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Russian Energy Policy Toward Neighboring Countries

Steven Woehrel
Specialist in European Affairs

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Summary

Russian oil and natural gas industries have become key players in the global energy market, particularly in Europe and Eurasia. Another trend has been the concentration of these industries in the hands of the Russian government. This latter phenomenon has been accompanied by an authoritarian political system, in which former intelligence officers play key roles.

Russian firms have tried to purchase a controlling stake in pipelines, ports, storage facilities, and other key energy assets of the countries of central and eastern Europe. They need these assets to transport energy supplies to lucrative western European markets, as well as to secure greater control over the domestic markets of the countries of the region. In several cases where assets were sold to non-Russian firms, Russian firms cut off energy supplies to the facilities. Russia has also tried to build new pipelines to circumvent infrastructure that it does not control. Another objective Russia has pursued has been to eliminate the energy subsidies former Soviet republics have received since the fall of the Soviet Union, including by raising the price these countries pay for natural gas to world market prices.

It is not completely clear whether the pursuit of Russian foreign policy objectives is the primary explanation for the actions of its energy firms. Few would disagree in principle that the elimination of subsidies to post-Soviet countries is a sound business decision, even if questions have been raised about the timing of such moves. Even the pursuit of multiple pipelines can be portrayed as a business decision. On the other hand, many countries of the region are concerned that Russia may use their energy dependency to interfere in their domestic affairs or to force them to make foreign policy concessions. Countries of the region also fear that by controlling energy infrastructure in their countries, Russian energy firms are able to manipulate the internal political situation by favoring certain local businessmen and politicians. However, the current global economic crisis has hurt Russia's energy firms and Russia's international clout, as energy prices have tumbled.

Bush Administration officials repeatedly criticized what they viewed as Russian efforts to use its energy supplies as a political weapon. The Obama Administration, like its predecessor, has urged European countries to reduce their dependence on Russian energy, but has said the United States is trying to cooperate with Moscow on the issue. The United States has strongly advocated the building of multiple pipelines from Central Asia and Azerbaijan to Europe. Members of Congress have expressed concern about the impact on European countries of their dependence on Russian energy. In the 111th Congress, committees have held hearings that have touched on the issue. Congress has also passed resolutions that refer to worrisome aspects of Russian energy policy.

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Introduction

In recent years, Members of Congress, Bush and Obama Administration officials, and analysts have noted the dependence of many European countries on Russian energy. Some experts have expressed concern that Russia is using this energy dependence as part of a larger effort to limit the sovereignty and pro-Western orientation of vulnerable neighboring countries such as Ukraine, Moldova, and Georgia. In addition to bolstering the sovereignty of these countries, the United States has also had a vital interest in keeping strong ties with NATO and EU member states. Some observers believe that these relations could be harmed in the long term if many of these states became too dependent on Russian energy.

In 2004, the European Union depended on Russia for 29% of its natural gas consumption and 26% of its oil.[1] However, this figure conceals the fact that this dependence is unequally distributed. Some EU countries, many of them in central and eastern Europe, are dependent on Russia for most or all of the oil and natural gas they consume. For example, the Baltic states are entirely dependent on Russia for natural gas. Non-EU countries bordering Russia are also overwhelmingly or entirely dependent on Russian oil and natural gas.[2] Moreover, EU countries are likely to become more dependent on natural gas supplied by Russia in the future, as deposits in the North Sea decline. In 2008, 40% of the EU's natural gas imports came from Russia and 33% of its oil imports.[3]

This report begins with a brief discussion of the Russian oil and gas industries, including their efforts to purchase energy infrastructure in central and eastern Europe and reduce energy subsidies to neighboring countries. A second section deals with the impact of Russian energy policy on neighboring countries, all of them formerly part of the Soviet Union, *de facto* or *de jure*, and all heavily dependent on Russian energy imports. Many of these countries are concerned about what they see as Russian efforts to manipulate that dependency to achieve political goals. A final section deals with U.S. efforts to promote the energy security of these countries and on Congress's response to the issue.[4]

Russia's Oil and Gas Industries and Russian Foreign Policy

Russian oil and natural gas industries are increasingly important players in the global energy market, particularly in Europe and Eurasia. Russia has by far the largest natural gas reserves in the world, possessing over 30% of the world's total. It is the second-largest oil producer and is eighth in the world in reserves, with at least 10% of the global total. Another key trend has been the concentration of these industries in the hands of the Russian government in the past decade.

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[1] "EU Energy Policy Data," European Commission Document SEC(2007)12, January 10, 2007.

[2] U.S. Department of Energy, Energy Information Administration, Country Brief: Russia, April 2007, from the EIA website http://www.eia.doe.gov.

[3] EU Energy Portal website http://ec.europa.eu/energy.

[4] This report focuses on Russian oil and natural gas industries, due to their central importance to the countries concerned. Other energy issues, such as Russia's nuclear power industry, as well as electricity and coal exports, are not dealt with in this report.

This latter phenomenon has been accompanied by an authoritarian political system under the tight control of President Vladimir Putin, a former officer of the Soviet KGB intelligence service. Both the leadership of state-controlled Russian oil and gas firms and the Russian government are dominated by former members of the Russian intelligence service, now called the Federal Security Service (FSB), or are personally close to Putin, or both.

In late 2007, Putin designated First Deputy Prime Minister Dmitri Medvedev (whose functions included overseeing Gazprom) as his successor. Medvedev was elected president of Russia in March 2008, in a vote viewed by many observers as not free and fair. Medvedev, although a close Putin associate, is not a former FSB officer. After Medvedev took office, Putin took the post of Prime Minister.

The personal and political fortunes of Russia's leaders are tied to the energy firms, as Russia's economic revival in the past decade has been due in large part to the massive revenues generated by energy exports. However, many experts believe that the Russian leadership's state-oriented approach may be counterproductive for Russia in the long run, as output growth in Russian oil and gas fields is stagnating. They say Russia's oil and gas industries will likely need foreign investment and expertise, more efficient management, as well as less government regulation and taxation. The current global economic crisis has hurt Russia's energy firms, Russia's economy, and Russia's international clout, as energy prices have tumbled.

Gazprom

Since the collapse of the Soviet Union in 1991, the largest firm in Russia has been the state-controlled natural gas monopoly Gazprom. (The Russian government holds just over 50% of its shares.) It has a monopoly on gas pipelines in Russia. It controls nearly 90% of Russian gas production and over a quarter of the world's reserves of natural gas. Its impact within Russia is even more significant. It is the single largest contributor to the Russian government's budget, providing about 25% of tax receipts. It also controls banks, industrial holdings, farms, and media outlets.

Gazprom has been useful domestically to Russian leaders. It provides most of its production at a loss (at prices much lower than those in Europe) to Russian companies and consumers, who often cannot or will not pay, thereby helping to ease social pressures. In exchange for subsidizing Russian domestic consumers, Gazprom receives a virtual monopoly on exports to richer customers abroad. Two-thirds of Gazprom's revenue comes from European customers. Many experts say Gazprom needs to substantially increase domestic prices for gas if it is ever to become a viable business. Russia has agreed to gradually increase some domestic gas prices to bring them closer to world market levels by 2011. The move was taken in response to EU criticisms of the price subsidy in negotiations over Russia's entry into the World Trade Organization (WTO).[5]

Gazprom's key current gas fields are in decline, its infrastructure is aging, and substantial investment will be needed just to maintain current, nearly stagnant production levels. Most foreign observers believe Gazprom could use foreign investment to provide expertise and capital. In late 2005 Russia abolished the "ring fence" that barred foreigners from owning Gazprom

[5] EIA Country Brief: Russia, April 2007, from the EIA website http://www.eia.doe.gov.

shares. Foreign ownership of Gazprom shares is modest; the largest foreign investor is the German firm E.ON, with a 6% stake.[6]

However, Gazprom's actions in other areas appear to point toward more state control and not toward more foreign investment. For example, in 2006, Gazprom bought out half of the interest of Shell and other foreign companies in the Sakhalin-2 gas field project at a very low price after the Russian government found alleged environmental problems in Shell's management of the project. In June 2007, the Russian-British TNK-BP oil firm was forced to sell its Kovytka gas field in Siberia cheaply to Gazprom, after Gazprom refused to approve an export route for the gas.

Russian Oil Companies

In the 1990s, the Russian government did not have a large stake in Russian oil production. The major oil companies were controlled by politically well-connected businessmen, dubbed oligarchs. This policy changed in 2003, when Mikhail Khodorkovsky, head of the giant Yukos oil firm, was arrested on tax evasion and other charges. However, most observers believe that the real reason for the arrest was that President Putin believed Khodorkovsky was showing unacceptable signs of political independence from the Kremlin. Yukos was hit with government claims for back taxes and declared bankrupt. In 2004, its key oil field assets were bought very cheaply by the Russian state-owned oil firm Rosneft. The Yukos affair is not the only example of this trend. In 2005, Gazprom bought another major oil company, Sibneft, from oligarch Roman Abramovich, at a cut-rate price. The firm is now called Gazprom Neft. After the move, the Russian government controlled over 30% of Russia's oil production.[7]

In 2006, Putin said that the state would not take control of additional Russian oil companies. However, the strengthening of state control over the industry may be conducted by other means. The Russian government has placed pressure on foreign oil companies to sell their stakes in lucrative Russian oil fields to Russian state firms. The non-state oil firms that remain, such as Lukoil, are careful to retain close connections to Russian political leaders, in order to retain control of their businesses. Despite increasing direct and indirect state control, Russian oil firms continue to seek ties to foreign oil companies, provided that they are satisfied with a minority ownership stake.

In addition to increasing control over oil production, the government controls Russia's oil and refined product pipelines, through the state firm Transneft. This monopoly gives the Russian government leverage against Russian private firms, foreign investors and foreign countries, if needed. For example, Transneft is the largest shareholder in the Caspian Pipeline Consortium (CPC). The CPC pipeline carries oil from Kazakhstan to the Russian port of Novorossiysk on the Black Sea. This gives Russia a near monopoly on the transport of Kazakh oil destined for western markets. Other members include ExxonMobil and Chevron, which are involved in the exploitation of the Kazakh oil fields. In addition, Moscow has presented the Western oil companies with repeated financial demands, and threatened them with legal proceedings for allegedly unpaid taxes to Russia if they do not comply.[8]

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[6] "France Wants Stake in Russia Gas Giant," Reuters news agency, October 10, 2007.

[7] "Peter Finn, "Russian Giant Expands Control of Oil," *Washington Post*, September 29, 2005, D06.

[8] For background on Russia's oil and natural gas industries, see CRS Report RL33212, *Russian Oil and Gas* (continued...)

Russia's Objectives: Exploiting Dependency or Just Good Business?

Through its energy firms, Moscow has pursued several objectives. Russia has tried to purchase a controlling stake in pipelines, ports, storage facilities, and other key energy assets of the countries of central and eastern Europe. Russia needs these assets to transport energy supplies to Western European markets, as well as to secure greater control over the domestic markets of the countries of the region. In several cases where energy infrastructure was sold to non-Russian firms, Russia cut off energy supplies to the facilities.

Russian firms have attempted to buy energy infrastructure in western European countries, provoking unease in the EU. The EU has pressed Russia to open up its pipelines to western firms and to provide stronger protections for foreign investment in Russia's energy sector. Russia flatly rejected EU demands that it ratify the 1994 Energy Charter Treaty, which enshrines these principles. EU efforts to include the key components of the Energy Charter into a new Russia-EU Partnership and Cooperation Agreement (PCA) have also been stymied. The EU Commission has proposed an EU energy policy that would prohibit energy-producing companies from owning distribution networks. It would also bar foreign companies from investing in EU distribution networks, unless that country permitted such investment in its own networks. Russia strongly criticized the Commission proposal.

EU countries have also been concerned about Russian actions to coordinate export policy with other natural gas-producing countries such as Algeria, evoking the specter of a cartel, or "gas OPEC." Russia has also hinted that the bulk of Russian energy exports could be provided to Asia or even the United States instead of Europe in the future, once new pipelines to Asia are completed and new liquefied natural gas facilities are built. However, it is unclear whether the EU can adopt an effective common policy on the Russian energy question. Central and eastern European countries within the EU want the EU to take a stronger stance against dependence on Russia for energy.

On the other hand, energy companies and other influential voices in countries such as Germany and Italy have forged close links with Moscow in order to secure access to Russian energy supplies and opportunities to invest in Russian energy projects. They assert that a mutual dependence exists between Russia and consuming countries. They note that roughly two-thirds of Russia's export revenues and half of its state budget comes from oil and gas exports. They insist that the current system of gas pipelines and long-term gas supply contracts gives Russia little choice but to sell its gas exports to Europe.[9] Many European countries are less dependent on oil supplies from Russia, as they can draw on a more flexible global oil market, with the oil delivered from tankers.

Facing difficulties in securing control of energy infrastructure in central and eastern Europe, Russia has tried to bypass countries in the region entirely where possible. It is expanding the use of the Baltic Pipeline system and its oil terminal at the port of Primorsk and reducing the use of

(...continued)

Challenges, by Robert Pirog.

[9] For background on EU energy policy, see CRS Report RL33636, *The European Union's Energy Security Challenges*, by Paul Belkin.

oil terminals in the Baltic states, such as Butinge in Lithuania and Ventspils in Latvia. In addition, Russia is considering oil pipeline projects involving Murmansk and other ports in northern Russia.

Russia's plans for natural gas pipelines have attracted the most attention. Gazprom has started work on the North European Gas Pipeline (NEGP), also known as Nord Stream, which would transport natural gas from Russia to Germany via a pipeline under the Baltic Sea starting as early as 2012, bypassing the states of central and eastern Europe. It would have a capacity of 55 billion cubic meters per year. In November 2007, Gazprom and the Italian firm ENI signed an agreement to build a "South Stream" gas pipeline that would run from Russia under the Black Sea through the Balkans, with branches to Austria and Italy. Bulgaria, Serbia, and Hungary have also signed on to the project. Gazprom hopes to complete South Stream in 2015. South Stream would also bypass Belarus, Ukraine, Poland, and other central European countries. In May 2009, ENI and Gazprom agreed to expand South Stream's capacity to 63 bcm per year.

Another possible natural gas pipeline project is Yamal-Europe 2. This long-proposed pipeline, which would parallel a currently operating one that has a capacity of 33 bcm, would run through Belarus and Poland, bypassing Ukraine. The pipeline is unlikely to be built, as the Russian government and Gazprom have rejected Belarusian proposals to reactivate the Yamal-Europe 2 plans. However, if Nord Stream does not come to fruition, it is at least possible the Yamal-Europe 2 plan could be reactivated.

By seeking a range of transit routes through the region, Russia may be trying to reduce the leverage that transit countries, including those in central and eastern Europe, have in negotiations with Russian energy firms. Experts note that the capacity of these new routes, if built, would likely outstrip Russia's capacity to produce oil and gas to fill them, allowing Russia to allocate scarce production to "favored" transit countries. Russia may also be trying to reduce the attractiveness of other routes for oil and gas pipelines from Azerbaijan and Central Asia to Europe and Asia that would bypass Russia.[10]

Another objective Russia has pursued has been to eliminate the energy subsidies former Soviet republics have received since the fall of the Soviet Union, including by raising the price these countries pay for natural gas to world market prices.[11] These actions may be seen as paralleling the reduction of subsidies to Russian domestic consumers. However, Russia has also used the withdrawal of price subsidies and the unpaid energy debts of countries in the region as leverage to try to secure key energy infrastructure in those countries.

It is not clear whether the pursuit of Russian foreign policy objectives is always the primary explanation for the actions of its energy firms. Few would disagree in principle that the elimination of subsidies to post-Soviet countries is a sound business decision, even if questions have been raised about the timing of such moves. In support of their actions, Russian leaders point to the fact that Russian allies such as Armenia and Belarus have also been subject to energy price hikes. The pursuit of multiple pipelines can also be portrayed as a business decision, although some analysts disagree about its wisdom. They assert that Russia would do better to

[10] Vladimir Socor, "South Stream; Gazprom's New Mega-project," Jamestown Foundation Eurasia Daily Monitor, June 25, 2007.

[11] Keith C. Smith, "Russian Energy Pressure Fails to Unite Europe," CSIS Euro-Focus, January 24, 2007.

invest in boosting production rather than building pipelines that it may not be able to fill as its current oil and gas fields decline.

Many countries of central and eastern Europe are concerned that Russia may use their energy dependency to interfere in their domestic affairs or force them to make foreign policy concessions. Gazprom's increases in energy prices to Georgia and Ukraine came after elections in 2004 brought to power pro-Western leaders in what were termed respectively the "Rose" and "Orange" Revolutions, in reference to their campaign symbols. Analysts asserted that Russian leaders feared so-called "color revolutions" elsewhere in the former Soviet countries that could reduce Russia's influence, and even perhaps threaten Russia's own authoritarian regime. Countries of the region also fear that by controlling energy infrastructure in their countries, Russia is able to manipulate the internal political situation by favoring certain local businessmen with participation in local business ventures of Gazprom or other Russian energy firms. These businessmen are in a position to assume a powerful political role themselves or bribe politicians to do Moscow's bidding.[12]

Critics of Russian policy say Moscow's motives become even clearer when viewed in the context of other actions to apply pressure to neighboring states. For example, Moldova's economy was seriously harmed by a wine import ban Russia imposed, ostensibly for health reasons, from 2005 to 2007. Georgia has been hurt by Russian immigration restrictions and a wine ban. Both countries have also faced problems with Russian support for breakaway regions on their territories. Russia's August 2008 military assault on Georgia and its subsequent recognition of the independence of breakaway regions South Ossetia and Abkhazia sent a powerful signal to Russia's neighbors about the costs of angering Moscow. NATO and EU member Estonia suffered from cyberattacks that may have been instigated by Russia, in the wake of a controversy over the removal of a Soviet-era military statue from Estonia's capital in April 2007. Russia's critics also point to Russia's "National Security Strategy to 2020," released in May 2009, which states that "the resource potential of Russia" is one of the factors that has "expanded the possibilities of the Russian Federation to strengthen its influence on the world arena."[13]

While Moscow is often charged with using energy policy to pursue foreign policy goals, it may also at times use foreign policy issues to benefit its energy firms. In January 2008, the Russian natural gas monopoly Gazprom reached an agreement with Serbia to buy NIS, the Serbian national oil company, at what some observers believed to be a below-market price. Gazprom may have been able to achieve this in part due to then-Serbian Prime Minister Vojislav Kostunica's appreciation for Moscow's opposition to independence for Serbia's Kosovo province.

Selected Recent Cases

The countries discussed in this report have all faced the impact of Russian energy policy. All are heavily or entirely dependent upon Russia for their natural gas and oil imports. They face common issues of cost, reliability of supplies, and Russian efforts to control downstream infrastructure such as pipelines, refineries, and domestic distribution networks. The countries

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[12] Testimony of Zeyno Baran before a House Foreign Affairs Committee hearing on "Central and Eastern Europe: Assessing the Transition," June 25, 2007.

[13] The text of the National Security Strategy can be found at the website of the Russian National Security Council at http://www.scrf.gov.ru/documents/99.html

differ in their geopolitical orientation. Ukraine, Moldova, and Georgia are non-EU, non-NATO countries that have had a pro-Western orientation that Moscow opposes. The Baltic states are EU and NATO members, but Russia maintains a strong hold on their energy sectors. On the other hand, Belarus has been Russia's most loyal supporter in Europe, while Armenia has been a strong ally of Moscow in the south Caucasus region.

Ukraine

Although it possesses modest oil and natural gas reserves of its own, Ukraine is dependent upon Russia for most of its oil and natural gas, both from Russia's own oil and natural gas fields and from Russian-controlled pipelines from Ukraine's suppliers in Central Asia, especially gas from Turkmenistan. In 2006, half of Ukraine's energy consumption came from natural gas. Sixty-six percent of Ukraine's domestic natural gas consumption came from Russia. In 2006, Russian oil imports accounted for 78% of Ukraine's oil consumption. [14] Most Ukrainian homes are heated by natural gas. Ukraine's steel and other heavy industries, which play a key role in Ukraine's exports, are highly inefficient users of energy. However, Ukraine's vulnerability to Russian pressure has been mitigated by the fact that the main oil and natural gas pipelines to central and western Europe transit its territory. Ukraine's gas pipeline system has a capacity of 120 billion cubic meters per year. Ukraine owns the sections of the pipelines that run through its territory as well as large gas storage facilities. Ukraine has received transit fees from Gazprom, paid partly in gas and partly in cash. According to a 2006 report of the International Energy Agency, 84% of Russia's natural gas exports and 14% of Russian oil exports pass through Ukraine.[15]

Energy issues have played a key role in Russian-Ukrainian relations since the breakup of the Soviet Union in 1991. Russian firms supplied energy to Ukraine at prices far below market rates. In the early 1990s, these firms cut off supplies to Ukraine at times due to unpaid energy debts. Energy sales have been conducted by non-transparent intermediary institutions, offering the elites of both countries opportunities to profit.

Until recently, Ukrainian foreign policy tried to strike a balance between improving ties with the West, including nominal support for Euro-Atlantic integration, while not offending Moscow. However, in 2005 Viktor Yushchenko was elected President of Ukraine, overcoming the previous regime's attempts at electoral fraud, in what was termed the "Orange Revolution." Russian leaders, who had strongly backed his opponent, Prime Minister Viktor Yanukovych, reacted angrily to Yushchenko's victory. Yushchenko, Ukraine's first clearly pro-Western leader, said Ukraine would conduct serious reforms so that it could join NATO and the European Union as soon as it was ready.

Soon after Yushchenko took office, Gazprom started to demand a sharp increase in the price of natural gas that it supplied to Ukraine. By the end of 2005, Gazprom demanded a price increase for its natural gas from $50 per thousand cubic meters (tcm) to $230 per tcm, the current market price. When Ukraine rejected this proposal, Russia cut off natural gas supplies to Ukraine on December 31, 2006. Ukraine then diverted to its own use some of the gas that Gazprom intended for European customers. After western European governments protested sharply, Gazprom

[14] U.S. Department of Energy, Energy Information Administration, Country Brief: Ukraine, August 2007; and Country Brief: Russia, May 2008, both from the EIA website http://www.eia.doe.gov.

[15] International Energy Agency, Ukraine Energy Policy Review 2006; from the IEA website at http://www.iea.org/textbase/nppdf/free/2006/ukraine2006.pdf

resumed gas deliveries on January 2. Two days later, the Russian government and Gazprom reached an agreement with Ukraine for ensuring gas supplies to Ukraine. The agreement called for gas to be purchased by Ukraine through an intermediary firm, RosUkrEnergo. This firm paid for gas from Central Asia at a price lower than market levels, and adds gas from Russia at market prices, and provided it to Ukraine at an average price of $95 per tcm. The agreement also provided for higher transit fee payments to Ukraine (now entirely in cash rather than partly in gas).

Perhaps more troubling for Ukraine, the accord called for the creation of UkrGazEnergo, a joint venture between RosUkrEnergo and the Ukrainian state-controlled gas firm Naftogaz that grants the former access to one-half of Ukraine's domestic market. Ukraine's intelligence service reportedly believes the owners of RosUkrEnergo are using their control over energy supplies to secure ownership of energy intensive industries such as fertilizer plants and a titanium plant.[16]

Some analysts are concerned about possible involvement of organized crime groups in RosUkrEnergo, as well as corrupt links with Russian and Ukrainian officials. The U.S. Justice Department reportedly investigated the firm.[17] Nominally, Gazprom owns 50% of RosUkrEnergo, Ukrainian businessman Dimitry Firtash owns 45%, and another Ukrainian businessman owns 5%. In 2005, Ukranian Prime Minister Yuliya Tymoshenko, who was an important player in the natural gas industry in the 1990s, called for the elimination of RosUkrEnergo as a middleman. She was dismissed by Yushchenko in September 2005, in a move that some observers believed was aimed in part at appeasing Gazprom and its supporters within the Ukrainian government.

Yanukovych's party won Ukraine's March 2006 parliamentary elections, and Yanukovych once again become Prime Minister. Gazprom's discussions with the Yanukovych government in late 2006 went more smoothly than those of the previous year. In 2007, Russia and Ukraine agreed on a moderate increase in the natural gas price. The two sides agreed to gradually increase the price of Russian natural gas to Ukraine over the next five years, until it reaches the world market price. Some observers have seen Gazprom's tough attitude toward Ukraine in the 2005 negotiations and its relatively benign stance in 2006 as evidence that Russia has manipulated the gas issue to undermine Yushchenko. In September 2007, Putin appeared to verify this view when he said that Russia had no desire to provide cheap energy to "Orange" forces.[18]

On September 30, 2007, Ukraine held closely contested parliamentary elections. On October 2, as the vote count showed a narrow victory by "Orange" parties, Gazprom announced that it would reduce gas supplies to Ukraine, if Ukraine did not pay outstanding debts to Gazprom by the end of the month. Gazprom officials hinted that Ukraine's energy debts could be solved if it turned over shares in the gas pipeline system to Gazprom as payment. However, the crisis was resolved when the Ukrainian government agreed to provide gas in Ukrainian storage facilities as payment. Gazprom and the outgoing Yanukovych government agreed to a natural gas price of $179.50 per thousand cubic meters (tcm) for 2008, a 38% increase over 2007, but still well short of world

[16] Roman Kupchinsky, "Russia/Ukraine: Pipeline Conflict Resurfaces," Radio-Free Europe Radio Liberty Newsline, June 28, 2007.

[17] Glenn R. Simpson and David Crawford, "Supplier of Russian Gas Draws Investigation," Wall Street Journal, April 21, 2006, 1. For background on the gas crisis, see CRS Report RS22378, *Russia's Cutoff of Natural Gas to Ukraine: Context and Implications*, by Jim Nichol, Steven Woehrel, and Bernard A. Gelb.

[18] *The Times* of London, September 15, 2007, 4.

market levels. Nevertheless, the percentage increase was double that given to neighboring Moscow ally Belarus.

In December 2007, Yuliya Tymoshenko was elected by the new Ukrainian parliament as Prime Minister. She vowed to remove RosUkrEnergo and UkrGazEnergo from Ukraine's gas market. In January 2008, Prime Minister Tymoshenko took a first step in this direction by sharply reducing the amount of gas UkrGazEnergo could sell to Ukrainian consumers. The role of middlemen in the Ukrainian gas market may also be reduced by market forces. RosUkrEnergo's profits are based on selling cheap Central Asian gas at higher prices to Ukraine. In March 2008, Gazprom agreed with Central Asian gas supplies to pay "European prices" for their gas in 2009.

Gazprom reduced gas supplies to Ukraine by 50% on March 3-5, 2008, over disagreement on the price Ukraine should pay for gas delivered in January and February 2008. Ukrainian gas company officials warned that they might divert gas intended for Western Europe to offset Gazprom's supply cut. The two sides reached agreement on March 5 and supplies were restored. On March 12, the two sides agreed to eliminate UkrGazEnergo from the domestic gas trade, but gave Gazprom direct access to the most lucrative part of Ukraine's domestic market—supplies to large enterprises. The agreement said the fate of RosUkrEnergo would be determined by future negotiations. However, Tymoshenko appeared dissatisfied with parts of the accord. She remained determined to eliminate RosUkrEnergo as soon as possible. The Ukrainian government made significant unilateral changes to the agreement, including barring RosUkrEnergo from the profitable practice of re-exporting Central Asian gas from Ukraine to other markets.

On January 1, 2009, the state-controlled Russian natural gas firm Gazprom halted gas supplies to Ukraine after the two sides failed to reach agreement on several issues, including a debt allegedly owed by Ukraine to Gazprom and the price that Ukraine would pay for gas supplies for 2009. The cutoff was supposed to affect only supplies for Ukraine; Russia continued to send gas through Ukraine destined for other European customers. However, within a few days, Russia accused Ukraine of diverting these supplies for its own use, and by January 6 cut off all deliveries through Ukraine to the rest of Europe. The European Union sharply criticized the cutoff, calling for a rapid resumption of supplies, but refused to take sides in what it termed a commercial dispute.

Many large European countries (including Ukraine) did not suffer greatly from the cutoff, despite frigid temperatures, due in part to substantial amounts of gas in underground storage facilities. However, some countries, particularly in the Balkans, were hit hard. Negotiations between Russia and Ukraine repeatedly broke down, with each side accusing the other of bad faith and trying to enlist European support for its views. Finally, on January 18, Russia and Ukraine reached an agreement, and gas supplies to Europe resumed on January 20th.

According to the agreement, RosUkrEnergo was eliminated as a middleman in the gas trade. In the first quarter of 2009, Ukraine was charged $450 per tcm, more than double what it paid in 2008 for gas. However, Ukraine was able to avoid this price increase by using supplies it had in storage until the gas price declined in the second quarter to $271 per tcm, as the sharp drop in oil prices was reflected in natural gas prices. The poor financial situation of Naftogaz and its customers, as well as the devastating impact of the global economic crisis on Ukraine, could lead to further gas crises, as Gazprom has threatened to cut off supplies again if it is not paid the full amount it is owed each month. Ukraine has sought loans from the EU, United States and Russia to pay for gas supplies this year. Gazprom can also fine Naftogaz if it does not buy a minimum amount of gas. However, Russia has so far declined to impose such fines. The tariffs charged by

Ukraine for Russian gas transit to Europe will remain at current below market levels for 2009, but will be reset to full market rates in 2010.

Russia pursued a long-standing goal of ownership of Ukraine's natural gas pipelines and storage facilities, as well as its local gas distribution network. In February 2007, Putin announced that he and Prime Minister Yanukovych had agreed on joint Russian-Ukranian control of Ukraine's natural gas assets, in exchange for a Ukrainian stake in Russian natural gas fields. However, this statement provoked a strongly negative reaction in Ukraine, and the parliament quickly approved a law banning any transfer of control of the pipelines by a vote of 430-0. Russia has tied possible support for upgrading Ukraine's pipeline network to greater Gazprom ownership of Ukraine's pipeline system.

In July 2009, the EU Commission brokered an agreement under which the European Bank for Reconstruction and Development (EBRD) and World Bank agreed to provide loans to help Ukraine modernize its gas pipeline system. Ukraine is required to create greater transparency in how its gas sector is run. In the short term, $300 million in EBRD loans will be aimed at helping Ukraine improve its natural gas storage facilities and other infrastructure. In 2010, the EBRD may loan Ukraine another $450 million for Ukraine to reform its gas sector. The World Bank is willing to loan Ukraine up to $500 million for structural reforms, including of the gas sector.

In March 2009, Prime Minister Putin sharply criticized the initial announcement of the EU-Ukraine gas sector agreement as "ill-considered and unprofessional." Russian officials said that any agreement about Ukraine's pipelines should include Russia. Russia's anger may be caused by fears that the EU plan could foil Gazprom's own efforts to secure control of Ukraine's pipelines and Ukraine's domestic gas distribution network. However, EU participation may help avoid future gas supply cutoff crises, such as occurred in 2006 and 2009.

Balked in its efforts to control Ukraine's pipelines, Russia is also working on ways to bypass Ukraine's gas transport system, at least in part. It is developing new energy export routes through the Baltic Sea (the Nord Stream pipeline) and the Balkans (the South Stream pipeline) to western Europe by 2012 in the case of Nord Stream and 2015 in the case of South Stream. If successful, these efforts could reduce Ukraine's leverage over Russia on energy issues. Such a development could have broader consequences. Russia could feel it would have a freer hand to put greater pressure on Ukraine on other issues. Key western European countries could feel they have less of a stake in Ukraine's future, if they, like Russia, were no longer dependent on Ukrainian gas transport infrastructure.

Moldova

Moldova is the poorest country in Europe, according to the World Bank. It is entirely dependent upon Russia for its energy resources, and also as a market for the wine and agricultural products that are its main exports. In 2005, Russia restricted wine and other agricultural imports from Moldova, allegedly over health concerns, dealing a very heavy blow to the country's economy. Russia has stalled on implementing pledges to end its embargo on Moldovan wine, still citing health concerns. In addition, Russia has supported a breakaway regime in the Transnistria region of the country, including by deploying 1,500 troops there.

In part due to its vulnerable position, Moldova has tried to balance ties between Moscow and Western countries. However, since 2003, Moldovan leaders, despairing of striking a deal with Moscow over the Transnistria problem, have sought greater engagement with the West, irritating

Russia. Perhaps even more irksome to Moscow, in 2005, Moldova, with EU help, began to tighten its customs policies to stop profitable smuggling operations from Transnistrian territory. Powerful groups in Ukraine and Russia have profited from the Transnistria regime's activities. Russia provides subsidies to Transnistria, which include grants and loans as well as subsidized energy. In return, Russian firms have received stakes in Transnistrian businesses.[19]

Russia has pressured Moldova on the issue of energy supplies. On January 1, 2006, the Russian government-controlled firm Gazprom cut off natural gas supplies to Moldova, after Moldova rejected Gazprom's demand for a doubling of the price Moldova pays for natural gas. Gazprom restored supplies on January 17, in exchange for a price increase from $60 per 1,000 cubic meters to $110. Moldova also agreed to give Gazprom, already the majority shareholder, Transnistria's 13% stake in MoldovaGaz, which controls Moldova's natural gas pipelines and other infrastructure (Moldova had earlier ceded majority control to Gazprom in exchange for settling Moldova's gas debts). As a result of the agreement, Gazprom now holds 63.4% of MoldovaGaz's shares and has control of Moldova's domestic gas infrastructure. It is planned that the price Moldova will pay for gas will be increased until it reaches the price paid by EU member states in 2011. Moldova paid $318 per 1,000 cubic meters in early 2009. However, the global economic crisis has since resulted in a drop in the price of Moldova's gas supplies. Gas supplies to Moldova were cut off during the January 2009 Russia-Ukraine gas crisis, and were restored afterwards.

Georgia

Georgia began to follow a clearly pro-Western orientation after the "Rose Revolution" of November 2003, which swept out of power political forces with close ties to Russia after they had tried to use electoral fraud to win legislative elections. Mikhael Saakashvili won presidential elections in early 2004. Georgia is seeking NATO membership. Georgian-Russian relations deteriorated in the wake of the Rose Revolution. Russia has many ways to pressure Georgia, including supporting the breakaway regions of South Ossetia and Abkhazia, and disrupting economic ties between Georgia and Russia, including in the energy sphere.

In late 2005, Gazprom announced substantial increases in the price of gas shipped to Georgia. In the winter of 2005-2006, unknown saboteurs bombed gas pipelines in Russia, temporarily cutting off supplies to Georgia. Gazprom announced in November 2006 that it would cut off gas supplies to Georgia by the end of the year unless Georgia agreed to a 100% price hike or sold its main gas pipeline to Gazprom.

However, Georgia's geographical position neighboring energy-rich Azerbaijan has allowed it to counter Russian pressure more effectively than other countries. Georgia is a transit state for a pipeline completed in mid-2006 carrying one million barrels per day of Azerbaijani oil to the Turkish port of Ceyhan (the Baku-Tbilisi-Ceyhan or BTC pipeline). Another pipeline completed in early 2007 initially carries 2.2 billion cubic meters of Azerbaijani natural gas to Georgia and Turkey, lessening their dependence on Russia as a supplier. Another pipeline carries oil from Baku to the Georgian port of Supsa.[20]

[19] International Crisis Group, "Moldova's Uncertain Future," August 17, 2006, from the ICG website http://www.crisisgroup.org.

[20] For more on Georgia, see CRS Report RL33453, *Armenia, Azerbaijan, and Georgia: Political Developments and Implications for U.S. Interests*, CRS Report RL30679, *Armenia, Azerbaijan, and Georgia: Security Issues and Implications for U.S. Interests*, and CRS Report 97-727, *Georgia [Republic]: Recent Developments and U.S. Interests*, (continued...)

The August 2008 Russian military assault on Georgia resulted in temporary interruptions of some oil and gas pipeline shipments, but these were soon resumed. Gazprom also continues to supply Georgia with natural gas. Nevertheless, the conflict demonstrates Russia's ability to disrupt pipeline routes through Georgia to European customers, by military means if necessary. Georgian officials believe that the gas Georgia would receive from participating in the U.S.-sponsored Nabucco pipeline project, if it is built, would meet all its natural gas needs.

Baltic States

The Baltic states of Lithuania, Latvia, and Estonia are members of NATO and the EU. They have often had difficult relations with Moscow. About 90% of their oil comes from Russia, and 100% of their natural gas. They faced Soviet energy supply cutoffs in the early 1990s, as they were trying to achieve independence and shortly thereafter. They pay world market prices for their energy supplies.

In the past few years, the main concern in the Baltic states has been Russian efforts to increase control over the energy infrastructure in their countries. Gazprom has a large equity stake in domestic natural gas companies of each of the three Baltic countries.[21] When Russian takeover efforts have failed, Russia has cut off energy supplies to Baltic energy facilities. One striking case involves the Mazeikiai oil complex in Lithuania. Mazeikiai includes a large refinery, the Butinge maritime terminal, and a pipeline. It is the largest enterprise in Lithuania (accounting for about 10% of Lithuania's GDP) and provides vitally needed tax revenue. In 1999, the U.S. firm Williams International bought a large stake in Mazeikiai and also received the operating rights. In response, the Russian oil firm Lukoil, which supplied the oil to the refinery, slowed deliveries to a trickle, making Mazeikiai unprofitable. This led Williams, which had financial problems of its own, to sell its stake to Yukos in 2002.

Under Yukos, the refinery became profitable again. However, when Yukos later fell afoul of Russian authorities, and was driven into bankruptcy, Yukos attempted to sell its stake in Mazeikiai. The Polish oil firm PKN Orlen agreed to buy out Yukos, despite an effort by the Russian government-controlled oil company Rosneft to purchase the refinery. At the end of July 2006, the Russian government-owned oil transport company Transneft announced that the part of the Druzhba oil pipeline that supplies Mazeikiai was temporarily shutting down for repairs following an oil leak. Transneft later said that it would not reopen the pipeline, due to its unprofitability. Transneft has blocked Lithuania's efforts to secure supplies from Kazakhstan through Transneft's pipelines. Critics charged that once again Russia was manipulating energy supplies to punish Lithuania for seeking to diversify ownership in its energy sector.[22]

Another example of a Russian company using its control over energy supplies in an effort to strong-arm a Baltic country into handing over key infrastructure occurred in January 2003. The Russian government-controlled Transneft oil pipeline company cut off all oil shipments to the Latvian oil terminal at the port of Ventspils, after having decreased shipments in late 2002. The

(...continued)

all by Jim Nichol.

[21] U.S. Department of Energy, Energy Information Administration, Baltic Sea Regional Fact Sheet, July 2006, from the EIA website http://www.eia.doe.gov.

[22] Eurasia Daily Monitor, Volume 3, Issue 161, August 18, 2006.

move was a large blow to Latvia, as Ventspils has been important to Latvia's economy. Transneft diverted the oil shipments to its own Baltic Pipeline System and the Russian port of Primorsk, which it controls. Transneft claims that there is no demand for using Ventspils, a claim viewed with skepticism by outside observers. Most saw the move as a power play by Transneft to secure a controlling share of the firm Ventspils Nafta, which operates the oil terminal.[23]

Estonia has also felt the effects of Russian pressure on its energy supply. On May 2, 2007, Russia's state railway monopoly halted delivery of oil products and coal to Estonia in the midst of a political furor over the relocation of a Soviet war memorial statue from a square in central Tallinn, Estonia's capital.[24]

Belarus

Belarus, under the authoritarian leadership of President Aleksandr Lukashenko, has been Moscow's most loyal ally in Europe since the collapse of the Soviet Union. Belarus's unreformed, largely Soviet-style economy is heavily dependent on cheap Russian natural gas and oil. Gazprom long supplied Belarus with energy at Russian domestic prices, providing a large indirect subsidy to the Lukashenko regime.

However, in 2006, it appeared that Russia had decided to reduce its subsidies to Lukashenko. In late 2006, Gazprom strongly pressured Belarus to sell to it control of the Beltransgaz natural gas firm (which controls the pipelines and other infrastructure on Belarusian territory) and other key Belarusian energy firms, or face the quadrupling of the price Belarus would pay for Russian natural gas. Gazprom threatened a cutoff in supplies on January 1, 2007, if Belarus did not agree to pay the higher price. Just hours before the deadline, however, the two sides reached an agreement that averted a gas shutoff. Belarus agreed to pay more than double what it paid in 2006. Belarus's natural gas prices were scheduled to rise steadily, reaching world market levels in 2011. Belarus also agreed to sell Gazprom a majority stake in Beltransgaz. Gazprom is paying for its share in installments until 2010.

After settling the gas dispute, the two countries were soon embroiled in conflict over oil supplies. In addition to receiving cheap natural gas, Belarus has also benefitted from inexpensive and duty-free crude oil supplies that are processed at Belarusian refineries. Belarus then sold the bulk of these refined products to EU countries at a hefty profit. In January 2007, Russia moved to sharply reduce this subsidy to the Belarusian economy. Russia imposed a tariff on oil exports to Belarus. Belarus retaliated by increasing transit fees for Russian oil supplies to Western Europe. When Russia refused to pay, Belarus cut off oil supplies to Western European countries, angering their governments.

Belarus and Russia ended the crisis by agreeing that Belarus would raise its export duty on crude and refined oil products to Western Europe to match that imposed by Russia. Russia would then exempt Belarus from most of the new Russian oil export duty. Perhaps most significantly, Belarus agreed to hand over to Russia 70% of the proceeds that it receives from its exports of refined oil products to the Western market. This figure was increased to 85% in 2009. The drop in support from Moscow has caused Lukashenko to cut some government spending and to look to Western

[23] Keith C. Smith, "Russian Energy Pressure Fails to Unite Europe," CSIS Euro-Focus, January 24, 2007 from the CSIS website http://www.csis.org/europe.

[24] Russian authorities cited track repairs and a shortage of wagons. RFE/RL, *Newsline*, May 3, 2007.

banks for loans.[25] Increased capacity at its oil terminal at Primorsk may also lead to Russia reducing its use of the Druzhba pipeline, which runs through Belarus.

Belarus continues to ask Russia to moderate future energy prices. Belarus paid about $148 per bcm for gas in the first quarter of 2009, far below that charged to Ukraine. Belarus also wants Moscow to increase the transport fees it pays to Belarus for use of its pipelines to Europe, so far without success. To hedge his bets, Lukashenko has called for diversification of Belarus's energy supplies by imports from such countries as Venezuela, Iran, and Azerbaijan, as well as development of coal reserves and a nuclear power plant within Belarus. The world economic crisis has eased Belarus's energy burden somewhat. Gas prices paid by Belarus since the second quarter of 2009 have dropped due to the fact that market rates for gas are tied to those for crude oil, which have plummeted in recent months. In June 2009, Prime Minister Putin said that Russia would continue to provide subsidized oil and gas to Belarus to support its economy.

Armenia

Armenia and Russia have close political and military ties, in large part due to Armenia's desire for support in its struggle with Azerbaijan over the Nagorno-Karabakh region of Azerbaijan. However, in early 2006, Russia informed Armenia that it would sharply increase the price it would have to pay for gas. In May 2006, Armenia agreed to relinquish various energy assets to Russian firms as partial payment for this price increase. Some critics have alleged that Russia now has virtual control over Armenia's energy supplies.

In October 2006, Armenian officials announced that Gazprom would assume effective management control of an Iranian-Armenian gas pipeline. According to some experts, this acquisition may indicate Russia's intent to block use of Armenia as a pipeline route independent of Russian control. Some of the gas will be used to generate electricity for Iran and Georgia, but the remainder may satisfy all Armenia's other consumption needs, removing its dependence on Russian gas transported via Georgia.[26]

U.S. Policy

The United States has repeatedly criticized what it has viewed as Russian efforts to use its energy supplies as a political weapon. During the January 2006 natural gas standoff between Russia and Ukraine, State Department spokesman Sean McCormack criticized Russia for using "energy for political purposes." He stressed that while the Administration supported a gradual increase in prices to market levels, it disagreed with a "precipitous" increase and cutoff. Secretary of State Condoleezza Rice likewise on January 5 stated that Russia had made "politically motivated efforts to constrain energy supply to Ukraine."[27] In May 2006, Vice President Dick Cheney

[25] Economist Intelligence Unit, Country Report: Belarus, March 2007.

[26] For more on Armenia, see CRS Report RL33453, *Armenia, Azerbaijan, and Georgia: Political Developments and Implications for U.S. Interests*, and CRS Report RL30679, *Armenia, Azerbaijan, and Georgia: Security Issues and Implications for U.S. Interests*, both by Jim Nichol.

[27] The State Department. Statement, January 1, 2006; Daily Press Briefing, January 3, 2006; Secretary Condoleezza Rice, Remarks at the State Department Correspondents Association's Breakfast, January 5, 2006.

criticized Russia's tactics of "supply manipulation or attempts to monopolize transportation" against vulnerable countries in the region as "blackmail" and intimidation."[28]

In testimony before the Commission on Security and Cooperation in Europe in June 2007, Bush Administration officials cast doubt on the reliability of Russian oil and natural gas supplies to Europe and criticized Moscow's "nationalistic interventions in its energy sector."[29] On October 23, 2007, Secretary Rice noted that "we respect Russia's interests, but no interest is served if Russia uses its great wealth, its oil and gas wealth, as a political weapon, or that if it treats its independent neighbors as part of some old sphere of influence."[30] A State Department spokesman reiterated U.S. opposition to the use of energy supplies as a political weapon after a March 3-5, 2008, gas supply incident between Gazprom and Ukraine.

The Obama Administration has also expressed concerns about European energy security. On January 22, 2009, after the resolution of the second major Russia-Ukraine gas crisis, a State Department spokesman said the conflict "underscores the need for transparent, market-oriented arrangements for the sale and shipment of natural gas and the importance of diversifying energy supplies.[31] In April 2009, the Obama Administration appointed Richard Morningstar as State Department Special Envoy for Eurasian Energy.

While the United States has been active on the issue of Eurasian energy supplies, skeptics might argue that key U.S. interests are not at stake, given the fact that the problem is one of European dependence, not that of the United States. Moreover, the EU and other European countries will have to be the main players in finding a solution (if they have the will to do so), with the United States playing a secondary role.

U.S. "Pipeline Diplomacy"

The United States has urged European countries to reduce their dependence on Russian energy supplies. The United States has strongly advocated the building of multiple pipelines to supply energy from Central Asia and Azerbaijan to Europe. These projects include the Baku-Tbilisi-Ceyhan (BTC) pipeline), which carries 1 million barrels per day of Azerbaijani oil to the Turkish port of Ceyhan. Another important project supported by the United States has been the South Caucasus Gas Pipeline (SCGP), which taps Azerbaijan's Shah Deniz gas field.

In the longer term, through about 2020, the United States supports expanding the SCGP. The United States also supports the Nabucco pipeline, an EU-sponsored project that would supply natural gas from Central Asia and Azerbaijan to Europe through Georgia, Turkey, Bulgaria, Romania, Hungary and Austria. An international conference on Nabucco, held in Budapest on January 26-28, 2009, appeared to enhance the project's prospects. The European Commission

[28] "Vice President's Remarks at the Vilnius Conference," May 4, 2006, from the White House website http://www.whitehouse.gov.

[29] Testimony before the Commission on Security and Cooperation in Europe of Gregory Manuel, Special Advisor to the Secretary of State and International Energy Coordinator, Matthew Bryza, Deputy Assistant Secretary, Bureau of European Affairs, and Steven Mann, Principal Deputy Assistant Secretary, Bureau of South and Central Asian Affairs, June 25, 2007.

[30] Secretary of State Condoleezza Rice, "Opening Remarks at the Office of the Historian's Conference on U.S.-Soviet Relations in the Era of Détente, 1969-1976," from the State Department website, http://www.state.gov.

[31] "Statement on Agreement to Restore Gas Flows to Europe," January 22, 2009, http://useu.usmission.gov

pledged 250 million Euro, the European Investment Bank 2 billion Euro, and the European Bank for Reconstruction and Development said it would provide an undetermined amount of financing.

In May 2009, the EU held a summit in Prague with leading transit and supplier nations in Transcaucasia and Central Asia. The summit agreed to expedite the creation of Nabucco and other new gas and oil supply routes from the Caspian region to Europe via a "Southern Corridor." Nabucco received a further boost on July 13, 2009, when Austria, Hungary, Romania, Bulgaria, and Turkey signed an intergovernmental agreement on the project. It is hoped that work on the pipeline could begin by the end of 2010, with the first gas supplies available by 2014 and full capacity reached in 2019. Richard Morningstar, U.S. Special Envoy for Eurasian Energy, was an observer at the Prague summit and hailed the results achieved there.

Another U.S.-backed proposal is a Turkey-Greece-Italy (TGI) gas pipeline. The connection of the Turkish and Greek gas pipelines was completed in November 2007. The Greek and Italian gas transport systems are scheduled to be connected by 2012. The pipeline will have a capacity of 8 bcm per year, substantially smaller than Nabucco or South Stream. The Prague Southern Corridor Summit discussed linking TGI to Nabucco.

Turkey plays a central role in all of these pipeline projects. Turkey limits shipping in the Bosporus Strait due to environmental concerns. This reduces the potential for tankers to use the Black Sea to ship oil and gas to European markets. Therefore, supplies from the Caucasus and Central Asia must cross Turkey's territory or transit across the Black Sea from the Caucasus in the east to the Balkans in the west. The United States has supported the American Macedonian Bulgarian Oil pipeline (AMBO), another Bosporus bypass project. It could supply Caspian oil from the Bulgarian Black Sea port of Burgas through Macedonia to Albania's Adriatic port of Vlore. It is expected to be completed in 2011.

Turkey appears to be using its prime geographic location as bargaining leverage with both Russia and the EU, in hopes of making Turkey a regional energy hub. After signing the intergovernmental agreement on Nabucco in July 2009, Turkey agreed in August to allow Russia to use Turkey's territorial waters for South Stream. In exchange, Russia will provide support for a trans-Anatolian oil pipeline crossing Turkey from the Black Sea to the Mediterranean. Russia and Turkey will also discuss expanding the Blue Stream natural gas pipeline between Russia and Turkey. In addition, Russia also agreed to build a nuclear power plant in Turkey.

Another proposed gas pipeline is White Stream. It would provide gas from the Caspian through a pipeline under the Black Sea from Georgia to Crimea, in Ukraine. The pipeline would have to pass over Russia's Blue Stream pipeline to Turkey on the seabed.[32] In April 2009, Georgia and the White Stream Pipeline Company signed a memorandum of understanding on the project. However, it is unclear whether the pipeline can find financing in the current economic climate, or a source of supply.

Bush Administration officials criticized Nord Stream, which would traverse the Baltic Sea floor, supplying Germany and other western European countries with natural gas, and bypassing the central and eastern European countries through which the main current pipelines run. The U.S. has supported discussions by Poland, the Nordic countries, and the Baltic states on alternatives, including delivering Norway's expanding gas production to northern Europe via Danish pipelines

[32] Eurasia Daily Report, October 12, 2007.

and by developing liquified natural gas terminals in Poland and the Baltic states.[33] Bush Administration officials also criticized South Stream, saying that it will not reduce dependence on Russian supplies.

Germany supports Nord Stream, as it is looking for a dependable source of natural gas, particularly after the natural gas and oil crises between Russia and Ukraine and Belarus, which briefly interrupted supplies in 2006 and 2007. Gazprom owns 51% of Nord Stream, while two German firms and a Dutch firm own the rest. Former German Chancellor Gerhard Schroeder is chairman of the Nord Stream consortium. On the other hand, the Baltic countries, Poland and Ukraine have expressed opposition to Nord Stream, fearing that it will give Moscow more leverage on energy issues with them. Sweden has objected on environmental grounds to the current path the pipeline would take through its own waters, forcing the consortium to submit to it another proposed route for approval. The pipeline would also run through the economic zones of Finland and Denmark.

The Obama Administration has been less critical of Nord Stream and South Stream than the Bush Administration. Part of the change in tone may be due to an effort to "reset" ties with Russia that were frayed during the Bush years. Ambassador Morningstar has denied that the United States and Russia are involved in a "great game"—that is, a geopolitical struggle—for Central Asian energy supplies. He has said that the United States should at least try to work with Russia on the issue. In contrast to statements by Bush Administration officials, Morningstar has said that the United States does not oppose Nord Stream and South Stream; that the United States does not see Nabucco as being in competition with South Stream; and that it was possible that Russia could provide gas for Nabucco.[34]

The United States has advocated extending an existing oil pipeline that currently runs from the oil terminal at Odesa in Ukraine to Brody, on the Polish border. This pipeline could then be extended to Gdansk in northern Poland. At present, however, the Odesa-Brody pipeline runs in the reverse direction, pumping Russian oil to Odesa. In October 2007, Azerbaijan, Georgia, Lithuania, Ukraine, and Poland signed an agreement to fund a feasibility study on the Odesa-Brody extension project.

Obstacles to U.S.-Supported Pipelines

These U.S. efforts at "pipeline diplomacy" face challenges. The success or failure of these projects will likely depend more on whether private energy firms find them profitable than on U.S. diplomatic skill and energy. A particular concern is whether there is enough oil and natural gas to supply the various pipelines. Russian-supported pipelines appear to have the upper hand because they have supplies available. Their potential profitability makes them tempting even to central and eastern European countries that are trying to reduce dependence on Russia. In addition, Moscow can offer them and western European firms participation in exploiting oil and natural gas fields in Russia.

[33] Testimony of Gregory Manuel, Matthew Bryza, and Steven Mann in a hearing before the Commission on Security and Cooperation in Europe, June 25, 2007.

[34] Morningstar's testimony before the Senate Foreign Relations Committee hearing "$150 Oil: Instability, Terrorism, and Economic Disruption, July 16, 2009; State Department Foreign Press Center Briefing, June 23, 2009.

For example, the prospects for Nabucco are clouded, as Moscow has proposed alternative pipelines on similar routes in order to steer European countries away from full support for the U.S.- and EU-backed projects. Many view South Stream as a direct challenge to Nabucco, and has the support of Italy, Bulgaria, Serbia, and Hungary. The Austrian state-controlled energy firm OMV has agreed to sell a 50% stake in its Baumgarten gas storage and distribution center. The move could allow Moscow to block Nabucco, as Baumgarten is the planned terminus of the project.[35] In March 2009, in what some observers viewed as another possible effort to block Nabucco, the Russian firm Surgutneftegas acquired from OMV a large stake in the Hungarian energy giant MOL, a key player in the Nabucco project. The Hungarian government has supported both Nabucco and South Stream.

It is unclear whether sufficient natural gas supplies exist for U.S.-supported routes. The United States is strongly opposed to tapping Iran's energy resources, due to Iran's support of terrorism, its nuclear ambitions, its policy in Iraq, and other factors. Instability in Iraq makes it uncertain whether supplies can be drawn from there in the near future. The main U.S. hopes lie with Central Asia and Azerbaijan. However, Moscow retains strong levers of influence over oil-rich Kazakhstan and key natural gas supplier Turkmenistan, including control over the pipelines transporting most of their current output. In December 2007, Kazakhstan, Turkmenistan and Russia signed an agreement to build a new natural gas pipeline from Central Asia along the Caspian Sea to Russia, in yet another apparent effort to eclipse U.S.-led alternatives. However, little progress has been made on the project since the initial agreement.

Russia and Iran have placed another obstacle in the way of U.S.-supported efforts. They have asserted that no country bordering the Caspian Sea can legally undertake projects such as building a pipeline on the seabed or drilling for oil and gas there without the consent of all Caspian littoral states. Although the other littoral states reject the Russo-Iranian view, this position could make potential investors leery of investing in such a project. Shipments via tanker across the Caspian to Baku can be increased, but would be more expensive. Long-standing tensions between Azerbaijan and Turkmenistan over their Caspian Sea border could also hinder U.S. plans.

On the other hand, alternative routes may be tempting to Central Asian states, given the fact that Moscow has struck a hard bargain with them on the use of Russian pipelines in the past. To head off this possibility, in 2009 Gazprom began paying Turkmenistan European market prices for its gas. Previously, Turkmenistan had been forced to sell its gas to Russia for less than half of the European price.

A dispute erupted between Russia and Turkmenistan over responsibility for an explosion in a gas pipeline in Turkmenistan in April 2009. Subsequently, Turkmen leaders have said that they are looking to diversify their supply routes. In a possible signal that Turkmenistan was interested in selling gas to European customers, Turkmen leaders offered an gas exploration contract to RWE, a German firm that is a key investor in Nabucco.

Nevertheless, dissatisfaction of Central Asian energy producers with Russia may not necessarily mean that they will opt for U.S.-supported pipelines to Europe. They are developing pipelines eastward, toward China and the rest of Asia. A pipeline from Turkmenistan to China will open later in 2009, delivering 30 bcm of gas per year. China is also helping develop South Yoloten, one of Turkmenistan's biggest gas fields. Turkmenistan is also working to expand its gas pipeline

[35] Eurasia Daily Monitor, November 19, 2007.

capacity to Iran. Increased transport of Central Asian energy through non-Russian pipelines could have a significant impact on the energy plans of the United States, the European Union, and Russia.

Azerbaijan is the most eager advocate in the region of the U.S.-supported pipeline plans, but has the disadvantage that it has only modest amounts of natural gas to export at present. The United States hopes that this will change by 2015 or 2016 as Azerbaijan develops its gas fields.[36] However, Azerbaijan has shown impatience with delays in the Nabucco project. In March 2009, Russia and Azerbaijan signed a memorandum of understanding to sell Azerbaijani gas to Russia. The decision could deal a serious blow to Nabucco, depending on the volumes of gas that are exported to Russia in the future.

Other Policy Issues

The Europeans, supported by the United States, may be able to take other steps to diversify their energy supplies. Oil and natural gas pipelines in Europe run in a mainly east-west direction. More north-south interconnections within Europe could help to buffer any shortfalls in a particular region. Larger storage facilities could also be helpful in this regard. European leaders have endorsed European Commission proposals to enhance interconnections within Europe and increase storage, but the initiatives remain in the planning stage.

In the longer run, liquefied natural gas (LNG) delivered to terminals throughout Europe may be an economical substitute for natural gas from Gazprom pipelines. Interconnections and LNG could help create an integrated gas market in Europe, making it easier for countries to diversify their supplies, rather than rely on long-term contracts signed with Gazprom, which could allow Russia to play them off against each other for its own political or economic advantage. Already, LNG (largely from North Africa) makes up 15% of Europe's gas imports, and is particularly important for some western European countries. For example, 65% of Spain's gas imports are LNG.[37] Poland intends to build an LNG terminal on the Baltic Sea in order to diversity its supplies. For its part, Russia also has its own plans for LNG exports so that it can sell more gas to Asia and even the United States, and avoid being locked into Europe as its only customer. U.S. and European officials have stressed the need for countries of the region to improve energy conservation and develop alternative fuels, although they acknowledge that these efforts will take time.

In the long run, Russia's statist, manipulative approach to energy policy may eventually be moderated by its own needs. Some observers believe that Russia will need Western investment and expertise to fully exploit new oil and natural gas fields as current ones decline over the next decade. This may provide an opening for the United States and other countries to persuade Russia to liberalize its energy sector. Russia's control of Central Asian supplies has allowed it to postpone the massive investments needed to exploit remote areas of its own territory, such as Eastern Siberia, the Arctic, and the Far East. However, this may change due to increasing worldwide demand for energy and the diversification of export routes by Central Asian countries. On the other hand, the current statist system has provided Russia's leaders with immense personal wealth and power, and afforded them the satisfaction of overseeing Russia's renewed

[36] Testimony of Gregory Manuel, Matthew Bryza, and Steven Mann in a hearing before the Commission on Security and Cooperation in Europe, June 25, 2007.

[37] See CRS Report RL33636, *The European Union's Energy Security Challenges*, by Paul Belkin.

international strength. They may not want to change this system, even if it might be in Russia's long-term interest to do so.

In addition to diplomacy, the United States has other tools to deal with the energy dependency question. The United States has funded feasibility studies for some pipeline routes through the Trade and Development Administration (TDA). For example, in August 2007, the TDA provided $1.7 million for feasibility studies on building both an oil and a gas pipeline across the Caspian Sea to link to the BTC pipeline and the South Caucasus gas pipeline.[38] The Export-Import Bank has also provided funds for pipeline projects. The United States and EU are working with Ukraine to develop an energy efficiency action plan for that country. The United States provides small amounts of aid to the countries of the region to help build their energy security.

Congressional Response

Members of Congress have expressed concern about the impact of Russian energy dependency on the countries of central and eastern Europe. Members have sharply criticized Russian policy and called on the European Union to work with the United States in helping these countries diversify their energy supplies. Senator Richard Lugar has called for a greater NATO role in energy security issues, including providing emergency energy assistance to member states facing a sudden energy cutoff.[39] Bush Administration officials said NATO could play a greater role in the security of pipelines and other energy infrastructure, but that broader energy issues are best dealt with in other venues.

In the 111th Congress, the Senate Foreign Relations Committee has held hearings on policy toward Russia in March 2009 and energy security in May 2009. In both hearings, Senator John Kerry, Chairman of the committee, Senator Lugar, and witnesses before the committee expressed concern about Russia's use of energy supplies for political purposes. In July 2009, the Senate Foreign Relations Committee held a hearing on energy security during which Senator Kerry and Senator Lugar hailed the signing of the intergovernmental agreement on Nabucco, at which Senator Lugar was present. Nabucco was also discussed at an August 2009 Senate Foreign Relations hearing on Georgia. In February 2009, in a hearing of the House Foreign Affairs Committee on U.S.-Russian relations, Chairman Howard Berman and several witnesses criticized Russia's political use of energy in Europe. In hearings of the Europe Subcommittee of the House Foreign Affairs Committee in June and July 2009, Members expressed concerns about Russia's energy policy in Europe with Philip Gordon, Assistant Secretary of State for Europe and Eurasia, who repeated Administration calls for European energy diversification.

Congress has also passed resolutions that refer to concerns about Russian energy policy. S.Res. 530, in a list of criticisms of Russian policies on the eve of the St. Petersburg G-8 summit in July 2006, expressed disapproval of Russian energy policy toward Ukraine, Georgia, Moldova, and other countries. H.Res. 500, passed in July 2007, charged that Russia and other countries in creating a gas OPEC, and criticized Russia's use of its gas supplies as a political tool against Georgia, Ukraine, Belarus, and other countries. In July 2008, the Senate passed S.Res. 612, which called on the United States and other countries to build a constructive relationship with

[38] "Promoting Technology in the Oil and Gas Sector," TDA website, http://www.ustda.gov.

[39] "Remarks to the German Marshall Fund Conference," Congressional Record, December 7, 2006, S11483-S11485. For a discussion of NATO's role in Western energy security, see CRS Report RS22409, *NATO and Energy Security*, by Paul Gallis, updated regularly.

Moscow at the 2008 G-8 summit, but criticized some Russian policies. It said that "the conduct of Russian trade and energy policy has created a widespread perception that the Government of the Russian Federation is using oil and gas exports and economic policy as a means of political pressure on countries that seek closer ties with the United States and Euro-Atlantic partners."

In the 111th Congress, Representative Ros-Lehtinen introduced H.Con.Res. 61, which calls on Russia's G8 membership to be conditioned on its compliance with its international obligations and commitment to democratic standards. The resolution says that the Russian government has apparently used its energy resources as a political tool against neighboring states, harassed domestic and foreign energy companies to gain control over these industries; and tried to gain control over energy infrastructure in Europe in order to dominate European energy markets.

Figure 1. Pipeline Map

Source: U.S. Department of Energy, Energy Information Administration.

Country Brief: Russia, April 2007, form the EIA website http://www.eia.doe.gov

Author Contact Information

Steven Woehrel
Specialist in European Affairs
swoehrel@crs.loc.gov, 7-2291