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U.S. ENERGY SECURITY: RUSSIA AND THE CASPIAN

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OF THE

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CONTENTS

U.S. ENERGY SECURITY: RUSSIA AND THE CASPIAN

Wednesday, April 30, 2003

U.S. SENATE,
COMMITTEE ON FOREIGN RELATIONS,
SUBCOMMITTEE ON INTERNATIONAL ECONOMIC POLICY,
EXPORT AND TRADE PROMOTION,
Washington, D.C.

The committee met, pursuant to notice, at 2:33 p.m., in Room SD–419, Dirksen Senate Office Building, the Hon. Chuck Hagel, chairman of the subcommittee, presiding.

Present: Senator Hagel.

OPENING STATEMENT OF HON. CHUCK HAGEL, U.S. SENATOR FROM NEBRASKA

Senator HAGEL. Good afternoon. Earlier this month I chaired a hearing on global energy security. At that hearing, the administration and expert witnesses gave an overview of the state of global energy as it relates to U.S. national security. As witnesses testified at the last hearing, America's national security cannot be separated from our interest in a stable global energy market. America is the world's leading consumer of crude oil with almost 60 percent of our economy dependent on imported oil.

Our dependence on imported crude oil creates potential vulnerabilities to our economy with implications for America's national security. Because energy independence is not achievable in the near term, America needs a comprehensive energy policy that recognizes the realities of our inter-connected world. Today we will examine how development of energy resources in Russia and the Caspian Sea region and the availability of those resources might affect U.S. national energy security strategy.

Russia has the world's eighth largest share of oil reserves and the largest natural gas reserves in the world. Russia holds great promise as a global energy supplier. The U.S.-Russian relationship will continue to be a high priority for all aspects of America's national security policy.

From 1997 through 2000, I held a series of hearings in this committee on the development of oil and gas pipelines in the Caspian Sea region. While not a simple answer for reducing U.S. dependence on Middle Eastern oil, the Caspian region holds significant potential for energy development. The two primary oil producers in the Caspian, Kazakhstan and Azerbaijan, current produce 1 million and 300,000 barrels of oil per day respectively. That production has the potential to double over the next decade.

As we consider how best to realize the Caspian's potential, we must focus on more than just production and reserves, pipelines and infrastructure. We must take into account the political and geopolitical realities in the region. The future of both Iran and the U.S.-Iranian relationship will also influence the Caspian region's energy development.

Encouraging, financing, and building export pipeline routes can contribute to regional economic integration and stability. But the Caspian countries must complement their economic development with progress toward political reform, rule of law, and human rights.

Here to help lend clarity to these important issues this afternoon are two distinguished panels of experts. First we will hear from Deputy Assistant Secretary of State for Energy, Sanctions and Commodities Anna Borg. Ms. Borg will be followed by Leonard Coburn, who is the Department of Energy's Director of the Office of Newly Independent States, Russian and Middle Eastern Affairs.

The second panel includes witnesses representing a variety of perspectives. Andrew Somers is president of the American Chamber of Commerce in Russia, based in Moscow. He was recently appointed by Commerce Secretary Evans to chair the commercial energy dialogue with Russia.

Next we will hear from Julia Nanay, senior director at PFC Energy here in Washington. Ms. Nanay has worked in the oil industry in various capacities since 1976 and specializes in analyzing oil and gas sector risks in Russia and the Caspian region.

And finally, we will receive testimony from Edward Chow. Mr. Chow is a visiting scholar in the Russian and Eurasia Program at the Carnegie Endowment for International Peace. Mr. Chow has over 20 years of experience working on oil issues in Russia and Asia, as well as the Middle East, Africa, South America, and Europe.

To all of our witnesses, thank you very much for taking the time to come before this committee today. I should say before we start the ranking Democratic member of this committee, Senator Sarbanes from Maryland, is recuperating after surgery. He will be back, I understand, next week but regrets that he will miss this hearing, sends his regards. And I am sure he will hang on every word of testimony that you will give today, as he reviews the transcript.

Again, thank you very, very much for coming. And we will begin with you, Mr. Coburn—or, I am sorry, Ms. Borg is first.

Ms. Borg, please forgive me. And if you would proceed with your testimony, thank you very much.

STATEMENT OF MS. ANNA BORG, DEPUTY ASSISTANT SECRETARY FOR ENERGY, SANCTIONS AND COMMODITIES, BUREAU OF ECONOMIC AND BUSINESS AFFAIRS, DEPARTMENT OF STATE

Ms. BORG. Mr. Chairman, thank you very much for this opportunity. I have a longer written testimony, which I will leave and just summarize the basic arguments in an oral statement.

Senator HAGEL. It will be included in the record, as well as all the witnesses' complete statements. Thank you.

Ms. BORG. I am very pleased to be here today with the Department of Energy to discuss energy issues in Russia and the Caspian and the relationship to U.S. energy security and commercial opportunities. We are particularly pleased that the subcommittee has chosen this dynamic region to focus on first in its follow-up to the earlier April hearing on international aspects of U.S. energy security.

The President's national energy policy noted the importance of Russia and the Caspian to global energy production and made a number of recommendations to the Secretaries of State, Commerce, and Energy on commercial conditions in the investment climate. We are working with our colleagues at those departments on implementing these recommendations. We have both successes to report and areas for still further progress.

Russia, as you noted, is important to world energy markets because it is the world's largest exporter of natural gas, the second largest oil exporter, and the third largest energy consumer. Russian oil production has rebounded from the lows of the mid-1990s, thanks largely to capital investment by Russian oil firms and the increasing use of Western oilfields service companies.

Production in February 2003 was already about 8 million barrels a day. And with sustained firm oil prices, it is possible that production over the next 6 years could go to as high as 11 million barrels a day. While estimates vary over the size of Russian's proven oil reserves, going from about 50 billion to 60 billion barrels, Russia also has the world's highest reserves of natural gas, about 1,700 trillion cubic feet.

The Caspian, the non-Russian Caspian region is also rich in these resources with oil production expected to increase from the current level of about 1.5 million barrels a day to about 4 million barrels a day by 2010, possibly reaching as high as 5 million barrels a day in that time frame.

However, despite the impressive production rise since 1998, there remain some challenges to sustaining Russia's rapid growth rate over the long term. Huge investments will be necessary to improve the aging infrastructure and the transportation networks and to extend those networks to the very remote areas where many of Russia's greatest undeveloped fields lie.

The pace and scope of actual investments are, however, in question. The key factors affecting the outcome are the questions of limited export pipeline capacity, as well as the investment climate. We have encouraged the Russian Government to involve the private sector increasingly in pipeline development. And so, while much has been achieved in Russia, we continue to see room for improvement in the investment climate and have concerns about the content and pace of reforms.

We continue to support passage of beneficial production sharing agreement amendments to the Russian tax code. We also look forward to the development of new subsoil legislation for projects that do not need to be developed on PSA terms. We promote these steps in our high-level contacts with Russia, in addition to within the context of the U.S.-Russia energy working group, the U.S.-Russia commercial energy dialogue, and through the work of our Ambassador in Moscow, his staff, and those of us from the State Department as we have a chance to visit there or meet visitors here.

In the first wave of international focus on developing Caspian resources in the mid-1990s, the key challenge was to transport these vast reserves from a landlocked sea to world markets in a manner that diversified pipelines as part of our energy security policy while observing at the same time our policy of discouraging investments in Iran's oil sector. The transportation challenge has largely been overcome. Thanks in large part to efforts by successive U.S. administrations, with solid bi-partisan backing in Congress, we are succeeding in our policy of developing an east-west energy corridor involving multiple export pipelines.

Our focus will continue to be on both encouraging improvements in the investment climate and on how these countries use their revenue. In working on the investment climate, we will continue to promote strengthening the rule of law, stabilizing tax and fiscal requirements, combating corruption, promoting respect for contract sanctity and improving transparency.

Our engagement with Russia and the Caspian countries is consistent with the key terms of our international energy security policy, as outlined in the President's national energy policy. Energy security, of course, is improved by all increased and diversified production of energy that enters the global marketplace.

Developments in Russia and the Caspian are having a profound effect on global supply and diversification. The Caspian, as you noted, is positioned to be the largest source of non-OPEC supply growth globally in the coming years. Russia already is an energy superpower. And their new energy production, even if the rate of growth decelerates, will enhance U.S. and global energy security and contribute significantly to a well-balanced global supply mix. That said, of course, it is important to remember that neither Russia nor the Caspian region can replace Saudi Arabia as swing producers, nor can they change the fact that two-thirds of proven world oil reserves are in the Middle East.

As for natural gas, exports from Russia to Western Europe contribute significantly to our allies' economic stability and vitality. Russia supplies Europe with approximately 25 percent of its natural gas. And with North Sea gas and oil production slated to decline in the coming decade, Russia's gas exports will bolster its contribution to global energy diversification.

Our relationship with Russia on energy issues is a key part of our bilateral relationship, a piece of a broader matrix, of course, of interaction on a range of issues both political and economic. Our cooperation on energy was revitalized with President Bush and President Putin's joint statement on energy in May 2002 and continues with regular meetings of an intergovernmental dialogue within the framework of the U.S.-Russia energy working group. That process is supplemented by a business-to-business dialogue called the Commercial Energy Dialogue, which grew out of last October's highly successful U.S.-Russia Commercial Energy Summit in Houston.

U.S. exploration and production companies are keenly interested in Russia's potential, though they remain concerned about the need for continued improvements in the investment climate, further progress towards a liberalized energy market, and increased export capacity. We are pleased with the very energetic participation by a broad range of American firms in the U.S.-Russia commercial energy dialogue and their cooperation with their Russian private sector colleagues in jointly developing draft recommendations to both of our governments on ways to facilitate increased commercial cooperation and investment in Russia. Those recommendations will be presented at the next U.S.-Russia commercial energy summit in September 2003. As of June a year ago, total U.S. private investment in Russia's energy sector had totaled already $500 million.

Prospects are also interesting for oil and gas field equipment manufacturers. Russia is currently the fifth largest export market for U.S.-made oil and gas field equipment, with U.S. exports in this sector last year totaling about $328 million—an increase of 16 percent over 2001. There are opportunities for more exports, although price is often an obstacle as ours are often more expensive than domestic alternatives.

Similarly, in the Caspian, we expect about $10 billion to $12 billion in service and equipment opportunities in the next 3 to 5 years. And the figure could go as high as $200 billion over the next 20 years.

At the State Department, we are working very closely with American businesses to help them understand the Russian and Caspian Basin environments and energy sector opportunities. The State Department, for example, along with the Department of Commerce, organized a Caspian Basin Energy Development Conference in New Orleans in January of this year that attracted 150 oil contractors and energy representatives. It was well received. And we expect that we will do similar seminars in the future to maximize American companies' chances for success.

In addition, our Ambassadors in Russia and the Caspian Basin region, as well as Ambassador Steven Mann, the senior advisor for Caspian Basin energy diplomacy, are all working with U.S. energy providers and advocating on their behalf.

In conclusion, this is a vibrant, important region. The U.S. Government and the State Department are focusing on it extensively, and we hope that we are able to continue translating the opportunity it represents into increases in both our energy security and commercial opportunities.

Senator HAGEL. Ms. Borg, thank you.

[The prepared statement of Ms. Borg follows:]

PREPARED STATEMENT OF ANNA BORG

Mr. Chairman, distinguished Committee members, I am pleased to be here today with the Department of Energy to discuss energy issues in Russia and the Caspian and their relationship to U.S. energy security and commercial opportunities. We are particularly pleased that the Subcommittee has chosen this dynamic region to focus on first in its follow-up to the April 8 hearing on the international aspects of U.S. energy security. Under Secretary of State for Economic, Business and Agricultural Affairs, Alan Larson, appreciated the opportunity to appear before you on that occasion.

The President's National Energy Policy noted the importance of Russia and the Caspian to global energy production, and made a number of recommendations to the Secretaries of State, Commerce and Energy on commercial conditions and the investment climate. We are working with colleagues at Energy and Commerce on implementation these recommendations, with both successes to report and areas for still further progress.

Current Production and Reserves in Russia and the Caspian

Russia

Russian oil production has rebounded from the lows of the mid 1990s, thanks largely to capital investment by Russian oil companies and increasing use of Western oilfield service companies and technology, and has been growing at about 7 percent per year since 1998's average of 5.85 million barrels per day (mbd) . That rate of growth may accelerate this year: 2002 average production of 7.6 mbd could climb nearly 9 percent if oil prices remain near current levels—production in February 2003 already topped 8 mbd. Sustained firm oil prices could boost production over the next six years to as high as 11 mbd. Russian producers are optimistic that they can achieve this level of growth.

Estimates vary over the size of Russia's proven oil reserves, ranging conservatively from 50–60 billion barrels, with numerous identified deposits in East and West Siberia, Timan-Pechora, the north Caspian Sea, and Sakhalin Island. Russian off-shore Caspian may contain some modest reserves. In addition, there are many remote "frontier" regions that may contain oil, and Russian oil companies assert that the country's reserve numbers will actually prove much higher once these areas are explored.

Russia contains one third of the world's natural gas reserves, with over 1,700 trillion cubic feet (tcf) in proven reserves—the world's highest. Russia's natural gas production also is the largest in the world, with 595 produced in 2002. Gazprom, the state-run natural gas monopoly, produces nearly 94 percent of Russia's natural gas, operates Russia's 90,000-mile natural gas pipeline grid, and employs approximately 38,000 people. Though a large consumer of gas, Russia has plenty left over for export. With 6.7 tcf in net natural gas exports in 2001, Russia was the world's largest exporter. Though reserves are extensive, the undeveloped major fields lie in remote locations lacking infrastructure to deliver the gas to consumers, and will require much higher levels of investment to develop.

Caspian

Oil production in the non-Russian Caspian region is expected to increase from its current level of 1.5 million bpd, to about 4 million bpd by 2010. If investment increases substantially, the Caspian could produce even more—possibly reaching 5 million bpd by 2010. Independent estimates now put non-Russian Caspian (Kazakhstan, Azerbaijan and Turkmenistan) reserves at 34 billion barrels. To put that in perspective, that is slightly more than U.S. reserves, and more than double what remains in the North Sea. That figure could grow substantially; one leading consultancy estimates regional reserves could reach as high as 60–70 billion barrels. The Kashagan field in Kazakhstan, with at least 10 billion barrels of recoverable oil, is the fifth largest deposit ever discovered, and observers see rich promise of additional discoveries in Kazakhstan's Caspian waters. Estimated natural gas reserves in the Caspian region amount to about 170 trillion cubic feet (tcf), with Turkmenistan holding the lion's share of 101 tcf. The first major foreign investment in the Caspian gas sector is in the Shah Deniz gas field in the Azeri zone of the Caspian; this field holds an estimated 400 billion cubic meters (bcm) of recoverable reserves.

Challenges to Further Development

Despite the impressive production rise since 1998, there are some challenges to sustaining Russia's rapid growth rate over the long term. Its rate of oil production is exceeding its rate of discovery of new reserves by a significant margin, and it is clear that significant levels of domestic and foreign investment will be needed in order to maintain production levels for the next 15 years. Huge investments will be necessary to improve aging infrastructure and transportation networks, and to extend those networks to the very remote areas (the Arctic, offshore and Eastern Siberia) where many of Russia's greatest undeveloped fields lie.

The pace and scope of actual investment are, however, in question. The key factors affecting the outcome are the questions of limited export pipeline capacity and investment climate. Russia's pipeline network is run by a state-owned monopoly company, Transneft, which has proposed its own new export pipelines, as have many private Russian producers, and an internal debate continues over which routes to develop and with what measure of private sector involvement. We agree with many western and Russian oil company representatives who note that capital needs and logistical challenges might make it difficult for Transneft to expand Russia's pipeline capacity quickly enough to meet Russia's export goals. We see merit in involving the private sector in pipeline development, both for its capital and for its know-how, and have encouraged the Russian government to do so.

Although much is being achieved in Russia, and we have shared interests in Russia's being able to attract more investment and play the pivotal role it seeks in promoting global energy security, we continue to see room for improvement in Russia's investment climate and have concerns about the content and pace of reforms. As recommended in the President's National Energy Policy Plan, we continue to support passage of beneficial Production Sharing Agreement (PSA) amendments to the Russian tax code. An attractive PSA regime can facilitate investment particularly in the development of "difficult"—i.e. remote, expensive, and technically challenging—oil and gas reserves. We also look forward to the development of new subsoil legislation for projects that do not need to be developed on PSA terms. We believe the Russian government should strive for a tax and license regime that is transparent, stable, enforceable, and that offers investors a fair opportunity to earn a reasonable profit. We would also welcome legislation giving investors access to international arbitration for resolution of commercial disputes. We continue to promote these important steps in our high-level contacts with Russia, in addition to within the context of the U.S.-Russia Energy Working Group, the U.s.-Russia Commercial Energy Dialogue, and through the work of our Ambassador in Moscow and his staff.

In the first wave of international focus on developing Caspian resources in the mid-1990's, the key challenge was to transport these vast reserves of oil and gas from a land-locked sea to world markets in a manner that diversified pipelines as part of our energy security policy, while observing our policy of discouraging investments in Iran's energy sector. The transport challenge largely has been overcome. Thanks in large part to efforts by successive U.S. administrations, with solid bi-partisan backing in Congress, we are succeeding in our policy of developing an East-West Energy Corridor involving multiple export pipelines: The Caspian Pipeline Consortium (CPC) line connecting the Tengiz field in Kazakhstan with the Russian port of Novorossisk began operations in 2001; the Baku Tbilisi Ceyhan pipeline will start shipping oil in 2005, transporting 1 mbd at full capacity; and development of the South Caucasus gas line from Azerbaijan to Turkey is moving ahead, and should begin operations in 2006 with a peak capacity of 7.3 bcm/annually.

Our focus will continue to be on both encouraging improvements in the investment climate, and on how these countries use their revenue. In working on the investment climate, we will continue to promote strengthening the rule of law, stabilizing tax and fiscal requirements, combating corruption, promoting respect for contract sanctity, and improving transparency. As in many countries around the world, there is a sincere desire by both Kazakhstan and Azerbaijan to form partnerships with Western companies in the energy sector—and, even more importantly, a willingness to engage in dialogue when problems do emerge.

A prime example was the recent negotiation between the Kazakhstan government and the ChevronTexaco-led consortium partners of Tengizchevroil (TCO) over TCO's expansion. Though some issues remain on the table, the TCO parties did manage to reach the outlines of a deal and agree to proceed with Phase Two expansion. The good news in this disagreement was that there was extensive dialogue, and President Nazarbayev intervened and facilitated a solution.

Apart from securing new oil supplies for world markets, our Caspian policy is intended to strengthen the sovereignty and economic viability of the new nation states in the region. As these countries continue down their path of development, we hope they use their hydrocarbon dollars to make the long-term investments in responsive governance, education and infrastructure to help avoid falling victim to the so-called "resource curse" that afflicts so many hydrocarbon-exporting regions. That requires transparent management of oil and gas earnings to start, and the political will and economic know-how to use those earnings wisely to move development forward wisely across a multitude of sectors. The establishment of "oil funds" in Kazakhstan and Azerbaijan indicates a welcome recognition that revenue management is critical, and we will be closely engaged to see that the funds generated by energy exports support the broad-based development of these countries.

Impact of Development in the Region on U.S. Energy Supply and Diversification

Our engagement with Russia and the Caspian countries is consistent with the key tenets of our international energy security policy as outlined in the President's National Energy Policy:

1. Promote increased and diversified production of energy from a range of foreign suppliers in many regions.

2. Coordinate effective international measures to respond to physical oil supply disruptions.

3. Encourage major oil producing countries to maintain responsible production policies to support a growing world economy and reduce oil market price volatility.

U.S. energy security is improved by all increased and diversified production of energy that enters the global marketplace. In other words, that new and additional energy from different sources does not need to enter our ports or our refineries to improve our security—it only needs to enter the global supply chain.

Developments in these countries are having a profound effect on global supply and diversification. The Caspian is positioned to be the largest source of non-OPEC supply growth globally in the coming years. Russia already is an energy super-power, and their new energy production—even if the rate of growth decelerates—will enhance U.S. and global energy security and contribute significantly to a well-balanced global supply mix. Even with transportation bottlenecks, Russia exported about 3.5 million barrels/day in 2002, and last week forecast a rise to 4.3 mbd in 2003. When Venezuela went off line, and Nigeria shut-in, and the liberation of Iraq affected supplies, the steady pace of Russian exports, added to OPEC's increased production, helped dampen the shocks.

With large projects in Sakhalin, Tengiz and Kashagan solidly underway, and a multitude of less visible projects already in production, a steady flow of Russian and Caspian oil into the marketplace is assured. Though geography suggests closer markets than the U.S. may be more economical targets for much of that oil, some of it is also likely to flow into U.S. supplies as well. The first supertanker shipments of Russian crude arrived in the U.S. last year and more will arrive over time as Russian producers recognize that market diversity is in their interests.

That said, it is important to remember that neither Russia nor the Caspian region can replace Saudi Arabia as swing producers, nor can they change the fact that two-thirds of proven world oil reserves are in the Middle East. But their definitive arrival in the global energy marketplace has changed the perceptions of the market, and of OPEC.

As for natural gas, exports from Russia to Western Europe contribute significantly to our allies' economic stability and vitality. Russia supplies Europe with approximately 25 percent of its natural gas, and with several new export pipelines planned or already under construction, Russia hopes to continue to help Europe meet increasing demand. With North Sea gas and oil production of slated to dwindle in the coming decade, Russia's gas exports will bolster its contribution to global energy diversification.

Impact of Energy Issues on Overall U.S.-Russia Relationship

Our relationship with Russia on energy issues is a key part of our bilateral relationship, but of course is not the only part. It is a piece of a broader matrix of interaction on a range of issues both political and economic. Our cooperation on energy was revitalized with President Bush and Putin's Joint Statement on Energy in May 2002, and continues with regular meetings of an intergovernmental dialogue within the framework of the U.S.-Russia Energy Working Group. That process is supplemented by a business-to-business dialogue called the Commercial Energy Dialogue, which grew out of last October's highly successful U.S.-Russia Commercial Energy summit in Houston, and was launched in December by Secretaries Evans and Abraham and their Russian counterparts.

Though it is difficult to quantify energy's impact in precise terms, it is clear that our dialogue on energy issues contributes to the overall vibrancy of our ties, and our support for market reforms in the energy sector is one part of our broader advocacy for, and support of, Russia's transition to a democratic, transparent and stable market economy. In addition, as Russian private oil and gas firms continue to improve their corporate governance and transparency in line with the requirements for Western investment, they provide a stimulus for wider such improvements in business practices.

Opportunities for U.S. Companies Given the Investment Climate in Russia and the Caspian

U.S. exploration and production companies are keenly interested in Russia's potential, though they remain concerned about the need for continued improvements in the investment climate, further progress toward a liberalized energy market, and increased export capacity. A sign of their continued belief in Russia's promise, however, is the energetic participation by a broad range of U.S. firms in the U.S.-Russia Commercial Energy Dialogue, and their cooperation with Russian private sector colleagues in jointly developing draft recommendations to our governments on ways to facilitate increased commercial cooperation and investment in Russia. Those recommendations will be presented at the next U.S.-Russia Commercial Energy Summit in September, 2003. As of June 2002, total U.S. private investment in Russia's energy sector had totaled $500 million. Looking ahead, the ExxonMobil-led Sakhalin-1 Consortium plans to invest a total or $15 billion over the lifetime of the project, which should produce 15 billion cubic meters of gas over its lifetime, and 250,000 bpd of oil.

The picture is somewhat different for U.S. oil and gas field equipment manufacturers, for whom Russia should remain a significant target of opportunity despite trouble spots in the investment climate that may affect upstream companies dollar decisions. Russia is currently the fifth largest export market for U.S.-made oil and gas field equipment, with U.S. exports to Russia in this sector in 2002 totaling $328 million—an increase of 16 percent over 2001. Excellent opportunities should exist for the foreseeable future: besides Russian companies' reworking of existing fields and developing new ones, the international consortia developing the huge oil fields offshore Sakhalin Island are expected to invest a total of $30–$45 billion over the lives of their projects. Price is usually the main obstacle to even greater U.S. exports: though Russian oil companies often prefer U.S.-made equipment, it is usually more expensive than domestic alternatives.

In the Caspian, U.S. companies are watching the investment climate closely but are moving forward with alacrity—and we are engaged in helping them do so. We expect about $10–$12 billion in service and equipment opportunities in the next 3–5 years; the figure could go as high as $200 billion over the next twenty years. TCO's expansion alone will cost a massive $3 billion: America's Parsons-Fluor-Daniel JV has already been tapped as general contractor. In addition, with Icazakhstan planning to hold tenders to develop over 100 offshore oil and gas fields, American onshore and offshore entities have extensive opportunity, and precedent for success: Sante Fe Drilling and Parker Drilling are already engaged in projects in Azerbaijan and Kazakhstan, respectively.

The State Department is working closely with U.S. businesses to help them understand the Russian and Caspian Basin environments and energy sector opportunities. The Department, along with the Department of Commerce, organized a Caspian Basin Energy Development Conference in New Orleans in January that was attended by 150 oil contractors and energy representatives. It was well received and we will conduct similar seminars in the future to maximize U.S. companies' chances for success. In addition, our Ambassadors in Russia and the Caspian Basin region, as well as Ambassador Steven Mann, the Senior Advisor for Caspian Basin Energy Diplomacy, are all working closely with U.S. energy providers and advocating on their behalf.

In conclusion: this is a vibrant, important region; the U.S. government is focusing on it extensively; and we hope that we are able to continue translating the opportunities it represents into increases in our energy security.

Senator HAGEL. Mr. Coburn.

STATEMENT OF MR. LEONARD L. COBURN, DIRECTOR, OFFICE OF RUSSIAN AND EURASIAN AFFAIRS, U.S. DEPARTMENT OF ENERGY

Mr. COBURN. Thank you very much, Mr. Chairman. I am pleased to appear before you today to discuss the role that energy plays in Russia, Central Asia, and the Caspian region, and the administration's efforts to enhance our cooperation with these countries.

On April 8, Deputy Secretary Kyle McSlarrow provided this subcommittee with an overview of the important role that energy plays in a global economy and the administration's efforts to enhance our energy security. Today we will focus and concentrate on the administration's energy cooperation with Russia and with the independent republics of Central Asia and the Caspian.

The administration has been extremely proactive in its relations to both regions. And there is a great deal of progress to report on our efforts to enhance energy cooperation. Production and reserve status will be discussed first, and then our energy cooperation with Russia, followed by Central Asia and the Caspian.

Oil production in Russia has rebounded significantly over the last several years, as you mentioned in your opening statement. The table that I handed out as part of my testimony and written statements profiles Russia's oil production over the last decade. In 2003, oil production continues to increase and is now approaching about 8 million barrels a day. As already mentioned, Russia is now the second largest oil producer, the second largest exporter of crude oil behind Saudi Arabia.

In the Central Asian and Caspian region, oil production also has increased substantially over the last decade due to the influx of foreign investment primarily in Azerbaijan and Kazakhstan. Production in 2002 averaged about 1.5 million barrels per day.

When we turn to reserve numbers for both Russian and the Central Asian/Caspian region, these numbers vary widely and are quite difficult to pin down. In Russia, oil and gas reserve numbers remain a state secret. Thus, there are no official reserve numbers. We have looked at various sources. And, for example, the oil and gas journal in 2002 estimates that Russian proven oil reserves are about 50 billion barrels. However, in our conversations with Russian oil companies, we have found that this reserve level is vastly understated. They estimate that reserves should be in the 90 billion to 110 billion barrel range. That would put them equal to about Iraq.

In the Central Asian and Caspian region, reserve numbers also have varied wildly depending upon the source. The Energy Information Administration, which is part of the Department of Energy, indicates that proven reserves are somewhere between 17 billion and 33 billion barrels. There have been estimates to resources, not proven reserves, but resources, in excess of 100 billion barrels.

Well, let's turn to Russia and our energy cooperation with Russia. The U.S. Government's history of energy cooperation engagement dates back to the early 1990s. But in the interest of time, I will focus on this administration's energy engagement with Russia.

The President recognized the importance of the United States' relationship with Russia early on in his administration, elaborating on this relationship in the administration's National Energy Policy issued in May 2001. These policies provide a guide for Russian engagement. And since the policy's creation, the Department of Energy has been active in filling and expanding upon these policies.

It is important to note that the National Energy Policy continues policies that were discussed over the last decade. So, for example, the U.S. Government has been unwavering in its support of sound, legal, fiscal, and regulatory environments in Russia over the last years. We have remained committed to supporting market reform in the energy sector.

The U.S. has also been a strong supporter of oil and gas development in the region. One way in which we, the United States, have sought to enhance our energy supply security is to promote Russian energy resource development and exports. We have expressed our support for these efforts to export crude oil to the United States and the future development of transit routes and terminals that will allow Russian resources to reach American markets. And we can discuss some of these efforts in our follow-up question-and-answer session.

The administration's enhanced energy engagement with Russia developed as a result of the summit held by Presidents Bush and Putin in May 2002 in Russia, where they issued a joint statement on a new U.S.-Russia energy dialogue. This joint statement confirms the importance of energy in our bilateral relations. And the Department of Energy is moving forward on the elements of this dialogue in conjunction with our colleagues at State and other agencies.

In order to accomplish these objectives laid out in the joint statement, the Department of Energy and the Russian Ministry of Energy created a U.S.-Russia energy working group. In that working group, we will be concentrating on five areas of discussion: global oil markets; investment; technology, including energy-efficient, environmentally-friendly clean coal technologies, and oil spill prevention and response; energy information exchange; and small- and medium-sized enterprises.

To date, the energy working group has met three times, most recently earlier this month, on April 7 and 8 here in Washington. And there has been a great deal of progress in all five of the areas that we have focused on.

Last October, in Houston, the Departments of Energy and Commerce organized the first U.S.-Russia commercial energy summit. The Houston summit was co-hosted by Secretaries Abraham and Evans and Energy Minister Yusufov and Economic Development and Trade Minister Gref. The summit was acknowledged by all the participants as a great success.

At the summit, we discussed how to facilitate investment in the Russian and American energy sectors. And we can pursue some of that during our question-and-answer session. Cooperation and partnerships already are under way. These include a variety of projects, such as the Caspian Pipeline Consortium, which brings crude oil from Kazakhstan through Russia to the Black Sea; Sakhalin 1, the largest of the energy development projects out in Sakhalin Island; most recently, Marathon Oil Corporation's acquisition of Khanty Mansiysk Oil Corporation; and another joint venture, the ConocoPhillips Polar Lights joint venture.

We at the Department of Energy and Department of Commerce and State and other agencies will continue to promote commercial partnerships between U.S. and Russian firms in the U.S., Russia, and third countries. The summit we just talked about in Houston featured the announcement of a U.S.-Russia commercial energy dialogue already alluded to by Ms. Borg. And this is industry-led and will increase communication and cooperation among our companies.

The Departments of Energy and Commerce will consult with this group to identify and help remove barriers to energy, trade, and investment. The commercial energy dialogue provides the opportunity for Russian and Western companies to sit together to solve common problems on legislation and regulation of the Russian energy complex. The level of cooperation among our companies and the Russian companies could not be better.

The U.S.-Russia energy dialogue will focus on efforts to promote energy security through discussions with Russian officials of possible technical assistance with the Russian Strategic Petroleum Reserve. Technology will continue to be a focal point of the U.S.-Russia energy relationship. And energy efficiency and gas flaring elimination and reduction strategies will be given special attention in the short term.

We have also included environmental issues in our energy dialogue. When the Secretary of Energy was in Moscow 6 weeks ago, he signed a statement of intent to enter into a dialogue on oil spill prevention and response. This is an important area, as we move towards the reality of increased Russian shipments of oil on the world's oceans.

This fall the U.S. Departments of Energy and Commerce, Russian Ministry of Energy, and Russian Ministry of Economic Development and Trade will be holding the second Commercial Energy Summit. And this summit will have an expanded agenda, which will also include electric power, in addition to oil and gas.

Lest I give you the impression that there are no concerns and problems in our energy dialogue and relationship, I would like to indicate that the path forward is not smooth and not straightforward. While oil production continues to increase, Russian oil exports are hampered by serious infrastructure problems. Today, Russian oil tankers do not have access to a deep water port where crude oil can be transported long distances in an economically sound and environmentally safe manner. Long distance markets, such as the U.S., China, or the Asian Pacific, are future targets of Russian crude oil. But these markets require either access to deep water ports or new long-distance pipelines or some combination of pipelines and ports.

These facilities will be expensive. And they are now being considered by the Russian Government. But who will own them, operate them, and finance these projects is under active consideration. The results of this debate and the development of these new infrastructure projects will help determine whether additional Russian oil will flow into world oil markets, increasing the diversity of global supply and thereby enhancing the U.S.'s energy security.

The opportunities for U.S. companies to invest in Russia again are not so clear and straightforward. Russia has gone through a series of changing attitudes towards Western investment and its desirability and necessity. When oil prices are relatively low or the Russian economy weak, Western investment has been attractive. And Russian policymakers have been active promoters of it. With a more robust Russian economy and higher oil prices, Russian policymakers have changed their tune. Regulatory, legal, and tax and other fiscal policies reflect this changing environment.

The history of production-sharing legislation is a good example of changing attitudes. And we can talk about the ups and downs of production-sharing legislation and its attractiveness in our question-and-answer session.

Let me turn to Central Asia and the Caspian, since the experience there is both different and similar. Most important, there have been substantial investment successes by Western and U.S. companies in the region. Following the breakup of the Soviet Union in 1991, this region attracted the interest of the international energy community because of the huge oil and natural gas reserves believed to lie both onshore and offshore beneath the Caspian Sea.

With independence, both Azerbaijan and Kazakhstan welcomed international investors, and big production-sharing agreement contracts have been signed in both countries. These projects, developed by Western investors, including companies from the United States, have created thousands of jobs, provided access to improved technology, including training for the labor force, invested in social infrastructure, increased the commitment to environmental protection, and encouraged the establishment of many small- and medium-sized enterprises in these countries.

One of the major difficulties faced by Caspian states, as they attempt to develop and export their energy resources, has been the lack of export outlets. The administration has consistently supported the development of new pipeline projects, especially the east-west transport corridor that would stretch from Kazakhstan, through Azerbaijan, Georgia, and Turkey to the Mediterranean. The fulfillment of this transport corridor is already in the works. The Caspian Pipeline Consortium that I mentioned earlier is one element of it. The Baku-Tbilisi-Ceyhan pipeline under construction is another element of it. And negotiations are under way to facilitate the shipment of oil from Kazakhstan for transport through this line.

There is a second issue inhibiting oil and gas development in the Caspian Sea. And that is the unresolved legal status of the sea. And again, we could discuss that during the question and answer.

As in Russia, the United States Government has consistently supported the development of Central Asian countries' sound, legal, fiscal, and regulatory policies to support economic growth, including energy development. The Department of Energy has maintained ongoing dialogues with energy officials from Kazakhstan and Azerbaijan on market reform in the energy area. And in December 2001, we established a U.S.-Kazakhstan energy partnership in order to further this dialogue.

In Azerbaijan, Energy Department officials, including the Secretary, have met on a regular basis with representatives of the Azerbaijan Government. And we have recently begun an initiative to expand our cooperation beyond oil and gas to energy efficiencies and renewable technologies. As with Russia, there are problems. With economic growth, the government of Kazakhstan has developed somewhat ambiguous feelings about foreign investment, just as it has happened in Russia. The investment climate has been affected by such things as changes in laws relating to domestic content and government policy on visas for expatriate workers.

A recent dispute over the provisions of the production sharing agreement with Tengizchevroil, which is the largest oil development in Kazakhstan and is led by ChevronTexaco, while it was resolved, led to a government statement that future production-sharing agreements would have less favorable provisions for foreign investors. We will continue to encourage the government of Kazakhstan to improve its investment climate and attract the billions of dollars in investment required to develop projects.

This administration has had an extremely proactive approach to energy dialogue with both Russian and the Central Asian and Caspian regions. We have made good progress and have achieved some successes. But we are by no means finished with our agenda. We will continue to engage the governments of these countries to enhance our cooperation and build upon the work already under way.

Mr. Chairman, I would like to thank you for the opportunity to testify before you today. And I welcome any questions that you might have.

Senator HAGEL. Mr. Coburn, thank you.

[The prepared statement of Mr. Coburn follows:]

PREPARED STATEMENT OF LEONARD L. COBURN

Thank you, Mr. Chairman. I am pleased to appear before you today to discuss the important role that energy plays in Russia and Central Asia and the Caspian region and the Administration's efforts to enhance our cooperation with these countries.

Introduction

On April 8, 2003, Deputy Secretary Kyle McSlarrow provided this Subcommittee with an overview of the important role that energy plays in the global economy and the Administration's efforts to enhance our energy security. Today, we will narrow our focus to concentrate on the Administration's energy cooperation with Russia and with the independent republics of Central Asia and the Caspian.

The Administration has been extremely proactive in its relations with both regions, and there is a great deal of progress to report on our efforts to enhance energy cooperation. Production and reserve status will be discussed first and then our energy cooperation with Russia followed by Central Asia and the Caspian.

Oil Production and Reserves

Oil production in Russia has rebounded significantly over the last several years. The attached table profiles Russian oil production over the last decade. If one looks further back, Russia (the Soviet Union) produced about 12 million barrels per day at its peak. With the dissolution of the Soviet Union, oil production dropped dramatically to the level shown in the table and continue to drop through the mid-1990s. The rebound started in 1999 due to several factors, including higher oil prices, reinvestment by the privatized companies back into the Russian oil industry, lower production costs due to Ruble devaluation, and the introduction of western technology to upgrade existing oil fields in Western Siberia. In 2003, oil production continues to increase and is approaching eight million barrels per day. Russia is now the second largest producer and second largest exporter of crude oil behind Saudi Arabia.

In the Central Asian-Caspian region, oil production also has increased substantially over the last decade, due to the influx of foreign investment in Azerbaijan and Kazakhstan. If Russian oil production is excluded from the production figures, the increase of 2001 over 1990 is about 31 percent. Production has continued to increase from the region and in 2002 averaged about 1.5 million barrels per day.

Reserve numbers for Russia and the Central Asia-Caspian region vary widely and are difficult to pin down. In Russia, oil and gas reserve numbers remain a state secret; thus there are no official reserve numbers. There have been many estimates provided by consulting companies and Russian oil companies. Oil and Gas Journal's 2002 estimates put Russian proven oil reserves at about 50 billion barrels. Several Russian oil companies indicate that this reserve level vastly understates the actual reserves. They estimate the reserves should be in the 90 to 110 billion barrel range. If Russia unlocks its data and no longer says that reserves numbers are a state secret, more accurate estimates of reserves will be available.

In the Central Asia-Caspian region, reserve numbers also have varied widely depending upon the source. EIA indicates that proven reserves are somewhere between 17 and 33 billion barrels. The have been estimates of resources (not proven reserves) in excess of 100 billion barrels. As more exploration is done in the region and more delineation of deposits is undertaken, better reserve figures will be forthcoming. For the time being, we must make due with the current estimates.

Russia

The U.S. Government's history of energy engagement with Russia dates from the early 1990's, but in the interest of time, I will focus on this Administration's energy engagement with Russia. The President recognized the importance of the United States' relationship with Russia early on in his Administration, elaborating on this relationship in the Administration's National Energy Policy, issued in May 2001.

The National Energy Policy provides that the U.S. will:

- Make energy security a priority of our trade and foreign policy,
- Improve dialogue among energy producing and consuming nations,
- Deepen the focus of the discussions with Russia on energy and the investment climate, and
- Assist U.S. companies in their dialogue on the investment and trade climate with Russian officials, to encourage reform of the Production Sharing Agreement law and other regulations and related tax provisions, as well as general improvements in the overall investment climate. This will help expand private investment opportunities in Russia and will increase the international role of Russian firms.

These policies provide a guide for Russian engagement, and since the policy's creation, the Department of Energy has been active in fulfilling and expanding upon the policies. In the past decade, the U.S. government has been unwavering in its support of sound legal, fiscal, and regulatory environments in Russia.

The U.S. government has remained committed to supporting market reform in the energy sector. The Department of Energy continues to work with our counterparts to promote a fair and clear regulatory framework and tax regime, sound corporate governance, environmental protection, and increased partnership and investment.

The U.S. also has been a strong supporter of oil and gas development in the region. One way in which we have sought to enhance our energy supply security is to promote Russian energy resource development and export. We have watched with great interest the development of Russian oil and gas resources by the privatized Russian oil companies and especially noted the rapid increase in oil production over the past four years.

We have expressed our support for the efforts of Russian companies to export crude to global markets, including the U.S., and the future development of transit routes and terminals that will allow additional Russian resources to reach the world market. While we are not in the business of picking among the various proposals for new infrastructure, we support efforts being made in general to enhance and expand the current pipeline infrastructure so that exports can increase, and be made on an economically and environmentally sound basis.

The Administration's enhanced energy engagement with Russia developed as a result of the Summit held by Presidents Bush and Putin in May 2002 in Russia where they issued a Joint Statement on a new U.S.-Russian Energy Dialogue. It confirms the importance of energy in our bilateral relations and the Department of Energy is moving forward on the elements of this dialogue, which include:

- Developing bilateral energy cooperation,
- Enhancing our discussions on global oil and energy markets,
- Facilitating commercial cooperation among our companies,
- Encouraging investment in the Russian energy sector,
- Promoting access to world markets for Russian energy,
- Fostering the use of unconventional energy sources, including energy efficient and environmentally clean technologies, and
- Cooperating in the development of safer nuclear power technologies.

The emphasis that Presidents Bush and Putin place on the development of energy cooperation between our two countries and our many companies offers the promise of a bright energy future based on partnership for the development not just of Russia's vast untapped energy resources but on cooperation in energy projects of all kinds in both countries and around the world.

In order to accomplish these objectives, the Department of Energy and the Russian Ministry of Energy created a U.S.-Russia Energy Working Group. We will be concentrating on five areas:

- Global oil markets,
- Investment,
- Technology, including energy-efficient, environmentally friendly, and clean coal technologies,
- Energy information exchange, and
- Small- and medium-sized enterprises.

Work plans for these areas have been finalized, and we are cooperating on a variety of matters beneficial to both sides. The Energy Working Group has met three times, most recently on April 7–8, 2003. There has been a great deal of progress in all five subgroups. We have not limited our engagement just to the formal Energy

Working Group meetings. We have met in between these meetings where we have held workshops and roundtable discussions to share ideas and experiences in a variety of areas. For example, most recently our oil market and investment subgroups met in Moscow in March where we engaged in discussions on long-term energy forecasting, fiscal regimes for oil and gas development and regulation of the electricity and natural gas industries.

Last October, the Departments of Energy and Commerce organized the first U.S.-Russia Commercial Energy Summit. The Houston summit was co-hosted by Secretary Abraham, Commerce Secretary Evans, Energy Minister Yusufov, and Economic Development and Trade Minister Gref. The Summit was acknowledged by participants, co-chairs, and industry observers as a great success.

At the outset of the Summit, Secretary Abraham stressed that the government's job is to create the framework of laws and rules that will allow our companies to form partnerships with confidence in the security of their arrangements and to operate in a competitive market and free trade environment.

At the summit we discussed how to facilitate investment in the Russian and American energy sectors, and facilitated opportunities for U.S. and Russian companies to work together on future investments in each other's energy industries, and in other parts of the world. In Houston, companies engaged in business-to business networking, learned from their colleagues, and discussed avenues for cooperation and partnership.

Cooperation and partnerships already are underway. Last year I was in Russia for the opening of the Caspian Pipeline Consortium (CPC) pipeline, which today carries about 270,000 barrels a day of oil from Kazakhstan's Tengiz oil field across Russia to a deepwater port on the Black Sea. By this time next year, CPC is expected to ship almost double its present volumes as throughput reaches its design capacity of 450,000 barrels a day. The pipeline, which has eleven international partners, will eventually reach a capacity of over one million barrels of oil per day. It represents an enormous investment in a project that required more than mere bilateral cooperation. There are other projects involving U.S. companies, including Sakhalin I, with ExxonMobil in the lead developing oil and gas resources off the coast of Sakhalin I, which will eventually be the largest western investment project in Russia, Marathon Oil Corporation's recent acquisition of Khanty Mansiysk Oil Corporation, and ConocoPhillips Polar Lights joint venture.

The summit highlighted the latest advances in environmentally friendly energy technology. Other panel sessions focused on the promotion of small- and medium-sized enterprises and training and education programs in the energy sector. Summit participants also had the opportunity to engage in site visits, where oil and gas leaders showcased their latest technological achievements and facilities.

At the conclusion of the Summit, the four co-chairs, Secretary Abraham, Secretary Evans, Minister Yusufov, and Minister Gref, signed a joint statement outlining the future goals of the U.S.-Russia energy relationship.

They declared their commitment to common goals: enhanced global energy security, including through maintaining an energy dialogue between energy consuming and producing countries; increased diversification of supplies; improved business and investment environment; expansion of commercial partnerships; and commitment to environmentally responsible development of resources. The Joint Statement also reaffirmed our commitment to cooperation in a number of areas in the energy sector.

We will continue to promote commercial partnerships between U.S. and Russian firms in the U.S., Russia, and third countries. The Summit featured the announcement of a U.S.-Russia Commercial Energy Dialogue that will be industry led and will increase communication and cooperation. The Departments of Energy and Commerce will consult with this group to identify and help remove barriers to energy trade and investment. When I was in Moscow six weeks ago, I heard first hand from many of the companies that are participating in the Commercial Energy Dialogue. What I learned from these discussions is that for the first time Russian and Western companies are sitting together to solve common problems on legislation and regulation of the Russian energy complex. The level of cooperation could not be better.

Efforts to promote energy security will continue through discussions with Russian officials of possible technical assistance with a Russian strategic petroleum reserve. During the Houston Summit, Secretary Abraham accompanied Minister Yusufov on a visit to the Strategic Petroleum Reserve location in Texas. They toured the site and further discussed the possibility of the development of a Russian Strategic Petroleum Reserve. We have discussed this idea in our energy working group. The Russian government is still debating the need and purpose of creating a strategic reserve.

Technology will continue to be a focal point of the U.S.-Russia energy relationship, and energy efficiency and gas flaring elimination and reduction strategies will be given special attention in the short term. Advanced technology makes environmentally responsible energy projects possible. It allows us to produce more, explore opportunities with greater success, and solve challenges posed by the entire spectrum of activities associated with the production and delivery of energy. Advanced technology offers an important arena for increased trade, investment and cooperation.

We also have included environmental issues in our energy dialogue. When the Secretary of Energy was in Moscow six weeks ago, he signed a Statement of Intent to enter into a dialogue on oil spill prevention and response. This is an important area as we move towards the reality of increased Russian shipments of oil on the world's oceans. We held our first meetings to implement this dialogue in early April and more meetings are being planned for the next couple of months.

U.S. Department of Energy, U.S. Department of Commerce, Russian Ministry of Energy, and Russian Ministry of Economic Development and Trade officials have started planning for the next Commercial Energy Summit to take place in Russia in the fall. This next summit will include discussion of electric power in addition to oil and gas. We have been watching with great interest the passage of electricity legislation in the Duma and Federation Council. In anticipation of final passage later this spring, DOE and the major Russian electric company Unified Energy Systems held an electricity markets conference in late February in Washington to discuss the U.S. experience in restructuring the electric power industry. We also heard from our Russian colleagues on the challenges that lie ahead. It was an excellent discussion and it will not be the last.

Lest I give you the impression that there are no concerns and problems, I would like to indicate that the path forward is not smooth and straightforward. While Russian oil production continues to increase, Russian exports are hampered by serious infrastructure problems. Today, Russian oil tankers do not have access to a deepwater port where crude oil can be transported long distances in an economically sound and environmental safe manner. The major ports of Novorossiysk on the Black Sea and the ports either in the Baltics or at Primorsk in the Gulf of Finland all have constraints on the size of tankers that can transit the Turkish Straights or the Baltic Straights. The Druzhba pipeline system into Europe also has limitations and bottlenecks, but more importantly, there is insufficient demand in Europe to accommodate growing Russian oil production. Thus, long-distance markets such as the U.S., China or the Asia-Pacific are the future targets of Russian crude oil. These markets require either access to deep water ports, or new, long-distance pipelines, or some combination of pipelines and ports. These facilities will be expensive, but are now being considered by Russia. Who will own, operate and finance these projects is under active consideration. The results of this debate and the development of these new infrastructure will help determine whether additional Russian oil will flow into world markets—increasing the diversity of global supply, thereby enhancing the U.S.'s own energy security.

The opportunities for U.S. companies to invest in Russia again are not so clear and straightforward. Russia has gone through a series of changing attitudes towards western investment and its desirability and necessity. When oil prices are relatively low, or the Russian economy weak, western investment has been attractive and Russian policymakers have been active promoters of it. With a more robust Russian economy and higher oil prices, Russian policymakers have changed their tune. Regulatory, legal, and tax and other fiscal policies reflect this changing environment. The history of Production Sharing Agreement (PSA) legislation is a good example of changing attitudes. PSAs are attractive to foreign investors in relatively unstable economies because they state in one negotiated document how much a company will have to pay to the government for the right to exploit the resource, how costs will be recovered, which legal regime will be used in the event of disputes and many other rights and obligations. Many nations around the world have used PSAs as a tool to develop their energy resources. At first, Russia accepted the use of PSAs and enacted legislation in 1995 establishing the right to negotiate PSAs on designated deposits. The legislation needed amending in order for it to be successful, and these amendments took years, but were eventually passed. More recently, as Russia has reformed its tax code, the PSA legislation had to be harmonized with the new tax code. With a resurgent domestic oil industry in Russia and the creation of a more modern tax code, the need for PSAs has been questioned by the government and strongly opposed by some Russian companies. Recent pronouncements by the government indicate that only a relatively few projects will be permitted under the PSA regime. This is a disappointment to the more than 30 projects that had been designated eligible for PSA treatment. Some western companies state they are not willing to move forward without PSA protection on their projects. Others have taken a more flexible approach. Still others are willing to move forward under the current tax regime. It is a time of uncertainty, especially for the large, high cost projects in high risk areas.

Central Asia-Caspian

The experience in Central Asia-Caspian region is both different and similar. Most important, there have been substantial investment successes by western and U.S. companies in the region. Following the breakup of the Soviet Union in 1991, this region attracted the interest of the international energy community because of the huge oil and natural gas reserves believed to lie both on shore, but especially offshore beneath the Caspian Sea. The Sea is 700 miles long and contains six separate identified hydrocarbon basins, most of which have not been developed.

With independence, both Azerbaijan and Kazakhstan welcomed international investors. On September 20, 1994, Azerbaijan signed the "Contract of the Century." This contact was in the form of a PSA with a consortium of 11 foreign companies (three American companies) from six nations for the development of three major oil fields in the Azerbaijan sector of the Caspian Sea—the Azeri, Chirag and Gunashli (ACG) fields.

In April 1993, Kazakhstan signed a PSA with a consortium led by Chevron to develop the Tengiz oil field. The Tengizchevroil consortium (with ChevronTexaco and ExxonMobil owning the majority share in the project) is planning to invest $3 billion over the next few years. With adequate export outlets, 750,000 bbl/d could be provided to international markets by 2010. A second, huge oil deposit is being developed in the offshore Kashagan block (again with U.S. company participation).

These projects developed by western investors, including companies from the United States, have created thousands of jobs, provided access to improved technology including training for the labor force, invested in social infrastructure, increased commitment to environmental protection, and encouraged the establishment of many small and medium sized enterprises in these countries.

One of the major difficulties faced by Caspian states as they attempt to develop and export their energy resources has been the lack of export outlets. During the Soviet era, all of the oil and natural gas pipelines in the Caspian Sea region (aside from limited capacity in northern Iran) were routed through Russia. Prior to 1997, exporters of Caspian region oil had only one major pipeline option available to them, a 240,000 bbl/d pipeline from Kazakhstan to Russia. Since independence, several new oil export pipelines have been built, including the CPC pipeline mentioned earlier. However, the relative lack of export options continues to limit exports to markets outside the former Soviet Union. The Administration has consistently supported the development of new pipeline projects, especially an East-West transport corridor that would stretch from Kazakhstan through Azerbaijan, Georgia and Turkey to the Mediterranean. The Baku-Tbilisi-Ceyhan (BTC) pipeline is under construction and negotiations are underway to facilitate the shipment of oil from Kazakhstan for transport through this line. In support of the Administration's commitment to multiple pipelines, the Trade and Development Agency has funded feasibility studies of several Bosporus Bypass pipeline projects that would carry Russian and Central Asian oil from Western Black Sea ports to Western Europe.

A second issue inhibiting oil and gas development in the Caspian Sea is the unresolved legal status of the Sea. Prior to 1991, only two countries—the Soviet Union and Iran—bordered the Caspian Sea, and the legal status of the Sea was governed by 1921 and 1940 bilateral treaties. With independence these treaties became invalid and the ownership and development rights in the Sea have not been resolved. While only the Caspian littoral states can negotiate an agreement, the United States has provided technical legal expertise.

As in Russia, the United States Government has consistently supported the development by Central Asian countries of sound legal, fiscal and regulatory policies to support economic growth, including energy development. The Department of Energy has maintained on-going dialogues with energy officials from Kazakhstan and Azerbaijan on market reform in the energy area. In December 2001, we established a U.S.-Kazakhstan Energy Partnership. This Partnership has met three times. In September 2002, Secretary Abraham and his counterpart signed a Work Program that commits us to cooperation in the following areas:

- Oil and gas project development;
- Realization of multiple pipeline options for export of both oil and gas;
- Improving the investment climate;
- Market reform and increased investment (including energy efficiency and renewable technologies) in the electric power sector;

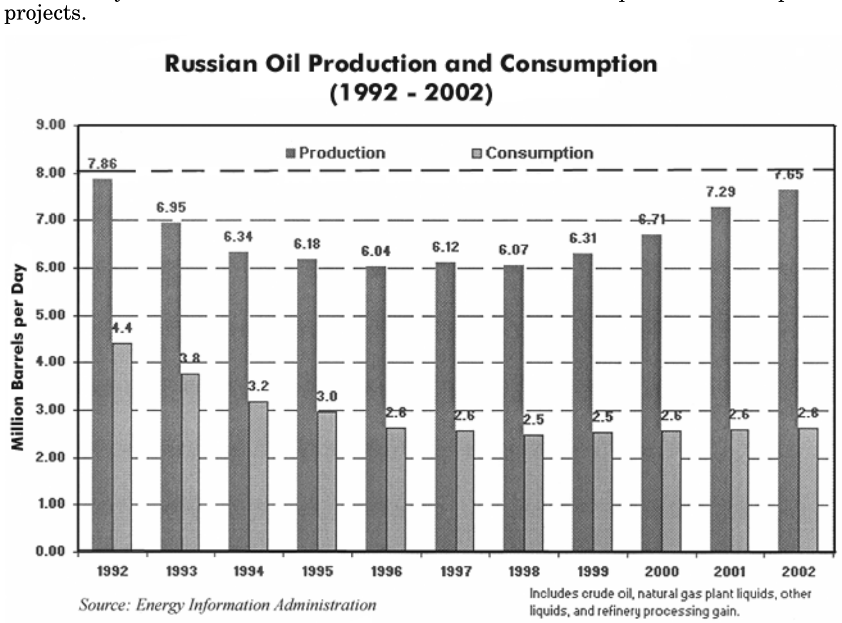
- Energy related environmental protection and regulation;
- Energy facility security; and
- Energy science research.

We have conducted workshops on oil spill response policy planning, cooperation in environmentally related marine science, and facilities security in Kazakhstan. A dialogue is underway in all of these areas.

Secretary Abraham visited Azerbaijan in September 2002 for the BTC ground breaking ceremony and delivered a strong statement of Administration support for the efforts of the government and the ACG consortium to develop additional and alternative pipeline routes for Caspian oil and gas. Departmental officials, including the Secretary, meet on a regular basis with representatives of the Azerbaijan government and have recently begun an initiative to expand our cooperation beyond oil and gas to energy efficiency and renewable technologies. Use of these technologies could provide significant long-term energy savings for the Azerbaijan government as it invests in new housing for its substantial refugee population.

Speaking of the long-term, we have also underway a program to encourage development of joint research projects between scientists in Central Asia and the Caucasus and scientists in the Department's national laboratories. We had one meeting last August that included representatives of U.S. government funding programs and will hold a second meeting in August this year. We maintain a website (http://pims.ed.ornl.gov/) in cooperation with the Department of Defense that encourages this cooperation and offers a tool for research facilities in these countries to demonstrate their capabilities.

As with Russia there are problems. With economic growth, the government of Kazakhstan has developed ambiguous feelings about foreign investment as has happened in Russia. The investment climate has been affected by such things as changes in laws relating to domestic content and government policy on visas for expatriate workers. A recent dispute over provisions of the PSA with Tengizchevroil, while resolved, led to a government statement that future PSAs would have less favorable provisions for foreign investors. The Kazakhstan government concedes that the original investors assumed a higher level of risk when they entered the Kazakhstan market and appear willing to support the terms originally negotiated. When a new series of blocks is offered for lease later this year, the direction of the government with respect to investment terms will become more clear. We will continue to encourage the government of Kazakhstan to improve its investment climate and thereby attract the billions of dollars in investment required to develop these projects.



- Russia's oil industry, which was largely privatized in the mid-1990s, has bounced back over the past few years, posting strong profits and healthy increases in production. Buoyed by relatively high world oil prices in 1999 and 2000, as well as a decline in production costs following the August 1998 devaluation of the ruble, Russian oil companies ramped up production, and by 2002 the country was pumping out an average of 7.65 million bbl/d—a 26 percent increase over the 1998 level.

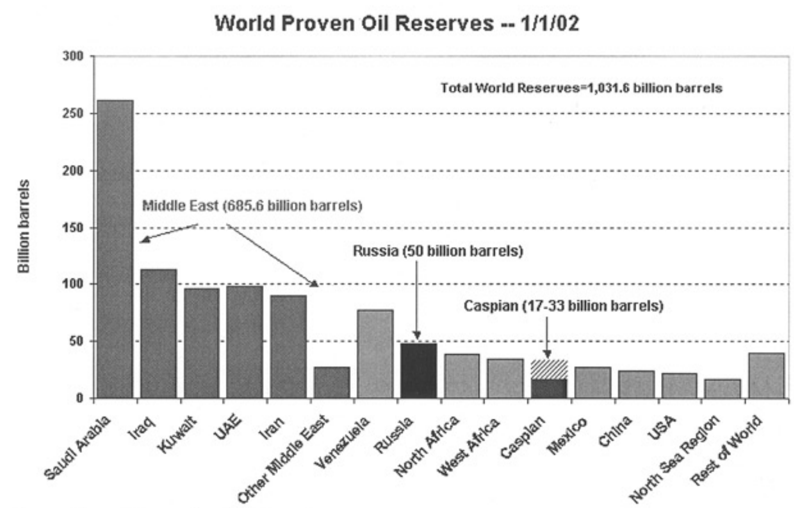
Caspian Sea Region Oil Production

(thousand barrels per day)

Country	Production (1990)	Estimated Production (2001)
Azerbaijan	259	311.2
Kazakhstan	602	811
Iran*	0	0
Russia**	144	11
Turkmenistan	125	159
Total	1,130	1,292.2

Source: Energy Information Administration
* only the regions near the Caspian are included
** includes Astrakhan, Dagestan, and the North Caucasus region bordering the Caspian Sea

- Overall, oil production in the Caspian Sea region reached approximately 1.3 million bbl/d in 2001, this represents an approximately 160,000-bbl/d increase since 1990.



Source: Energy Information Administration

- Estimates of the Caspian Sea's oil reserves vary widely by source. For this reason, we have presented proven oil reserves as a range between 17 and 33 billion barrels.
- The upper end of this range (33 billion barrels) is based on an independent geological survey, conducted in 1998 by Petroconsultants. The lower end of the range comes from 2003 industry publications. Given the region's rapid development, EIA considers the higher estimates to be most plausible, and may not include recently discovered reserves.
- These 2002 figures include Oil and Gas Journal's estimates of conventional world oil reserves. In 2003, Oil and Gas Journal included Alberta's oil sands, which significantly changes total world estimates by increasing Canadian proved reserves from 5 billion to 180 billion barrels.

Conclusion

This Administration has had an extremely proactive approach to energy dialogue with Russia and the Central Asia-Caspian regions. We have made good progress and have achieved some successes, but we are by no means finished with our agenda. We will continue to engage the governments of these countries to enhance our cooperation and build upon the work already underway.

Mr. Chairman, I would like to thank you for the opportunity to testify before you today, and I welcome any questions you and the Committee might have.

Senator HAGEL. We appreciate both yours and Ms. Borg's testimony.

Let me begin with a couple of questions of Russia for each of you. What effect do you believe there will be on Russia's attitudes toward oil recovery production overall as we sort out the issues in Iraq? Obviously, you both are aware of the Russian-Iraqi oil arrangements, or at least generally some of those arrangements over the years. And if you each could amplify a bit on what your thoughts are as to what effect the outcome of the Iraqi situation will have or not have on production in Iraq, Russia's relationship with that production, with the United States or will it be affected at all.

Ms. Borg?

Ms. BORG. Thank you very much, Mr. Chairman. Iraq, of course, had significant—Russia had very significant economic ties, of course, with Iraq, being a leading supplier under the Oil for Food Program and having a number of contracts that I think we all had heard about, including the Lukoil, the large Lukoil contract that was abrogated right before the war.

Dismantling the Oil for Food Program, of course, doesn't mean an end to their ability to be a supplier, whether it is in food or in oil contracts or any other ways. And so while we have had differences, of course, with Russia on Iraq, our hope is that, as we move forward in the post-conflict period, that we will be able to have a more cooperative, that we will be able to work with them in a cooperative way in addressing the situation there, including the end of the oil—including lifting sanctions.

We can imagine that they will have an interest, that Iraq, of course, has huge, as Mr. Coburn has pointed out, huge oil reserves. And I think that people will look to that with interest. I think our policy has been very clear that we see, as the President, Secretary Powell, and others have said, we see Iraq oil as being for the Iraq people. And we hope that at the earliest opportunity it will be turned over to Iraqis to decide on both any existing contracts and any future contracts, as well as contracts for oil and supply equipment.

Senator HAGEL. Thank you.

Mr. Coburn?

Mr. COBURN. Well, I agree with everything that Ms. Borg stated. I think it is very clear that the future relationship of Russia and Iraq has to be sorted out by the new government that is in Iraq when it becomes stable and is able to look out to the future and settle its past claims and its past contracts, it will be its decision.

Certainly the energy relationship with the United States and Russia I do not think will be affected by what happens in Iraq. For example, while we were at war in Iraq, we conducted our energy working group meetings here in Washington, very successful meetings. There was no discernible lessening of interest in our relationship and what we were trying to achieve because of what was going on in Iraq.

So I think in that respect the Iraq situation is somewhat of a whole different element in what we are trying to achieve with Russia and the Caspian states.

Senator HAGEL. So you both essentially, in a general way, do not believe there will be a significant impact one way or the other. Okay. Thank you.

You mentioned the working group, the dialogue. You have presented a rather positive picture of how that has been progressing. Would you go a little deeper into that? What, for example, would you point to over the last 6 months where we could say that there are tangible results developing here, as a result of that working group dialogue?

Mr. COBURN. I would be very pleased to address that. My office at the Department of Energy, acts as the secretariat for the Department of Energy in the energy working group. We help manage this for the Government. In the five areas that we have focused on, I would say that, for example, in oil market discussions we have been able to have very robust discussions about the U.S. role and the Russian role in oil markets, something that the Russians are groping with as they become a very significant player in oil markets. Their need to understand how oil markets work, the impact of supply-demand issues on oil markets, forecasts for the future are something that they seek more information about. And we have been able to go into rather detailed discussions over the last year on these types of issues.

Senator HAGEL. Markets for them?

Mr. COBURN. Markets for them, as well as the interaction with OPEC, for example, the Organization of Petroleum Exporting Countries, what the impact of spare capacity has on a market, what is the impact of the ability to export to foreign markets, how can they penetrate foreign markets, what is necessary for them to do that.

So we have had some very good discussions about these roles. And it has a feedback into what is going on in Russia in terms of infrastructure development and their development of their own internal investment needs as they see future markets in the U.S. and elsewhere, as I mentioned in my statement.

Senator HAGEL. And that would be part of it as well, where there are opportunities in the United States for them, as well.

Mr. COBURN. Exactly, I mean, they are looking towards the United States as a potential market. They are looking certainly to the Far East as a potential market. They are very interested in what those opportunities are, how they can set up marketing arrangements in the United States. One company has already done that. Lukoil has an arrangement with Getty and markets oil here in the United States. Other companies are seeking to do similar things, buy refineries, figure out how they gain access to deep water ports.

So all those issues have been discussed and will be continued to be discussed in the energy working group, as well as in the energy dialogue that we have, the commercial energy dialogue.

In the investment area, we have discussed a great deal the productions-sharing issue that I mentioned earlier in my testimony. This issue is important to U.S. companies, because it looked like the mechanism, and the best mechanism, for ensuring that companies could invest in Russia in a secure way in high-risk projects. We continue to work the issue, although we have had some disappointing twists and turns in the last few months. We have heard government statements that there will be a severe limitation on production-sharing agreements and the ability to use them in the future.

But at the same time, this opens up different avenues of discussion in terms of trying to find other ways to address high-risk projects. And when I mean high risk, I mean the ones that will cost $10 billion to $15 billion over the life of the project, that are going into unexplored areas where there is no infrastructure, places like Sakhalin Island or East Siberia.

The Russians are very receptive to hearing our ideas about, as well as the companies' ideas about, how they can address those types of projects and bring in investment from the private sector, if it requires changes in their tax regime or in their licensing and other subsoil laws. We have had all those under discussion over the last several months and years.

Senator HAGEL. Do they bring back resolutions, concepts, when they come back for the next meeting after you have discussed some of the examples you have just mentioned, as Ms. Borg did, changes in tax laws, transparency, some of the other issues that they are dealing with? How do you move that forward? Do they come back with something tangible, when they say, now we have been able to do this or we have gone to the Duma, or how does that work? Other than just discussing it, how do they come back with some results?

Mr. COBURN. Well, I think the way it works is primarily we see progress in changes or proposals for changes in legislation in the Duma. Certainly there has been a lot of discussion going on regarding the tax regime about how to address the issue of high-cost, long-term investment. There are a variety of proposals that are on the table. We communicate, and I think it gets translated into discussions at the company level. It comes back up again in discussions at the Duma on alternatives and ways to address these issues.

So if it is not necessarily brought back into the energy working group, you can sort of see the ideas that we talk about starting to proliferate through government action and government proposals for change in what they are trying to do. They certainly——

Senator HAGEL. Has there been an increase that we have noted in the last year, or a decrease, in American investment in the Russian energy sector?

Mr. COBURN [continuing]. I do not think we have seen a major change one way or the other. I think we have seen a little hesitancy in some of the large projects. But as I mentioned in my statement, we have just seen Marathon buy a small company, Khanty Mansiysk. So there is an example of continued investment. The largest investment right now is the Caspian pipeline. Sakhalin 1 continues to move forward. And they just recently announced their intent to commit to full development of Sakhalin, which is led by ExxonMobil.

Some of the other companies are feeling a little under the gun in the sense that they are not willing to make those commitments absent a long-term arrangement, whether it is production sharing or something else in high-risk areas.

So to say there has been a lessening, I do not think so. I think it has been fairly steady. One area that I think Anna mentioned, which has been really the best area for not necessarily investment but for success, has been our service companies working with Russian companies primarily, but also with Western companies, in going back into the existing oilfields and helping to achieve the level of production that the Russians are now at, because of their ability to rely on Western technology.

Senator HAGEL. Before I turn to Ms. Borg—thank you. What about natural gas in Russia? Same set of questions.

Mr. COBURN. Natural gas is a challenge in the sense that it is controlled by Gazprom. About 90-plus percent of Russian production is controlled by Gazprom. All the transportation is controlled by Gazprom and their pipelines. I think there are plans on the drawing board for reform of the system. When that will take place is open to speculation.

The Russians have been moving faster on the electric power side. And I think Gazprom is probably, and the natural gas industry is probably, next in line for change and reform. But I think that is going to take a number of years. And the pressure is coming not only from the West, but it is also coming from the Russian companies themselves, who are amassing large gas reserves and would dearly like to be able to transport it to third parties.

Senator HAGEL. Where is most of the Russian energy sector investment coming from, Europe?

Mr. COBURN. In terms of foreign investment?

Senator HAGEL. Foreign investment.

Mr. COBURN. I would say probably the largest investor right now is the United States. Secondly would be Europe. The Germans have been very active. The French have been very active in a variety of—the Italians, as well.

Senator HAGEL. What arrangements are we aware of between the Russians and the Chinese on a number of these energy projects?

Mr. COBURN. Well, I think the most important one is the announcement of a pipeline from Russia to China, going from Angarsk, which is at the very eastern end of the Russian pipeline system, to Daqing. This was originally proposed by Yukos and has now been taken up by the Russian Government as a proposal that it wants to pursue. And we heard an announcement earlier this month from the Prime Minister indicating that that pipeline will be built, the one form Angarsk to Daqing. So I think that is an indication that Russia is attempting to penetrate the Chinese market and will be successful with the construction of that pipeline.

Senator HAGEL. Thank you.

Ms. Borg, we have ranged out over a number of questions. And so I would very much appreciate your thoughts on each of those questions, if you care to offer them. Thank you.

Ms. BORG. Thank you very much, Mr. Chairman. We work very closely on all these issues with the Department of Energy and with Mr. Coburn and his colleagues. I might just make one additional comment, a couple of different comments.

One, we have discussed a little bit what we are doing bilaterally on the issue of investment climate and liberalization and looking at other areas. We also work on these issues multilaterally through the International Energy Agency. I represent the State Department on the governing board. And together, we go to most of their meetings.

Russia has now a very intense dialogue with the International Energy Agency, which we have been very supportive of, so that the agency has been providing advice to the Russians and discussions with them on the whole range, from liberalization of gas markets, how it is done, pricing, transparency, a whole range of issues, including conferences that have occurred and will occur in Russia and with a Russian focus.

The Russian Energy Minister, for example, was a special guest speaker yesterday at the International Energy Agency's ministerial. I think this kind of dialogue, the multilateral dialogue, also reinforces and helps the bilateral focus on some of these questions. So that is also an interesting aspect.

On the gas aspects, we also look to see what the Russians themselves produce when they come out with their own energy plan sometime later in the month of May. We are watching similarly with interest the proposals of private companies to run oil and gas pipelines in Russia. And we have certainly explained that we thought that would be very useful, that given the possibilities for export, the markets for export, and the constraints of the current pipeline system, that there is considerable merit in moving to permitting some pipeline in private hands.

So that comments a little bit on some of Len's excellent answers already.

Senator HAGEL. Do you care to respond to any of the general areas we were talking about regarding investment in any more depth from your perspective in the State Department?

Ms. BORG. No. I think he covered them in great detail. I think we have also wanted to work very closely on commercial opportunities, in addition to investment, investment climate.

And of course, as regards the Caspian, we have continued the practice of having an ambassador, in this case Steven Mann, who is our special advisor for Caspian Basin energy diplomacy, who has devoted considerable time and travel and energy to dealing with different issues as they come up related to investment or other challenges that have occurred along the Baku-Tbilisi-Ceyhan pipeline, as well as working to promote the Shah Deniz gas pipeline.

So we have spent a tremendous amount of resources and time also on those issues.

Senator HAGEL. What is the Russian position on the Baku-Ceyhan pipeline?

Mr. COBURN. I think at this point the Russians have always said that pipelines need to be economically sound. If a pipeline is economically sound and will be supported by the private sector, then they have no objection to it and would not, certainly not get in the way of its development.

As Baku-Tbilisi-Ceyhan has developed, it has developed into a pipeline that is now economically sound. It has now received the support of a large number of companies. They are, as we speak, starting to construct the pipeline. And the Russians have basically said, as long as the economics are there, they have no objection to it.

Senator HAGEL. Would you want to add anything to that, Ms. Borg?

As this committee has looked into these issues over the years, it is apparent that Turkey has had, still has concerns about the Bosporus being used as an oil way with environmental concerns, potential environmental damage. Would either of you like to respond to those concerns? Have we made, do you believe, progress on any of those concerns?

Obviously, the pipelines eliminating going around the Black Sea would be, are, the answer. But there are still other uses, energy, transportation facilities that will use the Black Sea. And any kind of an update on the Bosporus would be important to hear from either of you. Thank you.

Ms. BORG. Thank you, Mr. Chairman. I think, of course, one of the key updates over the last number of years on the Bosporus and what one can do about that was the commercial viability of Baku-Tbilisi-Ceyhan pipeline. I think that in recent weeks, in recent past weeks and months, we have heard a lot of discussion of alternative pipelines. I think there is great awareness that the Bosporus is handling a huge amount of shipping tankers. And, in terms of energy security, one also has an awareness that there need to be alternatives to that, that should there be some sort of a problem with the Bosporus, there need to be developed some diversification of supply routes.

So we at the State Department have heard a number of different discussions of alternatives of new pipelines that could be built. And there are a number of different firms that we realize are interested in these. Many of them are at the discussion stage.

Senator HAGEL. Mr. Coburn? Thank you.

Mr. COBURN. Well, I certainly agree with everything that Anna Borg said. But what I would like to add is that the Bosporus is an international waterway. It is under the control of, or at least the authority of, the International Maritime Organization, the IMO. And Turkey, although it has distinct concerns about it, as well it should, if you have ever been there and seen where it goes, through the heart of the city—it is quite amazing.

Senator HAGEL. I have, yes.

Mr. COBURN. The fundamental issue is really one of safe passage through that international waterway. And Turkey has done a number of things in terms of upgrading its traffic navigation system and other things to ensure the safety of the waterway.

One element that we have been working on, in cooperation with Russia, as well as all the other Black Sea countries, is a regional oil spill prevention and response plan. We have been very active working with all the six littoral states in the Black Sea to make sure that if something does occur, that there is a way to manage that very quickly and very safely. We have made some progress in that area. We will continue to work on that area, because I think it is critical, as long as Bosporus maintains its international status.

I also agree with Anna that bypasses, including the BTC system, are essential for at least alleviating the future traffic through the Bosporus.

Senator HAGEL. Thank you. You mentioned in your testimony, Mr. Coburn, I think you referenced that we can get back into this in a little more detail, the issue of ownership of the Caspian Sea energy resources. What can the United States do, what are we doing, what should we do to help facilitate untangling that in a peaceful way so that there is some productive conclusion to that issue which hangs heavy over probably the potential, as much as anything else, of really developing the Caspian? And there may well be ongoing activities in your departments that are addressing that.

But if you could address that question, what are we doing, what should we be doing, what can we do, as well as the State Department? Thank you.

Mr. COBURN. Thank you very much for that question. The fundamental issue with the Caspian is how to delimit or to divide up the resources that lie below it, as well as how to regulate and control the water column, the surface as well, and fishing rights and everything else. Right now the status is in somewhat of a limbo. The treaties that were in effect on the Caspian essentially were signed, the most recent one in the 1940s between the Soviet Union and Iran. There have been a huge number of opinions about whether those treaties still obtain, whether the other states have signed off and continue as part of that, as they have become independent.

The U.S. has taken the position that delimitation needs to be solved by the five littoral states. But there are things the U.S. can do to help with whatever future development the countries have decided to take. Three countries have now signed treaties, Russia, Kazakhstan, and Azerbaijan, in delimiting the seabed through what is called a median system. The U.S. has provided expertise and technical assistance with respect to satellite imagery and other types of very hands-on work on where to draw that line. That has been something that has been very welcomed by the three states that have now signed treaties. Iran and Turkmenistan still have not agreed to anything and still continue to have their own point of view. But we have consistently said to all of them, it is really up to the five states to solve the problem, but we can help with technical assistance like satellite imagery and things like that.

Senator HAGEL. Ms. Borg? Thank you.

Ms. BORG. I have nothing really to add to his excellent rundown of the issues. We have wanted to help facilitate negotiations. We are not involved in the negotiations, but as Len has said, we have tried to provide the technical assistance that might help in the negotiations.

Senator HAGEL. What is our position, the United States position, regarding Iran on this issue? Are we encouraging Iran working with these other Caspian areas to integrate some agreement here, or what is our position as it relates to Iran on these five states and trying to help untangle this?

Ms. BORG. Iran is, of course, the only country of these countries that surround the Caspian that we have not provided the technical assistance to because of our long-standing position of not wanting to encourage development of energy in Iran. And beyond that, we have looked at issues as they have come up. There have been some sanctions-related issues as surrounded the Shah Deniz development that came up. And we have dealt with those on a case-by-case basis. But really, we have drawn the line at not providing technical assistance to them.

Senator HAGEL. So our position is with the other nations in that area, you are on your own to try to work out what you can with Iran. And we have no third party dialogue or any other communication in that regard with Iran.

Anything you would like to add, Mr. Coburn?

Mr. COBURN. No. I think Ms. Borg answered that quite well. Thank you.

Senator HAGEL. Okay. You have both been here now more than an hour. And I do not want to hold you any longer. I would like to ask if we could keep the record open for a day in case any of my colleagues would like to submit questions that we would appreciate you answering. I again thank you on behalf of the committee for you coming forward and both presenting important testimony, which helps us here work our way through some of these issues.

And I think as timely as this general area is in our Nation's future, with all that is going on in the areas that we have explored today, it is particularly important that you and your colleagues continue to do the good work that you are doing. So we appreciate it very much. Thank you.

Now, as the first panel clears out, if the second panel could come in behind, we will get started. Thank you. [Pause.]

Senator HAGEL. Welcome, again. Thank you. I appreciate very much the three of you taking your time and organizing your thoughts and making your presentation this afternoon. Since I have introduced each of you, let me begin with asking Ms. Nanay to open the second panel with her testimony. Ms. Nanay.

STATEMENT OF MS. JULIA NANAY, SENIOR DIRECTOR, PFC ENERGY

Ms. NANAY. Thank you. I think the microphone is on.

Thank you. I really appreciate the opportunity to testify. This is actually a very interesting topic for me to address. I know Ed Chow well. It is really a pleasure, also, to be able to be on a panel with both Andrew and Ed. I have a feeling that our remarks will complement each other.

Again, my written statement is introduced for the record. I would like to quickly summarize some of my arguments.

First, as it was mentioned by Ms. Borg, this issue of the Middle East, it is always important to keep in mind that the Middle East is at the core of our worldwide oil supply base. There is a perception that the world has to find and develop increasing sources of oil and gas outside of the Middle East and at any cost, because the Middle East producers are unreliable suppliers.

But as we have seen since September 11, many have criticized certain Middle Eastern countries for various things. But the last thing you can say about any Middle Eastern producer is that they have been unreliable suppliers of oil; because as the war in Iraq illustrates, the one Middle East producer that has the surge capacity to balance the oil markets, namely Saudi Arabia, remained a staunch U.S. ally and kept the necessary amounts of oil flowing.

Anyone that works in the oil industry and comes before this subcommittee will repeat the same fact: The Middle East remains a core provider of oil supplies for world markets. And now, in fact, in the Middle East we have a new U.S. ally, as was mentioned earlier, in the form of Iraq, which is going to be an important world oil supplier as well.

Second is the reaction of the U.S. Government to the perception that we must diversify away from the Middle East at any cost. Over the last years, this no-cost-is-too-high strategy has led the U.S. Government to put the spotlight on the Caspian and more recently on Russia. Again, as anyone who comes before this subcommittee that works in the oil industry will repeat, world oil markets are fungible. As long as oil is produced somewhere, it will make it into the market somewhere, and prices and supplies will adjust.

If you believe in markets, and the U.S. Government supposedly does, this is the view you adopt. Over the last years in the Caspian, the U.S. Government has challenged this market-based view of energy security and opted for a targeted destination-specific energy security view. The U.S. Government has been involved in micromanaging energy security in the Caspian by championing east-west pipeline routes that bypass Russia and Iran and exit through Turkey. That is with the exception of one pipeline going through Russia from the Caspian. And that is the CPC pipeline, which I will discuss later.

Recently, the bypass Russia—except for CPC—part of U.S. policy is being dropped. The microsecurity energy agenda may soon be transferred to Russia, where there is talk of the U.S. Government lending political and maybe financial support to a pipeline port project focused on Murmansk in the Russian north. Until a few months ago, when this Murmansk pipeline import project gathered momentum as a possible U.S. energy security priority, U.S. policy in this greater Caspian region was based on promoting pipelines which avoid Russia and Iran.

In fact, no heavily U.S.-backed pipeline project in the Caspian epitomizes this goal like the Baku-Tbilisi-Ceyhan oil pipeline, that by 2005, or 11 years after the upstream contract for this project was signed, will carry oil from the BP-led AIOC consortium offshore fields via Georgia to Turkey. As it winds its way into the construction phase, BTC seems to merit constant U.S. Government attention at the highest levels.

In the long term, it is thought that up to 2 million barrels a day can flow through this corridor. While the U.S. Government tried over the last year to achieve an inclusive policy with BTC by encouraging Russian private companies to invest in this pipeline, the only Russian company that was an investor in the AIOC consortium which feeds BTC, Lukoil, sold its interest in AIOC. And it just concluded this sale these past days.

The Russian companies are focused first and foremost on their Russian interests, which may also include Kazakhstan, as I will discuss, and on pipeline projects that are steered from Russia to various markets. They have refused U.S. Government overtures for cooperation in the Caspian.

In Kazakhstan, we have what is arguably one of the most important new upstream frontiers since the North Sea. It is Kazakhstan which holds the key to great wealth in this region. It was here that 10 years ago this month the U.S. company Chevron, now ChevronTexaco, signed the region's first onshore joint venture for one of the world's giant oilfields, Tengiz.

Mobil, now ExxonMobil, joined this joint venture in 1996. These two companies cooperated in the construction of the first major private oil pipeline that was built in this region from Tengiz to Russia's Black Sea port of Novorossiysk and which opened in October 2001, 8 years after the upstream contract was signed.

The CPC private pipeline and the oil quality bank which goes with it are the model that the regional industry and other companies, both Western and Russian, want to repeat, namely in Murmansk. The CPC could easily become Kazakhstan's, and certainly one of Russia's, major export pipelines over the next decade, if it were expanded from its current approximate 600,000-barrel-a-day capacity to at least double this size. But it is Russian Government, and even to some extent Russian company, reluctance to feed oil into this Western company-partnered pipeline that has prevented a short spur line from being built in Russia that would transport Russian oil into this highly efficient and existing system.

In fact, before Murmansk is addressed or any other pipeline options for Kazakhstan, it may be worthwhile to expand capacity here in the CPC.

Fifth, a major field, Kashagan, is being developed offshore Kazakhstan. And U.S. pipeline advocacy has moved to securing substantial volumes from Kashagan to move by barge across the Caspian Sea to Baku for supply to the BTC pipeline, which, like the CPC, will have the potential for significant expansions.

U.S. energy security advocacy is now focused on somehow bringing significant volumes of Kashagan oil into the BTC through an export corridor being referred to as Aktau BTC, or ABTC. At the same time, you have four Kashagan companies, ConocoPhillips, Inpex, TotalFinaElf, and Agip, which are ready, even without U.S. Government intervention, to commit about 150,000 barrels a day to ABTC, since these four companies have bought stakes in the BTC pipeline.

You have a multitude of multinational companies sitting at the table in the Kashagan consortium. And not all of them are U.S. companies. They are trying to hammer out all sorts of understandings with the Kazakh government on some extremely difficult investment issues. Anyone in the oil industry that follows Kazakhstan, and perhaps even some members of the Senate, know that other than pipelines there are some serious problems clouding the investment environment here.

The last thing you want is for the Kazakh government to believe that the main emphasis of the U.S. Government is ABTC. And by expressing Kazakh support for ABTC, other more important issues can slip.

At the end of the day, the decision on which pipeline to build or use for Kashagan exports will be based on commercial considerations. But experience in the Caspian region has shown that politics can play an important role in pipeline commitments. Politics, though, can be very hard for companies to predict. The U.S.-Russian relationship is a case in point here. Until 9/11, the negatives of this relationship argued for diversifying pipelines away from Russia. Last year saw the implementation of a serious U.S.-Russian dialogue. Post-Iraq, however, the relationship could still take other twists.

One thing which is now confusing to foreign oil company producers in Kazakhstan is the ultimate U.S. strategy here with regard to exit routes. If the goal is to have multiple pipelines which bypass Russia and Iran, any policy that would encourage additional oil shipments across Russia beyond the CPC and existing Transneft options works against the diversify-away-from-Russia element of the multiple pipeline strategy and further solidifies Kazakh-Russian dependence.

Given the size and scale of the Kashagan resource base, a third way beyond Russia and ABTC would be the logical solution in the framework of stated U.S. policy which support multiple pipeline routes. The next route favored by many non-U.S. oil companies and by Kazakhstan is Iran. But this also undermines the stated U.S. goal of avoiding both Russia and Iran.

So what is the primary U.S. objective now? Is it to not avoid Russia but to avoid Iran? And how can commercially-driven companies rationalize it and adjust what are long-term business decisions to changing U.S. policies. Non-U.S. companies in the Caspian are likely to stop second-guessing U.S. policies and opt for commercial imperatives.

I am only going to make a few more points. And I know that my time is running out. But I wanted to mention Murmansk. It is interesting that you have many questions with this Murmansk project, most importantly, who will pay for the magnitude of costs of a project like this, which could run up to $5 billion? Which fields will provide the oil?

Just today there was an announcement that the Russian Government supports the construction of a 400,000 to 600,000 barrel a day Yukos-backed oil pipelines from fields in Western Siberia to Daqing, China, and Manchuria. If this pipeline moves forward, it could remove some of the oil that could have been designated for Murmansk. Large investments will have to be made and new field developments to support a pipeline the size and scale of Murmansk.

If the U.S. Government takes an interest in helping this Murmansk project succeed, is there a role for U.S. companies in the upstream for oil that would feed Murmansk? And most importantly, would the Russian Government provide the necessary investment stability in the form of PSAs for U.S. companies to undertake such investments?

Finally, if we notice, pipeline projects like the BTC and CPC take nearly a decade to accomplish, placing a particular burden on the direction of U.S. country policy. U.S. commitment to specific countries and pipelines has to last at least as long as it takes to construct these projects, but even longer, if security guarantees are required. Supporting pipelines is difficult geopolitical regions demands a political and military commitment, and therefore costs money.

The Russian Murmansk project and the U.S.-Russian energy partnership raises an interesting question. If BTC is built as a route that intended to avoid Russia, then how is it that even before construction starts on BTC, that goal of needing to avoid Russia is being abandoned? In future decades, the question will be asked in one of two ways. Was this goal valid, or if circumstances change with Russia, then why did we abandon this goal?

Similar questions might be asked if U.S.-Iran relations change. Alternatively if, or since, U.S. country policy can change within the course of a decade—the time it takes to plan, finance, and build a major pipeline—why should companies be willing to invest in policy-dependent projects? What will companies do with a trade route that may last 40 years, if it is undercut by another more efficient route that suddenly opens up because of policy changes?

What this tells us is that, ultimately, projects must stand on their own commercial merit. The economics of a project will dictate its success.

Thank you.

Senator HAGEL. Thank you very much.

[The prepared statement of Ms. Nanay follows:}

PREPARED STATEMENT OF JULIA NANAY

Good afternoon. Senator Hagel and distinguished members of this subcommittee, thank you for allowing me to speak at this hearing. My name is Julia Nanay, and I am a Senior Director at PFC Energy. PFC Energy is a strategic advisory firm in global energy, based in Washington, DC. We work with most of the companies in the global petroleum industry on various aspects of their international oil and gas investments and market strategies. I advise our client companies about different elements of the investment risk in the Caspian Region. Today's hearing is specifically about energy security, so I will address this region in the context of this topic. I will look at the impact Azerbaijan, Kazakhstan and Russia have on the question of U.S. Energy Security.

ENERGY SECURITY: PERCEPTION VS. REALITY

Before I start talking about the Caspian region specifically, I want to make some general observations. There is a perception that the U.S. should be concerned about its energy security given recent developments in the Middle East. The reality is that despite a war in the Middle East, the U.S. has not faced problems with its energy supplies, nor have other nations. The U.S. is in the middle of winding down a war in the Middle East and the reality is that the market remains well-supplied. Over this past month, there was never any disruption of oil supplies from the Persian Gulf beyond Iraq and what's more, Saudi Arabia and other Gulf OPEC producers significantly increased production to fill the gap. Despite this, consuming nations, particularly Asian ones, behaved as if there would be a problem. India has already reported big losses from buying inventories at market highs, and those losses may be a fraction of what China sustained. The inventories, including tens of millions of barrels that the Saudis are holding in storage, are compounding the oil glut.

Today's very efficient global crude and product trading system, combined with substantial surge capacity in Saudi Arabia, has the ability to compensate for interruptions in supply, as numerous recent examples, including Venezuela and Nigeria, demonstrate. Globally, there are over 1 billion barrels of strategic reserves. Refiners today are able to manage on lower inventories compared to 10 years ago. Increased efficiency, together with flexible crude and product trading markets, have allowed this to happen. Barring a major geopolitical fault line being crossed, such as the highly unlikely event of the Saudis deciding not to supply the US, the markets will effectively continue to manage short-term discontinuities. The fundamentals of the oil markets did not justify the high oil prices accompanying the war with Iraq. The problem was around perceptions, not the reality.

The perception of energy security risk now matters a lot more than the reality. The reality is that world oil supplies will certainly be more than sufficient over the next few years. As for the longer-lasting legacy of the Iraq war, when it comes to energy security, all projects in regions other than the Middle East, will now be regarded more closely as potential alternatives to the Middle East. The perception will remain that the Middle East carries both a political and a contractual risk. This may not be justified, because as the Iraq war seems to demonstrate, the risks of depending on the Persian Gulf have been exaggerated and billions of dollars in national product and consumer income were spent unnecessarily on war premiums. The end result of the Iraq war, however, is that a major Middle East producer and exporter has been brought into the U.S. fold, and depending on how stable Iraq becomes and how International Oil Company (IOC) access will be decided, it could eventually attract investment dollars to large oil and gas fields, which will rival and exceed opportunities on offer elsewhere. By inference, this could affect investments in the Caspian and Russia, particularly at a time when IOCs are struggling to work under the right investment conditions in these places. On the other hand, it is precisely this phenomenon of turning away from the Middle East because of "perceived" risk that has raised the perception of the strategic value to the U.S. of sources like the Caspian and Russia.

MICROSECURITY JUXTAPOSED AGAINST MACROECONOMICS

In the macro sense, the world oil market is fungible. As long as oil is produced somewhere, it will make it into the market somewhere and prices and supplies will adjust. If you believe in markets, this is the view you would adopt. The U.S. government, in fact, says that it espouses this view and statements by various officials stress that it is up to the open market to determine future outcomes of oil and gas supplies. Over the last years in the Caspian, the U.S. government has challenged this market-based view of energy security and opted for the targeted country and destination-specific energy security view. Part of the U.S. involvement has been dictated by the location of the Caspian just north of Iran, a country with which the U.S. has had troubled relations since 1979. The U.S. government has been involved in micromanaging energy security in the southern Caspian by micromanaging east-west pipeline routes that bypass Iran and exit through Turkey. While this U.S. microsecurity agenda is now factored into the accepted business practices of some countries in the Caspian and many companies, it may soon be applied in Russia as well. There is talk of constructing a south-north pipeline route in Western Siberia, exiting through the deepwater port of Murmansk. This pipeline is already receiving increased U.S. government attention and even offers of possible financial support. One could argue, however, that the case of the Caspian and U.S. advocacy is different than the case of Russia in that when pipelines cross more than one country (Azerbaijan to Georgia to Turkey), intergovernmental intervention may be necessary to move the process along. The Russian Murmansk pipeline is within one country. Nonetheless, other countries which have been watching this U.S. targeted country and destination-specific energy security strategy are beginning to follow the U.S. lead. This can been seen in investments made by China in Azerbaijan and Kazakhstan, with a pipeline being more seriously discussed to target China from Kazakhstan. And, Japan is eager to get an oil pipeline built from Russian Eastern Siberia to the Russian Pacific Coast. Both China and Japan are concerned that none of the pipeline projects championed by the U.S. specifically target Asian markets, which is where Middle East oil use is the highest and where the major oil demand growth is expected.

GEOPOLITICS AS THE DRIVER VS. ENERGY SECURITY

The location of the Caspian, between Russia and Iran, determined the U.S. focus on this region. In part to create countries that could stand on their own without Russia and become U.S. allies, and in part to maintain the isolation of Iran, the U.S. government has devoted enormous attention to the Caspian region over the last few years. One could argue that the driver here has been geopolitics, not energy security, even though one of the key manifestations of U.S. government interest seems to be the Baku-Tblisi-Ceyhan (BTC) oil pipeline (to be discussed below). And, with a heightened emphasis on a U.S.-Russia energy dialogue, while relations with Iran remain problematic, attention may now shift to another pipeline corridor through Russia to Murmansk.

Azerbaijan

Over the last 6 years, or since June 1997 when the U.S. State Department publicized very high numbers on potential oil reserves in the Caspian countries, the U.S. government has focused most closely on Azerbaijan. Sitting in a key location in the Southern Caucasus and bordering on Iran, Azerbaijan became the pivotal country for the U.S. government's investment advocacy agenda. And, under the watchful eye of the U.S. government, Azerbaijan and its neighbor Georgia have come a long way in these six years. A large number of the offshore and onshore contracts were signed in Azerbaijan during the 1997–1999 period, even though the only major offshore producing oil fields—under development by the AIOC consortium—are attributed to a 1994 Production Sharing Agreement (PSA). While the U.S. pushed and prodded to make Azerbaijan a much bigger upstream success story than just AIOC, in the end, most of the contract areas have proved disappointing. The only other field which demonstrated success turned out to be a huge offshore gas field called Shah Deniz. Based on Azerbaijan's one major oil project and its one major gas project, the U.S. set out to help provide the stable political environment necessary to create a pipeline hub in Azerbaijan, with oil and gas export routes running from there through Georgia and Turkey. The lead company in all these projects is the UK's BP with Norway's Statoil playing a role in the Shah Deniz gas pipeline as commercial operator.

The Baku-Tblisi-Ceyhan (BTC) Oil Pipeline

Perhaps no project in the Caspian epitomizes the U.S. vision of providing new pipeline corridors in the Caspian region, and ones which avoid Iran, like BTC. A huge undertaking, managed by BP, this 1 million b/d $2.9 bn pipeline that has the potential for significant expansions (as high as 1.8 mmb/d), is scheduled to deliver first oil by 2005. Winding its way through complex project finance negotiations and having to contend with the final details of land purchase, environmental approvals, and Turkish government personnel changes, the BTC pipeline appears to still merit the U.S. government's constant attention. At all levels of the U.S. government—the White House, Congress, the Department of Energy and other agencies—a huge commitment of staff time has been devoted to Azerbaijan, Georgia and Turkey and to BTC in the context of an east-west energy corridor. The long term goal is to create an energy source that is independent of Russia and Iran and emanates from countries we consider U.S. allies. In the long term, it is hoped that up to 2 million barrels a day of Caspian oil can flow to markets though this corridor.

While the destination for this oil may be northwest Europe, Asia, as well as Israel—and not necessarily the US—since oil markets are global, oil from BTC is viewed as enhancing the diversity of non-OPEC supply sources, which again is also a U.S. goal when looking at energy security.

The Key Role of Turkey

Even while the U.S. government has stressed Azerbaijan as an upstream investment destination, Turkey has been designated as the ultimate pipeline collector for both oil and gas. Turkey's formidable role given its deepwater port at Ceyhan on the Mediterranean Sea requires that it accommodate exports of both large volumes of oil from Iraq (1 million b/d and eventually more) and Azerbaijan (1 million b/d and eventually more). Turkey will also be an important transit corridor for transferring Caspian, Iranian and maybe even Iraqi gas to growing European markets. Turkey's pre-eminent position in this regard means that the U.S. government has put tremendous emphasis on Turkey's political and economic stability.

Because Turkey's link to new gas supply sources for Europe is also vital, the European Union's (EU's) involvement in ensuring Turkish political and economic stability is sure to increase. As Turkey is going through its own difficult democratic evolution, at a time of great strains on its economy given the Iraq situation, the U.S. government has been striving to maintain good relations. By creating pipeline corridors through Turkey in order to avoid Russia and Iran, the U.S. government must ensure the security of these pipelines—which will mean a financial and military commitment for many years to come. It will also mean providing political cover for Georgia and Turkey as they cement ties that are seen by Russia as being against its interests.

As I will discuss later, while seeming to pose a threat to Russia in the Caucasus, the U.S. will try to balance its interests with Russia, since the latter is expected to be a critical growing non-OPEC world oil supplier.

Kazakhstan

Moving to the East and to the North, we have what is arguably one of the most important new upstream investment frontiers since the North Sea: namely, Kazakhstan. Despite the preponderance of U.S. attention to Azerbaijan because of its strategic location bordering Iran, it is Kazakhstan which holds the key to the Caspian countries' oil wealth. It was here that in April 1993—10 years ago this month—U.S. company Chevron (now ChevronTexaco) signed the region's first onshore joint venture for what is even today considered to be one of the world's giant oil fields—Tengiz. U.S.-company ExxonMobil joined ChevronTexaco in Tengiz in 1996. ChevronTexaco is also partnered in Kazakhstan's other major onshore oil and gas producing field, Karachaganak. And, ExxonMobil is a member of the consortium led by Italy's Agip, which is exploring and developing the most exciting new offshore prospect in the Caspian Sea, the Kashagan structure. Kashagan holds many billions of barrels of oil reserves and its size and scale will probably exceed even that of the Tengiz oil field. But because it is offshore in an ecologically sensitive area and contains important volumes of associated high sulfur gas, Kashagan's development poses many difficult challenges, which are a matter of contentious debate between the consortium and the Kazakh government. With a large number of already discovered and producing oil fields, Kazakhstan's oil output keeps rising and has exceeded 1 million b/d (vs. about 300,000 b/d in Azerbaijan today).

The Caspian Pipeline Consortium (CPC)

The first major privately built oil pipeline to be completed in the Caspian was the CPC, which became operational in October 2001 and carries oil from Tengiz as well as some other smaller Kazakh fields to the Russian Black Sea port of Novorossiysk. With a capacity of close to 600,000 b/d, the CPC could be expanded to at least twice this size and were it not for problems in coordinating with the Russian partner/owners in the pipeline, the CPC would easily become Kazakhstan's major export route for the foreseeable future. However, problems with Russia and issues posed by tanker transit through the Bosporus have led to the serious study of other export options. It must be remembered that CPC is the "flagship" pipeline project for the Caspian region. It is the first pipeline to have been built without Russian pipeline monopoly Transneft's involvement, and it was privately built and financed by the western oil company partners. CPC designed and implemented an oil quality bank, which will equalize the values of the different types of oil that are fed into the pipeline. The CPC private pipeline and quality bank model are now the standard in the regional industry that other companies, both western and Russian, want to repeat.

Aktau-Baku-Tblisi-Ceyhan (ABTC)

Four companies which are members of the Kashagan consortium have joined the BTC pipeline consortium: ConocoPhillips, Inpex, TotalFinaElf, and Agip and could provide 150,000 b/d to BTC, with oil moved on barges across the Caspian Sea from Aktau to Baku. The U.S. government would like to see a commitment of 400,000 b/d from Kashagan to BTC. Committing such volumes to ABTC would be costly for the consortium. It would mean building the pipeline connection from Kashagan's onshore processing facilities to Aktau port, paying for the barge transport of oil from Aktau to Baku and then also for the pipeline fees from Baku to Ceyhan. Of course, any option for moving Kashagan oil will entail costs because the anticipated large volumes which are expected to be produced here will require new export options to be built in addition to the current transit opportunities across Russia in the CPC and via Russian pipeline monopoly Transneft's system. As it is, in the short to medium term, until Transneft's system is expanded, Kazakh crudes are likely to experience increasing problems in the Russian pipeline system, since Russian oil company heads (most notably Mikhail Khodorkovsky, the CEO of newly merged YukosSibneft) are agitating against Caspian crudes taking up export space that backs their crudes out of the Transneft system. Currently just over 400,000 b/d can supposedly be transported through the Atyrau (Kazakhstan)-Samara (Russia) pipeline link and the Aktau (Kazakhstan) by barge to Makhachkala (Dagestan, Russia) export link. Additionally, while 20,000 b/d are currently being transferred by barge to Iran's northern Neka port from Aktau, Kazakhstan under a swap arrangement, these volumes to Iran could be increased, either through increased oil swaps or by a new onshore pipeline through Turkmenistan to connect into Iran's pipeline network.

Longer term, the Kashagan field will require another large pipeline capable of transporting 1 million plus barrels in a direction other than CPC, Transneft and/or BTC—and that would mean either toward China or Iran. Russia may argue that once a major new south-north pipeline is in place to Murmansk, more Kazakh oil could also be exported across Russia—negating the need for a Chinese or Iranian pipeline. For now, the U.S. government is stressing 400,000 b/d for shipment through ABTC. However, with a multitude of multinational companies sitting at the table in the Kashagan consortium, trying to reach decisions on many different aspects of this project, U.S. advocacy for ABTC could slow down the ability of the consortium to agree on any export direction. It could also slow down the development of the overall Kashagan resource base.

At the end of the day, the decision on which pipeline to build and/or use for Kashagan exports will be based on commercial considerations, including the timing of alternative available export options and pipeline operational confidence. Still, experience in the region has shown that politics can play an important role in pipeline commitments, but politics can be hard for companies to predict. The U.S.-Russian relationship is a case in point here. Until 9/11, the negatives of this relationship argued for diversifying pipelines away from Russia. Last year saw the implementation of a serious U.S.-Russian dialogue. Post-Iraq, the relationship may take other twists. One thing which is now confusing to foreign oil company producers in Kazakhstan is the ultimate U.S. strategy here with regard to exit routes. If the goal is to have multiple pipelines, which bypass Russia and Iran, any policy that would encourage additional oil shipments across Russia beyond the CPC and existing Transneft options, works against the "diversify away from Russia" element of the multiple pipeline strategy and further solidifies Kazakh-Russian dependence. Given the size and scale of the Kashagan resource base, a third way, beyond Russia and ABTC, would be the logical solution in the framework of stated U.S. policy which supports multiple pipeline routes. The next route favored by many non-U.S. oil companies in Kazakhstan is Iran, but this also undermines the stated U.S. goal of avoiding both Russia and Iran. So what is the primary U.S. objective now? Is it to not avoid Russia but to avoid Iran? And how can commercially driven companies rationalize it and adjust what are long-term business decisions to changing U.S. policies? Non-U.S. companies in the Caspian are likely to stop second-guessing U.S. policies and opt for commercial imperatives.

Russia

Perhaps the most impressive oil production gains by any single country over the last two years have been made by Russia, with its output rising from 6.8 million b/d in 2001 to close to 8.2 million b/d today. This has been made possible by the efficiencies introduced into the Russian oil industry by the Russian private companies. As Russian production has been rising, Russian pipelines and ports have not kept pace with the higher export expectations of the Russian companies. Russian pipeline monopoly, state-owned Transneft, has been unable to address the multitude of export-direction demands of the Russian producers. In part because of the complexities of the existing Russian pipeline system which spans a vast inhospitable territory and which demands constant attention, in part because Transneft can only do so much at once, and in part because Transneft has its own agenda of pipelines and ports which it is promoting—there is now a clash between private and state interests on the future of Russian oil exports. Transneft's alleged oil export capacity is somewhere around 3.5 million b/d (which also accommodates oil exports from Azerbaijan and Kazakhstan). In addition, about 1.5 million b/d of products can be exported, with considerable reliance on rail transport.

The Russian oil companies are determined to increase export outlets and several of them are determined to make Murmansk in Russia's north, the next major deepwater port that will handle the anticipated ongoing growth in Russian oil production and exports. Tying into this deepwater port, with an estimated start-up date of 2007–2008, will be a 1.6 million b/d oil pipeline (that could be expanded to 2.4 million b/d) and which would cost between $3.4 billion and $4.5 billion to build. Lukoil, YukosSibneft, TNK/BP, and possibly Surgutneftegaz could have an ownership stake of up to 49 percent in this pipeline, creating a consortium which somewhat mirrors the CPC formula, although Transneft will have a significant role. If this arrangement move forward, it would be a significant capitulation by the Russian state to accommodate private industry's interests.

The Murmansk pipeline and deepwater port project still have many imponderables. Who will pay for the project is still open to question, although U.S. OPIC and Ex-Im have expressed an interest in providing some assistance. Which fields will provide the oil? Is there a role for IOCs, including U.S. companies, in upstream projects which could feed Murmansk? And, most importantly, would the Russian government provide the necessary investment stability in the form of Production Sharing Agreements (PSAs) for IOCs to undertake multibillion dollar field developments which might be necessary to fee a major pipeline which Murmansk represents?

Diversity of Supply Sources Enhances Energy Security

Energy security is best enhanced by encouraging the development of a diversity of supply sources and not necessarily by advocating or directing pipeline flows. Pipelines are long life projects and yes, politics and geopolitics can determine whether they operate or shut down. However, over the long life of a pipeline, advocating a route one day doesn't mean that unforeseen political and geopolitical circumstances in the future will not alter the current judgment call. There is no predictability over long-term political and geopolitical relationships and alliances, especially in regions such as the Caspian Sea and the Middle East.

Diversity of supply from countries where the U.S. government can help to create stable, long-life responsible governments would be more conducive to the sustainable development of resources than stressing pipeline routes.

International Oil Companies (IOCs) and OPEC vs. Non-OPEC in the Energy Security Equation

The Caspian region and now Russia are perceived as important for the U.S. because they help diversify the world's supply of oil while also being non-OPEC suppliers. However, the OPEC versus non-OPEC conundrum in U.S. Energy Security debates is often misunderstood. Non-OPEC supplies serve as a market baseload, consistently delivering the full level of production those sources are capable of. Clearly, diversifying and increasing these non-OPEC sources provides a more secure core of supplies for the U.S. and other consumers to rely upon. Non-OPEC production is growing and will increase by 1.2 million b/d in 2003 to 47.1 million b/d vs. OPEC production without Iraq of 24.4 million b/d.

After non-OPEC supplies are considered, the difference between them and total global oil demand is then filled by OPEC. Because of their domestic budgetary needs, OPEC member states have a strong self-interest in adjusting production to promote a stable price that is neither so high that consumer nations (and hence demand for oil) suffer, nor so low that there is an oil glut that would also hurt U.S. energy companies. In short, OPEC and U.S. interests coincide in a desire for a moderate oil price as exemplified by OPEC's target $22–$28 per barrel price band.

So U.S. government emphasis is misplaced. The question is not OPEC (who wish to see a moderate oil price) versus non-OPEC (who continue to increase their oil production). Rather, the issue to address is how to continue encouraging non-OPEC supply growth and diversity, preferably with the involvement of IOCs (including U.S. oil companies). OPEC's stated $22–$28 per barrel price range is sufficient to offer IOCs the economic incentives to develop non-OPEC supplies. In both OPEC and non-OPEC countries, governments determine how oil and gas reserves will be developed. Thus, some issues to address are: (1) how much access IOCs will have to support the development of these reserves and production; (2) in which countries do IOCs have this access; and (3) how stable are these countries to allow IOCs to produce and export their oil without impediments. In Russia, IOCs currently have limited access. It will be interesting to see if the recent BP equity investment in TNK/BP will be a catalyst for more opportunities. In the Caspian, IOCs have a great deal of access in Azerbaijan, but here the prospectivity is diminishing. In Kazakhstan, IOCs have access but the investment climate is difficult. Moreover, the location of Kazakhstan, bordering on Russia, means that its energy future will have ties to Russia but how strong these ties will be could be determined by the availability of export pipelines that steer oil in other directions.

Conclusion

Longer term, one could argue that oil and gas supplies from the Caspian region and Russia will be no different than supplies from the North Sea or elsewhere. They will be just other sources.

However, one note of caution: pipeline projects like the BTC (and CPC) take nearly a decade to accomplish placing a particular burden on the direction of U.S. country policy. U.S. commitment to specific countries and pipelines has to last at least as long as it takes to construct these projects but even longer if security guarantees are required. Supporting pipelines in difficult geopolitical regions demands a political and military commitment and therefore, costs money. The Russian Murmansk project and the U.S.-Russian energy partnership raises an interesting question. If BTC is built as a route that intended to avoid Russia, then how is it that even before construction starts on BTC, that goal of needing to avoid Russia is being abandoned. In future decades, the question will be asked in one of two ways: Was this goal valid? Or if circumstances change with Russia, then: Why did we abandon this goal? Similar questions might be asked if U.S.-Iran relations change. Alternatively, if (or since) U.S. country policy can change within the course of a decade—the time it takes to plan, finance and build a major pipeline—why should companies be willing to invest in policy-dependent projects? What will companies do with a trade route that may last 40 years if it is undercut by another more efficient route that suddenly opens up because of policy changes? Ultimately, projects must stand on their own commercial merit and the economics of a project will dictate its success.

Senator HAGEL. I appreciate that very comprehensive testimony. And we will come back to some of your points, as we will after we hear from of your colleagues.

Mr. Somers, please proceed. Thank you.

STATEMENT OF ANDREW SOMERS, PRESIDENT, AMERICAN CHAMBER OF COMMERCE IN RUSSIA

Mr. SOMERS. Thank you, Senator. On behalf of the 700 members of the American Chamber of Commerce in Russia, I would like to express our appreciation of this opportunity to weigh in on this important subject before your subcommittee.

A brief word about the chamber, so you understand who we are, we are a totally independent, member-funded business advocacy organization. Our mission is to promote trade and investment between Russia and the United States in order to facilitate sustainable penetration of the Russian market by our members.

To this end, we are engaged in an ongoing dialogue with all organs and all levels of the Russian Government and with the representatives of the most influential private sector businesses. We have achieved considerable bottom-line results in this dialogue, and we are very encouraged by the openness with which our Russian colleagues, both in the government and in the private sector, listen to our views; that is across all sectors.

There is no question that we have benefited, the American business community, in Russia by the new Russian-American strategic relationship, which has evolved under the leadership of President Bush. And in that respect, I would like to acknowledge the vital support of Secretary of Commerce Donald Evans, as well as the American Ambassador to Russia Alexander Vershbow.

It is the view of the American business community in Russia that it is in their interest to see Russia's re-emergence as a major oil producer continue, and also in our interest to see Russia have the opportunity to share with other exporters a share of the U.S. oil import market. As the Department of Commerce ruled in June of 2002, Russia has made the difficult transition to a market economy, as defined by U.S. trade laws.

And, of course, it is noteworthy that this difficult transition, this change in the character of the Russian economy, occurred within a democracy. It may not be a democracy as mature as the United States, but nevertheless it is a democracy. We feel that with Russia's participation in U.S. energy strategy, in terms of import, share of import market, the United States would contribute to the globalization of the Russian economy and would help stabilize these very positive developments to a market economy and a democracy.

Now of course in order for the U.S. to make this kind of determination that Russia should play a major role in imports into the U.S., Russian oil must be a viable option. We would suggest there are at least three criteria to look at. One is the Russian infrastructure and export capacity. Second is its production and reserves. And third is the investment climate. I would like to, with your permission, touch very briefly on each.

It might be more logical to start with production and reserves, but I speak from the perspective of an American businessman who is living in Russia. It is an incontrovertible fact that everyone involved in the Russian market recognizes that Russian production far exceeds demand and far exceeds the capacity of Transneft, which is the state-owned monopoly which controls the transport of oil throughout Russia and to the export facilities.

This is causing depression in local pricing for gasoline and for oil. It is also hurting the small independent oil companies who are struggling to compete with the larger majors, because they have to sell the crude oil at depressed prices. They lack the refining capacities of the majors to produce secondary products, which can be then sold at a reasonable markup.

So Russia can continue to produce an enormous amount of oil. But if they cannot get it to their ports, it is not going to do anyone any good.

My written statement that I submitted a couple of days ago said that there is little evidence that the Russian Government is making any kind of move toward relieving this pipeline clog. But this is Russia. And as I was leaving Russia yesterday, I learned that Minister of Energy Yusufov made a statement to the effect that it was in the interest of Russia's energy security to diversify its export facilities and that they were giving serious consideration to developing transport to various points in Russia which would facilitate export. So perhaps there is something that is going to happen there in the positive sense.

Moving on to the future and the prospects of relieving this infrastructure clog and improving exports, as referred to by previous speakers, the Caspian pipeline exists now. It has been in operation since late 2002. As you know, it focuses primarily, at least in the initial stage, on Kazakh oil. The pipeline runs from the Tengiz field in Kazakhstan through almost 1,000 miles of Russian territory to the Russian Black Sea port of Novorossiysk.

We think it is important to the relationship that although this primarily focused on Kazakh oil from the Caspian, it does involve a venture with Russia in terms of its territory and permissions to go through the territory and American companies. Russia is the largest stakeholder in the Caspian pipeline consortium having 24 percent of the stake. Kazakhstan has 19. Oman, I believe, is the third country with a much smaller stake. And Chevron has the largest private sector stake of 15 percent. Exxon has about 7.5 percent.

With very little effort, as a previous speaker mentioned, Russia could significantly increase the Russian production portion of the Caspian pipeline exports by building a 40-mile trunk line from its Transneft facility, its Transneft pipeline network, to the Russian city of Kropotkin, which is on the Caspian pipeline. The Caspian pipeline consortium has already built state-of-the-art facilities there, pumping facilities, to move Russian oil. And if the Russians decided to build this very short trunk line, within 6 months it would add 150,000 barrels per day to the export capacity of the Caspian pipeline, and within 2 years at 300,000 barrels per day. So in a sense, Russia at least has moved to have the capacity to increase its exports through the Caspian pipeline.

Perhaps more significantly is the Murmansk project, which has been mentioned by the previous speaker and the previous speakers in the first panel. Due to the lack of capacity building by Transneft, the infrastructure network, the private sector in Russia has decided that they have to do something. And several months ago, the majors proposed that they would construct at their own cost $4 billion to $5 billion, plenty of cash in the Russian oil companies, a pipeline from Western Siberia to Murmansk, Murmansk in the northwest, being a 12-month ice-free deep water port, West Siberia being a primary oilfield of Russia where most of the oil is coming from.

The prospects from the Western point of view, let me put it this way, if I may, Western oil companies in Russia believe in this project. And they believe that Murmansk, if the pipeline is built and the port is renovated as the Russian companies say they will, this facility could have the capacity of exporting up to 1 million barrels today out of Murmansk.

The Russians clearly see it, that is to say the Russian private sector clearly sees it, as a window on the United States oil market. They have talked about the fact that the cost of transportation of oil from Murmansk to the U.S. East Coast would be equivalent to the transportation costs that are now borne from the Mideast to the U.S. I think they quote $8 a day.

When they look at an Arctic route from Murmansk, the transportation cost would even be cheaper. So we think that given the financial capacity and the commitment of the large Russian majors, we will see development with respect to Murmansk. As a previous speaker said early on, when I say early on, a couple of months ago, the Russian Government voiced dismay that a pipeline would be owned by the private sector.

But more recently, there has been some sign that there might be a compromise. And only yesterday, again as I was leaving Moscow, the Prime Minister was quoted in Itar-Tass, one of the wire networks, that he would shortly sign an order promoting a pipeline from Murmansk. It was not clear from this brief description if he was talking about a different pipeline than the one that the private sector was talking about, but I would suspect it is the latter, that there is going to be some kind of cooperation between the Government and the Russian majors to construct this pipeline.

The second factor, of course, that is important for the U.S. to consider is Russia's production capacity, as well as its reserves. I will not touch on reserves. The previous speakers on the previous panel have talked about the difficulty of trying to quantify that, except everyone seems to agree that it is very large.

With respect to production, almost all of the production in Russia is coming out of Western Siberia, about 7.4 million barrels a day. Western oil companies in Russia believe that this capacity will continue at that rate for at least 3 or 4 more years, perhaps a couple more after that, but that then this production capacity will decline.

For that reason, among others, Western companies believe that the Russian Government and the Russian private sector should be looking very hard at deep exploration to discover reserves which have not been proven yet. This leads to the discussion, and I will not dwell on it, of production-sharing agreements, which is basically a legal solution to providing a certain amount of predictability to investors who are talking about 20- to 30-year payback periods in transactions, or rather operations, which are far removed from infrastructure.

There is a bill before the Duma right now that will probably pass in the spring. It is going to make some oil companies somewhat happy. It is going to make other oil companies not very happy. It will be a limited form of PSA. At least that is my guess. Some companies will be happy that something got through. Tactically in Russia in particular, legislative tactics often mean you get a bill through the Duma, and your tactic then is to try to amend it within 6 months or a year. So that is always a factor in whether or not a final bill is good or bad.

The Russian private sector has a somewhat different view, some of the Russian private sector. We do find that some of the majors support PSA publicly. Others, such as Yukos, which is now the fourth largest oil company in the world after its merger with Sibneft, which was the number five Russian oil company, recently, is much less enthusiastic about PSAs, although they have not publicly come out against it. But essentially, they feel that Russia's capacity is sufficient to not need PSAs to a large extent.

Recently, Yukos said there were sufficient reserves in Russia, proved and provable reserves, easily provable reserves, which would guarantee Russia over the next 30 years 9 million to 10 million barrels per day of production. Yukos has publicly said that they believe current Russian reserves could meet the demands with respect to U.S. imports of a 15-percent share. Yukos believes that Russia could provide a 15-percent share of the imports into the U.S. of oil over the next 30 years basically with the reserves that they have now. Yukos, by the way, is a strong supporter of the Murmansk project.

Lastly, I will very briefly comment on the investment climate. I think the macroeconomic numbers are very important in this regard. Russia has had constant impressive GDP growth over the past 3 years with a very surprising 6.4 GDP growth in the first quarter of this year. No one expected that. The Russian Government did not expect it. None of the Western analysts expected it.

We see a continuing growth in consumer spending. The reserves of the Central Bank are at the highest ever, about $55 billion. The real estate market in Moscow and some of the other largest cities is growing. And overall, the economic prospects, we think, look pretty good. And I am speaking from the perspective of someone who every day has to battle the bureaucracy and all of the other implementation issues of the very progressive legislation that has been passed. So I do not speak as a rosy-eyed optimist. It is a tough environment, but it continues on an upward track.

So we believe that given that the legislative and the macroeconomic situation have improved, that there is a very open dialogue between American business, the Russian Government, American business, and Russian business, that it is in the interest of the United States to look, as it is, seriously in terms of its energy security as to whether Russia should play a major role as a contributor.

I will not touch upon the U.S.-Russia energy dialogue or the commercial energy dialogue, in which I play a role as co-chairman, because I think that has been addressed very adequately by previous speakers; but I will say to the American business community these are very strong signals of a very strong potential relationship between the energy companies in Russia and the United States.

Thank you very much.

Senator HAGEL. Mr. Somers, thank you.

[The prepared statement of Mr. Somers follows:]

PREPARED STATEMENT OF ANDREW B. SOMERS

Senator Hagel, on behalf of the 700 member companies of the American Chamber of Commerce in Russia operating in the Russian market, I would like to express our appreciation for this opportunity to testify on U.S. Energy Security: Russia and the Caspian.

A brief word about the American Chamber, known in Russia by the acronym "AmCham." We are an independent, self-funded business advocacy organization with offices in Moscow and St. Petersburg. Our mission is to promote trade and investment between the U.S. and Russia in order to maximize sustainable penetration of the Russian market by our member firms. To achieve this objective we are engaged in an on-going, and we believe, effective dialogue with all relevant organs and levels of the Russian government and the most influential representatives of the Russian private sector. We benefit greatly from the new U.S.-Russia strategic relationship which has emerged under the leadership of President Bush. In this regard I should acknowledge in particular the vital support of AmCham by U.S. Commerce Secretary Donald Evans and the U.S. Ambassador to the Russian Federation Alexander Vershbow.

It is in the interests of American business for Russia to continue its re-emergence as a major oil producer and to gain a significant share of the U.S. oil import market. As the U.S. Department of Commerce held last June after an extensive public inquiry, Russia has succeeded in making the difficult transition to a market economy. Moreover, this fundamental change in the character of the Russian economy has occurred within a new democracy, an historic transformation in itself. American business prospers best in democratic market economies. By allowing such an important sector of the Russian economy to contribute with other oil-producing nations to meeting U.S. energy needs, the U.S. would help to globalize the Russian economy and stabilize these positive developments.

For the U.S. to make such a commitment requires, of course, a judgment that Russian oil is a viable option for diversifying foreign-sourced energy supply to the U.S. In our view 3 factors should be considered when making this determination:

(1). Transportation infrastructure.

(2). Production and reserves.

(3). The investment climate.

1. Transportation Infrastructure.

(a) Current export constraints.

It is an incontrovertible fact acknowledged by all parties operating in the Russian oil sector that Russian oil is export constrained. Current production far exceeds both local demand and the capacity of the Russian state oil transport system, Transneft. As a result local oil prices are depressed and the volume of crude available at export points is significantly compromised. An additional negative effect is the decline in profitability of small independent oil companies who must sell at low prices and lack the refinery facilities common to the majors for the production and sale of secondary oil products at a reasonable markup. With Duma elections ahead in the fall and the Presidential elections looming in the spring of 2004 it is perhaps not surprising that no vigorous steps have been taken to relieve the pipeline clog and risk an increase in domestic oil prices. However, for Russia to be a viable import option, substantial improvement of the current oil transport infrastructure is imperative.

(b) Future export constraint relief.

Two important features of the current Russian oil environment suggest that relief for Russia's export constant problem could be on the way in the relative near term. I have in mind the existing Caspian Pipeline and the proposed Murmansk Pipeline project.

(b)(i) *Caspian Pipeline.* Russia has already taken a significant step toward the enhancement of its oil export capability. A 24 percent majority shareholder in the Caspian Pipeline Consortium (CPC), in which U.S.-owned Chevron Caspian Pipeline holds the largest private sector stake of 15 percent and Mobil Caspian Pipeline owns 7.5 percent, Russia can use the pipeline to quickly increase its oil exports. Operational since late 2002, the initial stage of the Caspian Pipeline delivery system involves shipment from the Tengiz oil field in Kazakhstan on the north-east shore of the Caspian through almost 1000 miles of Russian territory to the Black Sea port of Novorossisk. If the Russian state oil transport system Transneft builds a 40-mile trunk line connecting its network to the Caspian Pipeline at the Russian city of Kropotkin, where CPC has already constructed the necessary pumping facilities, Russia's export capacity on the Caspian Pipeline could be increased by 150,000 barrels of oil per day in 6 months and by 300,000 barrels of oil per day within 2 years. As yet Transneft has given no indication it plans to build this trunk line.

(b)(ii) *Murmansk Pipeline Project.* Due to Transneft's failure over the past several years to add capacity to Russia's oil transport infrastructure, substantial private investment is needed. Several Russian oil majors recently proposed the construction of a pipeline from Western Siberia to the northern city of Murmansk, a deep-water, ice-free port. Private Russian capital would cover the cost of this several billion dollar investment, which would include renovation of the port. Proponents of the project see it as the gateway to the U.S. market, estimating that the cost of transport to the American east coast would be comparable with that from the Middle East. Initially the Russian government balked at the concept of private ownership of the pipeline but more recently indications of a compromise solution have emerged. Some Western analysts estimate that Murmank export capacity could reach one million barrels of oil per day. Given the commitment and resources of the Russian majors and the lack of a governmental plan for substantially increasing infrastructure, the Murmansk Pipeline project may well be the long term solution to export constraint.

2. Production and Reserves.

Russia's primary source of oil production is Western Siberia, with a volume of 7.4 million barrels of oil per day, of which about ⅓ is exported by pipeline, and another ⅓ exported as fuel oil by rail, a very costly method of transportation. Western estimates see this level of output from Western Siberia continuing for the next several years and then declining. For this reason a number of Western experts urge that Russia start developing major new reserves on both the Eastern and Arctic Continental Shelf and Eastern Siberia. Several such projects with foreign investment are already underway off the coast of Russia's Sakhalin Island. The Sakhalin projects are beneficiaries of so-called Production Sharing Agreements (PSAs). PSAs are intended to provide investors in long-term projects, remote from infrastructure, with a certain degree of predictability concerning taxes and fees over the 20–30 year period required to make the project fully operational. PSA legislation to cover some projects but exclude others is now pending in the Duma and probably will pass into law this spring.

Some Russian private sector sources are more optimistic about Russia's reserves and see little need for PSAs. Yukos, now the world's fourth largest oil company recently asserted that reserves are sufficient to assure the extraction of oil in Russia over the next 30 years at levels of 9–10 million barrels per day, with an export capacity of 6–7 million barrels per day. A strong proponent of the Murmansk project to resolve the export constraint problem discussed above, Yukos claims that Russia can supply 15 percent of U.S. oil imports with an estimated range of 1–2 million barrels of oil per day.

A word on the Russian Caspian: estimates put Russian Caspian recoverable oil at about 3 billion barrels, or less than one 10th of the resource base of Kazakhstan. The geology of the Russian Caspian is very different from the Kazakhstan Caspian. The Russian Caspian eventually may provide 400,000–500,000 barrels per day, a not insignificant volume.

3. The Investment Climate.

There can be little doubt that the investment climate in Russia has significantly improved during the Putin years. Political stability, fiscal discipline, 3 successive years of constant GDP growth, including a stunning 6.4 percent GDP growth for the first quarter of 2003 testify to Russia's emergence as a strong investment candidate. American companies operating in the Russian marketplace are experiencing strong annual growth in revenues, market share and profit margins, with the Russian operations of some U.S. global companies outperforming all other units worldwide. In the energy sector the enormous potential for fruitful cooperation between the two counties is reflected by the creation of the government-to-government U.S.-Russia Energy Dialogue, which had its first summit in Houston October 2002 and has scheduled the second summit for St. Petersburg in September. Of equal significance is the private sector Russian American Commercial Energy Dialogue. Comprised of 5 working groups of American and Russian energy company executives, the Commercial Energy Dialogue will identify barriers to trade and investment and make concrete recommendations to both governments to facilitate commerce in the energy sector.

Senator HAGEL. Mr. Chow.

STATEMENT OF MR. EDWARD CHOW, VISITING FELLOW, CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE

Mr. CHOW. Thank you, Mr. Chairman. It is my honor to appear before your subcommittee to discuss the role for Russian and Caspian oil in U.S. energy security. I joined the Carnegie Endowment for International Peace in Washington only this year to focus on international energy policy. However, my views on the subject are informed by 25 years of experience in the international oil and gas industry, primarily with a major American oil company.

In recent years, I have also advised foreign governments and Western companies on strategy, investment policy, and negotiations in the oil and gas sector, particularly in the former Soviet Union. I hope to bring my industry perspective from work not only in this part of the world but also Latin America, West Africa, Middle East, East Asia, and Western Europe to your committee's discussion on this important subject for U.S. energy security.

No one can argue with the proposition that it is important to policymakers to have a realistic view of the policy environment. Otherwise political expectations are likely to be inflated and policy misguided on the subject of oil and gas in the former Soviet Union. It is, therefore, particularly distressing to see the volume of misinformation and hyperbole, not only from governments and industry in the region, which may have a vested interest in exaggerating the significance, but occasionally from our own Government.

A number of years ago, most of us in industry were shocked to find a State Department report to Congress discussing the possibility of close to 200 billion barrels of crude oil reserves in the Caspian at a time when industry estimates were, at best, 10 percent of that level. I was glad to hear Len Coburn today give a more measured estimate of 17 billion to 33 billion barrels.

Senator HAGEL. He is sitting right behind you. So he will be very pleased to hear that.

Mr. CHOW. But 30 billion barrels of crude oil reserves is still barely only 3 percent of total world proven reserves. The fact remains that there has been only one significant discovery in the Caspian since the fall of the Soviet Union. In the global context, the Caspian represents another North Sea or Alaska. It is significant, but even full development will not represent a fundamental shift in oil market dynamics or the world supply picture.

It is one thing for the president of Azerbaijan to boast about his country's signing the contract of the century, quite another for U.S. officials to repeat this preposterous claim. Worse still, if U.S. policy is based on mistaken expectations and lack of understanding of petroleum industry realities.

In testimony today, as well as that before this committee earlier this month, the State Department referred to Caspian Basin production of 1.6 million barrels per day in 2001 and the possibility of 5 million barrels per day in 2010. Most of us in industry would have a hard time finding production in 2000 to be much more than half of that level in what can be called the Caspian Basin and believe that will be doing well if production can be raised to 2 million barrels per day by 2010.

Industry expectations are moderated not only by geologic risk, but significant technical, economic, and political risk in oil development in the region. Major finds are challenged by either being offshore or in deep high-pressure reservoirs or with sulfur-laden associated gas that needs to be processed and the sulfur removed or far away from market in a landlocked location, oftentimes all of the above. Investments required are measured in billions or tens of billion dollars.

Peaceful political succession is unproven in the region. Political legitimacy of the governments in the region, as seen by their own population, has declined since independence from the Soviet Union. At the same time, the investment climate, which was largely welcoming a decade ago, has deteriorated with tougher contract terms, concerns over sanctity of contract, and greater appetite on the part of ruling elites for rent-seeking opportunities. Increased oil income has coincided with more autocratic rule, enhanced the ruler's ability to temporarily pay off parts of the elite by sharing some of this wealth, and allowed deferral of desperately needed fundamental economic and political reforms.

These unfortunate, but often repeated, developments associated with sudden oil income have in the past led to political instability, for example, in Latin American and West Africa. No wonder oil folks around the world believe all the easy oil has been found and produced a long time ago. More importantly, if uncorrected, this troubling trend in the Caspian region can give rise to longer term threats to U.S. security interests beyond energy.

Turning now to Russia, most of the commentary on the remarkable increase in Russia oil exports in the last 2 to 3 years has missed the fact that this has not been due to new discoveries or even development of new oil provinces or new fields. Russian oil production is around 8 million barrels per day today. It was over 10 million barrels per day at peak Soviet oil production reached in the late 1980s.

So the rise in exports, which has been dramatic, is driven by the revival of Russian production in the last 3 years, but more importantly by the total collapse of Russian oil demand following a similar collapse in its economy since the fall of the Soviet Union. Russian oil consumption dropped from 5 million barrels per day in 1991 to 2.5 million barrels per day today, accounting for almost all of the export surge.

This oil consumption level can be compared to the United States, where we consume 20 million barrels per day. This in a country with approximately half our population and greater transportation distances with twice the number of time zones that we have. The short-term causes of the recovery of Russian oil production are ruble devaluation after the 1998 financial collapse improving the cost structure of Russian petroleum, the return of domestic investment in the sector after owners of privatized oil companies believed their property rights would be largely honored by the Russian state, and the introduction of Western technology by using international service contractors in modern oilfield practices and reservoir management.

Can Russian oil production increases be sustained without more fundamental structural changes in the sector, including those reforms required to attract investment not only from domestic sources but internationally? With the sole exception of Sakhalin, neither the Russian Government nor Russian industry has been particularly welcoming to direct foreign investment in the oil and gas sector, in spite of the public rhetoric. Government fears loss of control, and industry naturally wants to avoid competition.

Having achieved production and export growth by encouraging domestic investment, the Russian Government seems to be hesitant to pursue further restructuring in the oil and gas structure. Reform of Gazprom, the natural gas monopoly, and Transneft, the state pipeline monopoly is hardly even mentioned anymore. Both are significant obstacles to investment, even by Russian oil companies. Production-sharing agreements, or PSA legislation, called for international oil companies wishing to invest in Russia has been rejected for almost all projects other than for frontier exploration. It remains to be seen whether this trend of stalled reform will be maintained after the coming round of Duma and presidential elections.

Before further reform can take place, there needs to be a healthy political debate in Russia on the role the oil and gas sector should play in its overall economy and the impact on its politics, domestic and foreign policy. Given its population of 130 million people, industrial base, and agricultural potential, it is questionable whether its economy should be based on maximizing oil and gas exports, potentially crowding out all other economic activity.

The oil industry is capital-intensive, not labor-intensive. It demands centralization of decisionmaking both politically and economically in a few hands. Of course, this suits the interests of current political and business leaders. It is less clear whether this benefits the Russian people overall. What is clear is that with 5 percent of the world's known oil reserve and a reserve production ratio of around 20 years, Russia will always be a price taker in an oil market dominated by OPEC, not a price setter.

Our own view of the role Russia can play in U.S. energy security should also be informed by this reality. Russian and Caspian oil development may be prospective and lucrative to individual countries or oil companies, but nothing that is happening there will challenge the fact that two-thirds of known oil reserves are in the Persian Gulf.

Certainly, diversity of supply is important to the world oil market and benefits the United States as the largest oil importer in the world. So new supplies from Russia and the Caspian are significant, just as new supplies from deep water Gulf of Mexico, deep water West Africa, synthetic crude oils from Canada and Venezuela, under-explored acreage in Alaska, bringing Alaskan and Canadian Arctic gas to the lower 48s, new LNG projects, gas-to-liquids conversion technology, all these sources are important, not to mention conservation and energy efficiency improvements.

These sources, diversity of supply sources, are important because they stretch the time when the last incremental barrel of oil demand must be satisfied by the Persian Gulf. However, we should be under no illusion that a major supply disruption of prolonged duration in the Middle East can be replaced by such sources. Given their position as the world's swing producers with the most abundant and cheapest oil to produce, sitting between major oil markets in Europe and the United States and rapidly rising demand in Asia, Persian Gulf countries have a unique and irreplaceable position in the oil supply chain.

Until a technological leap allows us to move beyond oil's dominance in world energy consumption, a major supply disruption of prolonged duration in the Middle East will have a direct impact on U.S. energy supply and pricing, whether or not we are importing a drop of Persian Gulf oil ourselves. Oil is a largely fungible commodity in a fast-moving global market, as Julia has pointed out. Supply will shift according to market signals. We and other members of the International Energy Agency are also under treaty obligations not only to host strategic stockpiles, but also share those stockpiles in times of supply crises.

Any policy on international energy security based on bilateral oil relationships with other countries is therefore unlikely to be effective. U.S. policy must be based on a realistic assessment of the global energy situation and the potential role these countries can play, not based on unrealistic expectations or as a substitute for well-balanced foreign policy in the region.

By focusing too much on energy relationships, we give these countries the impression that this is all we care about. By explicitly discussing specific projects, like individual pipelines or laws that we favor, like PSA legislations, we give the impression that we care less about improvement and fundamental conditions, like the rule of law, transparency, and more political openness. These are the conditions that will lead to a better investment climate for domestic, as well as foreign, investors, not just in the export-oriented natural resource sector, but in the larger economy where the population lives.

They hear our rhetoric, but do not believe us when our Government keeps pushing projects. Leave that to industry and companies. Government officials should focus on what they know and can impact, which is how to foster a business climate conducive to investment and to avoid market distortions. Better that U.S. officials discuss lessons we learned in sector reform from our own deregulation of the oil and natural gas industries than lecture to the Russian Duma on what laws they should pass.

I am very sympathetic to the extremely difficult job U.S. officials have to perform in this part of the world, having traveled there on a regular basis since 1992. However, we cannot reinforce the rulers and the general population's belief that the U.S. cares only about oil and the war against terrorism without having to face long-term the unintended consequences of such a policy.

Russia, Central Asia, and the Caucasus are important to U.S. foreign policy interests, whether these countries have any oil or not. We should not allow exaggerated expectations in one area, for them and for us, to detract from sound overall policy.

Thank you.

Senator HAGEL. Mr. Chow, thank you very much.

[The prepared statement of Mr. Chow follows:]

PREPARED STATEMENT OF EDWARD C. CHOW

Thank you, Mr. Chairman. It is my honor to appear before you and Members of the Subcommittee to discuss the role for Russian and Caspian oil in U.S. energy security. I joined Carnegie Endowment for International Peace in Washington this year to focus on international energy policy. My views on this subject are informed by 25 years of experience in the international oil and gas industry, primarily with a major American oil company (Chevron). In recent years, I have also advised foreign governments and Western companies on strategy, investment policy and negotiations in the oil and gas sector, particularly in the former Soviet Union. I hope to bring some industry perspective from my work not only in this part of the world, but also Latin America, West Africa, Middle East, East Asia and Western Europe, to your Committee's discussion on the important subject of U.S. energy security.

No one can argue with the proposition that it is important for policymakers to have a realistic view of the policy environment. Otherwise political expectations are likely to be inflated and policy misguided. On the subject of oil & gas in the former Soviet Union, therefore, it is distressing to see the volume of misinformation and hyperbole not only from governments and industry in the region, which may have a vested interest in exaggerating the significance, but occasionally from our own government.

A number of years ago, most of us in industry were shocked to find a State Department report to Congress discussing the possibility of close to 200 billion barrels of crude oil reserves in the Caspian, at a time when industry estimates were at best 10 percent of that level. Today that industry estimate may be more generous, perhaps 30 billion barrels of oil reserves, but still barely 3 percent of total world proven reserves. The fact remains there has been only one significant discovery (Kashagan) in the Caspian since the fall of the Soviet Union. In a global context, the Caspian represents another North Sea or Alaska; it is significant, but even full development will not represent a fundamental shift in oil market dynamics or the world supply picture.

It is one thing for the President of Azerbaijan to talk about his country signing "the contract of the century," quite another for U.S. officials to repeat this claim. (After all, this is the same century, the 20th, that had King Abdul Asis of Saudi Arabia signing the original Aramco concession, which holds 25 percent of known world oil reserves.) It is worse still if U.S. policy is based on mistaken expectations and lack of understanding of petroleum industry realities. Even in his testimony before this Committee earlier this month, Under Secretary of State Al Larson, referred to Caspian Basin production of 1.6 million barrels per day in 2001 and the possibility of 5 million barrels per day in 2010. Most in industry would have a hard time finding Caspian production in 2001 to be much more than half of that level and believe that we will be doing well if production can be raised to 2 million barrels per day by 2010.

Industry expectations are moderated not only by geologic risks, but significant technical, economic and political risks in oil development in the region. Major finds are challenged by either being offshore; or in deep, high-pressure reservoirs; or with sulfur-laden associated gas that needs to be processed and the sulfur removed; or far away from market in a land-locked location—often times all of the above. Investments required are measured in billions or tens of billion dollars.

Peaceful political succession is unproven in the region. Political legitimacy of the governments in the region, as seen by their own population, has declined since independence from the Soviet Union. At the same time, the investment climate, which was largely welcoming a decade ago, has deteriorated with tougher contract terms, concerns over sanctity of contract, and greater appetite on the part of ruling elites for rent-seeking opportunities. Increased oil income has coincided with more autocratic rule, enhanced the ruler's ability to temporarily "pay off" parts of the elite by sharing some of this wealth, and allowed deferral of desperately needed fundamental economic and political reforms.

These unfortunate, but often repeated, developments associated with sudden oil income have in the past led to political instability, for example, in Latin America and West Africa. No wonder oil people around the world believe all the easy oil has been found and produced long time ago. More importantly, if uncorrected, this troubling trend in the Caspian region can give rise to longer-term threats to U.S. security interests, beyond energy.

Most of the commentary on the remarkable increase in Russian oil exports in the last two to three years has missed the fact that this has not been due to new discoveries or even development of new oil provinces or new fields. Russian oil production is around 8 million barrels per day today. It was over 10 million barrels per day (just in Russia) in the peak of Soviet oil production reached in the late 1980s. So the rise in exports, which has been dramatic, is driven by the revival of Russian production in the last three years and by the total collapse of Russian oil demand following a similar collapse in its economy since the fall of the Soviet Union. Russian oil consumption dropped from 5 million barrels per day in 1991 to 2½ million barrels per day today, accounting for almost all the export surge. This oil consumption level can be compared to the United States where we consume 20 million barrels of oil per day. This is in a country with approximately half our population and greater transportation distances with twice the number of time zones as we have.

The short-term causes of the recovery of Russian oil production are:

- Ruble devaluation after the 1998 financial collapse improving the cost structure of Russian petroleum industry;
- Return of domestic investment in the sector after owners of privatized oil companies believe their property rights will be largely honored by the Russian state; and
- Introduction of Western technology by using international service contractors in modern oilfield practices and reservoir management.

Can Russian oil production increases be sustained without more fundamental structural changes in the sector, including those reforms required to attract investment not only from domestic sources but internationally? With the sole exception in Sakhalin Island, neither the Russian government nor Russian industry has been particularly welcoming to direct foreign investment in the oil & gas sector in spite of the public rhetoric. Government fears loss of control and industry naturally wants to avoid competition. This is clearly demonstrated by recent events such as the rigged auction of Slavneft in December. From this perspective, the recently announced BP-TNK merger should be seen as BP deciding that, if you can't join the Russian oil party directly, then you must partner with a strong domestic player. It should not be seen as a sign that the Russian oil patch is now completely open to direct foreign investment.

Having achieved production and export growth by encouraging domestic investment, the Russian government seems to be hesitant to pursue further restructuring in the oil & gas sector. Reform of Gazprom, the natural gas monopoly, and Transneft, the state pipeline monopoly, is hardly even mentioned anymore. Both are significant obstacles to investment, even by Russian oil companies. Production Sharing Agreement (PSA) legislation, called for by international oil companies wishing to invest in Russia, has been rejected for almost all projects other than frontier exploration. It remains to be seen whether this trend of stalled reform will be maintained after the coming round of Duma and presidential elections.

Before further reform can take place, there needs to be a healthy political debate in Russia on the role the oil & gas sector should play in its overall economy and the impact on its politics, domestic and foreign policy. Given its population of 130 million people, industrial base, and agricultural potential, it is questionable whether its economy should be based on maximizing oil and gas exports, potentially crowding out all other economic activity. The oil industry is capital not labor intensive. It demands centralization of decision making both politically and economically in a few hands. Of course, this suits the interests of current political and business leaders. It is less clear whether this benefits the Russian people overall.

With 5 percent of the world's known oil reserves and a reserve/production ratio of around 20 years, Russia will always be a price taker in an oil market dominated by OPEC, not a price setter. Our own view of the role Russia can play in U.S. energy security should also be informed by this reality. Nothing that is happening or might happen in Russian or Caspian oil development, as prospective and lucrative as they may be to individual countries or oil companies, will change the fact that two-thirds of known oil reserves are in the Persian Gulf.

Certainly, diversity of supply is important to the world oil market and benefits the United States as the largest oil importer in the world. So new supplies from Russia and the Caspian are significant. Just as new supplies from deep water Gulf of Mexico, deep water West Africa, synthetic crude oils from Canadian tar sands and the Venezuelan Orinoco belt, under-explored acreage in Alaska, bringing Alaskan and Canadian Arctic gas to the lower 48s, new liquefied natural gas (LNG) projects, gas-to-liquids conversion technology—not to mention conservation and energy efficiency improvement—are all important, because they stretch the time when the last incremental barrel of oil demand must be satisfied by the Persian Gulf.

However, we should be under no illusion that a major supply disruption of prolonged duration in the Middle East can be replaced by such sources. Given their position as the world's swing producers with the most abundant and cheapest oil to produce, sitting between major oil markets in Europe and the United States and rapidly rising demand in Asia, Persian Gulf countries have a unique and irreplaceable position in the oil supply chain.

Until a technological leap allows us to move beyond oil's dominance in world energy consumption, a major supply disruption of prolonged duration in the Middle East will have a direct impact on U.S. energy supply and pricing, whether or not we are importing a drop of Persian Gulf oil ourselves. Oil is a largely fungible commodity in a fast-moving global market and supply will shift according to market signals, i.e., pricing. We and other members of the International Energy Agency (IEA) are also under obligation to not only hold strategic stockpiles (SPR in our case), but also share these strategic stockpiles in times of supply crisis. Any policy on international energy security based on bilateral oil relationships with other countries is, therefore, unlikely to be effective.

U.S. policy must be based on a realistic assessment of the global energy situation and the potential role these countries can play, not based on unrealistic expectations or as a substitute for a well-balanced foreign policy in the region. By focusing too much on energy relationships, we give these countries the impression that this is all we care about. By explicitly discussing specific projects (like individual pipelines) or laws that we favor (like PSA legislation) in bilateral meetings, we give the impression that we care less about improvement in fundamental conditions—like the rule of law, transparency, more political openness—that will lead to a better investment climate for domestic as well as foreign investors, not just in the export oriented natural resource sector, but in the larger real economy where the population lives.

They hear our rhetoric but do not believe us when our government keeps pushing projects. Leave that to industry and companies. Government officials should focus on what they know and can impact—how to foster a business climate conducive to investment and to avoid market distortions. Better that U.S. officials discuss lessons we learned in sectoral reform from our own deregulation of the oil and natural gas industries, including removal of price controls and import restrictions, in the 1980s that can be usefully applied than to lecture the Russian Duma on what laws they should pass.

I am very sympathetic to the extremely difficult jobs U.S. officials have to perform in this part of the world, having traveled there on a regular basis since 1992. However, we cannot reinforce the rulers and the general population's belief that the U.S. cares only about oil and the war against terrorism, without having to face long term the unintended consequences of such a policy. Russia, Central Asia and the Caucasus are important to U.S. foreign policy interests whether these countries have any oil or not. We should not allow exaggerated expectations in one area, for them and for us, to detract from sound overall policy.

Thank you.

Senator HAGEL. Well, Mr. Chow, we get the definite impression that you are not particularly enthusiastic about the Caspian Sea oil resources developing in the magnitude of what others have suggested over the last few years. Let me ask you, Mr. Chow, to begin with, your closing comments here, what role should the United States Government take, if any, in developing an energy policy, as you have set out limitations here which you think they should not do, and you have defined those clearly. But what should the United States Government do in developing an energy policy for the future security of this country?

Mr. CHOW. Thank you, Mr. Chairman. First of all, I want to say that I spent a decade working on Caspian oil. So 2 to 3 million barrels a day is nothing to sneeze at. That is a lot of supply. And companies do not want to be out of this play, just like they do not want to be out of any giant play in any part of the world.

I would say, to answer your question more directly, that if the U.S.-stated policy, as Julia has referenced, is diversity of supply routes, that should apply in the Caspian, for example, to outlets, as well as to our receiving a diversified supply from around the world. And therefore, a policy that singles out a particular pipeline route forces host governments to subsidize the pipeline route. And I am thinking in this case particularly for Georgia and Turkey.

With, if you will, a single solution to the Azerbaijan oil export problem, as opposed to diversified supply routes necessarily including Russia and Iran, I find it difficult to understand a Caspian policy that ignores the geographic fact that Iran is a littoral state in the Caspian, as well as having a pivotal position in the Persian Gulf, if we are interested in energy security. A diversified outlet from the region should be the answer to the world's supply question.

I am not suggesting, therefore, that the U.S. should promote projects. But the U.S. should not be against projects just because they happen to go through countries that we are not particularly fond of today. We are talking about projects that have a 20-, 40-year project life. I would like to think that our relationship with countries in the region would change over that period of time and hopefully improve.

Senator HAGEL. So essentially a Government, specifically the United States Government, policy should encourage diversification but not go beyond that. Is that your point?

Mr. CHOW. That is right.

Senator HAGEL. Why don't you begin with that? Ms. Nanay, would you care to respond to that question: What is the appropriate responsible role of the United States Government in developing energy policy?

Ms. NANAY. Well, I think if we are looking at this region, I think the appropriate role is to, first of all, yes, it is diversify routes and to try and work with governments on perhaps helping to install democratic values. I do not know how you go about doing that, but I think that investments in this region, and ultimately U.S. energy security and exports, will be better fostered by stable countries with governments that have some sort of democratic aura to them where you have, you know, some semblance of free and open elections.

As it is now, you go around this region. And what you have is basically rulers who have declared themselves largely rulers for life. And if they are gone, then their families continue. And they are trying to base themselves on. What you have in the Persian Gulf with monarchies. And, it is—and it is also based on the fact that the countries that have probably the largest to gain from the oil resources, Azerbaijan and Kazakhstan, the families that are currently in power do not really want to let go of the revenue stream from that in the future.

So I suppose it is a difficult one. I do believe that the question of Iran is very important. I do not understand how long this policy of isolating this country that is geostrategically so important in this region and strategically so important for the U.S. for the future, how long this policy can sustain itself.

Senator HAGEL. Well, you have laid out a very excellent set of objectives, but they do not just happen, as you know. And you have acknowledged that you do not know how to do that. And that is not a reflection on you. But it points out how difficult these things are. And we are engaged in a very similar situation in Iraq today with noble goals and efforts to try to accomplish exactly what you just laid out.

But the question that I would still like to have you take a crack at as well, Mr. Somers, is: What is the role of the United States Government here, as you protect the interests of your country? It is a national security interest, energy.

Mr. SOMERS. Thank you, Senator. I am going to stick to what I know, and that is Russia. I was interested to hear the remark of the previous speaker about perhaps focusing on supporting democracy, and I would on market economy. Of all the countries that were mentioned, and I think they were described very eloquently by previous speakers in terms of their regimes, Russia stands out as something different. Russia is moving toward the kind of society and the kind of economy that our own values espouse. It is a very difficult road for them.

And I think that the U.S. energy policy, its effort to develop a policy and a strategy, of diversification should certainly consider strongly asking Russia if analysis makes the viability of Russian oil stand up in terms of its ability to export and its reserves, that certainly Russia should be strongly considered to be a partner with other exporters in contributing significantly to the import share of U.S. energy, because we will be supporting a country which is making an effort, and has made an effort now for some 10 years, to move in the direction that our own values support.

So I would confine myself to Russia. That is what I know. And I think that the U.S. efforts right now and this committee's questions are something that I strongly support.

Senator HAGEL. Thank you. Staying with Russia for a moment, in your testimony that you gave, you mentioned, and I am reading from your testimony, "Yukos claims"—you are talking about the Murmansk project and to resolve the export constraint problem discussed above, "Yukos claims that Russia can supply 15 percent of U.S. oil imports with an estimated range of 1 to 2 million barrels per day."

How would that happen?

Mr. SOMERS. Well, it is a statement by Yukos that if, essentially if, they solved their export constraint problem, and if they continue at what Westerners consider to be merely remedial efforts to upgrade their West Siberian fields, Russia, without significant further exploration, could fairly easily produce this type of oil output starting about—when I say the next 30 years, I think exactly they said starting in the year 2005, 2006, they are in a position to produce this amount of oil.

Now how mechanically and technically they do it, I do not know the details of that except to say they are export constrained now. They think the Murmansk project is going to relieve this, including also the project to China. Although I will say that the Russian oil companies have stressed that the pipeline from West Siberia to

Murmansk is much shorter than the pipeline to China. It will have much quicker payoff. It will be much cheaper to build.

So I cannot answer your question directly in terms of how, except to say that it is the opinion of the Russian oil sector that they are in pretty good shape right now to be able to produce this type of oil over the next 30 years, based on what they believe are their reserves now.

Senator HAGEL. How would it be transported?

Mr. SOMERS. Well, if Transneft improves its internal infrastructure through a pipeline from, for example, West Siberia to Murmansk and some of the other routes that Minister Yusufov mentioned yesterday when he said that Russia has to now diversify its export pipelines. It would be primarily pipelines to ports like Murmansk.

I should add that about of the 7.4 million barrels a day that West Siberia is producing today, and even Western people who criticize Russia for not exploring more say this will continue for the next 3 or 4 years, about one-third of that exported by Transneft. That is to say, the Transneft infrastructure gets it to the ports. That is about 2.4 million barrels a day.

Another third is actually exported by rail in the form of motor oil. This is a very expensive form of transportation of oil. If you take the figure Yukos gave that it would cost $8 a day transportation costs per barrel from Murmansk to the East Coast of the U.S., the estimates of rail transportation out of Russia is about $15 a barrel.

So Russia is inefficiently transporting its oil right now. And any efficient export system will have to replace that one-third of rail transportation with the upgrade of its infrastructure of pipelines.

Senator HAGEL. So the anticipation of a pipeline then is what we are talking about for that being cost effective.

Mr. SOMERS. That is right. That would make it much more cost effective. That is right.

Now remember—excuse me. I am reminding myself that the Russia private sector that is advocating Murmansk and is stating that they could hit 9 million or 10 million barrels a day with basically on current and expected easily recoverable reserves is also a company that is not too enthusiastic about production-sharing agreements and is more or less on the side of the viewpoint that large Western investment in these offshore projects is not needed.

So the statement that Yukos makes about 9 million or 10 million barrels a day may or may not be verifiable. You just do not know.

Senator HAGEL. Let me ask each of the three of you, when you look at the breakdown of where we are now, the United States, importing our crude oil from, and you have all touched upon the diversification factor here to some extent, number one, is it the—or what is each of your opinions regarding Middle East sources of oil? Do we need to cut back, prepare to cut back, diversify because it is Middle East oil, or is that not as big a threat? And I say that realizing that we have just replaced Saddam Hussein in Iraq. And you, Ms. Nanay, referenced the Iraqi equation in your testimony.

Today the President of the United States, as well as the Prime Minister of Great Britain, laid down the Middle East peace plan, the road map, re-engaging, refocusing new energy, new leadership.

So the point here is, well, maybe things are looking better in the Middle East than they have in a long time, if you take just those two factors. No guarantees. We do not know how Iraq is going to turn out. Iran, as you have mentioned, is still a wild card.

But with that development as well, is it imperative, in your opinion, that the United States move away from the Middle Eastern crude oil sources? If it is not, why? Or you give me your thoughts on this, especially as we look at the breakdown of where we bring our oil in from today.

Mr. Chow, I will start with you.

Mr. CHOW. Mr. Chairman, I think it is important to point out that oil today is traded, bought, and sold on a spot basis around the world. The U.S. Government makes no decisions on oil purchases that I am aware of except for the strategic petroleum reserve. And as a free market person, I kind of like it that way. I am old enough to remember when government had a tremendous amount of control with domestic oil price controls, oil import restrictions into the United States, as well as gasoline lines that came with them. So I kind of like having a world that allocates supply to satisfy demand on the basis of market signals.

The greatest, one of the greatest—it has been pointed out that Russia has a lack of deep water oil terminals. I would like to point out that we have a similar lack of deep water oil terminals in our own country. So one of the—and the only exception that I can think of is the Louisiana offshore oil port or loop. So one of the things that we can do ourselves is to modernize our oil-receiving facilities so that they can take economic cargoes from around the world, if we are serious about increasing our energy supply diversification.

Of course, that is going to involve all kinds of local permitting, environmental concerns, and serious—and I do not mean to minimize them. But that is something that we could do and we should seriously think about doing.

Middle Eastern oil and whether Russia can export 15 percent of our oil import requirements or not to me is not a relevant question. I mean, oil moves around the world. If Russia is able through Murmansk and other projects to move more oil into the world market, that is the important part. If that displaces West African crude exports to Western Europe, that crude will come to the United States and just sit. So the market will sort itself out.

What our Government can do, in talking to the Russian Government, is to advocate structural reforms or at least removing the barriers, the structural barriers, to their increasing their own production and exports.

I would like to point out to you that, you know, it is not that the Russians are unintelligent about these things. They have their own motivations as to why the system is left the way it is. Transneft is plain and simple a rent-extracting machine in the Russian oil sector. They are a system to allocate scarcity, because by having scarcity you can reward friends and punish enemies. It is part of the leverage that the Kremlin has. But it is also a mechanism from which the Russian oil sector is corrupted, as well as neighbor producing countries, such as Kazakhstan and Azerbaijan, as well as transit countries, like Georgia or the Ukraine, for example.

So it is not that the Russians do not understand that having an inefficient state monopoly pipeline system, which is not transparent, not operated on a common carrier basis, has economic costs. They understand that all too well. So what we need to do is over a long period engage them in a discussion of what are the consequences of those type of policies to their economies, but not be so specific as to prescribe our own solutions in the greatest detail. Because that is something, it seems to me, that is up to the Russian political systems to sort out.

Senator HAGEL. Ms. Nanay?

Ms. NANAY. Well, I think Ed has said it so well. And in my written testimony I outline quite a bit of this, also. I agree with him entirely that we are not a country that decides who is going to import what from where. Companies are free to do as they like. And moreover, I think oil is a fungible commodity, but it does come in different qualities. And different refineries in different parts of the world are geared to taking different oils from different places. And so, in fact, some of the decisions on where this oil flows from where is also based on this angle of the refineries.

I think a free market is best served by a free market. Saudi Arabia is a very important supplier, as we have all mentioned. And it is, one of the terms we like to use at PFC Energy, it is the central bank for oil. How you manage to replace that, that would be extremely difficult.

In any case, I agree, let the markets work. And I think the Russians are themselves as private companies, they are responding to price signals. This is most of what is happening in the Russian oil industry because these private Russian producers are responding to price signals, and they are becoming more efficient. And they want to sell more of their oil into world markets.

Of course, I put one word of caution here. Let us see what happens if, over the next year, we get prices softening and even down to $20 a barrel. Perhaps that will change what oil comes to markets from what areas to some extent.

Thank you.

Senator HAGEL. Thank you both.

Mr. Somers?

Mr. SOMERS. Thank you, Mr. Chairman. Well, to answer your question, I would say yes, we should move away from the degree of dependence we have now on Mideast oil. And I know you did not mean by that question that it should be eliminated. But I do think that given the history, at least of my lifetime, it has been rather unstable. It is interesting to me in that context that Venezuela suddenly disappeared from the map. And Nigeria is now number two, if I understand it correctly.

So it seems to me that it would be of interest to the United States to find a way to, particularly given the new Russian-American strategic relationship, notwithstanding the blip on the radar screen with Iraq, that a way be found to diversify our energy supply through Russia.

I would also like to comment just briefly on what the U.S. Government has been doing to support Russian reform. There has not been an overemphasis on energy supply or energy policy. There has been a lot of work on corporate governance, transparency, business ethics, an enormous amount of programs in Russia which are working the private sector, as well as with the Russian Government. And I actually detect very little of lecturing by the State Department or Department of Energy or Department of Commerce in my two-and-a-half years in Russia. In those meetings, they are very constructive. They are very, let us put it this way, on an equal basis. And there is a true dialogue of equals in terms of intellectual exchange of ideas in an effort to get a bottom line.

So I think the U.S. Government under this administration has been doing an excellent job in supporting the private sector in many different ways. And certainly the private sector, the American private sector, has been working with its Russian counterparts on rule of law, redistribution of resources, ideas, and many other things that have nothing to do with energy, but which I think create an environment that supports a closer U.S.-Russian energy relationship.

Senator HAGEL. Thank you.

Would each of you address the—and you each have, to a certain extent, in your testimony and some of the questions—the Caspian Sea region potential for both natural gas and oil, realizing that again you have each touched on it in different ways. And some of the legal entanglements, obviously our first panel addressed some of those. But I would be interested in getting your experienced perspective on what you believe is the future for the Caspian Sea region oil and natural gas production.

Mr. Chow, I will start with you.

Mr. CHOW. Having perhaps given the wrong impression that I do not care much about Caspian oil, I do want to state that Kashagan, the one discovery that I referred to, is a very significant discovery. I mean, except for that, I think a lot of us would say that exploration in the Caspian would have been a big disappointment. Because all of the development of the fields that we are talking about today are from past Soviet discoveries.

Kashagan is a potentially very significant discovery. And if it turns out to be the size that people believe it may be, it will definitely be attractive to develop, but also attract additional exploration that might prove up additional reserves.

The natural gas question is a slightly more complicated question. There is a lot of gas in the Caspian region. Unfortunately, it is also very far away from market. And gas is a business that is dominated, particularly remote gas, by transportation economics.

And here we have a region that is, to get the gas out to market, has to pass through two other countries that both have even more gas than they have, namely Russia and Iran. So whether that gas will continue maybe to be stranded because of the lack of export route and the lack of equitable treatment on the part of transit countries that have their own legitimate economic interests at stake is a much longer term proposition for development, I feel, than oil is.

Senator HAGEL. Thank you.

Ms. Nanay?

Ms. NANAY. Well, Kazakhstan is already producing a million barrels a day. And that is without Tengiz at its full potential, without Kashagan, and without future prospects. I think it is very clear that not only Kashagan, but if you look at some of the geological maps of offshore Kazakhstan, it could potentially be a phenomenal oil-producing area, or maybe it is going to be a lot more gas than oil eventually.

It is hard to tell, because in Azerbaijan, which I believe will have about a million barrels a day within this decade coming out of the AIOC consortium, but the future production out of other fields there, including Shah Deniz, may well be gas. So you are going to see, as Ed pointed out, a great deal of gas being produced in the Caspian. This will hit up against gas in Russia. What is interesting about Russia that we only touched upon, earlier today on this issue of gas, is that Yukos, YukosSibneft soon, the merged company, also has a major stake in gas and has been trying to buy up gas properties.

There is an element to the Murmansk project, which again has not been mentioned, is that it would also be a port from where you would conceivably build an LNG facility and create eventually an LNG export potential to the U.S. that ConocoPhillips, a U.S. company, is already talking about.

But, again, the Russian oil companies have a great deal of gas. There is gas that Gazprom owns in Russia. And then you have Caspian gas. And my view is that what you will see with the Caspian gas to some degree is that Russia will find a way to use that gas at much lower prices, as it is already doing with Turkmenistan to supply its own domestic needs, so that Russian company Gazprom and the Russian private producers eventually will find a way to get their gas to export markets.

Senator HAGEL. Thank you.

Mr. Somers?

Mr. SOMERS. Thank you. I would agree with that last comment on Caspian gas out of Russia. I think that is probably the way they may go, certainly the Russian private sector. The oil companies are very interested in gas.

My understanding of the Russian Caspian oil reserves, at least in the estimate of American oil companies, is it is about three billion barrels. But that is about, I do not think, even one-tenth of the reserves of Kazakhstan oil. So the Russian oil, the Russian Caspian oil, will play a lesser role than certainly the Caspian Kazakh oil, perhaps producing 400,000 or 500,000 barrels a day when it finally gets going. But the geology is very different in the Russian Caspian than the Kazakh Caspian with respect to oil. So the Russian Caspian will play a lesser role, but still could play a significant one.

And the gas, I agree with the previous speaker, that probably this could serve the domestic, because of the difficulty of getting it out, serve the domestic gas market, which could facilitate exporting more gas abroad from Gazprom.

Senator HAGEL. Thank you.

What about potential markets in China and India for Caspian natural gas and oil, Mr. Chow?

Mr. CHOW. Well, once again, geography raises its ugly head. I think that the question on China will better be answered after China builds its own west-east gas pipeline from St. John to Shanghai, which, by itself, is also not economic and kind of a loss leader that the Chinese, as well as Gazprom, Shell, and

ExxonMobil, are investing in. That project to me only makes sense if, once it is built, it can feed additional gas either from Russia or Central Asia into that system and satisfying that the larger natural gas demands in China that are real and growing, both because of fundamental primary energy consumption growth, as well as the need to reduce coal construction because of the environmental impact of coal use in China.

Within India, it is a geographic issue, but it is also a political question, because you do have to traverse difficult areas in terms of both topography in Afghanistan and Pakistan, but also political relationships in the region. India also is a prospective gas market, but it is much closer to Middle Eastern gas supplies. So a more logical supplier for the India gas market might be LNG from the Persian Gulf or even Iranian gas than compared to Turkmen or Kazakh gas.

Senator HAGEL. Thank you.

Ms. Nanay?

Ms. NANAY. Well, let me touch on one thing that you raised here that brings us back to another issue. It is the issue of China. And as the question you raised before about diversifying, U.S. diversifying, away from the Middle East, since we raised this specter of the necessity to do this, I think countries like China, India, Japan, they have begun thinking that they have to emulate the U.S. strategy in this as well.

And so what you are leading up to, to some degree, is competition for non-OPEC suppliers and non-Middle East suppliers for oil and for gas, from countries in Asia, like China, Japan, and India, whose logical sources are really the Middle East. But we may be competing for the same, non-OPEC and non-Middle East sources of oil and gas, because we are all afraid of the Middle East problem.

But on the gas issue, I think what is very interesting, obviously, is this question of how you would get gas to Asian markets, particularly India. And the question of a pipeline across Afghanistan keeps being proposed and studied. But quite honestly, it is such a longshot. If you look at what it took to build CPC and BTC as oil pipelines in what are reasonably secure areas that you are crossing through, I think this issue of building a gas pipeline across Afghanistan is still really far off into the future.

And for the Chinese, I believe that the solutions that they will find could very well be related to Sakhalin. Sakhalin is a very important development in terms of Western companies' involvement, major LNG projects, which will be launched from there, a pipeline project that ExxonMobil is proposing to build to Japan. I think that area will be an important gas supplier.

I really do not believe that the issue of Caspian gas to China is a realistic one to consider at this point.

Senator HAGEL. Thank you.

Mr. Somers?

Mr. SOMERS. Well, I would certainly agree that Sakhalin, which we have not mentioned much, could play a significant role with respect to gas or oil to China. As far as the Caspian goes, I think perhaps the statement by Minister of Energy Yusufov yesterday in Paris deserves study. Again, I do not have the statement, other than a summary. But he talked about diversifying, as I had mentioned earlier, the infrastructure to increase the ability to export gas and oil out of Russia. And the quote I had was that with foremost emphasis on North America and Northeast Asia, what countries in Northeast Asia perhaps the speech talks about.

But he focused on the export from the north, the east, and the south, which could well apply to the Caspian. So perhaps there is some idea that the Caspian could serve a role that way. But the logistics will be difficult.

Senator HAGEL. Mr. Somers, thank you.

Well, I want to tell each of you how much I have appreciated your taking the time to put your thoughts together in very helpful and informative testimony and taking your time to come here. Especially you, Mr. Somers. I do not know if you have traveled the greatest distance to get here, but I do not think Ms. Nanay, unless she has been somewhere else here recently, has beat you on this. But Mr. Chow, I do not know where you—are you downtown? Yes? That is what I thought.

So you get the prize, Mr. Somers, for the longest distance traveled.

But you have all three been very helpful. And I know we check in with the three of you occasionally, my staff and the committee staff and other members of this committee, to get your expertise and counsel. And we are always grateful for that.

If you have any additional submissions for the record, let the committee know, and we will assure that they are included, as will be your testimony.

Thank you.

[Whereupon, at 4:55 p.m., the hearing was adjourned.]

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