, the situation will impact the economy. Our losses are, although not as big as we expected, maybe due to our GDP amount in $35 billion U.S.

So I'm not sure about the right figures, but maybe it's around $300 million, $350 million U.S., maybe. But although the government had foreseen this situation and with the purpose to minimize the consequences found for national development has been created in the last year and into which some $700 million U.S. have been paid at the end of the last year, and, of course, it will be fulfilled with every coming year.

But, yes, I can agree with you that there was an impact of general gas prices on the Belarusian economy.

Mr. HASTINGS. Right. Well, as I did say to the other witnesses and say again to you, I am going to have some followup questions. If you choose to answer them, I will place them on the website of the Helsinki Commission, but I won't go into great detail.

I must make, however, the observation that it would seem to me that Belarus and other countries similarly situated, for example, you have a responsibility contractually to Lithuania and if you are not getting your supplies, you're not able to fulfill those contractual responsibilities.

I also am keenly observant of Russia using oil and gas as leverage in other places. I go next week to the parliamentary assembly in Ukraine and previous to what happened in Belarus, it happened in Ukraine, pervious to that, in Georgia, as well, and then Poland also had this kind of usage.

I have some concerns, Ambassador, and perhaps you and I can followup with personal visits and I'll express them to you in greater detail, but I will send to you some additional questions and hope that you would answer them.

But I am so very grateful to you for being here today.

Ambassador Aliyev, I used the term in my opening comments that we're having a hearing soon on the issue of the resource curse. Azerbaijan was one of the first countries to sign on the extractive industries transparency initiative designed to inject greater transparency into international oil deals.

And I was heartened by your comments about things that are taking place in regards of the establishment of democratic values. But how is Azerbaijan working to ensure that its energy revenues contribute to the growth of a well rounded economy in your country?

Amb. ALIYEV. Thank you very much for this question.

First of all, I need to mention that long ago, in December of 1999, my government established a state oil fund, an organization which is designed to, first of all, be executive body that is responsible for collection of the petrol dollars and it is a transparent and open organization through which, in the year 2003, we joined to the EITE proposed by Great Britain.

And I'm very proud to inform you, Mr. Chairman, that tomorrow, in Vienna, on the 26th of June, this particular fund will be granted the United Nations public service award, which is another manifestation of how transparent and open oil or petrol dollars are collecting in Azerbaijan.

As of today, the state oil fund has collected about $1.8 billion, which is to be allocated for national economy development, in particular, non-oil sector, which is of paramount importance for my country to avoid so-called Dutch disease.

Thank you.

Mr. HASTINGS. Thank you both very much and we'll followup personally with both of you. I'm grateful to you for being here. And when you see yours and my friend from Russia, this is my second hearing that I've invited him and he hasn't attended.

You tell him I'm interested in his views. I appreciate it very much. Thank you very much.

I'd invite now Keith Smith and Pierre Noël. And thank you all for your patience, Mr. Noël and Mr. Smith.

Mr. Smith is the senior associate for the Center for Strategic and International Studies and Mr. Noël is a research associate at the University of Cambridge.

And as I have said previously, their biographies in full are available outside.

I also thank you all, ladies and gentlemen. I can say to you this is the second hearing I've chaired. I chaired a briefing as chair of

Helsinki. And I do intend, before these energy hearings, if you're interested in attending others, I intend by that time to try to find some mechanism to have greater audience participation.

I, for one, find it awfully boring to have to sit up and listen and not to be able to say anything. So at some point, I'm going to change the format. I don't care what the rest of the Congress does. Somehow or another, when people take up their time, come from their offices, their staff, lots of you have information and ideas out there that would be beneficial to us.

And at the very least, we could develop a questionnaire or something that would permit that you offer your views. So expect that from me in the future so that you don't just have to come to a dry hearing.

But we have scintillating witnesses now, so I invite you to stay.

Mr. Noël, you are going to kick us off, or Mr. Smith? Either.

KEITH SMITH, SENIOR ADVISOR, CENTER FOR STRATEGIC AND INTERNATIONAL STUDIES

Mr. SMITH. Thank you very much, Mr. Chairman. It's a pleasure to be here.

I've been writing about this subject for a number of years and there wasn't much interest, quite frankly, until particularly in—well, in the United States and I would say in western Europe until the Gazprom cutoff of gas to Ukraine in January 2006.

It suddenly became a topical issue and there was a lot of interest and excitement about the issue. On the other hand, there's a lot more excitement and talk than there is action. Some of my Russian colleagues know that I'm a strong critic of the present government's policies on energy, but I also criticize, to some extent, the European reaction to this.

And I say that having lived 13 years of my life in Europe and dealt for many other years with European issues, but my European-born wife keeps insisting that I should give equal criticism to the United States and Europe. But I tell her I really don't deal with that, I deal with Russian and European energy issues.

But I think that there has been, for a long time, too long, ignored the growing use of Russian energy resources for political and strategic purposes and while January of 2006 was, to some extent, a wakeup call or at least a snooze alarm for a lot of people on energy, the use of Russian energy goes back to 1990.

And in 1992, I was in Latvia and Estonia and experienced a situation where I had to sleep in my clothes at night because the energy had been turned off. It had been turned off for the reason that the Russian government wanted to pressure the Estonians and Latvians into allowing Russian military officers to stay there in their countries.

Then in 1993–94, we saw the cutoffs to the Ukraine, had a lot of political implications. Some of this is in my testimony and I won't go into it.

From 1997 to 2000, lived in Lithuania, where, because of negotiations between an American and a Russian company and the Lithuanians—the Russian Transneft, the monopoly exporter of Russian oil, cut off oil shipments nine times during the 3 years I was there.

And we've seen it happen, it happened in Latvia almost 4 years ago. Oil was cut off to Latvia, even though Latvia's an EU member. Nothing was done. There was almost no reaction in Brussels. Lithuania was cut off many times since, but definitively, it was cut off last July.

The reaction in the European Commission was a weak letter, quite frankly, from the president of the EU, was never replied to, never followedup. Now, beginning, there's some followup, but the Russians announced definitively that this problem with the pipeline that they had in Russia, they can't fix it and it will never be fixed and there won't be any oil going to Lithuania.

It's obviously a political thing and we know more about this all the time. This is something that I think that people need to pay attention to. For too long, in Europe, the European energy policy was really decided by Mr. Putin, Mr. Schroeder, Mr. Chirac, and Mr. Berlusconi in private meetings.

It's becoming more open now, but I think that there's still a legacy in Europe of the large countries kind of deciding what they're going to do to support their own companies and the smaller countries kind of had to make do.

So the idea of a European energy policy, somewhat like the United States, is more talk than it really is action. There has been movement in Europe and I think in the right direction, but meanwhile you've got a Kremlin which is very agile, knows how to operate behind the scenes, non-transparent action.

You've got intelligence officers running the energy policy in Russia. These intelligence officers, they know how to operate and they know how to operate quickly and they've been very successful over the last couple of years in checkmating European attempts to develop alternative supplies of energy into Europe.

I think some of the deals recently reached, very non-transparent deals with Hungary, with Slovakia, with Bulgaria, Serbia, I think these things, these are going to really hurt the European policy and make it much more difficult for Europe to find alternative supplies of energy.

I think the Nord Stream or the pipeline that the Germans—Mr. Schroeder particularly reached with Mr. Putin, an undersea pipeline, gas pipeline deal from Russia to Germany, the way it was done was not in the interest of Europe and I don't believe in the interest of Germany.

I mean, the fact that the Germans will be paying more than twice what they would if there was a free market in gas and this was done, as we all remember, the man that put this deal together was a former Stasi agent, east German intelligence agent, who worked closely with Mr. Putin during the Cold War and he's now the deputy CEO of the company located in Zug, Switzerland, and the CEO is Mr. Schroeder.

So there's been a lack of transparency, a lack of, I think, working together for the common European interest. This is changing, but Europe is dealing, I think—it's like all democracies and democratic organizations. It works slowly and by consensus and meanwhile you have a very fast running Kremlin which has worked quite effectively, I think, in cutting off some of the plans that the Europeans had to bring in alternative energy.

So a lot of the stuff announced today, the plans for alternative energy are good, I applaud them, but, quite frankly, I think they're going to be—some are going to be too late and some are going to be slow and it's going to take a long time in developing.

I think there are some things that Europe can do. There's a mythology, I think, in Europe which has developed that Russia is not bound by the energy charter treaty which it signed in 1997, because it hasn't ratified that treaty. Well, Article 45 of that same treaty says that it should go into force on signature, not on ratification. And, in fact, Russia has ratified—has signed these 40 agreements, which is put into force and not ratified.

So I think the Europeans would have been wise to kind of push that and push Russia to open up its pipeline systems using that.

The second thing I think the Europeans have some clout with, and we could support that, is the implementation of Article 82 of the EC treaty, which has to do with antimonopoly and antitrust legislation. They used it against the horrendous attempt at Microsoft to bundle its music program with its Windows program and Microsoft has paid a hefty fine as a result of that.

But meanwhile, Gazprom and Transneft, which are massive monopolies and which cost the European consumer billions of euros, have not been touched by Article 82 yet and I think there's some things that can be done there.

I think Mr. Bryza, in fact, and Mr. Mann mentioned some of the projects, specific projects in Central Asian and the Caspian area and I think that our support of those projects, I think, are very, very important. This is one case where I believe in the movie "Field of Dreams," if you build it, they will come. And I think if you build those pipelines, there will be oil and gas to fill those and it will help Europe and by helping Europe, I think you help ensure the security of Europe and the own interest, the security interest of the United States.

Thank you, sir.

Mr. HASTINGS. Mr. Noël?

PIERRE NOËL, RESEARCH ASSOCIATE, UNIVERSITY OF CAMBRIDGE

Mr. NOËL. Thank you very much, Mr. Chairman, for inviting me today. I am Pierre Noël. I work at the Judge Business School at the University of Cambridge in the UK, but you will have already noticed from my accent that I am from another European country.

I will talk today on the EU-Russia gas relationship and the security, security treaties and what can be done about them.

What is the interest of Europe? The interest of Europe is quite clear. It's in the de-politicization of the gas relationship with Russia and it is in bringing Russian gas into a competitive framework to supply the European markets.

These two objectives were embedded into the energy charter treaty and its transit protocol.

What are Russia's interests? Russia's interests are maintaining and growing politicization of the gas relationship with Europe and toward limiting competition against Russian gas in Europe, in the European market, especially alternative gas from Central Asia.

So the gap between these two positions could not be greater. They are completely opposed and this gap cannot reasonably be bridged by some sort of a compromise position, and this fact is now well, I think, acknowledged in Europe it has always been the case over the past 10–15 years. But this is now quite well acknowledged in Brussels and in the European capitols.

This gap, I believe, is the root cause of the uneasiness in Europe, the growing uneasiness towards our dependence on Russian gas.

So where does it leave us? Can we live in such a situation? Well, we have [inaudible], our big external supplier, which has a conception, a perception of what this relationship should be, which is completely at odds with ours.

Can we live with that? What are the risks? What can be done to hedge against these risks?

I think that there are two risks, basically. One is the risk of supply disruption and the other one is what I would call the scarcity risk. The risk of supply disruption, it's important to note, would be with us even if Russia shared our view of what this conventional energy relationship should be.

What can be done? The key measure, I believe, is purely an EU-centered or EU-focused measure, is the creation of an integrated competitive European gas market. If we at last created this common gas market, we would create de facto solidarity between EU, EU countries. We would massively increase the fungibility of the EU gas market, just as the North American gas market is now completely integrated, completely competitive and completely fungible.

That's absolutely not the case in Europe. So the member countries, and I will not name them, but the member countries who oppose such a move against the will of the EU commission and some of the member countries, these countries do the EU and energy security a disservice and they should, I believe, amend their policy.

You have [inaudible] to ensure quality review exceptions in terms of building strategic gas storage. We have, as everybody has, a lot of commercial gas storage, but no strategic gas storage. Maybe we should think more carefully about that.

We can also increase the shortened demand elasticity by requiring gas-fired power stations to maintain petroleum products inventory in case their gas supply contract had to be interrupted.

We can also, it would probably be expensive, but we can also mandate spare LNG re-gasification capacities to allow the gas market to attract more LNG [inaudible] from the open international market in time of crisis.

The second risk is the scarcity risk. It's, to be clear, the risk of—I mean, if we have to face a sustained restrictive gas policy from Russia, in other words, if Russia is either unable or unwilling to expand its gas supply to Europe as our needs grow.

Well, it's very much the situation we are in, but how should we react? How should we respond to the prospects of this situation going into the future?

First of all, I think it's important to note that this Russian strategy is a self-defeating strategy. Russia is pricing itself out of the European markets, and I can give you the numbers, if you're interested, afterwards.

Beyond that, I mean, beyond the fact that they are damaging their own market share in Europe, we can do several things to maximize competition against Russian gas in Europe. Norway is benefiting massively from the Russian restrictive gas strategy in the European market. We have more liquid natural gas coming into Europe from various places in the world and we increase our North African imports.

The United States, as far as Central Asia is concerned, and I will not repeat what has been said by the State Department officials, but the United States has worked quite effectively towards increasing competition against Russian gas in Europe from Central Asia.

I have to touch briefly upon the Iranian question. If you think globally, I mean, one of the obvious potential candidates to sort of check the Russian monopoly power on the gas market is Iran and, on this issue, the United States has been much less helpful than on the Central Asian case, though there are other barriers and it doesn't mean that there are not serious issues for treating Iran differently, but I think this had to be said.

Then, of course, competition against gas does not only mean non-Russian gas. It also means all the technologies to purchase electricity and so continuing and expanding R&D investment into clean coal and renewables and next generation nuclear power are all strategies that can make a difference in terms of reducing Russian market power in Europe and also in Asia.

So just to conclude, just a few thoughts as we have conclusion. I think the threat perception in Europe has been exacerbated by the Ukraine crisis. I believe that the level of threat perception currently in Europe is probably a bit exaggerated as far as the risks are concerned linked to our dependence on Russia.

I think that provided we put in place the policies to deal with these risks, we can live with this gas relationship as it is, even given the deteriorating political context of this commercial relationship. But the perception gap between Russia and the EU that I have outlined at the beginning of this presentation makes it, I think, very unlikely that this trade between Russia and Europe will grow into the future. I think it will, at best, plateau and probably decline.

Thank you very much.

Mr. HASTINGS. That's fairly optimistic, all things considered. I would have a little bit of concern for the geopolitics if I were to take face value what you said, Mr. Noël.

It's easy to say that it's exaggerated, the emphasis that some in Europe and here in the United States are placing on what Russia's actions have been that have been manifested. But with the lack of transparency and added to that what Mr. Smith just got through saying regarding who actually runs the Russian energy policy without identifying Gazprom, with their efforts toward developing monopolies with countries that are totally reliant upon them for their energy.

It's easy for us in room 419, an air-conditioned, well lighted room, to conclude that everything is worth the risk. I do agree with all of the things that you said regarding what must be done in the way of dialogue and then enforcement of treaties, but as I sit here listening to everything today, the one thing that I'm absolutely certain of is that there is instability in this market at this point and there is uncertainty as to which way it's going to go.

And why I part company with you is if you had been in Belarus in January and oil or gas had been cut off, you'd have a different view about it, and the same would hold for Ukraine or Lithuania or Poland or in Georgia, where other levers are used.

And something we haven't talked about, nor do either of you need to for my purposes, but with the ongoing instability in the areas where pipelines run, and I'm not talking about anything less than serious conflicts that are commonly referred to as frozen conflicts, with those things ongoing and the likelihood of interruption of any of these pipelines being something that could take place, there are some serious, serious problems out there that are being discussed.

But I join company with Mr. Smith and believe that it's a distinct possibility that it may be too little too late. So it doesn't mean that all is lost or that we should not do all of the things. I was happy that you brought up Iran, because that's what I wanted to start with Mr. Smith about.

What is the role of Iran in discussions of European energy security? And very little has been said here today other than until Mr. Noël brought it up.

What's your take, Mr. Smith?

Mr. SMITH. You know, Mr. Chairman, I'm kind of schizophrenic on this issue. I agree, to some extent, that we need to keep pressure on Iran because of the nuclear issue. At the same time, I think that Iran can be, as Mr. Noël said, I agree with him, can be part of the answer by providing an alternative exit point for not only Iranian, but Caspian Sea oil and gas, and especially gas, and I would like to see that done.

If there's a way to kind of square that circle, I would be in favor of it. I don't know—I don't know really what I would propose at the moment. I think that we're—in some ways, I'm probably leaning toward working with the Iranians or allowing other countries to work with the Iranians to get gas and oil out, Caspian Sea oil and gas out.

Without Iranian support, there won't be a delimitation of the Caspian Sea and without a delimitation of the Caspian Sea, there probably won't be pipelines underneath the Caspian Sea which are needed to bring gas and oil from the eastern Caspian to the western part.

So I would say probably I come down on the side of allowing European and other companies to use Iran as a transit point, not necessarily as a source, but as a transit point for oil and gas from other countries. That's probably where I'd come out, but I have to confess I'm a little conflicted on the issue of how we deal with Iran.

Mr. HASTINGS. I understand. Let me followup on—not followup, but ask another question.

When the GATT round came into effect, a lot of countries were not involved in being able to be contracting parties with the GATT and that holds true for countries that are non-WTO countries.

How do you use some of the [inaudible] that are in existence? The energy charter treaty, for example, how do you utilize that with non-WTO countries to try to gain greater transparency in this particular area, Mr. Smith?

Mr. SMITH. Well, you don't have to be a WTO member or even a GATT member to sign on to transparency agreements and there are international conventions on transparency in business that anybody can sign onto and which is designed actually to increase a country's attractiveness to foreign investors.

So the two are not incompatible and I think there are countries—and you have countries like Ukraine which are not WTO members, but which have—I hope they will be by the end of the year, but which have signed on to some of these transparency measures, but unfortunately are not enforcing them.

I don't know how you deal with some of the countries. I mean, there are a lot of oil producers and gas producers, especially around the Central Asian area, who lack a lot of transparency.

I think over a period of time, though, working with them, I think it's important for the United States and Europe to work with these countries, not to isolate them, not to treat them as pariahs, and I would include Uzbekistan in that, which is going to be an important gas producer and the Russians believe that they have locked up all the gas supplies for the next 20 years from Uzbekistan.

But I believe that a deal is a deal, if maybe in Central Asia, and I think that if the Europeans and the United States work together in a little more—I think a little more closely in dealing with some of these producer countries, I think there's some hope.

Also, the enforcement of European standards, for instance, on, as I had mentioned before, antitrust, antimonopoly legislation. But I think keeping the pressure on without really beating up on these governments I think is part of a key and I think—for instance, I think Turkmenistan and Kazakhstan would very much like to have a kind of multidirectional energy policy, but right now they feel like they're being held hostage by Russian pipelines.

But they would like to be able to ship to China, to ship to Europe, because the prices are much more favorable for them. So that's where I think that Europe has got a problem, because right now Europe is paying over $300, as somebody mentioned earlier, $300 a 1,000 cubic meters for gas, which Russia purchases really from $70 to $100 a 1,000 cubic meters.

And Mr. Putin keeps claiming that, in fact, we've been subsidizing these countries for a long time by giving them cheap oil and gas. Well, who's been subsidizing whom? I mean, the Central Asians have been subsidizing Russia. It's the Central Asians that are subsidizing Ukraine, because most of Ukraine's gas comes from Turkmenistan.

So I think that more publicity, working with these governments on transparency. I think the EU has, for instance, some very good capacity in some of their programs that they call the twinning program, where they take EU officials, put them in ministries in some of the key energy and other ministries in these governments that are not members of the WTO or Gatt, and it has an effect.

I've seen this have an effect because it's a little harder to be corrupt when you've got somebody from the European Commission looking over your shoulder and I think this is a very good policy and I think the Europeans have an excellent opportunity, I think, to increase transparency in some of these countries.

Mr. HASTINGS. I appreciate it very much, Mr. Smith.

Mr. Noël, I'll give you the last say at the hearing and add the question, do you have optimism that the European Union will be able to forge a common energy policy or is that not necessarily?

I wasn't kidding. When I picked up the newspaper today, I was reading for the first time about ENI and Gazprom and it just kind of struck me how fast things are happening and how much different people are on different pages, and I'm just curious. So you have the last word.

Mr. NOËL. Thank you very much, Mr. Chairman. I'd like to go back for 1 minute to your previous question. You were absolutely right. I do not underestimate the challenge that the new EU member countries or some of these countries are not appearing, not yet, EU member countries, the challenges they face because they have only one supplier and they have this historical relationship which makes it that they have only one supplier, and this supplier is, to say the least, quite difficult to deal with.

There is no easy, rapidly implementable solution to that. The solution can only be a dynamic one and I am thinking of two things. The first one is gradually bringing some diversity into the energy supply of these countries, and it is already happening and I think it will continue to happen.

There are two LNG projects, one of the advanced, in the Baltic Sea. There is one in the Adriatic Sea, one on the north, one on the south, which will bring diversity, more diversity into the gas supply of central and eastern Europe.

Then if Europe, as I hope it will, finally integrates its gas grid, there will be possibilities in times of crisis for west-to-east gas flow for these countries. So that's the first thing.

The other thing which can also be dynamic is Russia—we can also be hopeful that Russia eventually will understand that the way it deals with its immediate neighbors, the transit countries to Europe, affects the way it is perceived in Europe as a reliable or unreliable supplier.

And the Ukraine crisis of January 2006 is a perfect example of that. The way Russia dealt with Ukraine destroyed Russia's credibility and Russia's credibility as a reliable supplier in Europe.

So Russia can learn, first, and, second, gradually, there will be more diversity to these countries. There is no rapid solution to this problem.

Your second question, Mr. Chairman, it's a mixed bag. Yes, there already is a strong agreement between EU member countries in energy, but these countries come from energy situations, not to speak about policies, but energy situations which are very different.

Nuclear energy produces 85 percent of electricity consumed in France, 85 percent. Nuclear energy is an illegal technology in Austria and the Republic of Ireland. This is only one example.

Natural gas, the UK natural gas market is one of the only two truly competitive natural gas markets in the world with the North American market. The French or the Italian or the German gas markets are completely different. They are organized under completely different lines than the UK market, and I could continue.

Norway produces much of its electricity from hydroelectricity, whereas most of the other countries do not.

So we come from—and Norway's not a member country, sorry. But we come from very, very different backgrounds in terms of our energy systems. So you can imagine that when we talk about nuclear energy in an EU meeting, when you have Austria and the Republic of Ireland, on the one hand, and France on the other hand, it's quite difficult to reach an agreement on what our nuclear energy policy should be.

And I could go on and on and on. So it's a very difficult process, but it's a process which has advanced significantly over the past few years and which I believe will continue to advance towards a more coherent integrated energy policy in Europe.

Mr. HASTINGS. Well, one thing I wish that we had more time to deal with, and we will in the future, and that is the world implications. And, you know, you go through an energy hearing and you only hear Venezuela mentioned one time, India and China are mentioned without talking about Malaysia and Indonesia and Pakistan, somewhere along the line, Japan is left out of this equation and all they can do is import, significant.

Then we haven't spoken about some of the others, aside from the Gulf states or Algeria and how they play a significant role. I guess we could go on and on.

I appreciate you all so very much, as well as all of the witnesses. While there may not have been any news made here today, the simple fact of the matter is I think we all now understand and are beginning, as you have for some time, Mr. Smith, to recognize that it is going to require a concerted effort on behalf of the world.

And I thoroughly agree with you, something that you said and it sticks with me, when I'm interfacing not only as the chair of this Commission, but as the previous president of the parliamentary assembly, I took a softer approach in talking with colleagues that some referred to as pariah states and somehow or another, in my heart of hearts, I don't see things that way.

I don't think you can ignore places that do have very bad governance, from my point of view, without taking into consideration a need to deal with them in a realistic way and to see how incrementally you may be able to produce change.

Case in point would be Turkmenistan, great opportunities exist after Niyazov's death and I'm not so sure people moved swiftly enough to try to have some impact, albeit the change may not have been one that would be favored by some.

The fact of the matter is the people have a lot of gas and it would be a good thing of people understood how to talk to them on their terms.

I'm pleased to report that if it follows in July in Ukraine, as I suspect it will next week, Turkmenistan is sending a representative for the first time in a long time to the parliamentary assembly.

And if there is anything that I learn from all of this, as I determine to make energy my highest priority, I know that you cannot deal with this particular problem without dealing with the other components of the Helsinki process and that is the human rights aspect of it or governance aspects or rule of law aspects are equally important, and not to suggest by any stretch of the imagination that there is anything less than political dynamics that are at work here all the time.

And I join your wife—sometimes this country needs to be criticized, as well, Mr. Smith.

Thank you.

Mr. SMITH. I'll tell her that.

Mr. HASTINGS. Thank you all. Hearing adjourned.

[Whereupon, at 4:59 p.m., the hearing was adjourned.]

APPENDICES

PREPARED STATEMENT OF HON. BENJAMIN L. CARDIN, CO-CHAIRMAN, COMMISSION ON SECURITY AND COOPERATION IN EUROPE

Thank you, Mr. Chairman. I am pleased that the Commission is focusing on energy security—a topic that binds all of the participating States of the Organization for Security and Cooperation in Europe (OSCE). We are truly all part of a global energy system that requires us to work together to achieve our common energy goals.

It has become clear that real energy security requires not only reliable sources of oil and gas, but a decrease in dependency on hydrocarbons. Recently I introduced legislation that would create a framework for the United States to become energy independent in a decade, and put us on the path to become fossil fuel independent. For too long America has been held hostage by its reliance on foreign energy. Energy independence is critical for our national security and for our environment, and this bill provides a much-needed framework for developing a comprehensive energy policy for our nation.

The Energy Independence Act would create a bipartisan Blue Ribbon Commission to study and review policy changes that are needed for the United States to achieve energy independence. Starting in 2009, the Commission would meet every two years and report to Congress on how to adjust our policies to achieve energy independence by 2017. Energy independence is defined as getting 90 percent of our energy needs from domestic sources.

Petroleum accounts for 84 percent of our nation's imported energy. Transportation accounts for approximately 28 percent of all energy used in the United States, so sourcing our energy domestically will require major changes in how we use our energy resources. I support raising CAFE standards, which could save more than 36 billion gallons of gas a year. There are other significant steps we can take such as creating standards for replacement tires, increased energy efficiency standards for buildings, and an increased availability of renewable energy products.

A comprehensive energy policy must include conservation, greater availability of renewable energy sources and investment in our transportation infrastructure, including more funding for rail systems, buses, subways and light rail.

Equally important, we need to become energy independent to protect our environment. Global climate change is a real danger to this country and we need an energy policy that will also make us friendlier towards the environment. We need greater investment in renewable sources of energy. Wind, solar, and biofuels all hold great promise for our future. But we need to make a firm commitment to investing in these technologies, to increase efficiency and reduce costs to the consumer.

Energy security is not just about the high price of oil—this is also about helping to create a more stable and secure world. Our quest for hydrocarbons has led us to partner with countries that are either unstable or have horrendous human rights records. Real energy security means we can rely less on energy sources that come from unstable and unsavory countries. By removing the stranglehold they hold on our economy, we can more effectively address the economic and civil society developments in these countries. I know this aspect will be part of our second hearing in this series and I look forward to that discussion.

PREPARED STATEMENT OF HON. SAM BROWNBACK, RANKING MEMBER, COMMISSION ON SECURITY AND COOPERATION IN EUROPE

Mr. Chairman, thank you for convening this hearing. Energy security for the United States is certainly closely tied with that of Europe and Eurasia and I believe this hearing will help us better understand the implications of recent energy disputes in Europe.

Ensuring a steady supply of energy for the U.S. and its allies is a key national security priority. Our transportation sector is dependent on oil for 97 percent of its fuel. The United States uses 25 percent of the world's oil, yet only has 5 percent of proven oil reserves. And as fate would have it, much of the world's supply of these hydrocarbons is located in regions where countries are hostile to us or are unstable—or both. It is imperative that the United States decrease its dependence on foreign oil so that our economy is not held hostage to events happening half a world away. Given the demands of our economy, that will require the United States to not only increase our own domestic production of oil and natural gas, but also to increase our energy efficiency and find alternative fuels.

Diversification of the sources of energy and the delivery mechanisms are the key to overall energy security. This is true not only for the United States but for our European and Eurasian partners as well. U.S. policy should continue to foster more sources of supply and more pipelines. I believe it is unsound policy for the West to allow Russia to control the sources and transit routes for Caspian and Central Asian hydrocarbons. That would be so even if our relations with Russia were better than they are today or are likely to be in the foreseeable future—it is just common sense not to count on one supplier for such a valuable commodity.

Russia has enjoyed some successes in the past few months, locking up major energy deals with Kazakhstan and Turkmenistan. Still, we cannot afford to throw up our hands in resignation. The Baku-Tbilisi-Ceyhan (BTC) pipeline was a great success for Washington, reflecting a bi-partisan approach over two administrations to an energy and geopolitical problem. Opening up Azerbaijan's reserves to the West set a precedent for promoting multiple pipelines that helps ensure supply while supporting the independence of Azerbaijan.

I have strongly supported the BTC pipeline. In legislation I have offered—the Silk Road Act I and II—I have urged that we enlarge the scope of our energy projects to the length and breadth of Central Asia and Afghanistan.

The question now is whether we can build on our success in other Caspian and Central Asian projects. The BTC was possible because Washington put its shoulder to the wheel and pushed hard for years until a dream became reality. I hope to hear from our witnesses how the U.S. Government proposes to continue this effort.

PREPARED STATEMENT OF GREG MANUEL, SPECIAL ADVISER TO THE SECRETARY AND INTERNATIONAL ENERGY COORDINATOR, DEPARTMENT OF STATE

Chairman Hastings, and Cochairman Cardin, Ranking Members Smith and Brownback, and members of the Commission, thank you for this opportunity to discuss U.S. policy on energy security in Europe and Eurasia. Our energy interests in these regions—encompassing Europe, Russia, the South Caucuses, and Central Asia—are far reaching. Anchored by our five prong global energy strategy to (1) diversify the supply of conventional fuels and expand production (2) diversify our energy portfolio by expanding the use of alternative and renewable energy, (3) promote increased energy efficiency and conservation measures, (4) advance environmental stewardship, and (5) protect critical infrastructure and promote market stability, we have adopted a comprehensive strategy tailored to Europe and Eurasia with the following objectives:

- The United States and our Euroatlantic allies maintain reliable access to diversified supplies of energy, including oil, natural gas, renewable and alternative fuels, and nuclear power;
- Hydrocarbon producers in Azerbaijan and Central Asia realize the benefit from multiple export routes to European and global markets;
- European energy markets (especially for natural gas) function efficiently;
- Decrease potential for energy to be used as a political or commercial weapon;
- Eurasian energy producers manage hydrocarbon wealth wisely to avoid corruption and economic instability; and
- The Euroatlantic community develops commercially viable technologies to reduce carbon emissions without slowing economic growth.

These objectives are inter-related. By increasing diversity of sources of supply and transit routes, we can bolster market efficiency through competition and reduce vulnerability to energy supply disruptions. Relying on market-based policies to manage energy revenue streams transparently can limit the corruption and economic distortions that undermine economic growth and stability. By increasing diversity of types of energy, we also reduce the danger of politically or commercially motivated energy cutoffs, directed at either producers or consumers, while reducing our dependence on hydrocarbons, which in turn reduces carbon emissions and pollution, benefiting the environment.

To advance our international energy strategy, we are pursuing a broad range of mechanisms, including enhanced trade and transparency, intensified technology development, new regional energy partnerships, bolstered energy dialogues, and novel public-private sector partnerships.

DIVERSIFICATION OF ENERGY SUPPLIERS AND ROUTES

America's aim is to advance reliable, long-term flows of oil and natural gas from the Caspian region. Reliability requires sustained investment and diversified sources and supply routes—a point emphasized and endorsed by G8 leaders during their summit in Russia last July, when they committed to the St. Petersburg Global Energy Security Principles, which also include commitments to open transparent, efficient, and competitive energy markets.

The EU is heavily reliant on fossil fuels and likely will be for decades. Oil accounts for 40 percent of the EU's energy demand; gas, 24 percent; coal, 17 percent; nuclear, 13 percent; and hydroelectric and renewables, six percent. According to the International Energy Agency, Russia provides 60 percent of EU gas imports and 25 percent of oil imports. In March, the European Union adopted a broad package of targets and incentives that is meant to reduce EU dependence on fossil fuels. The IEA nevertheless projects that by 2030, barring major policy shifts, the EU will import 70 percent of the energy it consumes.

Russia remains the largest single supplier of oil and gas for many EU member states. Dependence on Russian crude oil in 2006 is as follows: 12 percent of France's oil comes from Russia; Germany obtains 34 percent from Russia; and Poland, Slovakia and Hungary each obtain almost 100 percent. But oil is a fungible commodity that can find its way to global markets through a multiplicity of pipelines and tanker routes from any point on the globe.

Natural gas is a different story. Until liquid natural gas is a globally traded commodity like oil, the market for natural gas will remain based on long-term contracts. The EU is dependent on Russian parastatal company Gazprom for 60 percent of its natural gas imports and 40 percent of all the natural gas it consumes. Europe secures the balance of its natural gas from the North Sea and the Norwegian Continental Shelf, North Africa, imports of liquefied natural gas, and limited production on mainland Europe. In 2005, Gazprom accounted for 32 percent of pipeline gas imports in France; 40 percent in Germany; 68 percent in Hungary; 63 percent in Poland; and 100 percent in Slovakia, Bulgaria, and the Baltic states. EU dependence on Gazprom will likely grow in coming years, as North Sea gas supplies deplete, and Gazprom seeks to lock in exclusive supply contracts lasting two to three decades, and Gazprom control of delivery infrastructure and distribution assets in the downstream increases.

Map 1 depicts the enormous network of pipelines on which Gazprom relies to transport gas from Western Siberia and Central Asia to Europe.

In the eyes of many European consumers, Russia's reputation for reliability of gas supply was damaged by its January 2006 cutoff of gas supplies to Ukraine, and mysterious explosions on a Russian pipeline that cut all gas flows to Georgia and Armenia during the peak of the winter of 2006's harshest weather. A similar oil cutoff to Belarus, and threats of new stops in service to Azerbaijan and Georgia in winter 2007, further propelled European consumers to seek diversity of supply sources.

Because of Russia's nationalistic interventions in its energy sector, investment in Russia's upstream production and infrastructure has lagged and this can lead to significant challenges to meeting supply obligations. Existing Russian gas production in Western Siberia is being depleted, and has not been replaced or expanded by investment in new production or reinvestment for expansion; in effect, several of the country's most important large gas fields are experiencing production declines, and the substantial volumes of gas production have been voluntarily shut in by Gazprom. Significant lead time and foreign technical expertise would be needed to begin to develop many of these shut in resources. During the course of the next five to ten years, Russia will need to develop new supplies of gas to continue meeting its 25- and 30-year contracts in Europe. This will require huge levels of investment in highly remote areas like the Arctic, Eastern Siberia and Russia's Far East. Gazprom is eyeing the Caspian Basin, especially Central Asia, as the cheapest and most readily available supply of natural gas to allow Gazprom to fulfill its supply contracts in Europe. Gazprom seeks to continue buying Central Asian gas at low rates which it can sell at high prices by virtue of its position as the monopolist owner of the largest pipeline network serving Europe, and the only one linking central Asia and Europe.

Gazprom, as the dominant supplier to the European market, currently purchases gas in Central Asia for $100 per 1,000 cubic meters, then sells gas for $265 or $285 in Europe. Preliminary price estimates for Azerbaijani gas shipped to Europe via the SCP and the Turkey-Greece-Italy pipeline indicate an independent route could potentially yield better prices for both European consumers and Caspian producers through transparent market mechanisms, and will increase competition for those markets.

The enormous rents generated by the current differential in gas price between Central Asia and Europe are generally distributed non-transparently, contributing to corruption and undermining energy sector and broader economic reform along the entire supply chain. These revenue streams and control of a considerable portion of the world's gas reserves enable Gazprom, a monopoly by Russian law, to constrain competition in both upstream and downstream markets by acquiring strategic energy infrastructure in Europe and the Caspian, by concluding exclusive long term purchase and delivery contracts under non-transparent terms, and by acquiring equity positions in European energy companies. It is therefore critical to find common cause with our Europeans allies and Central Asian producers to counter monopoly pressure by increasing the number of suppliers and supply routes for world gas markets.

Map 1 shows the first option to increase competition for gas markets through multiple gas pipelines. The yellow line on the map that links Baku, Azerbaijan with Erzurum, Turkey depicts the South Caucasus Gas Pipeline (SCGP), one of the most complex gas pipelines ever developed, and which parallels much of the Baku-Tbilisi-Ceyhan (BTC) oil pipeline. SCGP and BTC received strong support from the United States for over a decade, as we helped the Governments of Azerbaijan, Georgia, and Turkey work together and with private investors to realize these infrastructure projects that changed Europe's strategic map. As SCGP comes fully onstream in coming weeks, it will link Azerbaijan's giant Shah Deniz gas field in the Caspian Sea with Turkey's gas grid. Development of the Shah Deniz field has the potential to make Azerbaijan self-sufficient in natural gas, and will provide Georgia and Turkey with an invaluable alternative supplier.

Map 2 depicts the vision of what we hope to achieve in 2020—a ring of natural gas infrastructure extending from the Caspian

Sea around the Black Sea into Europe. Working with companies and countries, we seek to expand the SCGP into a larger "Southern Corridor" comprising two emerging projects: the Turkey-Greece-Italy (TGI) and Nabucco pipelines. The Southern Corridor will complement Gazprom's existing pipeline infrastructure, as well as new supplies of liquid natural gas from Norway and perhaps Russia and other countries.

The first phase of TGI will be operational later this summer, when the Turkish and Greek gas grids are connected. Shortly thereafter, we expect a modest volume of Azerbaijani gas to reach Greece. Over the subsequent three to five years, a trans-Adriatic link will connect the gas grids of Greece and Italy, providing a reliable flow of diversified gas supply from Azerbaijan.

The Nabucco pipeline, conceived by the European Commission in conjunction with the Governments of Turkey, Bulgaria, Romania, Hungary, and Austria, is in an earlier phase of development. Nabucco promises to deliver large volumes of natural gas from the Caspian Basin and the Middle East into Southern and Central Europe. The U.S. supports Nabucco exclusively as a way to transport Azerbaijani—but not Iranian—gas to Europe. We believe Azerbaijan's gas reserves and potential production are sufficient to fill both TGI and the first phase of Nabucco. We are working to facilitate close cooperation among all Nabucco countries, the Government of Azerbaijan, and investors in both the pipeline and Azerbaijani gas production, which is crucial to ensure sufficient Azerbaijani gas is available to meet the investors' schedule for Nabucco's realization.

This graph,

drawn from data provided by international energy companies operating in Azerbaijan, projects that Azerbaijani gas production could expand to nearly 50 billion cubic meters (BCM) per year by 2016. The graph provides an un-risked, upside estimate of how quickly gas production can expand in Azerbaijan if investors and governments synchronize at the same, high level of efficiency that characterized our efforts on BTC and SCGP. It is an optimistic, but practicable, estimate. If investors and governments reach these targets, their effort could provide 20 to 30 BCM for export to Europe, covering the 11.5 BCM required for TGI and the 8.5 to 10 BCM required for Nabucco's first phase. Reaching these production targets will be a challenge, requiring synchronization of upstream production with midstream investments in pipelines. The United States is committed to offering whatever diplomatic assistance the relevant governments and companies may seek as they strive to forge the same successful public-private partnership that realized BTC and the SCGP.

While Azerbaijani gas reserves are sufficient to launch Nabucco, later phases of the pipeline project will require additional gas supplies from Turkmenistan, Kazakhstan, and/or Iraq.

Kazakhstan is a growing energy giant. Its oil and gas production will increase rapidly over the next five years. That production will require new outlets to world markets. We are proud of the leading role US companies have played in helping to build Kazakhstan's energy sector and the country's broader economy. As a rising non-OPEC oil producer, Kazakhstan is especially important. As new fields come on line, Kazakhstan exports will add to world supplies. Export outlets are a problem, however. The stalled expansion of the existing Caspian Pipeline Consortium (CPC) pipeline through Russia will certainly necessitate development of new routes to market. Kazakhstan's large natural gas reserves and rising production will likewise induce the development of new means to bring energy supplies to markets.

Turkmenistan presents new challenges and opportunities. The closed nature of the previous regime discouraged new investment and prevented the flow of much-needed advanced technology to the Turkmen energy sector. In the absence of such investment over the past decade, Turkmenistan had scant opportunity to increase its production; indeed, its ability to ship gas to Russia has fallen below the volume for which it has contracted. The declaration issued in Ashgabat in mid-May by the Presidents of Russia, Kazakhstan, and Turkmenistan calls for investment in Turkmenistan's gas infrastructure. We support Turkmenistan in observing existing gas sales contracts. At the same time, Turkmenistan will benefit from additional options to export its gas and we will work with the government of Turkmenistan to facilitate its access to world markets.

Additionally, the U.S., Turkey, and Iraq are exploring potential gas production in northern Iraq, which could be exported to Turkey and onward into Nabucco. We are only in the early stages of this effort, as we work together to attract investment and ensure that Iraq has sufficient natural gas available to meet its domestic demand even as it seeks to tap European gas markets. EUR Deputy Assistant Secretary Matt Bryza and Turkish Energy Minister Hilmi Guler co-chaired the first trilateral meeting on Iraq gas production/exports in March. They plan to follow up with a subsequent meeting in Istanbul on June 30.

Our cooperation with the EU to realize the Southern Corridor of natural gas infrastructure is accelerating. During the recent U.S.-EU Summit, the United States and the European Commission pledged to seek diversification of energy types, sources, and supply routes, with a particular focus on the Caspian region. We are also working to help our European allies unify their energy policies to elicit more equitable and market-based energy deals with Russia and resist divide-and-conquer tactics. We continue to oppose oil and gas pipelines that run to, from or through Iran. By standing together, EU member states can transform into negotiating reality the theory that Russia is as dependent on revenue streams from Europe as Europe is dependent on Russian natural gas flows. The centerpiece of this effort is the Athens Process, which seeks to harmonize gas and electricity markets through the Southeast Europe Cooperation Process.

We are also working with our European partners to diversify sources of gas supply in Northern Europe. As Russia and Germany strive to develop the massive Nordstream pipeline to transport Russian and Central Asian natural gas under the Baltic Sea to Germany, Nordic and Baltic countries are striving to increase regional competition. Norway is entering a new phase of large-scale natural gas production; it already serves as a key alternative supplier of natural gas to northern Europe. Oslo, Copenhagen, and Warsaw may be moving closer to agreement on a project to link

Norway's gas fields with Denmark's gas pipelines under the Baltic Sea, with an extension to Poland. We are supporting this initiative, as well as efforts by Poland, Estonia, Latvia, and Lithuania to develop commercially viable ventures involving regional liquid natural gas terminals, natural gas storage, and thermal power generation that could reduce their dependence on Russia gas as the Nordstream pipeline develops.

DIVERSIFYING ENERGY RESOURCES AND MANAGING ENERGY DEMAND

Over the last two years the U.S. and the EU have greatly intensified cooperation aimed at accelerating the development and deployment of alternative energy and efficiency technology and legislation. Beginning with the 2006 U.S.-EU Summit declaration, the U.S. and EU—for the first time—outlined a systematized approach to cooperation on biofuels, energy efficiency and efforts to diversify European hydrocarbons supplies.

In the 2007 U.S.-EU Summit declaration, we went further, laying out our individual complementary goals and a detailed joint action plan to:

- work on carbon capture and storage technologies, to unlock the enormous potential of clean coal;
- further our work on energy efficiency bilaterally and in multilateral fora;
- develop a groundbreaking set of compatible specifications for pure bioethanol and biodiesel by the end of 2007, to facilitate international trade in and development of these fuels;
- cooperate to hold an international renewable energy conference at the Ministerial level in Washington in March 2008, with the goal of advancing and commercializing renewable energy systems; and
- develop a joint workplan within the framework of the Methane-to-Markets international partnership to identify specific activities and goals to advance recovery of methane, a powerful greenhouse gas.

We launched last fall U.S.-EU working groups on biofuels and energy efficiency, working subsequently to implement the groups' detailed joint work plans. On biofuels, we are taking steps to cooperate in research and development of cellulosic or "second generation" bioethanol, and looking at biodiesel as well. We are also sharing results and ideas on regulatory and policy tools to promote biofuels development, exchanging analyses of potential economic and environmental impacts of biofuels, and comparing respective resource assessments of potential biofuels source biomass. These initiatives involve the Department of Energy, the EPA and the Department of State.

On efficiency, we have renewed the U.S.-EU ENERGY STAR agreement covering office equipment, and are exploring extension of this agreement to other products such as consumer electronics. We are examining coordination on development of international lighting efficiency standards (such as for compact fluorescent lighting), and joint efforts to address efficiency of TVs, digital television adapters and computer servers. We are also seeking to cooperate on energy efficient buildings and housing in three areas: 1) assessment of buildings technologies—sharing lessons learned, especially in retrofits of existing buildings; 2) cooperation on energy efficient model codes and standards; and 3) sharing information on building energy performance criteria and requirements.

We are also cooperating to promote efficiency in key third countries, most specifically by securing EU cooperation in the development of a trilateral U.S.-EU-Ukraine energy efficiency action plan. Enhancing efficiency of electricity and gas markets in Ukraine will have an immediate benefit of providing more potential Ukrainian energy exports for the EU.

We have more recently held joint workshops on carbon capture and storage, and are preparing a report on possible areas of transatlantic cooperation on environmental, economic and regulatory coordination in the development of this promising technology. We are looking for possible policy incentives to promote commercialization of carbon capture and storage as quickly as possible. We also share the goal of committing to a common approach to monitoring CO2 stored in underground geological formations or elsewhere.

In addition, we have dramatically increased our direct engagement with the private sector, to draw upon firms' dynamism, creativity and adaptability in meeting these technology challenges. The State Department and Germany's Foreign Ministry in March convened the U.S.-EU Energy Technology CEO Forum, which drew together 20 senior transatlantic private sector leaders to generate key recommendations on speeding transatlantic cooperation in the development and deployment of advanced clean energy technologies. Their report, covering biofuels, energy production, energy efficiency, and energy research in key technologies (second generation biofuels, energy storage, and carbon capture and sequestration) provides a set of 7 distinct initiatives that are being pursued by the U.S., EU, and German governments.

On March 9, the EU's 27 heads of state adopted a set of 17 broad energy and climate mandates on energy efficiency, greenhouse gas emissions, and initiatives to speed clean energy technology development, increase energy sector competition, integrate the EU-wide internal energy market and develop a coherent external EU energy policy.

The U.S. does not favor the EU's approach of mandatory greenhouse gas targets, and we see the EU targets as highly unlikely to be met within 13 years, given that the EU–15 are lagging in their numerical goals now. The EU has not estimated costs of such reductions, and leaders made no mention of potential costs. Independent studies have estimated that it may cost the EU upwards of $1 trillion to meet its 2020 goals.

SPECIFIC ELEMENTS OF THE MARCH 9 PACKAGE INCLUDE:

- binding targets to cut EU greenhouse gas emissions 20 percent, increase renewables use to 20 percent and raise biofuels use to 10 percent of fuels by 2020;
- a 20 percent increase in EU energy efficiency by 2020;
- a target of 30 percent greenhouse gas cuts by 2020 if other OECD countries agree;
- a call for negotiations on a global climate change agreement after Kyoto lapses in 2012; and

• measures to increase energy sector competition, integrate energy markets and develop a coherent external energy policy by 2009.

The EU sought to address a number of interrelated goals with this package, including the need to use efficiency to reduce demand for imported hydrocarbons and reduce internal power generation needs, the necessity of increasing the smooth functioning and effectiveness of the EU's internal energy markets, the intention to reduce EU greenhouse gas emissions, and the imperative of developing a coherent external energy policy, allowing the EU to "speak with one voice" in negotiating with Russia and other external suppliers. According to the European Commission, the "Energy Policy for Europe" is intended "to combat climate change and boost the European Union's energy security and competitiveness."

Greenhouse Gas Reductions: In the package the EU laid out an objective of limiting the global average temperature increase to 2 degrees Celsius above pre-industrial levels. Toward this end EU leaders committed to at least 20 percent reduction of greenhouse gas emissions by 2020 compared to 1990. They set an EU goal of 30 percent reduction in greenhouse gas emissions by 2020 if OECD countries commit to comparable reductions, and called for advanced developing countries (such as China and India) to "contribute adequately" according to their capabilities. The EU has also called for developed countries as a whole to reduce collective emissions by 50 percent by 2050 compared to 1990.

The U.S. does not favor the EU's approach of mandatory greenhouse gas targets, and we see the EU targets as highly unlikely to be met within 13 years, given EU-15 lagging on Kyoto goals. The EU has not estimated costs of such reductions, and leaders made no mention of potential costs. Independent studies have estimated that it may cost the EU upwards of $1 trillion to meet its 2020 goals.

Energy Efficiency: The EU leaders endorsed an earlier EU target of saving 20 percent of EU energy consumption compared to current projections for 2020. This is an EU-wide objective rather than a binding target for each country. There are no sectoral (e.g. buildings, transport, power generation) targets or objectives mentioned in the Council decisions. We believe the EU's goals will increase the EU's motivation to work with the U.S. on efficiency measures such as ENERGY STAR, and green/efficient buildings.

Energy Sector Competition, Internal Market Integration and External Energy Policy: EU leaders did not support a European Commission proposal for complete "unbundling," or forcible break-ups, of energy generation and distribution companies, but called for "greater separation" based on independently run network operators (a Commission compromise offer, based on the successful "Scottish model.") Germany and France had fiercely resisted the potential break-up of national energy champions such as E.On/Ruhrgas and Gaz de France; the compromise deal should allow ownership of such firms to avoid EU legal challenges.

The EU leaders also agreed to the following:

• steps to complete physical integration of the EU's internal energy market by January 2009, including building more electrical interconnectors between countries;

• appointment of coordinators to facilitate completion of key projects, including a Germany-Poland-Lithuania power link, offshore wind project links, a France-Spain power link, and the Nabucco gas pipeline in SE Europe; and

• a plan to develop a common EU external energy policy by 2009 using multilateral, bilateral and regional instruments.

Completion of the EU internal energy market, by linking EU electricity and gas networks, will improve EU member state ability to respond to supply shocks, such as the Ukraine gas cutoff in 2006, and the interruption of oil supplies via Belarus and Lithuania in 2006 and 2007. This will substantially enhance security of energy supply in Europe.

Renewable Energy: The EU endorsed a binding target of 20 percent share of renewable energy in overall EU energy consumption by 2020. Differentiated national targets are to be developed by the European Commission and Member States together and take into account differing economic starting points, economic potential and current energy mix. Each Member State will set its own national renewables target for different sectors (e.g. electricity, heating, transport, excepting biofuels).

The renewables deal sets an EU-wide average target, a compromise to appease France and coal-dependent Poland, Czech Republic, and Slovakia, who are worried about meeting individual country targets. EU leaders acknowledged that setting individual country targets will involve difficult and lengthy negotiations, and did not specify the legal mechanism for enforcement. France failed in its effort to have nuclear energy recognized as a renewable energy equivalent based on low carbon emissions. Germany and other countries, including the Nordics, are expected to exceed the 20 percent average goal, allowing for newer EU members to set lower individual goals.

Biofuels: Finally, the EU endorsed a “binding target” of a 10 percent minimum biofuels share in overall EU transport petrol and diesel consumption by 2020. This target is specifically mandated for each Member State to meet, subject to biofuels production being “sustainable” and second-generation biofuels becoming commercially available. This will require the EU amending its Fuel Quality Directive. This target further enhances EU willingness to work with the U.S. toward compatible international biofuels standards.

In sum, the EU package contains a number of targets that will be difficult to meet physically and/or could be foiled by internal disagreements within the EU. Nevertheless, the EU package provides room for the U.S. to work with Europe on development and commercial deployment of biofuels, renewables, clean coal and other energy technologies, as agreed during the April 30 U.S.-EU Summit.

CONCLUSION

There is no “silver bullet” or quick fix to increase energy security. The EU and U.S. both recognize the vital importance of diversification of supplies of hydrocarbons, upon which both the US and Europe will depend for many decades. It will take a multifaceted, long term effort between the U.S., the EU, and with producer and consumer countries to increase supply diversification, develop alternative energy sources, and encourage Russia to bring more of its oil and gas resources to world markets within a free and competitive market framework.

To meet the long-term energy and climate challenges that Europe and the U.S. both face, we are working with Europe to help reduce energy demand and diversify energy sources. We are dramatically accelerating and deepening cooperation with the EU to develop and deploy advanced clean energy technologies—such as biofuels, renewables, clean coal, and nuclear power—that will be critical to meeting our joint energy security needs in the future. We are collectively joining forces with our private sectors and forging new partnerships to take advantage of our comparative advantages.

Our collective energy challenges have undoubtedly invigorated and focused many of our key European and Eurasian relationships. Energy has grown to be a critical center of gravity, exposing our joint interests and vulnerabilities in the region. While our intensified efforts have already begun to yield promising results, we continue to look for opportunities to bolster our work in the region.

We are honored to be here before you today. Thank you again Mr. Chairman and members of the Committee for giving us this opportunity to be here this afternoon.

PREPARED STATEMENT OF AL HEGBURG, DEPUTY ASSISTANT SECRETARY OF ENERGY FOR INTERNATIONAL ENERGY POLICY

Chairman Hastings and members of the commission, thank you for the opportunity to appear today. It is an honor to speak to the Commission on Security and Cooperation in Europe about energy security and oil and gas infrastructure opportunities and challenges in the OSCE region.

Your hearing is particularly timely for several reasons.

First, the world economy currently relies on a global hydrocarbon-based energy economy which is experiencing high prices, high energy demand growth forecasts, limited space capacity, the need to reduce hydrocarbon emissions, and greater direct political manipulation of oil and gas resources worldwide.

Second, for the first time since the 1970s, there is a greater perception that this globally integrated energy economy is increasingly vulnerable to significant oil supply disruptions from either natural disasters or terrorist attacks on the energy supply system.

These developments and perceptions have prompted salutary responses: They include:

- a renewed investment in increasing energy efficiency;
- a commitment to deploying greater public and private resources to promote technological development and market penetration of clean and alternatively fueled vehicles and systems;
- a proliferation of bilateral and multilateral international cooperative strategies and programs among consumers and some producers to address these developments; and,
- a continued commitment to international economic cooperation within existing global institutions to ensure the widest possible scope of energy and investment collaboration among the international community. To sustain the existing energy market until the important innovations noted above are effectively deployed requires continued investment in existing energy markets to improve the chances for a smoother transition.

THE OIL MARKET TO 2012

High oil prices have had an impact on investment although the consequences may not be evident until after 2012. Upstream investment has risen. However, investment devoted to exploration has remained relatively flat due to a shift towards production as companies move to capitalize on higher prices. In addition, international equity investor's access to new opportunities is limited.

Between now and 2012, world oil demand could reach 100 mb/d which is equivalent to an increase of about 15 percent. This increased demand will be met by increased output from production in the Caspian region, West Africa, several OPEC countries, Latin America, and Canada.

Caspian producers are essential to meeting the world's increasing energy demand. The Caspian countries have shown remarkable success over the past decade in developing their resources and supplying international markets. Kazakhstan and Azerbaijan successfully developed their oil industry over the past decade by inviting private company investment. This investment was instrumental in developing both the resources and the local and regional transportation infrastructure needed to bring oil to markets.

Major producing fields either in production or advanced development include the ACG field in Azerbaijan, and the Tengiz and Kashagan field in Kazakhstan. The market expects additional development opportunities. However, the producing companies and the Caspian states will need to develop additional export capacity for the additional supply volumes.

Other producers will also contribute to the supply increase in this period. In numeric terms, OPEC members are forecast to add over 7mmb/d of production in the period to 2012, while non-OPEC countries are forecast to add over 4mmb/d.

Among OPEC members, large increments of increased production are forecast from Nigeria, Iraq, Algeria, Qatar, Kuwait, the UAE, and of course Saudi Arabia, the latter of which has embarked on a huge domestic and international investment program across the entire value chain.

Among the non-OPEC countries, the largest production increase is expected from Brazil, followed by Canada, Russia, and the Caspian countries.

There are several important messages in this short-term outlook. First with very few exceptions, most of these countries permit private equity investment in their oil and gas sectors. The exceptions are Kuwait, Saudi Arabia, and increasingly Russia, although Saudi Arabia has encouraged private equity investment in its natural gas sector.

Second, three of the largest increases come from the non-OPEC countries of Russia, Brazil, and Canada. While some of the OPEC members, Qatar and Algeria, experience substantial oil production gains related to increased natural gas production, Nigeria benefits from deepwater discoveries.

Third, it is important to note that these are point estimates for both supply and demand which will react to a variety of market and non-market-related developments such as changes in the broader world economy, greater efficiency gains, and other unexpected technological innovations.

Furthermore, the supply forecasts are also subject to substantial uncertainty including the pace of increase in Iraqi, Libyan, and Russian production.

Finally, some important producers will no longer make major contributions to increased world oil production. Two that stand out are Venezuela and Norway, the former due to its nationalization decision and the latter to natural decline and other factors.

Even a large exploration success would be unlikely to materially affect these production estimates in the short term.

THE MARKET FROM 2012–2017

The period to 2017 contains greater uncertainty. On the upside, private investors normally pursue additional investment in their heritage assets in an effort to stem natural decline, find and economically develop smaller satellite fields, or deploy new recovery technologies in existing and well-understood reservoirs. These practices have proven very successful for investors over the last few decades in part due to major advances in oil production and recovery technologies and could very well do so again.

At the same time, the need for additional supply to meet increased demand, at slightly over 5mmb/d, is significantly below the 12mmb/d increment needed in 2012. This suggests that producers and investors will hesitate to make large capital commitments until later in this decade.

However, one caveat that is central to this calculation is that six of the producers noted above may experience actual production declines and three are expected only to maintain production. That requires the nine remaining producers to provide an increase share of the increment required. Among those who are forecast to further increase production are Saudi Arabia, Russia, Canada, Iran, Iraq, Kazakhstan, and Brazil.

Some offshore producers, Angola for example, are expected to experience peak production primarily due to the nature of the producing reservoirs.

There are also non-production uncertainties already manifest in the market.

The risk profile of certain countries is increasing due to their pursuit of resource nationalism and other non-market practices such as non-competitive contracts. In addition, continued cost inflation can prove a barrier to investment.

While high prices encourage the development of alternative energy, they also embolden some producers to exploit the opportunity to unilaterally change investment terms to increase the government revenue take. For example, in several countries, and in spite of stabilization clauses in contracts signed between the host country and the private investors, governments have acted unilaterally.

In the Russian market in particular, current investors have recently faced unilateral renegotiation of terms, which have increased the risk exposure of investors and limited their returns. Through such practices as dividends, companies are limiting their exposure to these disruptions and repatriating earnings rather than retaining them for continued reinvestment in their existing assets.

Concerns over energy security are really in large part concerns over whether the necessary investments are being made for future production. There are several ways to do this. For example we need to make the market more liquid with more diverse sources of supply, so that it cannot be manipulated for political purposes. We need to encourage sovereign governments to withdraw from production and pricing decisions and encourage them to promote multiple sales options for producers.

While governments have the right to manage and control production, constraining, if not effectively removing, the private investor's discretion and production share removes both funds and incentives for the investor to continue to reinvest in the asset. Over time, absent a new investor or even if a government decides to invest its own money, production levels are likely to decline faster than otherwise would have been the case or not increase as forecast.

These consequences are not in the interest of any of the parties. Higher than expected government revenue is often diverted to increase domestic spending rather than longer-term investment. These governments often use the additional money to subsidize domestic prices, contributing to the onset of the notorious "Dutch Disease," reducing international competitive pressure on domestic prices, creating inflation, and raising currency valuations. Such consequences eventually lead to a correction that can be particularly painful to the domestic economy, the citizens, and, in some cases, political order.

The argument in favor of greater market-driven oil policies based on competition is based on support for privatization as opposed to nationalization. It is not a political issue but an international economic one which is essential to long-term sustainable development of hydrocarbon resources as well as whatever new fuels enter the market. Such an approach contributes to broader social and economic benefits. If adopted, it means the energy market would be transparent, financially disciplined, ownership driven, non-discriminatory, efficient, environmentally sound, globally integrated, and innovative.

International organizations can encourage and deepen initiatives such as the Extractive Industries Transparency Initiative (EITI) and the Joint Oil Data Initiative (JODI) that seek to make energy information more transparent, provide important data about resource production and supply, and contribute to a more efficient and competitive international energy market.

Mr. Chairman, members of the commission, I'm grateful for the opportunity to speak before you today, and I look forward to your questions.

PREPARED STATEMENT OF H.E. YASHAR ALIYEV, AMBASSADOR OF THE REPUBLIC OF AZERBAIJAN TO THE UNITED STATES

Distinguished Mr. Chairman,

Distinguished Members of the Commission,

Azerbaijan is one of the oldest oil producing countries in the world. Oil extraction in Azerbaijan dates back to between the 7–6 centuries B.C. In 1848 the world's first on-shore oil-well was industrially drilled in Baku. It happened 11 years before Pennsylvania's oil boom. Remarkably, a century later in 1949, the world's first off-shore oil-well was also drilled in Azerbaijan.

After regaining its independence, Azerbaijan was facing numerous problems emanating from the disruption of traditional economic ties within the once single economy of USSR. While struggling to overcome the difficulties, Azerbaijan has steadily pursued an independent energy policy. Under the leadership of the late President Heydar Aliyev the Government developed the national energy strategy, which envisioned the diversification of export routes for Caspian oil through the construction of new pipelines.

In implementing its energy strategy, Azerbaijan has always received strong political support from the United States. Without US assistance it would have been impossible to complete within a relatively short period of time several pipeline mega-projects in the region.

Today, as the Baku-Tbilisi-Ceyhan (BTC) oil-pipeline and the Baku-Tbilisi-Erzurum (BTE) gas-pipeline have become a reality, they now represent key elements of the oil and gas transportation system in the region.

In addition to its role as a large energy producer, Azerbaijan is also becoming an important transit hub for multimodal transportation of vast hydrocarbon resources of Central Asia to the world markets, and particularly the European markets, through the East-West Energy Corridor. Evidence of this emerging role is the June 2006 Agreement between Azerbaijan and Kazakhstan on transportation of Kazakh oil to international markets via Baku-Tbilisi-Ceyhan pipeline.

Diversification of transportation routes, as well as of energy suppliers and markets are key factors for ensuring the reliable and predictable supply and transit of oil and gas to European consumers. Existence of multiple transportation routes from a number of suppliers would also reduce a possibility of rising tensions over energy supply.

As the international community has witnessed in several cases over the last few years, supply chain disruptions can cause energy insecurity in European countries. Having signed in November 2006 an MOU with EU on Strategic partnership in the field of energy, Azerbaijan has proved its ability to be a reliable partner in ensuring predictability and transparency in energy supply, and in enhancing the European energy security both as a supplier and a transit country.

Along with that Kazakhstan and Turkmenistan can become important elements in ensuring the European energy security with

Azerbaijan as a transitional hub for delivering the Central Asian hydrocarbons to the European markets via BTC and BTE pipelines. Meanwhile, if they would opt for other routes of transportation, Azerbaijan is in a position to fill BTC and BTE pipelines with its resources.

Azerbaijan and the United States productively cooperate in many areas. Azerbaijan is a staunch ally of the United States in the global war on terror. Economic cooperation has been recently elevated to the level of partnership. The 1st meeting of the bilateral Economic Partnership Commission in February this year was followed by the Energy Dialogue in last March, when our countries singed MOU on Energy Security. This MOU, as well as the MOU on Strategic partnership in the field of energy between Azerbaijan and EU represent important contributions to ensuring energy security in Europe.

Strengthening transparency and financial discipline in the energy sector constitutes a top priority for my Government. In order to manage oil revenues, maintain macroeconomic stability and finance implementation of strategically important social and infrastructure projects in the country, the Government of Azerbaijan has established the State Oil Fund.

In 2003 Azerbaijan joined the Extractive Industries Transparency Initiative (EITI) initiated by the United Kingdom. The State Oil Fund is the responsible organ for implementation of the EITI initiative.

In recognition of the activities of the State Oil Fund, the United Nations granted it the 2007 Public Service Award for "Improving transparency, accountability and responsiveness in the Public Service". It is the highest global award of international recognition of excellence in public service. The State Oil Fund is the first government agency awarded the UN Public Service Award among the government institutions of the Eastern Europe and the Commonwealth of Independent States. Tomorrow this award will be presented to the Fund officials in Vienna.

Democratization is another crucial task for my Government in pursuing economic development. Being one of the most dynamically developing economies with increasing inflow of petrodollars, Azerbaijan is determined to steadily diversify its economy and pursue with reforms to strengthen its democracy, ensure protection of human rights, fight corruption, further independence of its court system, and ensure transparency and efficiency of state governance.

Azerbaijan is demonstrating openness of its economy and is promoting democracy and the rule of law in the country, as well as on the regional level.

The Second Summit of GUAM Organization for Democracy and Economic Development, which was successfully held in Baku just a week ago, is another manifestation of the abovementioned commitments of my country, which assumed 1 year chairmanship in the organization.

In conclusion, distinguished Members of the Commission, I would call you to repeal Section 907 of FREEDOM Support Act that restricts US assistance to Azerbaijan. The Act does not comply with the spirit and level of bilateral relations of our countries and is for that reason annually waved by the President of the United States since 2002.

Thank you.

PREPARED STATEMENT OF H.E. MIKHAIL KHVOSTOV, AMBASSADOR OF THE REPUBLIC OF BELARUS TO THE UNITED STATES

Chairman Hastings,
Co-chairman Cardin,
Members of the Commission:

Thank you for the invitation to speak on the issue so important for all of us which is the energy security. Energy is a strategic commodity of high relevance to geopolitics. It has been clear in modern history starting with World War II and extending to current global power relations.

Energy is and remains essential in our days. We can hardly imagine to live without it. With world population growing, national economies developing and standards of living rising, demand on energy is rapidly on the rise.

It's important that we recognize today's problems to global energy security and those of tomorrow. It's even more important that we act now to address them. Energy security is no longer a matter solely of national sovereignty. Today, security is indispensable issue even in general discussions about foreign policy. Energy security requires that we recognize our interdependence. Individually we are powerless to affect the global debate on energy security. None individual country is in a position to ensure its natural energy security individually. Why the United States is indispensable for us in this wide discussion on energy is because without it we will suffer a political power cut.

There is a general desire to make energy cooperation mutually advantageous and equal. But still the interests do not always coincide. What to do? The answer is to develop a model of energy security cooperation and implement mechanisms of mutual interests which may be:

- long term energy supply
- uninterrupted supply
- acceptable terms and conditions
- equality and mutual benefits
- strong dialogue and cooperation
- multilateral approach

The global nature of the energy security and the growing interdependence between producing, transiting and consuming countries require a strengthened partnership.

We should strengthen the dialogue and cooperation to meet the challenges. And our dependency on oil and gas needs to be balanced by stable and reliable supply which includes the sole role of transit countries. And I count Belarus in this group of reliable partners. The significance of transit countries becomes more and more considerable.

Clear bilateral, regional and international rules could improve predictability for transit and supply of energy, deepen interdependence and stability. This approach does not deny the right of a producer to benefit from its oil and gas reserves as well as the right of a consumer to benefit from the supply. Belarus lies on the gas transit route from Russia to Europe and is the second largest transit country for Russian gas by volume after Ukraine. Russia is the leading gas exporter to Europe and is its second important source of crude oil. And the transit country should benefit from the benefits of producer and consumer. We need clear regulatory frameworks for transit which could help us to avoid much more expensive alternative of building long roundabout pipelines.

Events of the beginning of 2007 remind us that supply in the OSCE region is not that secured as it should be. Crude oil supply from Russia via Belarus to the EU was suspended at the beginning of this year due to a price dispute.

We in Belarus are not oversensitive regarding the transition of energy trade to market prices. But I have to recognize that we are sensitive regarding the bilateral agreements we have with Russia including those fixing preferential arrangements and terms subsequent upon bilateral treaty on Union State: we understand that pacts must be respected.

Belarus is among the countries most dependent on external energy sources. 80% of Belarusian energy comes from Russia. Energy cooperation between Belarus and Russia is close, although Gazprom's business strategy remains a matter of concern to my government. The sufficient and affordable availability of energy is a precondition for Belarus's competitiveness and economic growth. The government is convinced that our energy dependency cannot be further increased, and our first aim is to reduce this dependency by increasing share of carbon-free energy sources and gradual introduction of energy efficiency. By 2010 we expect to invest in energy efficiency 5 billion USD.

Belarus is in the same situation as most of the OSCE countries that are large energy importers, all of which have to face the increasing prices of oil and gas in the coming years. A key issue for Belarusian energy security is its dependency on a single supplier. In the near future Belarus can import oil from different sources, we have two refining capacities and we can afford transport expenses.

Energy security and sustainable growth are critical for the OSCE region. Belarus will remain a country actively involved in energy security in this region, primarily in the European Union. As a reliable transit country, Belarus is important for both sides of the East †áWest corridor.

Energy security is a global challenge. Independent national policies are not now enough to provide secure access to energy. We need to work together: producing, transiting and consuming countries.

The EU is trying to set up a common energy policy today for member-states. We agree with the EU position that mutual energy relationships between states must be predictable, transparent and reliable. But in my view the OSCE countries and not the EU have to come together as an ad hoc Committee of the Whole for energy producing, transiting and consuming countries to generate binding decisions on energy security. And the OSCE framework is relevant. The only matter which matters is our collective determination. The OSCE can not be transformed into regional OPEC. Yet, energy is an issue of importance to the development of the OSCE members. The role of the OSCE is in enhancing dialogue on energy security and generating binding decisions.

The OSCE can be a platform not only for political dialogue on this issue but also for addressing energy security issues which in the last instance may be of political nature.

Thank you.

PREPARED STATEMENT OF KEITH SMITH, SENIOR ADVISOR, CENTER FOR STRATEGIC AND INTERNATIONAL STUDIES

SUMMARY

- The U.S. and the EU have long ignored the Kremlin's non-transparent and monopolistic energy policies, and its use of energy to exert control over the new democracies of Central and Eastern Europe.
- The disruption of natural gas to Ukraine and Georgia in January 2006, and to Belarus and Georgia in January 2007 was only a continuation of Russia's petro-politics, that started with the fall of the Soviet Union in 1990.
- The U.S. and Europe's tolerance of these coercive policies and non-transparent business practices have incorrectly signaled to the Kremlin that the West believes that Russia has the upper hand because of its substantial energy resources. Russia is very much dependent on the West's export revenue, energy financing and technology.
- A coordinated U.S. and EU energy policy is necessary to prevent the Kremlin from expanding its political leverage over the new democracies of Central Europe, and with key Western European allies of the United States.
- The West must cooperate closely in order to force the Kremlin to make Russian energy policies and actions more transparent, competitive and reciprocal, and to follow internationally accepted business practices. Western tolerance of Moscow's coercive use of energy resources and pipeline monopolies only retards Russia's development into a genuine strategic partner.
- Recent developments in Russian-Central Asian energy relations and in the energy policies in Hungary, Slovakia and Bulgaria will increase Russia's coercive energy power and may seriously hamper European common security interests.
- The U.S. and EU should step up assistance to Central Europe countries for the development of alternative pipelines and non-Russian sources of energy supply.
- The Kremlin should not be allowed to use its monopoly power and corrupt practices to block alternative pipelines from supplying natural gas and oil to Europe.
- Enforcement of Europe's competition laws and of the Energy Charter Treaty would bring greater competition and transparency to the EU's energy markets and would force Russia to modify its most egregious energy marketing practices.
- Central European countries can improve their own security by increasing domestic energy storage, by boosting indigenous supplies of gas and oil by reducing corruption and by creating a more welcoming and transparent environment for Western investors.

A DELAYED WAKE-UP CALL

Gazprom's disruptions of natural gas and oil to Central Europe in 2006/2007 increased awareness in Europe and the United States regarding Moscow's success in using its energy resources as political leverage in Europe and to undermine the new democracies that most recently emerged from decades of Kremlin control.[1] Russia's recent sharp increases in natural gas prices to Ukraine, Georgia, Belarus, Bulgaria, Armenia and Moldova, and its control over key European gas pipeline systems, raise fresh concerns about Russia's foreign economic policies and the security implications for Europe. Russia's energy strategy also raises the stakes regarding America's own growing dependency on energy imports, and should lead us to question expectations that Russian supplies of gas and oil will somehow contribute to America's energy security. Unfortunately, the U.S. and Western Europe have largely ignored this problem until recently, in part because the coercive nature of Russia's petro-politics has largely been confined to East Central Europe and Central Asia.

For many new EU member states such as Poland, Latvia, Lithuania, and for new democracies, like Ukraine, Georgia, and Moldova, Russian energy control is an old problem. Central European attempts to raise this issue in Western capitals have until recently been brushed aside. The rapid acceptance in 2005 by the EU Commission of the Russian-German undersea gas pipeline project was a serious mistake and highlighted Europe's inability to implement a common foreign and security policy. The concerns voiced by the Central Europeans should have raised the alarm bells in Brussels and in European capitals long before the Ukraine crises of early 2006.

The slow Western response has allowed Russian state companies time to stitch together additional bilateral deals with individual Western governments who are anxious to help their companies gain an investment foothold in Russian energy production. A re-examination of EU policy may be made more difficult by the curious fact that Russia plays an important role in the EU's own Energy Treaty Commission (ETC). This is the case, even though Moscow has refused to implement the Energy Charter, and particularly the draft Transit Protocol that is part of the Treaty. Russian implementation of this agreement would have resulted in greater competition within Russia's energy transportation sector. Under Article 45 of the Energy Charter, Russia was obliged to put the treaty into force at the time of signing, but has successful convinced most Europeans that it was free to ignore the treaty unless it is ratified by the Duma. In spite of pressure from the EU to implement the Charter, Gazprom's Deputy CEO Medvedev has labeled it as a "stillborn document." Gazprom believes that its bargaining position now outweighs that of the West as a result of high world energy prices and political instability in producer countries in the Middle East, Africa and South America. In any case, the long-term political and security significance of the Putin Government's assertive energy policies warrants much closer study by Western governments, including the United States.

There is an unrealistic expectation in some circles in the U.S. that Russian natural gas supplies from the Russian Far East or from off-shore in the Barents Sea will fill the gap created by declining U.S. and Canadian production and by political instability in Latin America, Nigeria and the Middle East. The reality is that Russian oil and gas exports are not growing at the pace they were just 3–4 years ago. In addition, investment in Russian exploration and development has declined from the level that existed before the systematic destruction of Yukos began in 2003 and the accelerated move to centralize control of almost all oil and gas resources under the current Kremlin Administration.

PIPELINE POLITICS AND WESTERN VULNERABILITIES

The Putin Government has made it clear that it intends to use its energy export power to regain Russia's Cold War influence around the world. Even former Kremlin economic adviser, Andrei Illarionov, who was pressured into resigning in late 2005, has criticized his country's use of energy supplies as a weapon in its relations with other countries. Gazprom's recent takeover of the Armenian, Belarus and Moldovan gas pipeline systems and its increasing domination of energy facilities and markets in Ukraine, demonstrate Russia's willingness to use its powerful energy muscle to secure control of its neighbor's energy infrastructure in order to use it to influence the domestic political lineup in those countries.

EU ambassadors in Moscow were warned in 2006 by Gazprom's CEO, Alexei Miller, that Russia could divert natural gas now going to Europe to China and the U.S. if his company were not allowed more freedom to buy Europe's downstream energy facilities. Miller was not offering similar access to Russian energy markets. This warning was quickly followed by a similar threat from President Putin. Little attention was given in the Western press to the fact that Russia does not allow Western firms the same degree of access to Russian facilities that Russian state energy companies already have in Europe and the United States. Moscow clearly believes that the tight world energy market and high prices provide it with enough leverage over the West to pursue non-reciprocal policies and to continue to follow monopolistic, non-transparent business practices.

"Pipeline imperialism" by Moscow dates back to 1990, when it interrupted energy supplies to the Baltic States in a futile attempt to stifle their independence movement. The "energy weapon" was again used against the Baltic States in 1992, in retaliation for Baltic demands that Russia remove its remaining military forces from the region. In 1993 and 1994, Russia reduced gas supplies to Ukraine, in part, to force Kiev to pay for previous gas shipments, but also to pressure Ukraine into ceding more control to Russia over the Black Sea Fleet and over Ukraine's energy infrastructure.[2] Even Belarus, and indirectly Poland and Lithuania, suffered supply disruptions in 2004 from the Kremlin's effort to take over Belarus' gas pipeline system. From 1998 to 2000, in an attempt to stop the sale of Lithuania's refinery, port facility, and pipeline to the Williams Company of Tulsa, Oklahoma, Transneft, Russia's monopoly transporter of piped oil, stopped the flow of crude oil to Lithuania nine times.

Russia's Gazprom, with the help of Germany's Ruhrgas, exercises control over the gas facilities and pipelines in the three Baltic States, where they also have monopoly control of the domestic gas markets in all three Baltic States. Media outlets in the West have generally ignored Transneft's refusal to allow Kazakhstan to supply oil to Lithuania's Mazeikai Refinery through the Russian pipeline system. Kazakhstan's oil company has the legal right to ship crude oil to the Baltic coast, based on their transit agreement with

Transneft agreed to last fall. Moscow attempted to stop any non-Russian company from taking over the Yukos ownership of Lithuania's facilities. Three years ago, Russia stopped all piped shipments of oil to Latvia in an effort to gain control over the oil port at Ventspils. Almost a year ago, Moscow blocked the shipment of all oil to Lithuania's Mazeikai Refinery and the port at Butinge on the Baltic Sea, claiming that the pipeline "suffered a serious breakdown." This use of pipeline imperialism in the Baltic States has not received enough attention in the West even though Latvia and Lithuania are EU and NATO members.

The Russian pipeline monopolies of Gazprom (natural gas) and Transneft (oil) have been given free rides in terms of the open-market requirements of WTO and the EU's own Energy Charter. The EU's agreement with Russia on WTO in effect gave Moscow's increasingly monopolistic energy transportation and production companies carte blanche to avoid following accepted Western business practices. The WTO agreement with the EU (not challenged by the U.S.) also allowed Russia to maintain a trade advantage in industrial goods by keeping its domestic energy prices at a fraction of world market prices.

German-Russian Energy Relations

Russia stands to greatly increase its market share and its leverage in Germany and the rest of Europe through the construction of the expensive Baltic undersea Northern Europe gas pipeline (Nord Stream). An alternative construction of a parallel pipeline to the Yamal I line that runs through Poland would have been a much cheaper alternative (now estimated at \$10.5 billion for Nord Stream vs \$2.8 billion for Yamal II). In addition, the enlargement of the Yamal line would have given both Central and Western European energy consumers greater political and economic security. The increased costs of Nord Stream will result in much higher energy prices for West European consumers.

The Russian-German agreement, unless modified, will give Russia's state-run Gazprom a significant voice in German domestic energy policies and indirectly over the gas markets in all of Central Europe. Germany as an energy market and a source of bank financing, however, is crucial to Russian development. If changes are not made in the Schroeder-Putin agreement on the Baltic pipeline, Germany may face an increasingly insecure neighborhood to its east. Germany will also have to confront Russian control of its domestic energy markets and increased Russian political influence in Germany.

No single country wields more influence in Moscow than does Germany. The trade and financial ties between Berlin and Moscow are important to the sustained development of both nations. Although many outside of Germany were disappointed with Chancellor Schroeder's consistent support for President Putin's domestic policies, everyone recognizes the value to European security of a close, constructive German-Russian relationship. Good friends, however, should not avoid frank discussions regarding the imperial tendencies in Russia's foreign policies. Baring some dramatic policy change, Germany will continue to become more dependent on Russian gas imports (now over 44% of all the gas that Germany imports). This import dependence could well grow to 80% after the completion of all phases of the Nord Stream project.

IS THE WEST PAYING ATTENTION?

Europe's energy relationship with Russia has for the past several years been directed by only a few of the larger member countries. The leaders of these countries have too often praised President Putin's democratic credentials while ignoring Russia's backsliding on democracy and the coercive use of Russian energy power. The U. S. has also often been too willing to accept Russia's monopolistic and coercive energy policies in return for possible support on Iranian and Korean foreign policy issues. In addition, the EU and the U.S. have ignored the noncompetitive and political aspects of Russia's energy export policies, in part due to the desire of Western companies for exploration and production rights in Russia. Although the EU recently initiated a more comprehensive study of the Community's energy security, the large countries of Europe continue to resist adhering to a common EU energy policy. Meanwhile, Russian companies are rapidly locking up non-transparent business deals with the Central Asian suppliers of Kazakhstan, Turkmenistan and Uzbekistan and with individual European consuming nations. These deals will result in enormous profit for Russian companies. Russian pipeline monopolies insure that Russia can buy energy cheap and sell it in Europe at a profit almost unmatched in world markets.

EUROPE AS HOSTAGE TO RUSSIAN ENERGY

The importance of good relations between Russia and the West, and particularly between Germany and Russia, cannot be underestimated. Nevertheless, it is a mistake for us to give Moscow the impression that we believe that the West needs Russian energy supplies more than Russia needs the oil and gas revenue that comes from the Western markets. Nor is it wise to let the Putin Government believe that its authoritarian domestic policies are acceptable in the West as long as there is an expectation of increasing exports of Russia's energy resources. The West holds some powerful cards. Russia will not be able to develop its vast energy fields in Siberia, the Pacific Coast and in the Barents Sea before the middle of the next decade without Western capital and technology.

There are growing indications that Russia will be unable to meet its current European gas contracts unless foreign investors are offered significantly greater participation in exploration and development of Russia's new gas and oil fields. At present the opposite is happening, with Western companies' exploration and development rights being steadily and purposely reduced.

Russian gas exports to the West are already dependent on Gazprom's ability to monopolize and control gas exports from Turkmenistan, Kazakhstan and Uzbekistan.[3] This Russian dependency on Central Asia will increase over the next 7–10 years, until there are substantial gas flows from the Shtokman field in the Barents Sea, and from new wells in the Sakhalin and Siberian fields. In the past, Gazprom has neither had a reputation in the industry for innovation nor for productivity increases in exploration and development. With the company now under tighter control by the Kremlin, there are good reasons to question whether Gazprom and the increasingly powerful Rosneft will have the managerial skills, financing and technology necessary to meet Russia's export goals through increased domestic production.

There has been no coordinated push by either the EU or the U.S. to require that Russia open its energy market to foreign investors in the same way that Western companies and markets are open to Russian investors. Lukoil has been allowed to buy 100% of Getty Petroleum in the U.S., including 1,500 gas stations. U.S. energy companies can, according to Russian law, only own 49% of a Russian company, although in practice 20% ownership appears to be the ceiling set by the Kremlin. The West should be using its leverage to force Russia to play by the same transparent, competitive rules that guide business in the West. Western governments should not acquiesce to this uneven set of rules, but should demand full reciprocity with Russia in their investment policies. This would help promote the kind of investment that will increase, rather than decrease, economic reform and a more balanced growth in Russia itself. President Putin has compared the new Gazprom colossus to Norway's Statoil, but the latter has real domestic competition, its exports are divorced from foreign policy and it is a totally transparent company.[4] Gazprom, with its interlocking ties to the Kremlin Administration and its gas pipeline monopoly, cannot be compared to any Western firm.

Intelligence Officers Making Energy Policy

Former intelligence officers (siloviki) in the Putin administration and in Russia's energy companies have a strong role in determining national energy policy. The head of Rosneft is a former KGB associate of President Putin, and he helped engineer the breakup of Yukos and his company's seizure of the most valuable assets of Yukos. Former KGB and GRU officers sit on the boards of most of the country's major energy companies. In 1999, Moscow went so far as to send a former KGB/FSB officer as ambassador to Lithuania, in an attempt to provide behind-the-scenes support to Lukoil's negotiations with the Lithuanian Government and America's Williams Company. Before assuming the job in Vilnius, the ambassador had been the FSB's official liaison officer with Lukoil.

A few former intelligence officers are quite progressive in their views. The majority, however, oppose any weakening of the state through the growth of a transparent, independent private sector, and find it difficult to accept the idea of a win-win energy deal with a Western company. Granting majority control to a Western energy firm is viewed by most former Russian intelligence officers as a danger to Russia's national security interests. Even the Western managers of TNK/BP are no longer permitted to see their company's own seismic data. President Putin's use of Matthias Warnig, a former East German Stasi officer and now Dresdner Bank executive, to put together the financing and management of the Nord Stream pipeline system only added, perhaps unfairly, to suspicion that the project is more strategically than commercially motivated. Mr. Warnig, who was earlier proposed by Gazprom to sit on its board, is working directly under former Chancellor Schroeder in managing Nord Stream, the Baltic pipeline system.[5]

CEDING TOO MUCH CONTROL TO GAZPROM

More scrutiny should be given by Western governments to the potential power of Gazprom to control the gas markets in Central Europe following the completion of the Baltic pipeline system in 2011–12. Under the German-Russian agreement, Gazprom will be able to buy significant shares in Germany's gas companies. Will this allow Gazprom to veto shipments of gas from Germany to Poland if the Poles have a dispute with Gazprom over price or availability and Russia decides to reduce or cut off the flow of gas? Could the increased power of Gazprom be used to stop liquid natural gas (LNG) receiving plants from being constructed in Poland, Latvia, or even in Germany? How much more political influence will Moscow have in Berlin as a result of Germany's growing energy dependency on Russia and of Gazprom's ownership stake in Ruhrgas?

The EU has proposed that member states increase their levels of natural gas storage. This may become more difficult now that Poland and the Baltic states are being bypassed by the Nord Stream gas pipeline. Russian purchases of gas from Turkmenistan, Uzbekistan, and Kazakhstan are designed to deny the West, including countries such as Ukraine, the ability to buy oil and gas directly from Central Asia or at prices negotiated between producer and consumer, rather than working through Gazprom. The company buys Central Asian gas at $70–100 a cubic meter and sells Russian gas in Europe for $250–$350. Monopoly control of the pipelines out of Central Asia is extremely profitable—for Russia. There is a question as to whether the monopolistic pipeline policy of the Kremlin is compatible with WTO membership. Considering our experience with China's WTO compliance, there are good reasons to doubt whether Russia will relax its control of Central Asian gas shipments after it has been admitted to the WTO. Forcing more open and competitive energy policies by Moscow before a possible WTO membership would be a wiser course for the West than repeating the China experience.

Gazprom has recently reached non-transparent deals with Hungary, Slovakia and Bulgaria that will guarantee Russia's monopoly control of the gas and oil pipelines to Europe.[6] These deals should be analyzed more closely by NATO for their security implications for Europe. NATO members have historically used the Alliance to examine issues that go beyond narrow questions of military defense.

Part of the Kremlin's present strategy is to rapidly increase prices to weak neighboring states in the hope that they will build up large debts, be unable to pay for the gas, and ultimately have to cede control over their domestic gas pipelines to Gazprom or Transneft to pay for the arrearages. This is what has happened in Belarus, Armenia and Moldova and is currently being threatened in Ukraine, Bulgaria, Belarus and Slovakia.

It would help if we knew what the real market price of Russian gas and oil would be if a transparent situation existed within Russia's exporting companies. If Russian consumers were forced to pay prices that were significantly more than one-fifth of what Moscow claims to be the world market price, domestic demand would drop and additional Russian oil and gas would be placed on the international market. These are all questions that need greater discussion and scrutiny in European capitals, in Washington and within the EU Commission.

UKRAINE NEEDS TO ACT TO STRENGTHEN ITS OWN HAND

Ukraine's politicians, however, deserve much of the blame for the country's present situation. Kiev has allowed corrupt oligarchs to continue their control over gas deliveries from Russia and to control many of the country's domestic oil and gas fields. Even more damaging in the long run is the Ukrainian Government's lack of movement in developing fair and just conditions for both domestic and foreign energy investors. Here again, a few powerful individuals, most of them with close ties to Russia, have successfully kept out Western competitors. Ukraine could substantially reduce its dependency on Russia through rapid reforms that would permit open tenders for energy exploration rights and a welcoming atmosphere for legitimate foreign energy investors. Seismic studies demonstrate that the country possesses considerable gas both on-shore, in the Black Sea and possibly in the Sea of Azov.

The country continues to exhibit little transparency in the entire energy market. Two thirds of Ukraine's refineries, processing three-fourths of the country's oil, were already owned by Russian companies.[7] Almost 100% of the refined product that is exported is produced in Russian-owned companies. Ukraine's nuclear plants depend on Russian nuclear fuel rods. Former Russian Prime Minister Victor Chernomyrdin, who was also CEO of Gazprom, has for many years been Moscow's ambassador to Kiev. He has effectively promoted Russian near monopoly and has checkmated attempts by Western companies to gain a stronger foothold in Ukraine.

The cozy relationship between Russian and Ukrainian energy interests persists, even after the New Year's Day reduction of gas supplies. Talk by the Ukrainians over the past year about diversifying imports and stopping corruption in the energy sector has resulted in little progress and in even greater domestic influence by the Russian-dominated RosUkrEnergo. The economics of the proposed Odessa-Brody oil pipeline are still in question, although it may be needed for security reasons. The NABUCCO gas pipeline project, which would go from Azerbaijan through Turkey to Austria, is a realistic alternative to gas shipments that go to Ukraine through Russia. A more immediate need is for the current Yanukovich Government to embark on an urgent program to curb corruption, improve energy efficiency, and to open the country's oil and gas fields to Western investors.

TIME FOR THE WEST TO LEAD ON ENERGY POLICY

Western acceptance of Russia's "neo-colonial" policies in Eastern Europe, the Caucasus and Central Asia are not in the long-term interests of Russia itself. Acquiescing to Moscow's more "robust" regional policies has only contributed to greater tension in Russian-East European relations and has slowed the development of democratic governments in the Caucasus and Central Asia. This in turn strengthens non-democratic elements in Russia that believe that their country's strength and prestige is fostered through control of the neighborhood—and a large neighborhood at that.

The EU should take the lead in building a more secure network of electricity inter-connectors between the countries of Western, Central and Eastern Europe. The EU could help marshal the international banks, such as the EBRD and EIB to take equity positions in the pipeline systems of Ukraine, Bulgaria, Moldova and Poland. This would help these countries modernize their pipelines. It would also provide a "neutral" party that could keep the pipelines from being controlled by non-transparent Russian companies and guarantee competition in gas and oil transportation. International financing for the proposed NABUCCO natural gas line from Azerbaijan would offer Central Europe much needed energy security, as would the building of the Odessa-Brody oil pipeline system.

The United States should re-examine its long-term energy relationship with Russia. Support for American investment in Russia's energy resources should not prevent us from demanding more transparent energy policies and a level playing field for foreign investors. We should expect a loosening of Russia's monopoly pipeline system and demand from Moscow that Central Asian energy producers be given direct access to Western markets. We are not being hostile toward Russia when we insist that there be reciprocity in Russian-European-U.S. energy relations. It would be foolish on our part not to want Russia to evolve into an economically successful democracy. Everyone would gain. Russians are going through a difficult period psychologically. Unfortunately, they are highly suspicious of America's motives in Central Europe and Central Asia and tend to believe that the U.S. and NATO are intent on "surrounding" Russia with hostile states; part of a grand scheme by the West to keep Russia weak economically and marginalized in international affairs. It is necessary for us to address these issues head on with our Russian colleagues, and at the same time work to counter Russian efforts to acquire psychological security by creating insecurity in Europe.

The West, led by cooperation between the EU and the U.S., needs to quickly rethink its energy and non-energy policies with Russia. The two cannot be separated. The world does Russia no favor by ignoring the monopoly and noncompetitive nature of this energy relationship. All sides would benefit if Russia were to become more transparent and commercial in its foreign energy policies. Meanwhile, neither the EU nor U.S. should allow Moscow to threaten the security of Europe, particularly the new democracies of Central Europe through neglect or unwillingness to face down the new imperial mindset in the Kremlin. As Yuri Schmidt, the famous Russian human rights lawyer told audiences in Brussels, "Yes, Russia needs something from you. It needs your silence, and it is ready to pay you for it, too." The January 1, 2006 wake-up call to the West was also an opportunity for those who want to see Russia build a modern, democratic state that is linked to Europe by mutually beneficial political and economic ties.

Policy Recommendations for the West

Enforce the Energy Charter Treaty. According to Article 45 of the Treaty it went into effect when a state signed it (not ratified it), unless there was a specific declaration that it would "opt out" such as was done by Norway. Therefore, Russia already has a binding treaty obligation with the EU member states.

Enforce the Rome Treaty's competition and anti-trust rules in cross-border deals between Transneft, Gazprom and individual European states.

Calculate the true cost to the European consumer of Russia's pipeline monopoly of Central Asian supplies and of the very expensive Nord Stream pipeline.

Prevent member states from reaching individual deals with Russia that undercut the viability of EU plans to bring alternative supplies of energy to Europe.

Demand the right to immediately investigate disruptions of energy to the Baltic States, particularly when the disruption appears designed to force a member state to sell its facilities to Russia.

Provide more leadership in working with Central Asians to supply gas and oil directly to the EU, without the use of intermediaries.

Enforce a "level playing field" for European and Russian investors in the energy sector. The rules on both sides should be clear, transparent and enforceable.

PREPARED STATEMENT OF PIERRE NOËL, RESEARCH ASSOCIATE, UNIVERSITY OF CAMBRIDGE

Mr. Chairman, Mr. Co-Chairman, members of the Commission, I would like to thank you for your invitation to participate in this hearing today. I am honored by this invitation and I hope my remarks are of some value to the Commission's important work.

Today I want to offer my perspective on the issues related to the energy relationship, especially the trade in natural gas, between Russia and the European Union. These views are strictly mine and should not be taken as reflecting those of any institution.

1. THE DOMINANT VIEW: EUROPE'S RISING DEPENDENCE ON RUSSIAN GAS CARRIES SERIOUS ENERGY SECURITY AND GEOPOLITICAL RISKS

Over the past five years and especially after the gas crisis between Russian and Ukraine in January 2006, the European Union has frequently been described as being under threat because of its large and rising dependence on energy imports from Russia, especially its dependence on Russian natural gas. The dominant view is that with this important trade relationship come serious and increasing supply security risks. Beyond that, there is a growing perception that this gas relationship is limiting European countries' freedom to define and implement their foreign policy towards Russia, and that the Russian government is using energy to advance its own economic and foreign policy interests in Europe, including by playing European countries against one another.

The growing uneasiness in Europe and in Western countries in general about the political dynamics in Russia and in Russian foreign policy—uneasiness which, I believe, is entirely justified—is turning into uneasiness about the energy relationship itself. Russia is becoming a country which is quite different from the country we would like it to be, that is undeniable. But does it mean that the risks associated with our commercial energy relationship with Russia are higher and can only grow? Does it mean that our energy security can only be sustained by aiming at energy independence from Russia, or at least a lower degree of dependence?

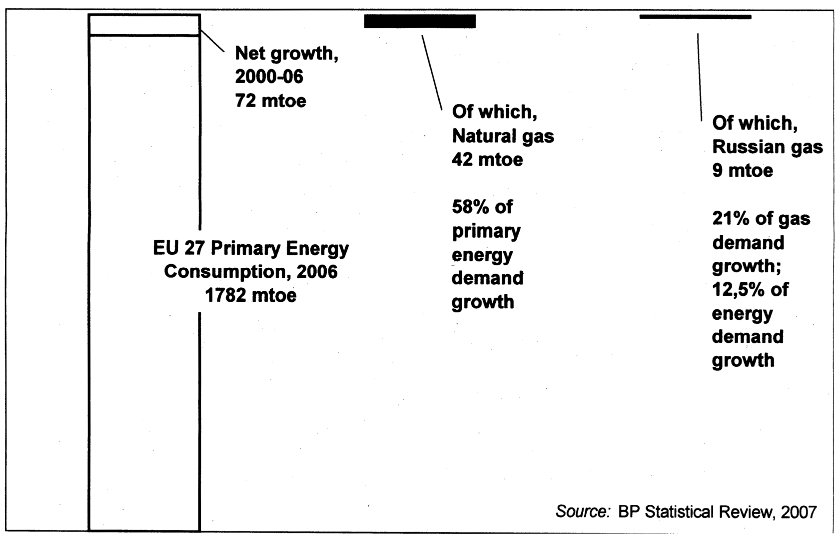
Our gas relationship with Russia raises real issues and I will try to describe them, and also what could be done to tackle them. But "dependence on Russian gas" is not a useful concept to think about these issues. If anything, framing the problem in terms of "dependence" plays in the hands of Russia and encourages the Russian government to try and politicize further the commercial energy relationship. The risks associated with our gas trade with Russia can and should be analyzed independently from our judgement about the evolution of Russia as a country, or the evolution of Mr. Putin's foreign and domestic policies.

2. A LARGE BUT STAGNATING COMMERCIAL GAS RELATIONSHIP

In 2006, the EU 27 imported 128 billion cubic meters (bcm) of natural gas from Russia. This is a very large commercial energy relationship. (By comparison, the US imported just under 100 bcm of gas from Canada that same year.) Imports from Russia amount to 41% of the EU27 gas imports (32% for EU15), or 26.5% of gas consumption (22% for EU15). Russian gas clearly covers an important share of our energy needs.

But this trade relationship is not growing significantly. Between 2000 and 2006, the share of Russia in the EU27 gas imports has declined by 10 percentage points (51% to 41%). As a share of gas consumption, it has remained stable at just under 27%.

Between 2000–2006, gas imports from Russia have grown by 10 bcm (6 bcm for EU15). This amounts to 21% of the rise in EU gas consumption, and 12.5% of the rise in primary energy consumption (see graph below). In other words, around 80% of incremental gas (and 88% of incremental energy) consumed in the EU27 since 2000 has not been Russian gas. Arguably, this is not a situation which is well described by the phrase "rising dependence".



3. SUPPLY DISRUPTION RISK

The first of the two serious issues that Europe faces is the risk of disruption in the flow of gas from Russia to the EU consumers. This can happen for a number of reasons, from harsh climate in Siberia to an accident in the Russian transport system or in a transit country, to a commercial or political dispute between Russia and a customer, or between Russia and one of the countries through which the gas transits.

What can be done?

• First, European countries should create a single, integrated, competitive gas markets in order to substantially increase the level of "fungibility" in the European gas system. In a well-functioning market, a disruption of supply to one of the European countries should trigger spontaneous re-allocation of the physically available gas, as well as a rise in price. Currently this can not be the case. A fully integrated European gas market would also allow any molecule which reaches Europe (say, a LNG cargo unloaded in Spain) to be commercialized anywhere in Europe, thereby alleviating the problem of dependence of some countries on specific import facilities. Some countries (among them France, Germany, Italy) are strongly resisting the Commission's push towards a fully integrated and competitive European gas market, partly to protect the markets of their big national companies. If these countries are serious about gas security, this will have to change.

- The EU could also review its options in terms of strategic gas storage. The Commission made some proposals a few years ago which were not accepted by member governments. It should be noted that European strategic stocks would only be effective as a gas security instrument if there were an integrated and competitive European gas market.
- It is possible to increase the short-term price elasticity of gas demand by mandating gas-fired power generation plants to maintain stocks of petroleum products on which they could run if their gas contracts had to be interrupted during an emergency.
- Another, probably relatively costly option is to mandate LNG operators to maintain spare regasification capacities so that the market can source incremental cargoes on the open market if supplies from Russia became temporarily unavailable.

4. The scarcity risk: how to hedge against Russia's inability and/or unwillingness to sell more gas to Europe in the future?

The second risk that we face is the "scarcity risk". In a sense, it is the risk that we will not be able to become "dependent" enough because Russia will not be able, or will not be willing, to increase its supply to Europe.

Such a scenario is much more likely to happen than a scenario where Europe would be flooded by cheap Russian gas and its dependence would grow significantly. This is the case for reasons linked both to the political economy of Russia's gas industry (strong domestic gas demand, political difficulty to raise domestic gas prices towards market levels, lack of strategic and operational autonomy of Gazprom) and to the political economy of the EURussia gas relationship (declining mutual confidence, diverging visions regarding the principles and institutions that should structure the gas relationship and the European gas market itself).

The main impact of a restrictive Russian gas policy (or other constraints on the expansion of Russian exports to Europe) would be higher gas price, either directly if there is a free market for gas in Europe, or indirectly as Europe (but also potentially China) would be prepared to pay more for LNG and other fuels. Beyond this economic impact, one can imagine a scenario where Russia's restrictive gas policy is meant at extracting geopolitical benefits, not only monopoly rents. This possibility is an important driver behind the perceptions of rising energy security risks associated with the EU-Russia gas relationship. It should be noted that this scenario is highly relevant to China (a potential big importer of Eastern Siberian Russian gas). Beyond that, a sustained restrictive gas policy from Russia, especially if it is accompanied by a restrictive oil supply policy, could help maintain structural tensions on global energy markets.

Let me briefly describe what could be done to hedge against these risks.

- The main policy goal that should be pursued is to maximize competition against Russian gas. The more restrictive the Russian gas policy will be, the more competing options there will be against Russian gas; it should be (and to some extent it has been in the recent past) a clear policy goal to encourage the development of these competing options.
- Europe's integration into the international market for LNG is already a reality but is still progressing rapidly. Direct gas imports from Central Asia are another source of non-Russian gas to Europe. Governments should work towards removing barriers to the development of this new trade route. The United States has worked quite effectively towards this goal through a very active "pipeline diplomacy" in Central Asia and the Caucasus; to the maximum extent possible, these efforts should be systematically coordinated with the EU.
- As the natural gas market is globalising, dealing with the risk of a sustained restrictive Russian gas policy also means facilitating the development of gas trade links which have nothing to do with Europe. For example, gas exports from Central Asia to China are a positive development and, to extent possible, should be encouraged to increase further if the parties think it is in their interest. Iranian gas is also potentially very important in checking the implicit or explicit monopoly power of Russia. Technically, Iranian gas can be marketed in Europe by pipeline but is more likely to be exported as LNG to markets in Asia and Europe. There are serious uncertainties as to whether Iran could become a credible supplier of gas to the world market; both history and the current negotiating process with European and other companies would lead to caution, if not skepticism. But it is clear that if Iranian gas should remain stranded for geopolitical reasons, that would clearly reinforce Russia's position.
- Maximizing competition against Russian gas also means continuing public support for alternative electricity generation technology, especially low-carbon coal. Scarcity on the natural gas market means coal is back as the fuel of choice in Europe and the US (and remains so in China and India). This cannot be reconciled with the objective to de-carbonize energy supply unless technologies of low-carbon coal (through carbon capture and storage) become commercially available.
- Finally, the possibility that we will have to face a sustained restrictive Russian gas policy is one more incentive for the US and Europe to develop strategic energy partnerships with China and India. Such partnerships should have both technical and political dimensions. Building a common vision of energy security with these big emerging countries should be a priority if we want to avoid over-politicization of the global energy markets in the coming years and decades. This could mean reforming the International Energy Agency to accommodate these key energy consuming countries.

5. CONCLUDING THOUGHTS

You asked me to reflect on how we can reduce the risk of conflict over energy supply. Conflicts over energy supply in the OSCE region (or in the world for that matter) are neither likely nor inevitable. For them to become even less likely, we have to work towards a situation where no country can be credibly threatened of supply disruption for political reasons; and where no country has to accept the politicization of the commercial energy trade that Russia is implicitly proposing to its actual and potential customers. We do not have to accept this “offer” and should not. Politicization of energy trade is a dangerous route to go down to. Provided we implement the policies that will help Europe hedge against the risks that emerge from our gas relationship with Russia (and this will not come free), we can live comfortably with this relationship. If the Russian government wants it to flourish as a commercial relationship, it will. If Russia demands that the gas relationship becomes the axis around which its political relationship with Europe revolves, then Russian gas will become less and less acceptable and the relationship will stagnate, if not decline.

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