Senate Foreign Relations Committee Subcommittee on European Affairs Hearing "Ukraine at a Crossroads: What's at Stake for the U.S. and Europe?" February 1, 2012

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Madam Chair, it is my distinct honor to testify before your subcommittee. Unlike my fellow panelist, who served with distinction at the Department of State and White House, I come to you as a simple oil and gas analyst and practitioner in the international energy industry for more than 30 years. In the past dozen years, I have observed the Ukraine energy sector, sometimes up close, and written on the subject. I had the occasion to advise four separate cabinets of ministers of Ukraine on energy, including those led by then-prime ministers Yanukovych and Tymochenko. It is this experience and knowledge that inform me for today's testimony.

I would start off my saying, with your forbearance, that as far as energy is concern Ukraine – a country which seems perpetually at crossroads – is no longer in that position. It may have been at crossroads in 2005, right after the Orange Revolution, when there was a tremendous opportunity to shed its Soviet legacy and incomplete economic transition; and to embark on a path of energy reform that could have greatly enhanced its domestic energy condition and improved energy security for both itself and Europe. However, infighting among the Orange political forces, including over energy rents, and secondarily insufficient attention and support from the West extinguished these prospects.

Since then, Ukraine has been on a dangerous path toward energy insecurity, which has accelerated in the last two years. All the pity as Ukraine has enormous potential as an energy producer, efficient consumer, and key transit partner for Russia/Central Asia and Europe.

Until the discovery and major development of West Siberian gas fields in the 1970s, Ukraine was a net exporter of gas to the Soviet Republic of Russia. Ukrainian gas production peaked at 69 billion cubic meters (bcm) in 1975, which

is almost as much gas as Italy, a country with a much higher population and GDP, currently consumes every year. Today Ukraine's domestic gas production has stagnated below 20 bcm and it is two-thirds dependent on gas imports from Russia. Reliance on imports has diminished only because of the dismal performance of the overall Ukrainian economy, not because of efficiency improvements or increased domestic production.

I have not met a single Ukrainian or Western geologist who does not believe that Ukraine has the geologic prospects to greatly increase its domestic oil and gas production. If proper policies and investment conditions were in place, domestic gas production can easily increase by 50% in a few short years. Together with energy efficiency improvements, Ukraine can be more than 50% self-sufficient in gas. However, today, Ukraine is the third largest gas consumer in continental Europe (outside of Russia). It consumes two-thirds as much gas as Germany does, while its GDP is less than 5% of Germany's.

Ukraine's oil and gas sector is operated in a totally dysfunctional manner. This, as they say in this part of the world, is not accident. Various state energy assets have been hijacked by rent seekers for their private gain. Regulation and pricing are left deliberately murky in order to benefit private interests. This is not a particular indictment of the current government of Ukraine. In fact these conditions of Ukraine's incomplete transition from its Soviet command economy have remained through the terms of four different presidents and many more prime ministers and cabinet of ministers. Franchises on control of energy assets may shift, but the business model never changed.

In fact, if you were to design an energy system that is optimized for corruption, it might look very much like Ukraine's. You would start with a wholly state-owned monopoly that is not accountable to anyone except the head of the country who appoints the management of this company. It would operate non-transparently without being held accountable by shareholders (who might demand legal rights as owners) or capital markets since its chronic indebtedness is periodically repaid by the state treasury.

Domestic production would be priced artificially low, ostensibly for social welfare reasons, leading to a large grey market in gas supply that is allocated by privileged access rather than by price. Low gas prices suppress domestic production and energy efficiency improvement, thereby necessitating the import of large volumes of gas which coincidentally is controlled by the same state monopoly or its chosen middleman company. The opaque middleman is frequently paid handsomely in-

kind, rather than in cash, which allows him to re-export the gas or to resell to highvalue domestic customers, leaving the state company with the import debt and social obligations.

Similarly Ukraine has eroded its major advantages as a major oil and gas transit country between Russia/Central Asia and European markets from its geographic location and Soviet legacy pipeline infrastructure. Ukraine inherited Soviet gas transit pipelines, which had a nameplate capacity of 175 bcm per year, as well as ample and ideally located gas storage capacity. Oil transit pipelines also have a capacity of more than one million barrels per day, linking Russian and Central Asian oil production with landlocked markets in Central Europe.

Yet today Russian gas transit amounts to less than 100 bcm from a post-Soviet average of 120 bcm and Russia is busy building and planning pipelines that bypass Ukraine, namely Nord Stream and especially South Stream. When the second line of Nord Stream is completed by the end of this year, it will bring capacity to 55 bcm per year. If Russia proceeds next year with South Stream at 63 bcm, by 2016, it would have bypass pipeline capacity that completely replaces current gas transit through Ukraine, which represented about 80% of the gas Russia sells to Europe or 20% of European gas demand.

This developed because Ukraine has proven itself over the last twenty years as an unreliable transit partner for both Russia and Europe. Successive Ukrainian governments have tried to use its transit leverage to extract below-market gas prices from Russia. This persisted even though conditions that facilitated that essentially barter trade, namely cheap Central Asian gas available to Russia, disappeared about five years ago. Even when gas prices were low, Naftogaz (the Ukrainian state company) is chronically indebted to Gazprom, leading to commercial disputes, regular brinksmanship, and occasional gas cutoffs.

The gas crisis of January 2006 and January 2009 affecting gas supply for Europe at the height of winter underscored for both the gas producer/shipper and gas consumers at the end the pipe of Ukraine as a transit vulnerability. Consequently, even the now famous EU-sponsored Nabucco pipeline proposal is as much a diversification away from the risks of gas transit through Ukraine as a diversification from over-dependence on Russian gas supply. Instead of maintaining and enhancing the reliability of the Ukrainian pipeline system from the transit revenue it has earned in order to attract higher volumes, Ukraine has raised serious doubts in the minds of energy producers and consumers The root causes of Ukraine's energy insecurity are well known to all, as are their remedies. They were well documented in an *Energy Policy Review of Ukraine* conducted by the International Energy Agency and published in 2006. Successive attempts have been made by international institutions including the International Monetary Fund, World Bank, European Union, and U.S. Government to persuade and support Ukrainian authorities to enact serious energy sector reforms.

These have been met generally by lip service, even as fundamental conditions continue to deteriorate in the country. It amused me to read that two weeks ago there was a conference in Kyiv on "Natural Gas and Ukraine's Energy Future" conducted by a well-known international energy consulting firm and attended by senior Ukrainian officials. I dare say that most Ukrainian energy experts could have written the policy recommendations by themselves without any foreign help – they have heard them so many times.

These recommendations basically come down to modernizing the business practices of this large and non-transparent sector of the Ukrainian economy, which has served as an exclusive playground for Ukrainian leaders for the past twenty years. This means the end of rent seeking in this sector that leaks billions of dollars per year; transparent and fair rules of the game for investors in the sector that do not favor special and politically-connected interests; and above all energy pricing reform. Assuming the right business conditions, Ukraine possesses sufficient conventional and renewable energy potential, and scientific and engineering skills to both increase its domestic energy production and to significantly improve its energy efficiency.

Foreign investment can also help in this regard. However, to date, foreign investors have not been met with fair access to geologic data, open and transparent tender process, or internationally-standard business terms. What small foreign operators who have ventured into oil and gas production and achieved minor successes in Ukraine have been met with corporate raids, absence of rule of law, capricious regulations, and other hostile conditions.

Instead of fundamental reform and the immediate benefits that can be achieved, this government and its predecessors would rather talk about fanciful projects that are five years or further away in the future, such as shale gas or other unconventional gas production, liquefied natural gas imports, and offshore exploration – none of which can possibly work without fundamental energy reform.

At best, this is a misplacement of policy priorities. At worst, it is deliberate misdirection in order to change the topic and divert attention away from current and future mischief in the energy sector.

For the moment, Russia and Ukraine are supposedly at an impasse in their gas price negotiations, after the disastrous decision President Yanukovych and his government made on gas agreement with Russia signed in Kharkiv in April 2010 soon after his ascendency to the presidency. Ironically the Kharkiv agreement essentially confirmed and locked his government into the terms of the agreement made by then-Prime Minister Yulia Tymoshenko and Prime Minister Vladimir Putin in January 2009, the unfairness for which she is currently accused and jailed.

The most likely scenario is an agreement will be reached soon, perhaps before Russia's presidential election in March, that cedes partial control and or ownership of Ukraine's international gas transit system to Gazprom in exchange for another so-called discount on gas pricing. Concessions on penetration into Ukraine's domestic gas market may also be made to Gazprom and/or its chosen middleman company.

Despite such an agreement, Russia will likely continue to progress the South Stream pipeline as important for its own interests or at least hold it in reserve. Russia may expect to gain full control of Ukraine gas transit system over time, as Ukraine continues to mismanage its energy sector, as it has already done in Belarus under rather similar circumstances.

The result of this possible scenario is that Ukraine becomes an energy appendage of Russia's. What is then the geopolitical significance for the U.S. and Europe I leave to my betters on this panel and to subsequent questioning by the subcommittee, as I have already spoken long enough and prefer to stay within my competence in energy.