

TESTIMONY OF

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Russia and the Caspian

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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 US 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 US 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 US has not faced problems with its energy supplies, nor have other nations. The US 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 US 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 US 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 US 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 US 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 US involvement has been dictated by the location of the Caspian just north of Iran, a country with which the US has had troubled relations since 1979. The US 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 US 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 US government attention and even offers of possible financial support. One could argue, however, that the case of the Caspian and US 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 US targeted country and destination-specific energy security strategy are beginning to follow the US lead. This can be 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 US 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 US focus on this region. In part to create countries that could stand on their own without Russia and become US allies, and in part to maintain the isolation of Iran, the US 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 US government interest seems to be the Baku-Tblisi-Ceyhan (BTC) oil pipeline (to be discussed below). And, with a heightened emphasis on a US-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 US State Department publicized very high numbers on potential oil reserves in the Caspian countries, the US 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 US government's investment advocacy agenda. And, under the watchful eye of the US 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 US 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 US 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 US 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 US government's constant attention. At all levels of the US 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 US allies. In the long term, it is hoped that up to 2 million barrels a day of Caspian oil can flow to markets through 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 US goal when looking at energy security.

The Key Role of Turkey

Even while the US 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 US 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 US government has been striving to maintain good relations. By creating pipeline corridors through Turkey in order to avoid Russia and Iran, the US 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 US 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 US 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 -- US 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. US' ExxonMobil pined 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 Bosphorus 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 US 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 Yukos-Sibneft) 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 US 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, US 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 US-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 US-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 US 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 US policy which supports multiple pipeline routes. **The next route favored by many non-US oil companies in Kazakhstan is Iran, but this also undermines the stated US goal of avoiding both Russia and Iran. So what is the primary US 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 US policies? Non-US companies in the Caspian are likely to stop second-guessing US 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 ex-

ports 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% 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 US 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 US 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 US 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 US because they help diversify the world's supply of oil while also being non-OPEC suppliers. However, the OPEC versus non-OPEC conundrum in US 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 US 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 US energy companies. In short, OPEC and US interests coincide in a desire for a moderate oil price as exemplified by OPEC's target \$22-\$28 per barrel price band.

So US 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 US 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 US country policy. US 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 US-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 US-Iran relations change. Alternatively, if (or since) US 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.