Backgrounder

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The North European Gas Pipeline Threatens Europe's Energy Security

Ariel Cohen, Ph.D.

Russia is building a strategic new pipeline to Europe that will affect European energy security for years to come. Called the North European Gas Pipeline (NEGP), it will cross the Baltic Sea, directly connecting Russia to Germany, and will bypass the Soviet-era, land-based energy transit infrastructure that traverses several former Soviet Bloc countries, including Ukraine, Belarus, and Poland.

Already under construction, the NEGP has attracted both investors seeking large returns and critics protesting Russia's increasingly powerful energy-transit monopoly. With Europe's steadily increasing appetite for natural gas, this new direct link will strengthen Russia's hold over the European gas market and lessen dependence on transit countries, including Ukraine, Belarus, and Poland. Although the pipeline will prove beneficial in guaranteeing more secure Western European access to Russian natural gas, it also has the potential to increase the dependence of the European Union (EU) on Russia, thereby making Russia even more powerful and, possibly, more assertive in the international arena. This could have insidious consequences in a time of increasing divergence between Russia's foreign and domestic policies and Western interests and norms.

In order to avoid EU overdependence on Russian natural gas, the U.S. and EU governments should work in concert to:

- **Encourage** alternative pipeline proposals, such as Nabucco, which would link energy sources in the Caspian region to southern Europe via Turkey;

Talking Points

- Russia's North European Gas Pipeline will bypass the Soviet-era energy transit infrastructure that traverses Ukraine, Belarus, and Poland, and make Western Europe dependent on Russia politically and economically.
- To increase energy security, the European Union should strive to diminish dependence on oil and gas from the Middle East and Russia, emphasizing energy from the Caspian Basin and Africa and pursuing alternative energy sources, including nuclear.
- Ratifying the Energy Charter would enhance Moscow's predictability and transparency in energy markets. Russia should be discouraged from further two-tiered pricing schemes, politically motivated energy cutoffs, and monopolistic practices and persuaded to allow equal access to its energy reserves and transportation infrastructure.
- It is vital that the EU and the U.S. work together to find and implement innovative methods of reducing energy dependence on monopolistic Russian suppliers, including new gas transit lines that limit over-reliance on Russian gas.

This paper, in its entirety, can be found at:
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- **Develop** alternatives to pipelines for the transit of natural gas, especially shipments of liquefied natural gas (LNG);
- **Act** in concert with other G-8 members to persuade Russia to ratify the Energy Charter; and
- **Provide** financial and political support for intensified research and development of alternative market-based energy sources.

Europe's Strategic Energy Dependence

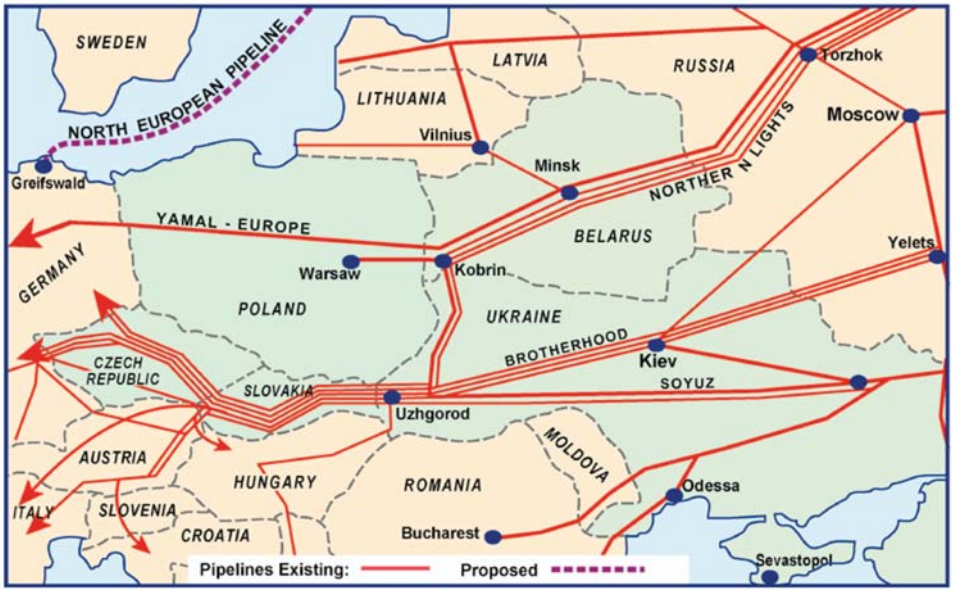
Natural gas is the second-largest source of energy in Western Europe. Most of it is extracted from British, Dutch, Italian, Romanian, German, and Danish fields, with additional gas imported from Russia, Norway, and Nigeria.[1] Russian gas imports account for 26 percent of EU consumption, representing 40 percent of the imported gas consumed by households and businesses.[2] In Central and Eastern Europe, Russian gas accounts for 87 percent of total imports and 60 percent of consumption.[3]

Demand for natural gas is expected to rise significantly over the next 15–20 years, coincidentally with a steady depletion of reserves in EU countries.[4] Strict EU environmental regulations will force EU member states to replace high-emission fossil fuels, such as coal, with cleaner burning energy sources, such as natural gas and nuclear power. Social resistance to nuclear power, especially in Germany, may prevent it from becoming a major energy source there.

Liquefied natural gas would not be constrained by the limited capacity of the natural gas pipelines, but the process of liquefying gas is still expensive, and most natural gas exporters and importers have yet to develop the infrastructure necessary to make LNG shipments cost-effective. In the near term, therefore, EU consumption of piped natural gas is likely to rise, and the EU will look increasingly further afield to Norway, Algeria, and Russia to meet its natural gas needs.[5] In

Figure 1 B 1980

Existing and Proposed European Gas Pipelines



Source: Jonathan Stern, "The Russian-Ukrainian Gas Crisis of January 2006," Oxford Institute for Energy Studies, January 16, 2006, at *www.gasandoil.com/ogel/news/Stern,Russian-Ukrainian%20gas%20crisis%20of%20January%202006%20-%20OGEL%20(2006).pdf* (June 7, 2006). Reprinted with permission.

1. Mark Smedley, "What Diverse New Gas Flows Might Get Into Europe," *World Gas Intelligence*, January 11, 2006, on Lexis-Nexis.
2. Jonathan P. Stern, *The Future of Russian Gas and Gazprom* (Oxford, U.K.: Oxford University Press, 2005), p. 143, Table 3.6, "European Dependence on Russian Gas Supplies, 2003."
3. *Ibid.*
4. W. Czernie, "Structural Change in the European Gas Industry: Risks and Opportunities," Worldenergy.org, at *www.worldenergy.org/wec-geis/publications/default/tech_papers/17th_congress/1_4_14.asp* (June 2, 2006).

the near to medium term, the importance of Russia's role appears likely to grow.

Increasing imports from any of these countries would be a costly endeavor requiring massive investments to develop the necessary extraction, production, and transportation infrastructure. Piping gas from Algeria would require undersea pipelines, which are far more costly than overland pipelines.[6] Norway's reserves are limited. The EU is looking to tap other sources of natural gas, such as the Caspian Basin and Central Asia, but these regions, like the Middle East, are characterized by high levels of political instability and are thus less reliable as suppliers. As for LNG imports, they are economically viable only over large distances.

On the other hand, transit infrastructure for natural gas deliveries from Russia to Europe already exists. Russia currently supplies roughly 40 percent of Europe's imported gas, with higher percentages of Russian gas consumed in Eastern Europe than in Western Europe. (See Table 1.) Projections indicate that this percentage will increase to roughly 60 percent by 2030.[7] Given dwindling reserves and political and logistical restrictions on other potential natural gas suppliers, Russia is in an excellent position to capture the lion's share of the European gas market.

EU officials have voiced increasing concerns over Russia's reliability as an energy exporter, particularly since the January 2006 Russian–Ukrainian gas dispute, when Russia cut off gas shipments to Ukraine and Ukraine responded by siphoning off gas from Russia that was destined for EU countries. Ukraine, in turn, claimed that Russia owed that gas to Ukraine under the existing contracts. The affair resulted in a temporary mid-winter interruption in the EU gas supply.

Table 1 B 1980

Major European Recipients of Russian Natural Gas Exports, 2004

Rank	Country	Imports (bcf/year)	Percent of Domestic Consumption
1	Germany	1,110	44%
2	Italy	777	29%
3	Turkey	473	65%
4	France	470	26%
5	Hungary	378	72%
6	Finland	269	100%
7	Slovakia	261	100%
8	Poland	258	60%
9	Czech Republic	240	82%
10	Austria	201	63%
11	Bulgaria	184	94%
12	Romania	177	24%
13	Former Yugoslavia	74	–
14	Greece	74	92%
15	Switzerland	18	17%

Note: Exports through Ukraine and Belarus are not included.

Source: U.S. Department of Energy, Energy Information Administration, "Russia: Natural Gas," *Country Analysis Briefs,* January 2006, at *www.eia.doe.gov/emeu/cabs/Russia/NaturalGas.html* (August 3, 2006).

As Ukraine is the transit country for most Russian gas exports to Europe, it is essential for EU energy security that Ukraine and Russia maintain stable business relations. Fully 80 percent of Russia's natural gas exports reaches the EU via Ukraine,[8] with another 20 percent through Belarus.[9] Both of these countries have long, com-

5. "Analysis: Energy Dependence and Supply in Central and Eastern Europe," EurActiv.com, May 15, 2006, at *www.euractiv.com/en/energy/analysis-energy-dependence-supply-central-eastern-europe/article-155274* (June 2, 2006).
6. *Ibid.*
7. Jeremy Page and Anthony Browne, "Summit Set for Angry Clash over Energy," *The Times* (London), May 25, 2006, at *www.timesonline.co.uk/article/0,,5-2196245,00.html* (August 1, 2006).
8. Theodore George Tsakiris, "The Eurasia Energy Complex," *Defense & Foreign Affairs Strategic Policy,* February 2006, on Lexis-Nexis.
9. German Economic Team in Belarus, "Belarus as a Gas Transit Country," Research Center for the Institute of Privatization and Management, March 2004, at *www.ipm.by/pdf/pp304e.pdf* (August 1, 2006).

plicated political histories with Russia, while Gazprom has supplied subsidized gas since the collapse of the Soviet Union. Last year, for example, Belarus received gas at 20 percent of the average European price.[10] In February 2004, however, Gazprom briefly cut supplies to Belarus, which balked at signing new contracts.[11]

Even before the January 2006 crisis with Ukraine, Russia had long wanted to diminish the influence of transit states in gas shipment to Europe, thereby denying both Ukraine and Belarus considerable transit-fee revenue and eventually assuming ownership over gas transit infrastructure. In December 2005, concerned about a repetition of Ukraine's "Orange Revolution" in Belarus, Russian President Vladimir Putin promised Belarusian ruler Alexander Lukashenko access to cheap gas.[12] This was extremely costly for Russia, both financially and politically, because of Belarus's uncompetitive economy and Lukashenko's international pariah status.

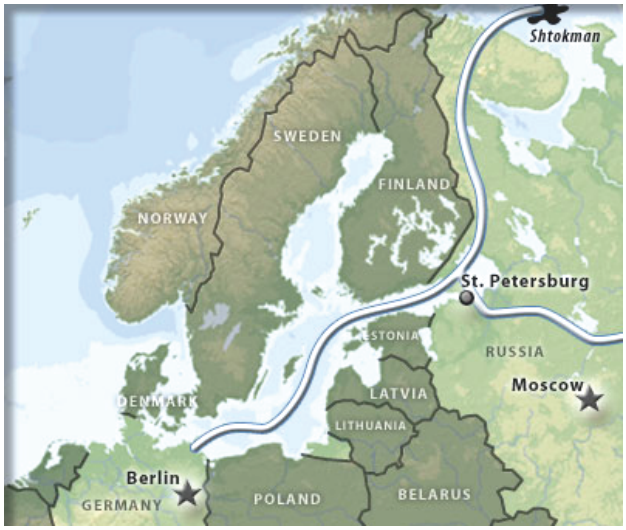
Overall, tenuous relationships between Russia and the transit countries have created fear of political complications between supplier and transit countries, causing another gas shutoff to Western Europe and thereby generating both consumer and supplier support for a new pipeline that will bypass Central and Eastern Europe and link Western Europe directly to Russia.

The North European Gas Pipeline

Since 2003, Russia has begun to cut out the middleman. In February 2003, Russia and Germany proposed the idea of a North Baltic pipeline extending over 2,000 miles (700 of them underwater) from Russia to Germany via the Baltic Sea. In January 2004, the Russian government issued an official decree in support of the pipeline's construction, and several European oil and natural gas concerns have shown interest in the majority-Gazprom project. Construction began on December 9, 2005.[13]

Figure 2 B 1980

Northern European Gas Pipeline



Source: "Germany: Schroeder's New Gig Causes Trouble at Home," *Stratfor*, March 30, 2006, at *www.stratfor.com/products/premium/read_article.php?id=264178* (August 3, 2006). Reprinted with permission.

The North European Gas Pipeline (NEGP or Nord Stream) will extend roughly 300 miles over land to Vyborg, Russia, on the Gulf of Finland and from Vyborg under the Baltic Sea to Greifswald in northeast Germany. Based on Russian President Putin's predictions, the pipeline, with an initial annual capacity of 27.5 billion cubic meters of gas, will become operational in 2010. The NEGP's capacity is to reach approximately 52 billion cubic centimeters upon completion of a second pipeline in 2013.[14] Gazprom has estimated the cost of construction at $4.7 billion.[15]

10. Alexander Kolesnikov, "Belarus Doesn't Shop Around for Gas," *Kommersant*, December 16, 2005, at *www.kommersant.com/page.asp?idr=527&id=636019*.
11. Stern, *The Future of Russian Gas and Gazprom*, p. 10.
12. Mark Franchetti, "Putin Blesses Europe's Last Dictator," *The Sunday Times* (London), January 8, 2006, at *www.timesonline.co.uk/article/0,,2089-1974862,00.html*.
13. Tsakiris, "The Eurasia Energy Complex."
14. Owen Matthews and Anna Nemtsova, "Roiling the Baltic Waters," MSNBC.com, January 23, 2006, at *www.msnbc.com/id/10854978/site/newsweek/print/1/displaymode/1098/* (February 21, 2006).

Nord Stream will supplement existing land-based pipelines, allowing for greater pipeline capacity for Russian gas exports to Europe. This is particularly significant in light of Gazprom's development of the Shtokman gas field in the Barents Sea, with reserves estimated at 3.7 trillion cubic meters of natural gas, beginning in 2010. Gazprom's stated intention is to use Nord Stream to transport gas from the Shtokman field to Europe.[16]

The North European Gas Pipeline Company (North Trans Gas) has been registered in Zug, Switzerland, to build the pipeline's submarine section. Former German Chancellor Gerhard Schroeder, who signed the initial agreement with President Putin for construction of NEGP, is now chairman of the NEGP consortium—a fact that caused an outcry in his home country.[17]

This is not an equal partnership. Gazprom owns 51 percent of North Trans Gas shares, and the German partners BASF and E.ON each own an additional 24.5 percent.[18] Gazprom has announced that a third partner could obtain a 9 percent stake in the project with favored parties, including Gaz de France and Dutch Gasunie.[19]

The main source of supply for the pipeline will be the Yuzhnorusskoye gas field in the Yamal–Nenets Autonomous District. While this field cannot supply the entire pipeline, Gazprom representatives say that by the time the second stretch of the pipeline has been completed, it will be possible to start bringing in gas supplies from the Yamal, Obsko–Tazovskaya Bay, and Shtokman gas fields.[20]

As the first direct link between the Russian gas transport network and the West European gas network, the NEGP will mark a new stage of cooperation between Gazprom and the EU energy market.

Pipeline of Concern

As the Baltic pipeline complements the ones through Ukraine and Belarus, the EU will be less concerned about whether the relationship between Russia and its former allies might disrupt Europe's main source of gas, and this diminished concern may give Russia freer rein in its own back yard. Meanwhile, the increased trade between Russia and Germany may promote increased dependence on Russia, making it easier for Russia to engage in two-tiered pricing schemes, offering gas at a discount to smaller Eastern European countries in exchange for political cooperation.

Natural gas prices vary depending on region and type of gas. In Europe, the price of gas for each individual country or region is the wholesale price minus delivery costs. Since delivery costs for shipments to Ukraine are low relative to costs for shipments to countries like France that are farther away and have no existing pipeline infrastructure, Ukrainians should pay less for Russian gas than do the French. In view of the European pricing formula, the "market price" that Ukrainians pay for Russian gas—roughly $95 per thousand cubic meters—is still low. Larger EU states such as France and Germany may therefore be reluctant to speak out against geopolitical concerns about the Nord Stream

15. "German, Russian Officials Launch Work on Controversial Baltic Pipeline," Agence France-Presse, December 9, 2005.
16. Judy Clark and Nina Rach, "Gazprom to Develop Shtokman Alone, Pipe Gas to Europe," *Oil & Gas Journal*, October 10, 2006, at *www.energybulletin.net/21287.html* (October 16, 2006).
17. "Germany: Schroeder's New Gig Causes Trouble at Home," Stratfor, March 30, 2006, at *http://images.google.com/imgres?imgurl=http://web.stratfor.com/images/europe/art/3_30_negp_747.jpg&imgrefurl=http://www.stratfor.com/products/premium/read_article.php%3Fid%3D264178&h=370&w=400&sz=42&hl=en&start=24&tbnid=aYLOrLaC-yvphM:&tbnh=115&tbnw=124&prev=/images%3Fq%3DNEGP%26start%3D20%26ndsp%3D20%26svnum%3D10%26hl%3Den%26lr%3D%26sa%3DN* (August 3, 2006).
18. "German, Russian Officials Launch Work on Controversial Baltic Pipeline."
19. "Dutch Gasunie 'Surprised' to Learn It Is Leading Contenders on Baltic Pipeline Deal Talks w/Gazprom," *Interfax*, February 14, 2006, on Lexis-Nexis.
20. Nina Kulikova, "Trans-Baltic Pipeline Moves Ahead," Russia Profile.org, November 28, 2005, at *www.russiaprofile.org/business/2005/11/28/804.wbp* (June 1, 2006).

because they depend on Russia for a large percentage of their gas supplies.

Nord Stream has other drawbacks as well, including a potentially negative ecological impact on the fragile Baltic Sea basin. The Baltic Sea is a unique and sensitive ecosystem, which the International Maritime Organization has given the status of PSSA (particularly sensitive sea area).[21] During and after World War II, the Baltic seabed was littered with thousands of tons of ship wreckage and chemical weapons shells containing various types of blister agents and nerve gas, the exact whereabouts of which are still unknown.[22] Pipeline construction could damage these corroded chemical weapons containers, with potentially severe environmental consequences.[23]

The cost of the Baltic pipeline is significantly higher than that of constructing alternative land-based pipelines, such as Yamal–Europe II from Russia to Germany via Poland and Belarus.[24] Even if the Baltic pipeline comes on line in 2010 as scheduled, its initial throughput capacity will be a mere 27.5 billion cubic meters a year, whereas transit capacity for pipelines that run through Ukraine is 132 billion cubic meters a year.[25] While the Baltic pipeline will not have the capacity to fully replace existing infrastructure, the motives for its construction are clearly political as well as economic.

Advocacy for Nord Stream

Russia has launched a strong advocacy of Nord Stream. Gazprom chairman Alexei Miller has described the NEGP as "a new export route that will increase Europe's energy security," and Prime Minister Mikhail Fradkov has said that "in launching this project we are creating the conditions for energy security in the world."[26]

Nord Stream will alleviate uncertainty in the European market over the reliability of Russian gas supplies, allowing Russia to export its gas directly, and in greater volumes, to Europe. It will not only eliminate transit fees payable to Ukraine and other East European countries, but also reduce Gazprom's dependence on those countries for exporting gas, to the economic benefit of both importer and exporter. Moreover, as Russia invests billions in this pipeline, the Kremlin will have strong incentives to keep it full—and profitable.

Eliminating the middleman from trade in energy will have other economic and political benefits as well. Since the collapse of the USSR, Russia has continued to sell gas to both Ukraine and Belarus at a steep discount, trading rock-bottom gas prices for their political loyalty. These deals have proved problematic both economically and politically.

In the 2005 Ukrainian presidential elections, Russia backed then-Prime Minister (and current Prime Minister) Viktor Yanukovych, whose falsification of electoral victory precipitated the "Orange Revolution." Turmoil resulted in prolonged political paralysis in Ukraine, as well as deterioration of Russian–Ukrainian relations. To complicate the situation further, unabashed support for Yanukovych was a source of embarrassment for Russia in the international community, which by and large decried Yanukovych and his electoral tactics as fraudulent.

Even more damaging to Russia's international standing has been the Kremlin's political and eco-

21. "The Baltic Sea Designated as a Particularly Sensitive Sea Area," *Keskkonnaministeerium*, 2005, at *www.envir.ee/66811* (July 2, 2006).
22. Matthews and Nemtsova, "Roiling the Baltic Waters."
23. "Baltic Pipeline Poses Environmental Threat—Estonian Premier," *RIA Novosti*, March 11, 2005, at *http://en.rian.ru/world/20051103/41987041-print.html* (June 1, 2006).
24. Keith C. Smith, "Current Implications of Russian Energy Policies," *The Action Ukraine Report*, January 19, 2006, at *http://action-ukraine-report.blogspot.com/2006/01/aur644russian-energy-policies.html* (June 5, 2006); "Major Russian Oil and Natural Gas Pipeline Projects," U.S. Energy Information Administration *Country Analysis Brief*, January 2005, at *www.eia.doe.gov/emeu/cabs/russia_pipelines.pdf* (October 16, 2006).
25. Tsakiris, "The Eurasia Energy Complex."
26. "German, Russian Officials Launch Work on Controversial Baltic Pipeline."

nomic support for the Belarusian regime of Alexander Lukashenko, dubbed by Condoleezza Rice "the last true dictator in Europe."[27] President Lukashenko has long relied on subsidies from Russia in the form of cheap gas, which he then resells to Western Europe at market prices, to maintain both Soviet-era social programs and a base of popular support.

Russia was one of a handful of states, including Iran and Cuba, to recognize Lukashenko's blatantly undemocratic re-election in the 2006 presidential race as legitimate. This prompted questions regarding Russia's role in the international community, specifically its G-8 presidency. By diminishing economic and political ties to Lukashenko, Russia could better safeguard its export capacity, cut export costs, and avoid the embarrassment of being taken to task for enabling the continued existence of a Soviet-style dictatorship in Europe. This could prove beneficial to the people of Belarus as well. An end to Russian backing of Lukashenko might well result in the emergence of a genuine opposition-led government that could bring about real reform.

Nord Stream and Western Europe

Germany, Russia, and their project partners believe that Nord Stream will enhance overall EU energy security, which is particularly advantageous to Germany because it would make Germany the primary distributor of Russian gas in Europe. The pipeline will transport gas from Germany not only to the rest of Western Europe, but also to former transit countries: the Baltics, Poland, and other states of Eastern Europe.[28] But the pipeline could also detract from long-term EU goals, including reducing reliance on hydrocarbons and enhancing financial stability in the newer EU member states.

Transit fees from gas crossing through Eastern European countries will no longer be factored into the price that EU countries pay for gas, thereby making it cheaper. However, the countries of Central Europe, including Poland, the Czech Republic, Slovakia, and Hungary,[29] will lose some transit revenues that supplement their national incomes and strengthen their economies.[30] For example, in 2005, Ukraine's annual gas transit volumes were calculated at roughly 115 billion cubic meters of gas, for which it received $1.09 per thousand cubic meters in addition to the 25 billion cubic meters it received as payment.[31]

Central Europe's Vocal Resistance. Polish President Lech Kaczynski has argued that there is no economic justification for the NEGP.[32] Some in Poland have even compared the proposed pipeline to the notorious Molotov–Ribbentrop pact between Hitler's Germany and Stalin's Soviet Union.[33] However, while the pipeline may be the result of German–Russian cooperation, which makes Poland understandably nervous, it is hardly an act of war comparable to the one that triggered World War II.

Lithuanian Prime Minister Algirdas Brazauskas[34] and a number of Estonian and Latvian poli-

27. Nick Paton Walsh, "Europe's 'Last Dictator' Defies Calls for Change," *The Guardian*, May 6, 2006, at *www.guardian.co.uk/russia/article/0,2763,1477717,00.html* (June 6, 2006).
28. Kulikova, "Trans-Baltic Pipeline Moves Ahead."
29. "North Central Europe," U.S. Energy Information Administration *Country Analysis Brief*, June 2004, at *www.eia.doe.gov/emeu/cabs/visegrad.html* (August 3, 2006).
30. Stephen Wagstyl, "The Pull of the West," Yale Global Online, from *The Financial Times*, February 22, 2005, at *http://yaleglobal.yale.edu/display.article?id=5313*.
31. Mark Davis, Ruslan Piontkivsky, Olga Pindyuk, and Dejan Ostojic, "Ukraine: The Impact of Higher Natural Gas and Oil Prices," World Bank, December 6, 2005, at *http://siteresources.worldbank.org/INTUKRAINE/Resources/328335-1136408888892/EnergyPricePolicyNote.pdf* (October 16, 2006).
32. "We Are Very Vigilant When it Comes to the Polish–German Relationship: Spiegel's Interview with Poland's Kaczynski," *Der Spiegel*, March 8, 2006, at *http://service.spiegel.de/cache/international/spiegel/0,1518,404675,00.html* (June 5, 2006).
33. Martin Helme, "Berlin–Moscow Gas Pact Easy to Thwart…If Balts Have Guts," *The Brussels Journal*, December 21, 2005, at *www.brusselsjournal.com/node/590* (July 14, 2006).

ticians have also spoken out against the NEGP. One Latvian spokesperson estimated that constructing another pipeline through the Baltic countries to Germany would have cost 2.2 billion Euros, whereas the undersea Baltic pipeline will be approximately three times as expensive.[35] Former Estonian Prime Minister Juhan Parts has even attempted to invoke a 1982 U.N. convention on sea rights and advocates extending the tiny nation's territorial waters to prevent the pipeline's progress.[36]

German Chancellor Angela Merkel has sought to defuse tensions by promising to create a working group to examine the project that would include Poland. Whatever the outcome of such a working group, however, an enhanced role for Germany and a reduced role for the Baltic countries in gas transit between Russia and the EU, while not desirable, now looks inevitable.

European Addiction or Global Energy Market Integration?

There are advantages for the EU in an increased supply of Russian gas, but there are also potentially negative consequences, such as greater Russian monopolization of Europe's gas market and lack of energy market diversification. Global energy markets will not benefit from European over-reliance on Russian natural gas. Diversification of supply is essential for market stability, competitive practices and pricing, and breaking up the monopolistic hold that Russia currently has over oil and gas transportation infrastructure between Russia, Europe, and Central Asia.

Furthermore, Moscow has shown itself to be increasingly authoritarian in its domestic politics and increasingly assertive in its foreign policy, openly declaring that Russia will use its energy resources as a foreign policy tool. President Putin has recently made a number of statements calling for the creation of a "gas OPEC," which would include Iran and Turkmenistan. Such a gas cartel would control the world's first, second, and fourth largest gas reserves, which together house 73 percent of total natural gas reserves,[37] and would have significant influence over the price of natural gas.

Any doubts about Russian monopolistic behavior are put to rest by Gazprom's recent behavior. In February 2006, reports suggested that Gazprom would try to acquire a stake in British gas firm Centrica, prompting the British to look for ways to block such a deal.[38] The Kremlin and Gazprom responded to this with threats to reroute oil and gas exports to Asia if the EU were to block Russian acquisition of British gas concerns.[39] As Russian foreign policy continues to diverge from Western norms and values,[40] it is important that EU dependence on Russia not obstruct the Europeans' ability to conduct independent foreign policy while openly criticizing Russian policies.

At the same time, however, Russia needs the EU as an importer as much as the EU needs Russia as an exporter, especially given that not one of Russia's proposed pipelines to Asia has yet been constructed. It is therefore possible that this interdependence might be used to enhance the EU's ability to secure greater Russian compliance with the rules and norms of the global energy market.

34. "German, Russian Officials Launch Work on Controversial Baltic Pipeline."

35. "Baltic Pipeline Poses Environmental Threat—Estonian Premier."

36. Matthews and Nemtsova, "Roiling the Baltic Waters."

37. Sergey Blagov, "Russian Moves Spark 'Gas OPEC' Fears," International Relations and Security Network *Security Watch*, June 10, 2006, at *www.isn.ethz.ch/news/sw/details.cfm?id=16364* (October 16, 2006).

38. Stefan Wagstyl, "Gazprom Attacks EU Gas Market Plans," FT.com, April 25, 2006, at *www.ft.com/cms/s/335a18ec-d48a-11da-a357-0000779e2340.html* (October 16, 2006).

39. Peggy Hollinger, "Gazprom Threat Adds to EU Fears on Supply," *The Financial Times*, April 20, 2006, at *https://registration.ft.com/registration/barrier?referer=http://www.euractiv.com/en/energy/record-oil-prices-gazprom-eu-worried/article-154523&location=http%3A//news.ft.com/cms/s/1bfa611c-d09c-11da-b160-0000779e2340.html* (June 6, 2006).

40. Dmitri Trenin, "Russia Leaves the West," *Foreign Affairs*, Vol. 84, No. 4 (July/August 2006), pp. 87–96.

To date, Russia has proved resistant to ratifying the Energy Charter, which it signed in 1994. The treaty addresses investment in and transit of energy and, if ratified, would require Russia to allow other Energy Charter signatories direct access to its excess pipeline capacity. This would effectively break up Russia's monopoly on gas pipelines to Europe and might force Russia to price its own gas more competitively in relation to other suppliers.

Recent talks between Russia and the EU produced a communiqué supporting the principles of the treaty; however, Finance Minister Alexei Kudrin has stated that "some of the principles it contains do not suit us."[41] Despite Russia's intractability, if EU leaders, with possible U.S. support, were willing to apply firm, consistent pressure on Russia, or even to threaten the Kremlin with deterioration of energy-trade relations, Russia might eventually be convinced to ratify the treaty.

To avoid such pressures from the EU and to increase its leverage in world energy markets, Russia has made overtures to Asian as well as European consumers—specifically, to China. However, high pipeline construction costs, uncertain Siberian reserves, the inefficiency of Russia's monopolistic, state-run natural gas sector, and recent indications that Russian gas production is showing progressively slower growth suggest that Russia may not be able to fulfill its supply commitments to both China and the EU. Furthermore, Russia relies on cheap Central Asian gas to provide for its home market while exporting its own gas abroad.

With increasing global competition for Central Asian gas, a number of other export routes from Central Asia have been proposed, including pipelines from Kazakhstan, Uzbekistan, and possibly Turkmenistan to China, Pakistan, and even India. Both the U.S. and the EU have spoken in favor of construction of the Nabucco gas pipeline, which will originate in Turkey and feed gas through Bulgaria, Romania, Hungary, and Austria as an alternative to Russian-controlled pipelines. Also under consideration is a pipeline from Kazakhstan, Turkmenistan, or Azerbaijan that would link up with Nabucco, providing the first direct connection between Caspian and Central Asian gas producers and European markets. As export options increase, Central Asian states may prove unwilling to continue selling their gas at a deep discount to Russia if they can get higher prices elsewhere.

No less important is the longer-term consideration of the need to reduce overall dependence on fossil fuels. In energy-inefficient Eastern and Central Europe, drastically increased prices and reduced transit revenues could have unexpected positive results in promoting a combination of energy conservation and more energy-efficient industries. Some Central European countries might expand electricity production from nuclear reactors. In Western Europe, however, a false sense of security brought on by a more stable supply of fossil fuels might deflect attention away from the urgent need to find new energy-saving technologies and new sources of energy. Although the Baltic pipeline will ease many short-term concerns for both Russia and the EU, in the long term, it could prove to be more of a hindrance than a help.

Policy Implications

For the United States, greater Russian influence over Europe's oil and gas transportation infrastructure is a negative geopolitical development. Russia has shown increasing resistance to security cooperation with the U.S. on vital issues involving Iran and North Korea, is resistant to the promotion of democracy in its vicinity, and has demonstrated a growing willingness to use its energy resources to influence other, smaller countries for political purposes.

Furthermore, the U.S. has a strategic interest in minimizing European overdependence on Russian energy, which would limit the EU's ability to side against Russia on questions of great importance, such as Iranian nuclear proliferation. To avoid a situation in which Europe is increasingly dependent

41. Stephen Boykewich, "A War of Words on Energy at G8 Talks," *The Moscow Times*, June 13, 2006, at *www.themoscowtimes.com/stories/2006/06/13/003.html*.

on Russia, the U.S. Departments of State and Energy should therefore:

- **Publicly endorse the construction of a gas pipeline from Azerbaijan, Kazakhstan, or Turkmenistan to Southern Europe through Turkey**. Such a pipeline, connected to the proposed Nabucco pipeline through Bulgaria, Romania, Hungary, and Austria, would bypass Russia and offer an alternative to Russian gas in Europe, helping to break up the Russian near-monopoly on energy transportation infrastructure to Europe. It would also allow Central Asian states, such as Azerbaijan, Kazakhstan, and (in the future) Turkmenistan, to play a more active role in marketing and selling their natural gas without Russian interference and detract from Russia's ability to exercise political influence in those countries.
- **Encourage EU leaders to look to increased LNG consumption as an alternative to permanent pipelines.** Significantly cheaper than pipeline construction, LNG shipments are not restricted by limited field and pipeline infrastructure and should allow Western Europe to import its natural gas from a wider range of sources, including Norway and Nigeria. Short-term investments in LNG infrastructure will likely yield significant source diversification and long-term political and economic returns.
- **Act in concert with EU countries and Japan to encourage Russia to ratify the Energy Charter, which would enhance Moscow's predictability and transparency in energy markets.** Despite having signed the Energy Charter, which would require it to allow other energy producers access to its extra pipeline capacity, the Russian Duma has refused to ratify the treaty. Given close energy trade ties and the prospect of increased trade volumes between Russia and the EU, EU leaders should pressure Russia to ratify the charter, as they did in the recent summit with Putin in Finland. Being a signatory of the Energy Charter would discourage Russia from further two-tiered pricing schemes, strategic cutoffs of energy supplies for political reasons, and monopolistic practices. Russia should be persuaded to allow Western firms equal access to its energy reserves.
- **Support research and development of market-based alternative energy sources** as the only long-term solution to reducing Western reliance on non-transparent, potentially unstable states for vital hydrocarbon supplies. The U.S. and EU countries should follow the example of countries like Brazil, which have been successful in reducing dependence on foreign oil by making ethanol (from sugar cane) economically viable as a source of transportation fuel. This will require not only changes in manufacturing regulations and infrastructure, but also reducing or eliminating agricultural tariffs and subsidies that keep the price of sugar cane and corn artificially high.[42]

Conclusion

Western economies cannot immediately achieve greater energy efficiency on a level that will significantly decrease demand for hydrocarbons. Attaining greater security in access to hydrocarbon deliveries is therefore of the utmost importance in the near-to-medium term. However, it will be a net loss to EU countries if they allow this approach to lull them into a false sense of energy security and bind themselves too closely to an energy supplier whose actions suggest that its oil and gas are national resources to be used for its own national interests.

The economic benefits that will accrue to Russia and Western Europe from the North European Gas Pipeline will be substantial in the next 10–15 years. They will be partly offset, however, by the loss of revenues to former transit countries and the resulting increase in Russia's ability to use its oil and gas assets to project influence into its former sphere of influence. It is a medium-term solution and, if not supplemented by longer-term energy solutions, could eventually impose great political and economic costs.

42. Ariel Cohen, Ph.D., "Increasing the Global Transportation Fuel Supply," Heritage Foundation *Executive Memorandum* No. 986, October 25, 2005, at *www.heritage.org/Research/EnergyandEnvironment/em986.cfm?renderforprint=1* (August 2, 2006).

It is vital that the EU and the U.S. work together to find and implement innovative methods of reducing energy dependence on a monopolistic Russia. At a minimum, they should work to support new transit lines that bypass Russia and to limit the length of time that the EU spends being over-reliant on Russian gas.

—Ariel Cohen, Ph.D., is Senior Research Fellow in Russian and Eurasian Studies and International Energy Security in the Douglas and Sarah Allison Center for Foreign Policy Studies, a division of the Kathryn and Shelby Cullom Davis Institute for International Studies, at The Heritage Foundation. Conway Irwin assisted in the preparation of this paper.