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**Testimony of J. Robinson West,
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on
“Energy Supplies in Eurasia and Implications for U.S.
Energy Security”
before the
U.S. Senate Committee on Foreign Relations
Subcommittee on International Economic Policy,
Export and Trade Promotion
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Good afternoon. Senator Hagel and distinguished members of this Subcommittee, it is a pleasure to come before you today to address such an important topic. My name is Robin West and I am the Chairman of PFC Energy. PFC Energy is a strategic advisory firm, 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.

Russia as the only G-8 energy exporter

The timing of today's hearing is fortuitous as it occurs in the lead up to Russia assuming the six-month leadership of the G-8 in January 2006. President Putin has announced that the theme of his G-8 presidency will be energy security. Given recent events, this would be a good idea now no matter which country was leading the G-8, but makes particularly good sense under Russian leadership.

Of all the G-8 members, Russia is the only nation with massive production and large reserves of oil and gas. It produces 9.2 million barrels of crude oil per day (bpd) and 22 trillion cubic feet (tcf) of natural gas. The U.S., the only other large producer in the G-8, generates 5.4 million barrels of crude oil per day and 19 tcf of gas. But Russia exports 4.85 million barrels of crude oil per day (bpd) and 7.7 tcf of gas, whereas the U.S. imports about 12.1 million bpd of crude oil and products and 4.1 tcf of gas. Russia supplies world markets now and can do even more in the future. Given high prices and maturing production elsewhere, such as the North Sea and North America, Russia has a critical

role to play with its large estimated reserves of oil, over 72 billion barrels and 1694 trillion cubic feet of gas. Russia is the Saudi Arabia of natural gas.

Russia has the reserves to play this leading role on the world energy stage, but it lacks other critical factors. Energy production requires massive long-term investment capably managed. Russia has a long and distinguished history in oil and gas. The current Russia oil and gas sector however created out of the chaos of the last fifteen years lacks the stability and organizational skills necessary to mount a giant multi-phase energy program.

Strong State Oil and Gas Firms to Dominate the Russian Hydrocarbon Sector

President Putin has grand designs for the Russian energy industry. He believes the state should play a dominate role in certain strategic industries, particularly in oil and gas. He is well within his rights to promote this policy but the sector must be managed efficiently. State enterprises, notably Gazprom, Rosneft—Russia's national gas and oil companies, respectively—and Transeft, Russia's oil pipeline company, have large assets and some very capable people. However, management accountability and transparency remain serious problems in each organization along with the capital structure, management systems, and strategic outlook needed to organize and execute multi-billion dollar projects taking ten or fifteen years to realize.

One only has to read to the business headlines to be familiar with the on-again, off-again merger of Gazprom and Rosneft or have followed the completely bungled destruction of Yukos to realize that the current policies will not permit Russia to meet its energy potential. Gazprom's imminent bid for Sibneft, Russia's #5 oil producer and one of the most efficiently managed energy companies in Russia, combined with Rosneft's poaching of Yuganskneftegaz, Yukos' crown jewel production subsidiary, risks reversing the tremendous efficiency gains the Russian sector made in the 1990s—gains that were primarily the result of the adoption of Western technology and management know-how. The impact could be enormous, both for Russia and world's energy markets, as the world needs every barrel of Russian oil and molecule of Russian gas.

Russia is the largest world's largest gas producer and now the #2 oil producer, but its production growth has faltered in the past year. PFC Energy estimates indicate that Russian oil production, now at 9.2 million barrels per day, will peak at just over 10 million barrels a day in 2008, and then begin to plateau and decline unless there is a huge infusion of capital, technology and management for further exploration and development. More importantly, the end of Russia's oil renaissance spells the end of recent growth in non-OPEC energy supplies. But with growing Chinese and Indian demand plus the insatiable appetite of the U.S., markets will be tight and even more reliant on the Middle East.

Bringing Russian Reserves to the International Market

The Russian energy sector needs international investment in several critical areas—oil exploration, liquefied natural gas, and infrastructure.

There may be large energy reserves in Russia, probably the largest outside of the Middle East. But without massive investment and management skills, it will not flow. Billions will be needed as well to expand its export capacity. Extensive exploration has taken place in

Western Siberia, where most of the oil production now occurs. Without further exploration in other prospective regions, notably Eastern Siberia and the Arctic, Russian production will begin to fall by the end of the decade. However, without a stable legal and operating environment and a tax policy that encourages investment in exploration, Russia will not meet its energy potential.

Russia is unique in that oil resources are vast distances from the border and export markets. A large network of petroleum pipelines, managed by Transneft, requires critical upkeep and expansion costing billions. Pipelines linking Russia to China and Japan need to be built. Likewise, Transneft should commit not to hamper the operation and expansion of pipelines crossing Russia, notably from the Caspian region.

Russia with its immense gas reserves is the largest supplier of natural gas to Western Europe. This gas moves through pipes built in the early 1980s over the strenuous objection of the Carter and Reagan Administrations. In retrospect, this opposition was mistaken, since Russia has been a consistent, reliable supplier to the West. However, Gazprom faces production challenges within Russia and is still reliant on Soviet-era production facilities in Central Asia, primarily in Turkmenistan, to meet its supply contracts in Western Europe. With the exception of the Zapolyarnoye field, which was discovered in the 1960s but not opened in 2001, Gazprom has not commissioned a major field since the dissolution of the Soviet Union nearly 15 years ago.

Future mega-fields in Russia are located predominately off-shore, which require technology and expertise, especially in the Liquefied Natural Gas (LNG) sphere, that Gazprom lacks. Progress is slowly being made with Sakhalin projects, and most recently with Chevron and ConocoPhillips named among six IOCs short-listed for the giant Shtokman LNG project. LNG is a different business than pipeline gas. It involves super cooling natural gas to a liquid, loading it on large specialized tankers, and shipping it long distances to terminals near concentrated markets, primarily in Western Europe, North America, and Asia. LNG projects involve a chain of massive investments tied by complex commercial arrangements competing against other LNG projects.

Russia has virtually no experience in LNG, and yet LNG represents a critical opportunity for Russia. More importantly, LNG is the means by which a true energy bridge can be built between Russia and the U.S., a goal of both Presidents Putin and Bush. Unless the northern Siberian gas is developed into LNG exports quickly however, other competing projects in Africa and the Middle East will beat them in the race to the U.S. markets.

However, negotiations undertaken by international companies in Russia are an ordeal. State enterprises are often slow and unfocused, negotiating with many companies for the same projects. The bureaucracy is opaque and sometimes corrupt. Russian oil and gas laws can be unworkable, titles to reserves contradictory, and in some cases, tax laws effectively confiscatory.

Resurrecting the U.S.-Russia Energy Dialogue

The U.S. has focused on Russia for an energy partnership because of its impressive oil production increases. No other country had made such production gains—growing from 6.8 million barrels a day to 9.2 million barrels a day in 2004. As mentioned previously, this growth was fueled by the so-called “brownfield renaissance” where Gazprom and the

Russian oil companies continued to exploit existing big fields, and avoided the daunting task of developing large new greenfield oil and gas projects. The U.S. government sought to define a closer partnership, whereby U.S. oil companies would participate in the development of the expensive new fields and pipelines that drive future production increases. Just as the U.S.-Russia energy relationship appeared to be heading towards a clearer definition in 2003, the arrest of Khodorkovsky and manner in which Yukos was destroyed effectively put the U.S.-Russia energy dialogue on hold as the Kremlin grappled with how it wants to manage its energy sector, a debate which persists to this day.

It is clear that Russia's energy sector will be dominated by state companies, or companies "loyal" to the state's interests. That is a fact. It is less clear how committed—or able—the state companies are to managing the sector efficiently. The challenges and needs are daunting—to put it in perspective, Gazprom consumes more gas to extract, process and transport its gas per year than the entire country of France consumes in a year.

Instead of dwelling on the loss of Yukos from Russian energy scene, the U.S. government should look for opportunities to resurrect the U.S.-Russia energy dialogue in ways that promote efficiency, participation of IOCs in key projects and the development of new resources within the context of the Kremlin's emerging energy doctrine. To get critical projects moving quickly, international partners are needed to ensure that high operating standards and the necessary capital requirements are available.

However, to be effective, the U.S.-Russia energy dialogue must focus on real deals, not vague memorandum of understanding often signed by Russian companies with no follow through. The focus should also shift to more achievable and tangible discussions, such as technical solutions for pipeline bottlenecks, technology to increase energy efficiency of infrastructure, etc. Too often the dialogue has focused on overly ambitious, Soviet-style mega-projects that have ended in failure due to a lack of political will or commerciality, or both.

Likewise, steps should be taken to encourage the development of highly accountable, agile, and risk-taking independent oil and gas companies in Russia. The oil and gas sector should not be left to state enterprises alone.

Caspian Sea Development to be Determined by Export Access

The location of the Caspian Sea region, between Russia and Iran, has determined the focus of U.S. interests towards this region. In part to promote the sovereignty of the newly independent countries of Central Asia, as well as to maintain the isolation of Iran, the U.S. government dedicated the majority of its regional efforts in the 1990s to energy policy. The most visible result of this effort is \$3.6 billion, 1,100 mile Baku-Tbilisi-Ceyhan pipeline which is scheduled to deliver first oil this year.

Despite the initial flurry of activity focused on Azerbaijan, due in a large part to its strategic location bordering Iran, Kazakhstan is arguably one of the most important new upstream investment frontiers since the opening of the North Sea in the 1970s. IOC participation to-date has focused on three key mega-projects: Tengiz—one of the world's giant oil fields, operated by Chevron with ExxonMobil and Kazmunaigaz, Kazakhstan's national oil company, holding minority stakes; Karachaganak—the world's largest gas condensate field, operated by ENI and BG with Chevron holding a minority position; and Kashagan—

the largest single discovery in the past 25 years which is currently underdevelopment by a consortium led by ENI with ExxonMobil and ConocoPhillips among the project partners. Collectively, all three projects have the potential to propel Kazakhstan into the elite company of the world's largest energy producers. Kazakhstan's exports currently average 800,000 barrels per day, with the potential to increase upwards of 1.6 million barrels per day by 2010, and by 2020 nearly 3.6 million barrels per day.

Additional significant investment by Western companies in Kazakhstan's offshore, which is technically complex given its unique characteristics, is predicated on the Kazakhs offering attractive and transparent fiscal terms. However, as highlighted by the Kazakhs' recent use of a controversial pre-emption right to buy into the Kashagan project consortium or the less than favorable new Production Sharing Agreement (PSA) law, the Kazakh government's intent is clearly to create a much more robust national oil champion in the coming years with a greater volume of production directly under its control.

Ultimately, for Kazakhstan to realize its production potential, it will have to decide what additional pipeline routes to use or build beyond the existing Soviet-era Transneft and Caspian Pipeline Consortium (CPC) pipelines. Kazakhstan's output can continue to grow only if it gets access to more pipeline capacity beyond 2010. The expansion of the CPC pipeline, which crosses Russia to the Black Sea, has been cast into doubt as Russia, which owns a stake in the pipeline, has sought renegotiate the terms of the project. Meanwhile, and perhaps not coincidentally, Russia is simultaneously promoting the upgrading of the Atyrau-Samara route, which links into its Transneft system. Kazakhstan is also considering accessing the BTC pipeline, which would require the upgrading of port facilities to ship crude by tanker across the Caspian Sea before offloading into the BTC pipeline.

Just as the world's energy security benefits from the diversity of supply, the regional energy security of Eurasia is enhanced by the diversity of export routes. Choke points in Russia, the Caucasus, or the Bosphorus can be mitigated through multiple export options. Unlike the Chinese, IOC-led pipeline consortiums, including BTC, must make their investment decisions on a commercial basis, including the timing of alternative available export options and adequate supply over the life of the pipeline. Still, experience in the region has shown that politics can play an important role in pipeline commitments, but politics is difficult for companies to predict.

China, which borders Kazakhstan to the east, is also competing for access to Kazakhstan's reserves, introducing a non-commercial element to the competition of Kazakh resources. It broke ground in 2004 to build its first-ever oil pipeline to connect foreign reserves to China *before* it struck its \$4 billion acquisition deal last month of PetroKazakhstan, a Canadian based oil company with operations exclusively in Kazakhstan, which will supply the pipeline. With this transaction, CNPC will become the second largest producer in Kazakhstan, after Kazakhstan's national oil company. However, China's involvement in the Kazakh energy sector should be seen as a positive and natural evolution for the region, and for the global energy markets as well, as it provides additional diversity of export routes as well incremental supply to the world markets.

One thing that is confusing to foreign oil company producers in Kazakhstan is the ultimate U.S. strategy with regard to multiple exit routes. Pipelines are projects with long lives and,

yes, politics and geopolitics can determine whether they operate or shut down. However, over the long life of a pipeline, political and geopolitical circumstances can change—especially in Russia and regions such as the Caspian. The BTC pipeline is a perfect case in point. It was conceived in the early 1990s with the desire to bypass Russia. Yet before the pipeline is even commissioned, BP—its operator and largest investor—is now the largest foreign investor in Russia, owning 50% of TNK-BP, which is now the second largest oil producer in Russia.

Given the size and scale of the Kashagan project, the consortium partners are looking for export outlets to reach markets. Pressure to build a pipeline via Iran is likely to grow. Non-U.S. foreign oil company producers may decide to stop second-guessing U.S. policies and opt for commercial imperatives.

CONCLUSION

In both Russia and Kazakhstan, the timing for construction and the direction of new export routes will influence the pace of development of the energy sector in both countries. High oil prices have empowered both countries to pursue more resource nationalist policies and promote their respective national energy companies as the dominate player in the sector.

However, IOC participation will still be required to bring their technology and project management skills to explore and develop more technically complex projects in Eurasia' frontier regions. For too long, energy has been used policymakers as a proxy for geopolitical influence in the region, instead of seeing the resources as the basis for economic independence and interdependence as the countries of Eurasia become integrated in the world energy markets.

From a policy perspective, these regional issues of production and transportation are interwoven with U.S. strategy for global energy security. U.S. policy can and should promote increased oil and gas trade with Russian and the Caspian Sea region, which will contribute to the diversity of supply and to the future economic growth and security of these countries—a result that will have considerable consequences for U.S. energy and foreign policy objectives.