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**Before the**  
**Subcommittee on International Economic Policy**  
**Committee on Foreign Relations**  
**United States Senate**

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Thank you Mr. Chairman. I am pleased to have the opportunity to appear before you to discuss Eurasian energy supplies, the implications for U.S. energy security, and the Department of Energy's role facilitating the Administration's goals in the region.

To help ensure U.S. energy security, the U.S. government consistently has called for supply diversity. The Eurasian oil and gas producers are key market players and their energy potential is considerable. The energy relationships between the United States and Eurasian countries are designed to strengthen the overall relationships between our countries and to enhance global energy security, international strategic stability, and regional cooperation.

First I would like to provide an overview of reserves, resources, and exports. Then I will address the challenges in this region and tell you about the Department's activities and relationships with Eurasian countries.

**Oil and Gas Production and Resources**

Russia and the countries in Central Asia and the Caspian are key contributors to the global oil and gas market. Russia produces about 9.5 million barrels per day of oil and exports about 6.5 million barrels per day to its export markets. Most of Russia's oil is exported to former Soviet countries and to Central and Western Europe, with small amounts to China and Japan. It is the world's second largest producer and exporter of oil just behind Saudi Arabia. In the 1990s, Russia experienced a dramatic downturn in production, but since the beginning of this decade the growth rate rebounded averaging 8 percent per year. Recently, however, we are seeing a slowdown in the growth rate and the Russians are predicting production to grow by only 1 to 2 percent in the near term. There are a number of factors contributing to this decrease -- the demise of Yukos, high taxes, the focus on increasing government control over the energy sector, and less investment. Some estimates predict that Russia could produce about 11 million barrels per day by 2015; however, this will depend on its ability to change the factors affecting investment in exploration and development. Russia is the world's largest gas producer, and although its gas production has been relatively flat, it is expected to continue on its current growth path if there is sufficient investment in new fields. Russia is currently producing about 57 billion cubic feet per day -- most of which is exported to Europe.

The Caspian region continues its upward trend and is now producing about 2 million barrels per day with production predicted to reach more than 5 million barrels per day by 2015. Its natural gas production is about 13.5 billion cubic feet per day. Turkmenistan is the region's largest gas exporter, with its primary markets in Ukraine and Iran. Industry observers speculate that its

production could double in the next five years with most of it going to Russia. Azerbaijan may produce about 2 to 2.4 billion cubic feet per day by 2015 with the Shah Deniz field coming on line. Projections for Kazakhstan production are still uncertain given the lack of export capacity.

Russia has vast oil and gas reserves, but since reserve data are not made public, it is difficult to know with certainty what Russia really has. Its proven oil reserves are conservatively estimated at about 60 billion barrels as reported by the Oil and Gas Journal. However, Russian companies have estimated that oil reserves could be around 100 billion barrels. Also, many areas have yet to be explored and are in difficult and remote regions. Russia, followed by Iran, has the world's largest natural gas reserves of about 1680 trillion cubic feet.

Resource estimates for the Central Asia-Caspian region vary widely because many areas of the region have not been fully explored. EIA indicates that proven oil reserves are somewhere between 17 and 44 billion barrels. Companies have estimated that resources (not proven reserves) are in excess of 100 billion barrels. EIA estimates the region's proven natural gas reserves at 232 trillion cubic feet. Again, natural gas reserves are not fully explored and could be considerably greater. Whatever the numbers, it is clear that the Caspian region is a significant source of oil and gas reserves that can become an important source of supply for the global market. The challenges are in developing and exporting these resources.

### **Export Challenges**

One of the major difficulties faced by Russia and the Caspian states as they attempt to develop and export their energy resources is the lack of export transportation infrastructure. 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-barrel-per-day pipeline from Kazakhstan to Russia. Since independence, several new oil export pipelines have been built. However, the relative lack of oil and gas 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) oil pipeline, the first project in this East-West transport corridor, is in the final stage of construction, and we expect the first oil to be loaded on tankers at the port in Ceyhan later this year contingent upon the resolution of several pending minor construction delays. It is expected to ship between 1 and 1.5 million barrels per day by 2009 and operate for 40 years. Negotiations are underway to include Kazakhstan in this pipeline project. We encourage Kazakhstan to reach agreement with Azerbaijan on an Inter-Government Agreement to define the terms under which Kazakhstan oil will enter BTC. This step would constitute a strong statement of the Kazakhstan Government's commitment to expanding its energy cooperation with its Western neighbors.

By extending its reach across the Caspian Sea, an Aktau-Baku-Tbilisi-Ceyhan (ABTC) project would strengthen regional cooperation and stability, encourage economic linkages that can mitigate regional conflicts, and help Kazakhstan secure direct access to world markets via

Turkey and the Mediterranean, without subjecting its exports to the uncertainties of geographic chokepoints such as the Turkish Straits.

In Russia's case, the export capacity situation is improving with increased capacity from Baltic ports and via rail shipments. If Russia's midterm oil production increases as it recovers from a lack of investment following the Yukos case, Russia must expand its oil infrastructure. However, Russia seems to be relying on geopolitical factors rather than market forces to determine which pipelines to build and this could undermine the expansion of Russia's access to global markets. In short, Transneft has selected favored projects, such as the Baltic Pipeline System expansion and the Far East pipeline, at the expense of industry-preferred projects such as the Caspian Pipeline Consortium expansion and construction of a Northern pipeline. Independent pipelines, with the exception of the Caspian Pipeline Consortium, are non-existent, and independent (open) access to Transneft's pipelines remains problematic.

In 2001, the Caspian Pipeline Consortium, Russia's first and only private pipeline, was completed and now ships almost 700,000 barrels per day of Kazakh and Russian crude to the port of Novorossysk. It is expected to ship 1.3 million barrels per day once its expansion plans are approved. This pipeline is a unique project involving more than eight companies and the governments of Russia, Kazakhstan, and Oman. Negotiations among these governments and companies have been challenging. We are hopeful that the final obstacles to approve the expansion are soon resolved.

The most efficient route that would support an increase in Russian oil exports to the U.S. would be via a pipeline from Russia's Far North to a deepwater port in the Barents Sea. Companies and government officials have been discussing this proposal since 2002, and currently, Transneft is planning a 290-mile pipeline that could add 500,000 barrels per day to the world market, but has not announced a timetable for pipeline construction or first oil exports. Historically, Russian exports to the U.S. have been only around 45,000 barrels per day, but the last two years have seen an increase. In the first six months of 2005, the U.S. imported an average of 253,000 barrels of oil per day from Russia.

Russian oil exports to Asia are projected to increase in coming years. The Russian government continues to make strategic alliances with Asian countries that promise more oil deliveries. The recently approved construction of the Far East pipeline will be key for increased oil exports to Asia. It is expected to cost more than \$15 billion, cross some 2700 miles, and transport 1 to 1.5 million barrels per day at full capacity. The first phase of development will reach China; a pipeline extension likely will later reach Russia's Pacific Coast to serve Japan and other markets, including the U.S. west coast. Questions remain on whether there is enough regional oil to supply this pipeline. Eastern Siberia is an undeveloped area with an unknown resource base. Reliable reserve figures are not available for this region, and it will take time before new production comes to market. Some anticipate the need to divert Western Siberian resources to fill the pipeline, but Russian company and government officials maintain that the Eastern Siberia resource base is sufficient to fill the Far East pipeline. Caspian oil exports to Asia will increase with the new Kazakhstan-China oil pipeline. China is financing construction of this 600-mile, \$850 million pipeline, capable of moving 400,000 barrels of crude a day. The second section of the three-part pipeline is due to come on line in December 2005.

In discussing export routes for this region, we must recognize the importance of Turkey. Its strategic location makes it a natural energy bridge for transporting Russian and Caspian oil and gas. Under optimal conditions, approximately 6 million barrels per day of oil could transit Turkey in a given year. That number includes 3 million barrels per day shipped through the Bosphorus and Dardanelles Straits (hereafter referred to as the Bosphorus), 1.5 million barrels per day of Iraqi oil via pipeline, and 1.5 million barrels per day through the BTC pipeline. The actual amount of crude presently transiting Turkey is much lower, about 3 million barrels per day, due to repeated attacks on Iraq's oil infrastructure and the fact that it will be some time before BTC is at full flow.

Since it will take time to secure Iraq's pipeline and get BTC to full flow, the importance of the Bosphorus Straits, which connect the Black Sea to the Mediterranean Sea, becomes increasingly important. Turkey has raised concerns about the ability of the Bosphorus Straits, already a chokepoint for oil tankers, to handle the current tanker traffic load. The Turks see crude transports through the Bosphorus as an accident waiting to happen, and they hope to reduce tanker traffic. As a result, a number of options are under consideration for oil transiting the Black Sea to bypass the Bosphorus Straits. We are encouraging countries in this region to develop alternative routes to the Bosphorus Straits.

In support of the Administration's commitment to multiple pipelines, the U.S. Trade and Development Agency has funded feasibility studies of several Bosphorus Bypass pipeline projects. These studies are an important contribution to the decision-making process on the addition of pipelines to connect Central Asia to Western oil markets.

In regard to gas exports, the gas pipelines built during the Soviet era continue to serve as the conduit for Russian and Central Asia gas exports. Russia sends most of its gas to Europe, meeting about a third of Europe's demand. Russia has been a reliable gas supplier to Europe and will help meet Europe's increasing gas demand. In 2002, Gazprom added to its export capacity by building the Blue Stream pipeline under the Black Sea to Turkey. It can deliver about 16 billion cubic meters per year, but much of it is unused due to insufficient demand and Turkish claims that the gas is of poor quality. Gazprom also is considering an expansion of its Yamal pipeline to Europe, building a pipeline all the way to Great Britain, and constructing a system in the Far East that would bring Kovyka gas to South Asian markets.

Russia does plan to expand its gas markets by developing its LNG capability. It views the U.S. as the number one market. On September 2, a Gazprom delegation traveled to Cove Point, Maryland to celebrate the arrival of Gazprom's first LNG shipment to the U.S. Gazprom is not currently producing LNG, but the company arranged a swap to begin its participation in the North American market. Russia's potential for gas exports to the U.S. – as LNG – are significant. Having announced a short list of five companies with which it will cooperate, in early 2006 Gazprom plans to announce a development consortium for its giant Shtokman gas field, which lies offshore Russia's far north in the Barents Sea. LNG from this field would be targeted to the United States. The size and scale of this project cannot be overstated. Shtokman is likely to be the world's largest energy project with reserves of 113 trillion cubic feet of gas and 31 million tons of gas condensate. Gazprom expects to start Shtokman LNG exports of 15

million tons per year after 2010, and ConocoPhillips and Chevron are on the short list to take part in the development consortium.

Although Gazprom is focused on Shtokman to target North American markets, Russian LNG is also likely to reach the U.S. from the Sakhalin-2 project on Russia's Pacific coast. Shell, the Sakhalin-2 operator, and the other project consortium members – including Gazprom – are building the world's largest LNG plant. The facility is expected to come on stream in 2008 and produce 9.6 million tons a year of LNG to supply Japan, South Korea, China and the United States. Initial contracts call for Shell to export 1.6 million tons of LNG a year to a planned LNG facility on the West coast. Russian LNG also could be developed from its Yamal Peninsula, and a U.S.-Russian partnership is considering a major project in that region.

Caspian gas is produced primarily by Uzbekistan and Turkmenistan, and in smaller volumes by Kazakhstan and Azerbaijan. These countries rely on Soviet-era pipelines, owned by Gazprom, to get their gas to Russian and European markets. The South Caucasus gas pipeline now under construction from Baku, Azerbaijan, through Georgia to Turkey, will significantly increase the opportunity to move gas from the south Caspian Sea to Western markets. Extending this pipeline on the East from Turkmenistan to Baku and, on the west, from Turkey to Southern Europe, and the increased investment in gas reserve development to support the pipeline, would provide a major opportunity to improve the supply of gas to world markets. Building a consensus among the countries involved in such a project, negotiating the necessary agreements and encouraging the flow of capital to the region are obviously major challenges, but we believe a regional East-West gas pipeline is an important goal towards which we will continue to work. Asian markets are too distant from Caspian reserves to be financially viable, and until new infrastructure is created, North American consumers are unlikely to use any Central Asian gas.

It is clear that our interests are aligned with those of the Eurasian countries. We seek increased supplies from diverse sources and Eurasian countries seek to maximize output and exports. The U.S. and Eurasian countries acknowledge that increased commercial cooperation and energy trade are shared goals. But although our interests are aligned, numerous challenges present obstacles to expanding energy trade between the U.S. and Eurasia.

### **Resource Development Challenges**

One of the most significant issues for Eurasian countries is increasing resource development and production. Many of the reserves are in remote or offshore areas or will otherwise be technologically difficult and expensive to develop. The Caspian Sea is 700 miles long and contains six separate hydrocarbon basins, most of which have not been developed or even fully explored.

The most significant problem with the Caspian Sea's oil and natural gas resources is the lack of an agreement among the five littoral states. Although Russia, Azerbaijan, and Kazakhstan have each signed bilateral agreements with each other, Iran and Turkmenistan have not. Iran's position is that each country be given 20 percent of the Sea's resources. In other words, each country ought to receive 20 percent of all production revenues from the entire Caspian Sea regardless of investment.

Russia relies on its own and foreign firms to develop hard-to-reach assets. But companies are hindered from investment by high taxes and an undifferentiated fiscal regime that provides no incentives for hard-to-produce deposits. In recent weeks, the government has begun serious discussions about tax differentiation to provide incentive for greenfield development and brownfield renovation. Energy producers in Russia are hopeful that energy tax differentiation will be implemented.

Other significant challenges in both Russia and Central Asia include problems with the investment and business climate, corruption, rule of law, and transparency. Each country faces its own challenges in improving the environment for more energy investment and business. In Russia, one potential barrier to investment is worth noting: the subsoil law. A new law on subsoil development and amendments to the current law are still being considered by the Russian parliament, the Duma. While the terms are not finalized, it is likely that legislation will place restrictions on companies deemed foreign and limit foreign investors from developing “strategic” oil and gas or mineral deposits. At this time, the Russian government has not specified what type of ownership structure constitutes a foreign firm or which assets will be considered strategic. However, we continue to seek clarification from Russian officials on these issues.

Challenges in Kazakhstan’s investment environment concern a growing feeling in Kazakhstan that past agreements with foreign investors were too generous. 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 dispute over provisions of the production sharing agreement (PSA) with Tengizchevroil, while resolved, led to a government statement that future PSAs would have less favorable provisions for foreign investors, and, indeed, Kazakhstan’s law has been changed to require that the government-owned oil and gas company KazMunaiGaz now own at least half of any PSA project and act as contractor in all new offshore PSAs. When a new series of blocks is offered for lease, the direction of the government with respect to investment terms should become clear.

Turkmenistan is host to one of the largest gas reserves in the world. However, the legal and regulatory framework in that country lacks the credibility necessary to attract significant investment to develop an energy transportation infrastructure. We hope that this situation will change, and we look for opportunities to engage Turkmenistan on this issue.

Eurasian resource development also has been hindered by centralization of control in the energy sector. Russia in particular has consolidated Kremlin control over energy companies. The Russian government is nearing completion of its acquisition of the 10.7 percent stake needed to have a controlling 50 percent plus stake in Gazprom. Rosneft and Gazprom are competing to acquire the Russian oil company Sibneft, which at this time is still free of any government ownership. Rosneft acquired Yukos assets and is seeking to acquire even more. This centralization is obviously problematic: it decreases competition and the opportunities for U.S. firms. And in cases throughout the world, we have seen decreases in efficiency when national oil companies assume control of assets that were operated by private oil companies.

## **Energy Security Challenges**

Given the obstacles discussed above, strengthening energy security in cooperation with Eurasia remains a challenge.

We maintain that the best way to strengthen energy security and meet Eurasian and U.S. goals is to expand commercial energy cooperation, which I will discuss further in a minute.

On a government-to-government level, we are working with many Eurasian countries to strengthen the overall relationship between our countries and enhance global energy security, international strategic stability, and regional cooperation.

## **Department Activities**

With Russia, our bilateral energy dialogue focuses on meeting the objectives established by President Bush and President Putin in their 2002 and February 2005 joint statements. They tasked us to carry out the governmental aspects of the energy relationship, and in 2002 the Secretary of Energy and the Russian Minister of Energy established the Energy Working Group (EWG).

The EWG has proven to be an excellent mechanism for regularly and candidly discussing our mutual successes and the remaining obstacles to promoting energy trade and investment. We believe the dialogue has correctly become more finely focused over time and that in the future it will focus on promising areas for cooperation such as LNG, pipeline infrastructure, and energy legislative and regulatory experiences.

It is important to also note that, beyond the EWG, a slightly less formal but no less frequent and important process exists in which senior officials of both governments meet to discuss current and future issues that require resolution, a sharing of views, or government action. I note that among the first foreign dignitaries that Secretary Bodman met in his capacity as Secretary of Energy were Alexey Miller of Gazprom, Anatoly Chubais of Unified Energy Systems, Minister of Industry and Energy Khristenko, Minister of Economic Development and Trade Gref, Minister of Foreign Affairs Lavrov, Prime Minister Fradkov, and Ambassador Yusufov. That is an impressive demonstration of commitment to the energy relationship in such a short and busy period. I should add that Secretary Bodman visited Russia, Ukraine, and Azerbaijan within his first four months on the job. While in Azerbaijan, Secretary Bodman participated in ceremonies commemorating the loading of first oil into the BTC pipeline.

The other key component to the U.S.-Russia Energy Dialogue is the industry-to-industry cooperation through the Commercial Energy Dialogue and commercial partnerships. In December 2002, the two governments sponsored the creation of the Commercial Energy Dialogue (CED), designed to be a forum for organized, joint, pan-industry energy discussion by the companies rather than by the governments. The goal was to make recommendations to both governments to remove obstacles to, and identify opportunities for, increased energy trade and investment. The American Chamber of Commerce in Russia and the Russian Union of Industrialists and Entrepreneurs agreed to co-chair the CED, and numerous companies on both sides joined. The CED submitted their initial recommendations to the two governments in September 2003 at the second U.S.-Russia Commercial Energy Summit, and the

recommendations were incorporated into our bilateral dialogue. These recommendations remain one of the finest-ever encapsulations of the industry's view of critical steps needed and opportunities yet to be fulfilled. The CED members are now updating their recommendations and will submit them in a November report to President Bush and President Putin and their respective Departments of Energy and Commerce. The governments will then review the report and make every effort to respond to the energy industry community's recommendations.

With commercial partnerships, the number and dollar value of U.S.-Russian business partnerships in the energy sector are below their potential and the level needed to support necessary growth of oil and gas production and exports. There have been notable successes, but too few. The Caspian Pipeline Consortium shipped its first crude, culminating several years of cooperation in construction and management between U.S., Russian, and other companies. The Sakhalin-1 project has become the largest U.S. investment in Russia and will mark its first oil production on October 1<sup>st</sup>. Lukoil expanded its gasoline retail network on the U.S. east coast. ConocoPhillips and Lukoil struck a major deal involving upstream, downstream, and third-country cooperation. Marathon purchased a medium-sized oil producer in Russia. Amerada Hess, a medium-sized U.S. oil company, entered the Russian sector for the first time. Gazprom made a strategic decision to enter the global LNG market, with a major focus on the North American market.

The Department of Energy also maintains active dialogues with energy officials from Kazakhstan and Azerbaijan on market reform in the energy sector and the development by these and other Central Asian countries of sound legal, fiscal, and regulatory policies to support economic growth, including energy development. In December 2001, we established a U.S.-Kazakhstan Energy Partnership. In July 1997, we established the U.S.-Azerbaijan Energy Partnership. Under the Partnership, the Department is committed to cooperation across the entire range of energy policies and technologies. Departmental officials meet regularly with representatives of the Azerbaijan and Kazakhstan governments.

## Summary

To sum up, I would like to leave you with what we believe are important actions to increase energy security with U.S. and Eurasian cooperation.

- Take a **regional approach** when addressing Eurasian energy topics.
- **Maintain energy dialogues** with the Eurasian countries. They allow U.S. and Eurasian countries to discuss and resolve issues. The energy dialogues also can facilitate opportunities for U.S. and Eurasian companies to work together on future investments in each other's energy industries and in other parts of the world.
- Encourage **more Eurasian energy exports**. The U.S. has been a strong supporter of oil and gas development in the region and has facilitated relationships between U.S. and regional companies and financial institutions in Eurasian energy exploration and development. With Russian oil exports, we welcome additional crude volumes, and according to the companies that operate the Louisiana Offshore Oil Port, we can receive about 1 million barrels per day or more of Russian oil.
- Encourage **multiple pipelines and Eurasian infrastructure expansion**. We should maintain focus on the construction of a **Northern Pipeline in Russia**. This project is commercially sensible and could deliver Russian crude to the U.S. even more quickly



than Persian Gulf exports can reach the U.S. We strongly support a **Trade and Development Agency feasibility study** that would analyze the U.S. market's receptivity to Russian crude. Such a study could put to rest the misinformation that exists in the Russian energy sector that the U.S. can only accept limited amounts and quality types of Russian crude.

Encourage a **more open and transparent investment climate for the region's energy sector**. The governments of the region must create the environment that will attract the capital for oil, gas and pipeline projects. The private sector is the best way to bring forth the capital, technology, and management expertise needed to grow these economies and their energy sectors. No Eurasian government has the financial or other wherewithal to build the oil and gas fields, pipelines, refineries, ships, and distribution networks, or even the hydrogen filling stations one day, of the future. Our job in the government is to encourage the adoption of the best environment for commercial actors to do business.

### **Conclusion**

U.S. energy security is strengthened when Eurasian countries are stable and secure energy producers and exporters, with the capacity to diversify their economies. The U.S. and Eurasia benefit when the region is maximizing its energy output to support global, and its own economic growth. This means that leaders must be committed to market-oriented policies that stimulate needed investment.

U.S. energy security is strengthened by diversifying our supply of energy by increasing our imports of Eurasian gas, especially of liquefied natural gas. We understand that LNG is not without challenges in this country – but we are steadfast in our support of natural gas as a clean-burning fuel that can be imported safely, and increasingly more cheaply, regasified, and distributed through our existing gas pipelines. American natural gas demand is projected to grow by nearly 40 percent over the next two decades, while our imports of natural gas will more than double from 4 trillion cubic feet annually to 9.5 trillion cubic feet. LNG will supply virtually all of that increase.

Finally, U.S. energy security can be strengthened by other countries agreeing on what the priorities are for energy security. To this end, we look forward to the opportunity afforded to Russia as the President of the G-8 in 2006. Russia has selected energy security as its theme, and we continue to work with our Russian colleagues on just what energy security means – for them, for us, and for the world.

Thank you.